

BRICS

in the digital economy

COMPETITION POLICY IN PRACTICE

1st Report by the Competition Authorities
Working Group on Digital Economy



国家市场监督管理总局
State Administration for Market Regulation



TABLE OF CONTENTS

1.	INTRODUCTION.....	- 3 -
2.	BRICS AND COMPETITION IN THE DIGITAL ECONOMY.....	- 5 -
2.1	THE DIGITAL ECONOMY	- 5 -
2.2	SETTING THE SCENE: THE DIGITAL LANDSCAPE AND LEGAL FRAMEWORK	- 7 -
2.2.1	<i>Digital Landscape</i>	- 7 -
2.2.2	<i>Institutional and Legal Framework</i>	- 10 -
2.3	ANTITRUST ANALYSIS IN DIGITAL MARKETS	- 11 -
2.3.1	<i>Relevant Market and Market Power</i>	- 11 -
2.3.2	<i>Innovation and Dynamic Competition</i>	- 15 -
2.3.3	<i>Acquisition of Entrants by Incumbents</i>	- 17 -
2.3.4	<i>Barriers to Entry</i>	- 18 -
2.3.5	<i>Algorithmic Pricing</i>	- 20 -
2.3.6	<i>Competition and Big Data</i>	- 21 -
2.4	DATA TOOLS FOR ANTITRUST PRACTICE	- 26 -
2.5	MAIN CHALLENGES IN THE DIGITAL ECONOMY.....	- 28 -
2.6	CASES INVOLVING THE DIGITAL ECONOMY.....	- 30 -
2.6.1	<i>Mergers and acquisitions</i>	- 30 -
2.6.2	<i>Cartels</i>	- 34 -
2.6.3	<i>Unilateral conducts</i>	- 37 -
2.7	IS THE CURRENT LEGAL FRAMEWORK FIT FOR THE TASK?	- 41 -
3.	SELECTED CASES	- 45 -
3.1	BRAZIL.....	- 45 -
3.1.1	<i>Mergers</i>	- 45 -
3.1.2	<i>Cartels</i>	- 49 -
3.1.3	<i>Unilateral Conducts</i>	- 52 -
3.2	RUSSIA.....	- 54 -
3.2.1	<i>Mergers</i>	- 54 -
3.2.2	<i>Cartels</i>	- 56 -
3.2.3	<i>Unilateral Conducts</i>	- 59 -
3.3	INDIA	- 62 -
3.3.1	<i>Mergers</i>	- 62 -
3.3.2	<i>Unilateral Conducts</i>	- 65 -
3.4	SOUTH AFRICA	- 70 -
4.	FINAL REMARKS.....	- 72 -
	ANNEX I - BRAZIL -	- 75 -
	ANNEX II - RUSSIA -	- 98 -
	ANNEX III - INDIA -	- 125 -
	ANNEX IV - SOUTH AFRICA -	- 137 -

1. Introduction

According to the World Bank¹, in 2018, BRICS countries represented altogether more than 40% of total world population and 24% of total GDP, summing up to more than USD 20.2 trillion in 2018.

Additionally, the borderless nature of digital markets in the current economy has been increasingly calling for international cooperation between competition authorities of different jurisdictions.

In this context, several competition authorities and academics have published studies about the interface between competition policy and the digital economy. Within the BRICS, two different working groups are studying the subject: the academic group gathered under the BRICS Competition Law and Policy Center, a joint research platform coordinated by the Skolkovo - Higher School of Economics Institute for Law and Development; and the BRICS Competition Authorities Working Group on Digital Economy, which was created during the V BRICS Competition Conference in Brasília in 2017 with Brazil as its main coordinator. Russia joined Brazil as co-chair of the team in 2018.

As a starting point for closer cooperation in competition enforcement, the group decided to prepare a questionnaire to share the ongoing practices and challenges faced by the Competition Authorities in the context of the digital economy. During the first meeting² of the BRICS Competition Authorities WG, which took place in Campos do Jordão (Brazil) in October 2018, the present authorities decided to produce a report based on the replies to the questionnaire presented by the competition authorities from Brazil, Russia, India and South Africa. China will contribute to the future reports as its institutional reform in competition field was recently accomplished in 2018. This Report therefore provides an overview of the state of the art of competition policy and enforcement practices in these BRICS countries *vis-à-vis* digital markets.

Thus, this is the first of a series of publications that the Competition Authorities WG expect to have within the coming years, aiming to better understand and examine competition policies in the digital economy and enhance future cooperation. As a

¹ <https://data.worldbank.org/>

² Attended by Brazil, Russia, India, and South Africa.

descriptive work, it is important to note that this Report does not provide normative conclusions nor has any binding effects for the Competition Authorities.

Additionally, this Report does not attempt to propose a homogeneous plan of action in the enforcement of competition policy across the BRICS countries. On the contrary – it relies on the richness of different approaches and experiences in the enforcement of competition policy in the digital economy to explore common challenges and bring possible insights to each competition authority herein involved. Notwithstanding, this Report constitutes a solid basis for the BRICS Competition Authorities to strengthen further cooperation.

The Report is structured as follows. After this brief Introduction, Section 2 describes competition enforcement practices involving digital markets in Brazil, Russia, India and South Africa on selected topics, including market power assessment, innovation and dynamic competition, the acquisition of entrants by incumbents, barriers to entry, algorithmic pricing and big data. This section also presents examples of the use of technology and data tools to support enforcement activities, as well as the main challenges identified by the Competition Authorities in the competition enforcement within the digital economy. This section also briefly discusses specific cases to illustrate competition analysis or concerns in the digital economy. Subsequently, Section 3 presents a list of selected cases that exemplify the Competition Authorities' recent experiences with cases involving the digital economy. Lastly, this Report concludes in Section 4 with final remarks. The replies of the Competition Authorities to the questionnaire mentioned above are also presented in this Report as an Annex.

This Report is the result of extensive cooperation within the BRICS Competition Authorities WG, which turned into a fruitful channel for sharing how the respective antitrust toolkit and competition policy are being put to use to deal with the challenges that the digital economy brings. We hope that this publication will provide useful insights not only to the BRICS community but also to the global antitrust community, as well as to other stakeholders dealing with the challenges arising from the digital economy for competition policy enforcement worldwide.

2. BRICS and Competition in the Digital Economy

This section explores the Competition Authorities' experience in the enforcement of the respective competition policy and law in the context of the digital economy. To that end, after a brief introduction on the topic of digital markets, this section presents a description of the digital landscape and legal framework in place for each Competition Authority.

Subsequently, this report presents considerations about the competition review conducted by the Competition Authorities within the digital economy on specific topics, namely: (i) relevant market definition and market power; (ii) innovation and dynamic competition; (iii) acquisition of entrants by incumbents; (iv) barriers to entry; (v) algorithmic pricing; and (vi) competition and big data.

As the digital economy also presents opportunities for competition authorities worldwide to enhance respective enforcement tools and practices, this section goes on to discuss how data tools have been used by the Competition Authorities to support antitrust enforcement. Next, this section addresses the main challenges identified by the Competition Authorities with regard to the emergence of the digital economy and presents examples of cases in the digital economy. Finally, this section concludes with the Competition Authorities' view on whether the respective existing legal framework is fit for the task.

2.1 The Digital Economy

'Digital economy' is an elusive concept. There is no generally agreed definition in the international literature, nor a clear industry or product classification for internet companies and associated services. Thus, for the purposes of this report, we adopt a wide definition of the term, which encompasses the businesses that provide products and/or services using information and communication technologies, especially the internet, with an extensive use of data.

Digital markets have been under competition policy scrutiny since the 1980's with the rise of computers, software and data processing in large, but single user, scale. With the advent of the internet, many business models were developed providing services using data

transmission. Later, and in an exponential pace, internet based firms started providing substitute products to other firms, such as retailing and information gathering. Firms have also organized themselves as platforms, where information processing tools and internet communication allow firms to provide interactions between two different types of agents that had previously used other means to transact or interact. Platforms now characterize a significant part of the digital economy, creating marketplaces, acting as social interaction media and changing retail business models. This reports deals with firms in the digital economy, which includes platforms as well as firms that use data or information technology to provide its services or products. Currently, it is not possible to think about the digital market without the internet - earlier, computer hardware and software, electronic games and payment cards were examples of non-internet based digital markets.

Data and information technology based firms have low or zero incremental production costs and high fixed and/or sunk costs, with products often associated with non-rivalry. Their business models are often innovation-based, using software and data processing technology to provide innovative products or ways to deliver previously existent products and/or services. Many firms in the digital economy also experience network effects, where the benefit from using the service increases as the number of users of the service increases. Multi-sided platforms also experience cross-network effects, i.e., where the attractiveness of a platform to one type of consumer depends on the number of the other type of consumer in the platform. A social media platform that uses advertising as a means of monetization, for example, exploits both types of network effects: the value of a social network to a user increases the more friends and colleagues join the platform and the value of the social platform increases to advertisers the more users adhere to the platform. Data becomes a key input, as digital business models are extensively data-based. This may provide a potentially better service through personalized experience to its users. It also enables sharper demand prediction, which creates value for the company holding the data and may translate, in the case of platforms, into better matches for both sides of the platform.

As will be further discussed, these characteristics of the digital economy influence the competition analysis in a variety of ways.

2.2 Setting the Scene: The Digital Landscape and Legal Framework

This subsection presents the digital landscape and the legal framework in place in the Competition Authorities' countries.

2.2.1 Digital Landscape

Internet traffic offers a proxy to identify both national and international companies that have a significant presence in the digital landscape. As demonstrated in Table 1 below, according to the database Alexa developed by Amazon, the most popular websites in Brazil, according to information collected in December 2018 and in June 2019 were Google.com.br, Google.com, YouTube.com, Facebook.com, and Globo.com. In Russia, the most accessed websites for the same period were YouTube.com, Yandex.ru, Vk.com, Google.ru, and Mail.ru. In India the top sites were Google.com, Google.co.in, Youtube.com, Amazon.in, and Facebook.com. For South Africa, Alexa ranked Google.com, YouTube.com, Google.co.za, Facebook.com and Yahoo.com as the most accessed websites.

Table 1. Most accessed websites according to Alexa

	Brazil	Russia	India	South Africa
1.	Google.com.br	Youtube.com	Google.com	Google.com
2.	Google.com	Yandex.com	Google.co.in	YouTube.com
3.	YouTube.com	Vk.com	YouTube.com	Google.co.za
4.	Facebook.com	Google.ru	Amazon.in	Facebook.com
5.	Globo.com	Mail.ru	Facebook.com	Yahoo.com

Source: Alexa Internet, Inc., data collected in December 2018 and June 2019.

According to Table 1, internet giants own the main websites accessed in Brazil, Russia, India and South Africa for the periods analyzed. There are also domestic companies with significant presence in the respective digital landscape. For example, Yandex, and Vk are big Russian companies that have been growing in relevance in the Russian Federation. In Brazil, Globo.com is a major national news company. In India, the biggest ride-hailing

firm is called Ola, an Indian company that is now expanding its operation overseas. In South Africa, Naspers controls the largest online retailer in South Africa, Takealot.

Access to the services and products provided by internet companies and platforms, however, is not restricted to web browsing. As mobile access rates grow within BRICS countries, the use of mobile phone applications is also relevant to identify companies with significant presence in the digital market. In Brazil, for example, Facebook Inc. controls six out of the thirteen most downloaded apps examined: Facebook and its FB Lite version, FB Messenger and its FB Messenger Lite version, WhatsApp, and Instagram. Below is a non-exhaustive list that provides some of the most popular apps in each segment of the digital economy, according to the information provided by the Competition Authorities.

Table 2. Popular apps in exemplificative markets

	Brazil	India	Russia	South Africa
<i>Search engines</i>	Google	Google	Google, Yandex, Rambler	Google
<i>Video streaming</i>	YouTube, Netflix	YouTube	YouTube	YouTube
<i>E-commerce</i>	Mercado Livre, OLX	Flipkart, Amazon		Takealot
<i>Social media</i>	Facebook, Instagram, Snapchat, Twitter	Facebook	Vk	WhatsApp, Facebook, Twitter
<i>Messaging</i>	WhatsApp, Telegram, Skype	WhatsApp	Telegram	WhatsApp
<i>Hardware and software</i>	Microsoft, Apple, Android		Microsoft, Apple, Android	
<i>Ride-hailing</i>	Uber, 99Taxi, Easy Taxi, Cabify	OLA, Uber	Yandex, Uber	Uber, Taxify
<i>Online publishers/portals</i>	Globo.com, Live, UOL, MSN, Metropoles			
<i>GPS/Maps</i>	Google Maps, Waze			

<i>Food delivery</i>	iFood	Zomato and Swiggy
<i>Travel industry</i>	Decolar, Booking, Submarino Viagens	MakeMyTrip , Cleartrip, TripAdvisor, Indian Railway Catering and Tourism Corporation (IRCTC) and Yatra Online

Source: Information provided by the Competition Authorities.

Access to the internet itself may be a competition policy issue in the digital market as highlighted by South Africa, India and Brazil. Internet data services provide the basis for many firms to explore their activities. When, in addition, traditionally brick-and-mortar³ businesses like banking, that use local branches to provide their services, move to internet-based access, data mobile phone packages become an indispensable tool for this market to flourish. In this regard, South Africa discusses the role of data costs and the activities of telecom providers in the digital economy.

For many countries, the fact that mobile phones stand as the most important channel to access digital market services creates a competitive leverage for mobile phones operating systems (O.S.). The vertical integration between the operating system, applications and application platforms ('app stores') generates concerns of possible abuse of dominance (with some cases under analysis, as in India), resembling the competition concerns raised in the integration between Microsoft and their software (internet browsing and communications) in the first decade of the 2000's in Europe and the US.

As noted by the Russian competition authority, the influence of internet giants often affects not only information technology markets, but also the entire production chain of goods and services.

³ According to the Merriam-Webster dictionary, this expression refers to "traditional business serving customers in a building as contrasted to an online business".

2.2.2 Institutional and Legal Framework

In order to understand how the Competition Authorities deal with competition issues emerging from dominant companies in digital markets, it is important to understand the institutional and legal framework in place in each country.

In Brazil, the body responsible for competition enforcement is the Administrative Council for Economic Defense (*Conselho Administrativo de Defesa Econômica – CADE*), an independent authority reporting to the Ministry of Justice. Three bodies compose CADE: (i) The Administrative Tribunal for Economic Defense, (ii) the General Superintendence, and (iii) the Department of Economic Studies. There is also a Specialized Attorney General's Office at CADE. The legal framework for competition defense is set out by Law N. 12.529/2011 ("Brazilian Competition Law"), which structures the Brazilian Competition Defense System (SBDC) and regulates the prevention and repression of violations against the economic order. CADE's Internal Regulation (RICADE) and other norms issued by CADE are also part of the competition legal framework.

In India, the main body related to competition enforcement is the Competition Commission of India (CCI). The main law that governs antitrust in the country is the 2002 Competition Act. In addition, there are various Regulations that govern antitrust, including: (i) The 2009 Competition Commission of India General Regulations; (ii) The 2009 Competition Commission of India Lesser Penalty Regulations; (iii) The 2011 Competition Commission of India Manner of Recovery of Monetary Penalty Regulations; and (iv) The 2011 Competition Commission of India Regulations on procedure in regard to the transaction of business relating to combinations.

In Russia, the Federal Antimonopoly Service of the Russian Federation (the FAS Russia) is the main regulatory body related to competition enforcement. The main law is the Federal Law on Protection of Competition (as amended in 2016), adopted by the State Duma on July 8, 2006, and approved by the Federation Council on July 14, 2006.

In South Africa, the Competition Commission (CCSA) is the national competition authority responsible for the investigation, control and evaluation of restrictive practices, abuse of dominant position and mergers. The Competition Tribunal decides on matters referred to it by the Competition Commission, and the Competition Appeal Court considers appeals or reviews against Tribunal decisions. These three bodies compose independent

authorities established by the Competition Act No.89 of 1998, which was amended in February 2019 by the Competition Amendment Act 18 of 2018.

2.3 Antitrust Analysis in Digital Markets

This subsection discusses aspects of competition policy and enforcement on specific subjects (e.g., relevant market and market power assessment, acquisition of entrants by incumbents, etc.) across the countries herein considered in light of each Competition Authorities' respective antitrust framework.

As previously mentioned, in general, digital economy firms have business models and arrangements that distinguish them from traditional markets. Products of companies in the digital economy are often innovation-based and these companies usually operate as multi-sided platforms that present features such as strong networks effects (network externalities) with low unit costs. Some competition authorities worldwide consider that these features result in markets that are more prone to generate competition concerns in their usual practices, through abuse of dominant position, imposition of foreclosure on entrants or decrease in competition after a merger. Other characteristics usually present in the digital economy, such as particular pricing dynamics of platforms, which commonly set at the monetary price of zero to one side of the market, challenge conventional economic analysis based on prices.

The emergence and development of the digital economy raise the question on whether the traditional antitrust framework is fit for the task of guaranteeing an effective enforcement of competition policy and law and if some kind of reform is needed.

These questions are discussed below.

2.3.1 Relevant Market and Market Power

Competition Authorities' experiences indicate that defining the relevant market and assessing market power become more nuanced when it comes to digital markets. Market boundaries are usually not clear, as businesses create new products and services. Platforms require the definition of markets on both (or multi) sides and raise the question of whether non-platforms on each side compete as well to be included in the same market.

Additionally, monetary prices on one of the sides are often zero, imposing challenges to usual market definition tools such as SSNIP tests.

Once markets are delimited, many of the measures of market power (such as market share) are not easily applicable to multi-sided markets. Zero monetary hinder the use of revenues in the review and market share *per se* may be less informative of market power, given that firms may reduce consumer substitution (single homing) and use competitive levers outside the market to generate and consolidate market power. As in differentiated products or services markets, market shares may not be informative of the competitive pressure or lack thereof that firms may exert on each other. Last but not least, the actual evaluation of the probability of market power abuse goes beyond market shares and concentration. New factors come into play in the evaluation of contestability and rivalry, besides the often-used capacity constraint or entry likelihood.

In Brazil, CADE usually employs its traditional toolkit to assess market power in the digital economy. However, when it comes to multi-sided markets, either online or offline, CADE takes into account some market particularities in the analysis of the relevant market, such as the existence of interdependent groups of customers in the platform and network effects, both direct and indirect. Examples of how relevant markets were delimited can be found in past cases analyzed by CADE. In the Microsoft/Yahoo merger, for instance, the relevant market was defined as the market for sponsored searches in Brazil. The Reporting Commissioner of the case argued that the market for online advertisement was very different from other forms of advertisement, and that sponsored searches offer the possibility of tailoring the content to the interests of the consumer, which had no parallel to other forms of target advertisement. CADE also assessed the market in the Buscapé/Bondfaro merger, in which other definitions of online advertisement markets were considered, including sponsored links, banners, and directed emails. In that case, the Reporting Commissioner argued that such markets were highly dynamic, and the cases should be assessed considering the characteristics of the players involved in each particular context to understand the competitive constraints and substitutability patterns of the advertising segments. In that case, two relevant markets were analysed: (i) the national market of online advertising; and (ii) the national market of online price search and comparison. In the recent Administrative Proceeding between Google and Buscapé (08012.010483/2011-94) that involved allegations of abuse of dominant position related to

Google's comparison-shopping engine, the analysis detailed the market of price search and comparison and the possible scenarios for the review. Two markets were considered for the product dimension: (i) generic search engines; and (ii) price comparison engines (thematic search – price comparison). Both markets were considered national in the geographic dimension. The generic search market was analysed considering both the users' perspective (as a market including only generic search websites) and the advertisers' perspective (as a market involving any advertising in search mechanisms directed to users interested in purchasing a product). The price comparison market, in turn, was analysed from the users' perspective, involving only price comparison services, and from the advertisers/retailers' perspective, involving Google, as well as other specific websites of price comparison, due to its product advertising to users interested in making a purchase.

Also recently, CADE's General Superintendence cleared Buscapé's acquisition by Mosaico S.A., which resulted in the horizontal overlap between the services of "online price search and comparison" from the user/consumer's perspective, and in the provision of space for "online advertising" for the retailer/advertiser's perspective. In this merger, the General Superintendence noted that the online search market changed substantially since the Buscapé/Bondfaro merger, as nowadays, Google's general search can create results that work like a price comparison function, and marketplaces currently operating in Brazil can also work as comparison services, since they gather various suppliers in their platform. Therefore, CADE concluded that Google's universal search functionality was very similar to a marketplace, with a tendency to develop to a marketplace *per se*. CADE also noted that social media's share in online advertising has been facing exponential growth. Nonetheless, CADE considered important to analyse both sides of the platform: retailers and consumers, due to mutual network effects to consumers and advertisers. Therefore, the competition review considered two market scenarios: (i) national market of online advertising analysed from the advertisers' perspective and (ii) national market of price search and comparison, analysed from the consumers' perspective. These scenarios considered Google, social media, marketplaces and price comparison websites as part of the same relevant market. CADE observed, however, that due to the complexity and dynamism of the sector, this definition was specifically for this merger and should be reevaluated in future cases.

In India, the 2002 Competition Act provides definitions of relevant product market, relevant geographic market, and relevant market. Market power is assessed by first defining

the relevant market and then assessing whether the company holds a dominant position in the defined relevant market. To assess market power, the Commission takes into account many factors, not following a market share-based static view. According to the CCSA, the 2002 Competition Act provides a holistic and nuanced framework for assessing market power in cases pertaining to all sectors, including cases in the digital economy.

In past cases involving multisided markets, the CCI has defined the relevant market on a case-to-case basis. For example, in the Google case, two relevant markets were defined for both sides of the platform, i.e. online searchers, and online search advertisers. The CCI took into account that online platforms that provide search services were intermediaries that acted as an interface between search users and advertisers. The two sides of the market complement each other, and they are interdependent. Further, online general web search services and search advertising would not constitute the same relevant product market on account of wide variations in the mechanism for generation and display of results and the clicking behavior. In addition, the CII considered that these services serve distinct goals and are perceived differently by the various types of users, namely, publishers (websites) and internet users entering search queries. It was noted also that these services constitute complementary services from the point of view of websites interested in attracting more users. Accordingly, the Competition Commission of India defined the relevant markets as: (a) market for online general web search services in India, and (b) market for online search advertising services in India.

In another case, while assessing an alleged dominance of a cab operator, the CCI held that a high and durable market share could be an important indicator for lack of competitive constraints and accordingly, for dominance. However, that does not imply that uniform market share thresholds and a standard time-period to assess durability of market share can be applied in the same manner to all businesses/sectors. The variance of the characteristics across different industries, such as nature of competition, technology, and innovation dimensions, calls for a case-by-case assessment of market share and its implications for dominance with reference to the totality of the market dynamics and competitive strategies of firms. The Competition Commission of India also took into consideration that the competitive process in the relevant market was still unfolding, the market was growing rapidly and an effective entry had taken place, thereby leading to gradual decline in the operator's market share. The CCI also considered the existence of

countervailing market forces that constrained its behavior, as well as the nature of competition in dynamic, innovation-driven markets.

In Russia, market shares are currently defined in accordance to standard mechanisms. However, the FAS considers that, in digital markets, there are specificities associated with the circulation of a digital product: its intangibility, connectivity with other markets, versatility and network effects. Often, a product does not work in isolation from another product, so that while a relevant market may limit the products included, the market power evaluation takes into account the connectivity with other markets.

The FAS Russia also takes into account the versatility of the markets and the existing network effects, namely, how market power can increase or decrease due to the characteristics of the digital market. For example, when analyzing the app store market, the FAS considered that Google's dominant position in the app store market was significantly enhanced by the fact that Google is the copyright holder of the Android OS and end users do not usually switch to smartphones with other operating systems. On the other hand, when analyzing Yandex Taxi/Uber merger, the FAS Russia found that both drivers and passengers could freely switch between different aggregators, and most of the drivers and passengers use the services of various aggregators. Such behavior, in conjunction with the network effects of the market, was regarded as a factor that prevented the emergence of market power of an individual participant.

In South Africa, the Competition Commission has defined two-sided markets where relevant, primarily in media platforms that link distinct, but interrelated, groups of consumers. The market power is assessed by the CCSA based on whether a firm in each of the markets has the power to control prices, to exclude competition or to behave largely independently of its competitors, customers or suppliers.

2.3.2 Innovation and Dynamic Competition

Innovation and dynamic competition have been increasingly present in the analysis of digital markets. Dynamic competition is associated with the idea that well-functioning, competitive markets result in innovations, both regarding product and process. In this context, competition authorities seek to guarantee that innovation channels are open. As businesses and technologies evolve, there is continuous discussion on how dynamic

competition should be incorporated to the competition analysis, either in anticompetitive behavior investigations or in merger control.

In Russia, the FAS takes into account the role of innovation in two aspects: (i) when conducting a perspective analysis of the commodity market - to assess barriers to entry, and (ii) when developing behavioral remedies, both in merger or in conduct cases. As a rule, the FAS considers open innovation in a developing market as a factor that may reduce barriers to market access. At the same time, because the development of digital markets is very fast, the FAS considers important to take actions aimed at protecting competition in the future in order to ensure further development of innovations.

CADE considers dynamic competition issues on a case-by-case analysis, taking into account the business reality and the particularities of all sides of the markets. In high-technology markets, CADE notes that estimating the long-run effects of competition policy intervention is particularly challenging. CADE also notes the importance of considering the extent to which a company will continue having incentives to innovate after the approval of a merger or acquisition.

In India, while analyzing cases involving dynamic competition, the CCI tries to strike a balance between short-term static efficiencies and the long-term gains that arise from innovation. Assessing technology sector issues requires an understanding of the underlying technology and a close follow-up of market developments. The CCI also notes that a given market might, at one point in time, transform into another one through the exploitation of complementarities. Further, during the assessment, the CCI does not put emphasis on the fact that one firm has entrenched market power in a particular industry because the CCI considers that taking such a stance would damage incentives to innovate and would be a denial of the realities of market preferences. Therefore, the Competition Commission of India performs a nuanced assessment, based on the facts of the case and the market and technology in question.

South Africa, in turn, typically considers dynamic competition in an ex-ante assessment in merger review cases. In conduct investigations, the CCSA considers that the dynamism of competition is less likely to be relevant, as the analysis tends to focus on past conduct. The CCSA also follows international case precedents in considering innovation and dynamic competition in the analysis of antitrust cases involving digital economies.

2.3.3 Acquisition of Entrants by Incumbents

In all countries, the mandatory notification criteria is based on the company's revenues. As India highlights, most of the entrants in the digital economy fall under the *de minimis* exemption of mandatory filing— therefore, their acquisition is exempted from notification. However, the Competition Authority of India may order the notification of the merger if it deems necessary to evaluate the competitive effects of the transaction.

Likewise, in Brazil, Competition Law 12.529/2011 gives CADE the prerogative of reviewing any merger, even when they do not trigger the mandatory filing requirements. This power is however limited to one year as of the date of consummation of the transaction. In India, in order to keep track of the mergers and acquisitions taking place in the Indian economy, the Combination Division of the CCI conducts regular media scanning to take *suo motu action*.

CADE notes that, while acquisitions of new players by incumbents may pose the risk of eliminating potential competition, it may also lead to know-how and technology transfer from the traditional company to the newcomer, which could have positive impacts to innovation and competition. CADE also considers important to take into account the risks of any restrictive policy regarding M&A, as it might discourage innovation, since many new companies perceive the acquisition by a significant player as an important exit strategy.

In South Africa, the CCSA remarks that the acquisition of a new-born company by incumbents in the digital economy is analyzed like any other merger. If it might result in a substantial lessening of competition, the CCSA will impose remedies or prohibit the transaction. According to its current legal framework, however, the CCSA explains that these transactions may not trigger the legal thresholds if the new-born company does not have revenues. While the Competition Commission of South Africa does have the power to investigate small mergers even after they have been completed, the CCSA notes that these deals do not have to be notified to the authorities, which may raise additional challenges in dynamic digital markets. The CCSA manifested growing interest in the area of small firms' takeovers by large incumbents, pointing to a possible review of its current position.

The reported countries have not implemented differentiated or lower notification thresholds to deal specifically with digital economy cases.

2.3.4 Barriers to Entry

The possibility of incumbent firms using their market power to impose anticompetitive barriers to entrants is a concern in general in the enforcement of competition policy and law. What the digital economy brings to the forefront is that there are digital business characteristics that may lead to natural barriers to entry, such as network effects, market tipping and data requirements. Entry barriers in digital economy sectors may be leveraged with the use of exclusive dealing practices and the reduction in multi-homing possibilities.

In India, the CCI has analyzed the imposition of anti-competitive barriers to entrants by incumbent firms. For instance, Google was found to be abusing its dominance by imposing restrictive conditions in online-negotiated syndicate search agreements. The prohibitions imposed under the negotiated search intermediation agreements to the publishers were found to be anticompetitive as they restricted the choice of these partners and prevented them from using the search services provided by competing search engines. Accordingly, the CCI ordered Google not to enforce the restrictive clauses in its negotiated direct search intermediation agreements with Indian partners.

In Brazil, CADE has been monitoring attempts by incumbent firms to use their market power to prevent new companies to enter the market. One of the aspects of the digital economy that CADE has been concerned with is the possibility of a dominant platform leveraging its user base in order to prevent potential competitors from entering the market. In cases like these, CADE considers that data concentration would make it harder for entrants to displace an incumbent, as new players would have difficulty gathering a large enough critical mass to enter the market. Data as an entry barrier was also considered central in the discussions of the Bayer/Monsanto merger in India, as well as by the FAS in the digital economy.

The Federal Antimonopoly Service of the Russian Federation analyzes the creation of anti-competitive obstacles by existing players for entrants in the digital market through standard procedures provided by the Federal Law On the Protection of Competition (No. 135-FZ of July 26, 2006). As an example, the FAS mentions the ongoing case in relation to Headhunter LLC, the owner of the largest Internet site and personnel selection services in the Russian Federation. This service has become valuable for employers in terms of

replenishment of vacancies due to its popularity among job seekers. Employers have access to the database of resumes on the website (HeadHunter.ru) on a paid basis. At the same time, services for primary automatic recruitment (without human participation) are currently gaining popularity. The automated program scans the CV from the database of websites, finds a suitable resume, conducts an automatic telephone interview and invites the employee to the next stage of the selection process. An example of such program is the Vera Robot Recruiter (robotvera.com). In 2018, employers working simultaneously with HeadHunter.ru (to find suitable resumes for candidates) and with Vera Robot Recruiter (for initial automatic selection of candidates) faced a problem. HeadHunter.ru began blocking the personal accounts of employers that were using the "Vera" robot recruiter when working with resumes on the HeadHunter.ru site. Employers were asked to abandon the use of Vera Robot Recruiter and switch to the Headhunter LLC-developed virtual recruiter service to continue using HeadHunter.ru. For the FAS Russia, this is an example of how a company that owns the largest data base summary in the market involved (Headhunter LLC) has the ability to influence, through the use of its network effects, the business entities operating in another product market that is not directly related to the market in which it operates.

Oftentimes, incumbents control key market infrastructures, such as exchange protocols or intermediary validation tools, which alongside with their market power, give them significant power to control the market and other groups of users. In Brazil, for example, there are on-going proceedings to investigate alleged exclusionary practices adopted by traditional banks towards *fintechs*. In these cases, banks allegedly used their market power to restrict newcomers' access to banking and financial services, which are essential for their businesses.

The CCSA highlights that when network effects are present in digital markets, potential competition may come from players at the margins of the market. Thus, the CCSA highlights the importance of paying attention to the extent to which incumbents prevent entry from disruptive competitors.

2.3.5 Algorithmic Pricing

Algorithmic pricing tools are widely used by many different sectors of the digital economy, such as e-commerce, online travel agencies and ride-hailing apps to tailor individual user prices and services, but also to react optimally to other firms. In some cases, the use of algorithms might lead to competition concerns, such as in the case of algorithmic collusion or price discrimination through algorithms.

In Brazil, there are no specific prohibition regarding algorithmic pricing and its use is considered legal, as long as it does not lead to any form of anticompetitive behavior.

In South Africa, there are ongoing investigations (referred in this Report as the 'Bluspec cases' and the 'Glass case') that involve the use of digital technologies by companies to implement possible anticompetitive conducts such as exclusionary conducts or price collusion. If the authority finds that the parties agreed to adopt the use of the same software with the aim of managing competition between them, the case will be treated like any other collusive conduct, irrespective of the means by which it is implemented. The CCSA also notes that, in an algorithmic-driven economy, South African regulators have to determine if they have adequate tools to address the problems of virtual competition, where computer algorithms could be used as a central hub or platform to coordinate competitors' prices and amplify tacit collusion. In the words of the CCSA, computer algorithms enable the processing and exchange of such a volume of data in real time in response to a change in market dynamics that the underlying assumptions on which competition protection has so far been built cease to work. As an example, the CCSA mentions online shopping platforms that use computer algorithms to adjust pricing. Its effect on competition in the virtual market eventually becomes a policy concern. Finally, the Competition Commission of South Africa also draws attention to the need of determining who should be liable in the case of advanced and complex tacit collusion, which would involve difficult legal issues of human accountability of a computer's behaviour.

The FAS Russia, on a similar note, mentions that the current antimonopoly legislation does not provide for liability of the developers of pricing algorithms with potentially unlawful functionalities and of persons using these algorithms to generate price reports used for the illegal coordination. According to the FAS Russia, this aspect will be addressed by a planned amendment to the current legislation. Russia also highlights that

pricing algorithms can be used by both resellers and other business entities to implement anticompetitive agreements. For example, the FAS considers pricing algorithms that collect information about retail prices for products of a particular brand, compare them with minimum or recommended vendor prices and send notifications to violating resellers as a tool for illegal coordination that restricts competition. The FAS also notes that even pricing algorithms that do not contain the function of recommended or minimum price controls can be considered as a tool for coordinating economic activities if they are used by vendors to control resellers' prices of their products.

In India, the CCI is yet to examine competition concerns related to algorithmic pricing. At present, the CCI notes there are no laws or regulation proscribing algorithmic pricing.

2.3.6 Competition and Big Data

Competition authorities are increasingly being called to address the importance of big data and personal data in the digital economy. While there is no universally accepted definition of data or big data, the Autorité de la Concurrence and the Bundeskartellamt paper on Competition Law and Data⁴ refer to data as any information or representation that can be stored and used in a computer. The "big" in "big data" would refer to *"large amounts of different types of data, produced at high speed from multiple sources, whose handling and analysis require new and more powerful processors and algorithms"*⁵ that are now in use. Companies in the digital economy compete for data to gain or maintain a dominant position in the market. In addition, personal data collected and processed by internet companies reveal a great deal about users' preferences and characteristics. This, in turn, allows the employment of highly tailored and segmented profiling technologies, such as microtargeting or geotagging. These technologies may restrict competition as they prevent users from accessing certain goods or services based on their personal features.

The Competition Authorities converge on the competitive stand of big data. As Brazil states, large amounts of data about a user's preferences and characteristics are crucial

⁴ Competition Law and Data. Autorité de la Concurrence and Bundeskartellamt. May 2016. Available at: <http://www.autoritedelaconcurrence.fr/doc/reportcompetitionlawanddatafinal.pdf>.

⁵ Competition Law and Data. Autorité de la Concurrence and Bundeskartellamt. May 2016. P. 4. Available at: <http://www.autoritedelaconcurrence.fr/doc/reportcompetitionlawanddatafinal.pdf>.

to inform the creation of content that is better tailored to people's interests, as well as for the development of more efficient products and services. In other words, as presented by India, the use of big data by firms for the development of products and processes has the potential to generate substantial efficiency and productivity gains, as the information harvested by internet companies contribute to the reduction of production costs and to quality improvement in such markets.

The development of innovation technologies such as ecommerce, ride hailing apps, online wallets and web-based search services are dependent on the data held by firms. The CCI notes that the rise of new business models based on collection and processing of big data is currently shaping the world, and that with the development of data mining and machine learning, businesses are able to offer innovative, high-quality, and customized products and services at low or zero monetary prices. Further, data could be used to better target advertising and generate artificial intelligence (AI) based innovations, generating high revenues.

However, a number of competition problems can arise due to the need to access and use big data. As stated by CADE, precisely because the collection and processing of data are determinants to which companies can compete and thrive in digital markets, restrictions in the access to data can prevent companies from offering goods and services at competitive levels, which makes them less likely to survive in data-driven markets, leading to a decrease in competition. As an example, in 2016, the Brazilian antitrust authority analyzed a case in which Brazil's leading banks formed a joint venture for credit scoring. Credit scoring companies are two sided platforms with strong network effects. Financial institutions are the main suppliers of inputs (information about users' financial transactions) to credit bureau, while they are also the main consumers of bureau's products (credit scores). Thus, CADE was concerned the transaction would lead to vertical integration. In this case, CADE analyzed whether data (information about consumers) was an entry barrier. The General Superintendence and the Reporting Commissioner highlighted the risks of foreclosure in both the markets of positive and negative credit scoring, due to the great volume of consumers' data held by the banks party to the transaction. Accordingly, one of the remedies agreed by the parties to clear the transaction was the commitment that the banks would continue providing data to all credit bureau, with no discrimination or provision of favorable treatment to their own bureau.

The Brazilian antitrust authority also mentions it is aware of the risks that the exploitation of big data by companies may pose to the protection of other users' rights, such as the right to privacy. In this sense, CADE understands that the dynamics of digital platforms give rise to a close relationship between data protection, privacy and competition policy. Accordingly, CADE considers important to pursue an active co-operation for coordinated work between competition and other related authorities, such as Senacon (Consumer Protection Secretariat) and the now being-established Brazilian Data Protection Authority to deal with the multifaceted aspects of data in the digital world.

The Competition Commission of India pointed out to network effects related to big data, namely, the collection of comprehensive data across individuals and from each user, which may potentially add to market power. As an example, the Competition Commission observed, in the Google case, that by attracting consumer's attention in each click, Google has been able to generate more data that further strengthened its dominant position and enhanced its capacity to innovate. Therefore, the CCI concluded that Google's conduct devoid consumers from getting additional choices and amounted to an imposition of unfair or discriminatory condition upon the users of general search services.

The Competition Commission of India also affirms that the government is trying to strike a fine balance between innovations backed by data, development by allowing for data flows beyond borders and ensuring consumer privacy at the same time. As mentioned in the Box below, the CCI notes that the government and other related agencies are trying to build a consensus on controversial issues related to data-localization and cross-border data flows in the wake of increasing demands for consumer privacy.

The FAS Russia stresses that under certain circumstances, the collection and analysis of data could raise competition concerns, since (i) data can be a factor contributing to market power, (ii) data can increase market transparency among suppliers and thereby facilitate collusion and (iii) data can be an instrument for certain anticompetitive conducts, since the availability of large amounts of information and special methods of processing them can create additional incentives for cooperation of market participants, including through anti-competitive agreements.

Additionally, as highlighted by the CCSA and CADE, artificial intelligence and machine learning technologies are still in relatively early stages of development but have

the potential of spreading across different industries and sectors, bringing with them possible concerns of discriminatory practices.

Data, therefore, becomes a key input in the digital economy and contributes to dominance. Considering the possible interplay between data protection and antitrust policy, this report presents, in the following Box 1, the main legal framework in place in each Competition Authority on data protection.

Box 1 – Data Protection Legislation

The Brazilian Data Protection Law (Law N. 13.709/2018 – LGPD Act) regulates the collection and treatment of personal data, defined as information relating to an identified or identifiable person. The LGPD also establishes rights related to data, including the right to obtain information regarding the processing of data, the right to access, to rectify and to delete data, and the right to data portability, which ensures users the right to transfer data across different providers of services and products. In 2019, the Brazilian Congress approved a modification to the LGPD Act, creating the National Data Protection Authority (Autoridade Nacional de Proteção de dados - ANPD), which will be in charge of drafting the guidelines to the National Personal Data and Privacy Protection Policy. The LGPD Act was approved in 2018, but is yet to come into force, in 2020.

In Russia, the basic law on IT and Information Security in Russia is the Federal Law No. 149-FZ “On Information, Information Technologies and Information Protection”. Requirements for restricting access to information are set out in Article 9 of the Law, the requirements for the protection of information are set out in Article 16. Another regulation related to data is the Federal Law No. 187-FZ dated July 26, 2017 “On the Security of Critical Information Infrastructure of the Russian Federation”. In Russia, three governmental bodies control data protection. The Federal Service for Supervision of Communications, Information Technology, and Mass Media ([Roskomnadzor](#)), responsible for the protection of personal data and for blocking websites that violate the laws of the Russian Federation (piracy, casinos, terrorism, etc.). Its creation was approved by Decree of the President of the Russian Federation of March 16, 2009 No. 228. The Federal Service for Technical and Export Control ([FSTEC](#)), that is responsible for the

general protection of the information infrastructure of the Russian Federation and information not constituting a state secret, as well as requirements (licensing) for the development of encryption tools, cryptography (for own needs of a legal entity), etc.). Its creation was approved by Decree of the President of the Russian Federation of August 16, 2004 No. 1085. And third, the Federal Security Service of Russia ([FSB](#)), responsible for the general information security of the Russian Federation against cyberattacks, criminal infringements and the protection of information constituting a state secret, as well as the requirements (licensing) to the development of encryption tools, cryptography (used when working with a state secret), etc.). The creation of the FSB was approved by Decree of the President of the Russian Federation of August 11, 2003 No. 960.

The Indian data protection regime is governed by the Information Technology Act, 2000 and different rules framed thereunder. India is in the process of coming up with a law that specifically addresses the subject of data protection, as a result of the release of Sri Krishna Committee recommendations on Data Protection. A draft Personal Data Protection Bill (2018) was published and is under consideration by the Parliament. As mentioned above, the Indian government, the Competition Commission of India and other related agencies are trying to build a consensus on controversial issues related to data-localization and cross-border data flows in the wake of increasing demands for consumer privacy. The CCI hopes that very soon India will come up with a comprehensive data protection regime that will address all the related issues and concerns.

In South Africa, the Protection of Personal Information (PoPI) Act is part of the legal framework on personal data protection.

As much as the digital economy poses challenges with regard to the enforcement of competition policy and framework, it also presents opportunities for the development of new tools to support competition enforcement activities. The following subsection presents an overview on how the Competition Authorities have been taking advantage of the technological developments to reinforce its antitrust tools and investigation methods.

2.4 Data Tools for Antitrust Practice

Technology can also provide and enhance existing tools to address the challenges of the digital economy. For example, competition authorities might use data mining, screening methods or similar strategies to detect cartels or collusive conducts. The digitalization of information and artificial intelligence (AI) allows easy access to and processing of massive amounts of data. Competition authorities can use technologies related to the collection and processing of data in a myriad of ways. Data based tools can be used as screening or monitoring tools in selected sectors, often procurement. They can also be applied to gather evidence for cases. Artificial intelligence, machine learning and statistical tools being put to use routinely by government agencies and competition authorities is no exception. Their use varies across jurisdictions, as proactive and reactive tools according to CADE's classification.

Since 2013, CADE has been working on the development of data mining techniques to detect violations of the economic order. CADE has developed an interface called *Cérebro* ("Brain" in Portuguese) that provides data mining tools and automates analytics formerly conducted by human investigators and case handlers. This new tool helps identify evidence of cartels in public bids and provides an economic filter based on big data related to prices, costs, profit margins, market share and spatial econometrics.

In India, structural and behavioral screens are used at prima facie stage to detect cartels and at investigation stage as circumstantial evidence of the existence of collusive behavior. Screening methods are used in two scenarios – first, in the absence of specific information, to identify sectors and industries that might be prone to cartelization; and second, in the presence of specific information, to determine whether the behavior on display is likely to be due to underlying collusion. The CCI has also developed the 'CCI's Diagnostic Tool - Towards Competitive Tenders', which is a practical guide for procurement officials who can use it to review their public procurement system to detect bid rigging. It has been prepared drawing from national and international policy documents, as well as practical experience in cases dealt with by the CCI.

In Russia, the FAS applies a multiple-parameter system for identifying and proving bid rigging ('System'). This is based on a certain search algorithm for bid rigging evidence by specially selected indicators or combinations of indicators that can show high probability

of a cartel in tendering procedures. The System was approved by the Anti-Cartel Department of the FAS Russia and is being successfully used. The developed System allows one trained expert to detect signs of cartel within one day and to collect all necessary evidence within one month, significantly reducing limitation periods for consideration of cases on violation of the antimonopoly legislation and increasing the effectiveness of antimonopoly bodies in combating bid rigging.

The Competition Commission of South Africa has used screening methods to help in the detection of cartels. Additionally, the CCSA is also in the process of acquiring programming services to assist in its ongoing investigations.

In addition, in the past years, the Competition Authorities have also been conducting market studies and specific market inquiries within the digital economy and relying on other resources in their own jurisdictions to better understand and react to the challenges and possibilities emerging from the digital economy. Box 2 below lists the studies and resources produced and used by the Competition Authorities.

Box 2 - Studies and Resources

In 2015, CADE's Department of Economic Studies (DEE) published two studies about the impacts of new technologies in the private transportation market (or ride hailing market), a segment of the digital economy. A list and links to the documents are available in the questionnaires transcription for Brazil. More recently, in early 2018, the DEE published the updated version of these studies.

India has not reported market studies regarding the digital economy. However, the CCI is planning to undertake a study based on app-based taxi industry shortly.

The FAS Russia is currently conducting research on approaches to antimonopoly regulation and the economic analysis tools in the digital economy. One example is the report of the CIS (Commonwealth of Independent States) competition authorities (approved by the members of the Economic Council of the CIS on December 7, 2018). The competition authorities of the CIS member states considered it necessary to conduct a study that resulted in the mentioned report on the development of competition policy in the context of the digital economy. The aim of the study was to determine the general characteristics of the digital economy in the CIS member states, analyze new challenges

for competitive regulation in the digital economy, and assess whether competition legislation was prepared to meet new challenges, as well as the need to amend the legislation of the CIS member states.

The South Africa's Competition Commission, in turn, has launched a market inquiry on the data services market, with the purpose of understanding what factors or features of the market(s) and of the value chain may lead to high prices for data services and to make recommendations that would result in lower prices for data services. Although the data infrastructure and services provided by telecommunication firms are not part of the digital services markets as considered herein, they are key to the development and activities of digital markets. Given the high data costs, the fact that most people access the internet via mobile services and the importance of data affordability for the economy and consumers, the inquiry is investigating possible competition issues in the fixed and mobile data markets. The inquiry is still ongoing and the CCSA anticipates that its final report will be released before the end of the 2019 calendar year.

This report can also be considered part of the effort from the Competition Authorities to be better equipped to deal with the challenges posed by digital markets.

Finally, all countries regularly participate in international fora and follow the discussion of other competition authorities on digital markets.

2.5 Main challenges in the digital economy

For CADE, one of the main challenges in competition enforcement in digital markets is determining how to intervene in highly dynamic markets. In such markets, on the one hand, intervention might be necessary to protect competition and consumers, and, on the other hand, it might hamper innovation or have unintended exclusionary effects. CADE considers a particularly challenging task to estimate long-run effects of competition policy intervention and to tailor measures that are fit for the specificities of the digital economy in high-technology markets where innovation is markedly more dynamic.

CADE notes that with the digital economy, new ways through which abuse of dominance might take place emerge. Exclusionary practices by abuse of dominance from incumbents due to data concentration; limitations to multi-homing; adoption of MFN clauses or discriminatory treatment based on users' data and profiling technologies;

algorithmic collusion and vertical restraints in e-commerce are examples of challenges mentioned by Competition Authorities in the digital economy. Additionally, for CADE, the dynamics of digital platforms give rise to a close relationship between privacy and competition policy, which in turn also lead to coordination challenges of competition policy with other regulations.

For the FAS Russia, the increasing role of aggregators, platforms and algorithms represent a challenge in competition enforcement in the digital economy, as well as the variety of forms of monetization and the processes of collection, processing and analysis of data, which creates added value at the same time that it gives rise to market power. The FAS also considers the existence of issues related to network effects, which it has been considering in many M&A and enforcement cases that it has been dealing with. Additionally, for the FAS, IP rights constitute barriers to market entry and to entrepreneurial activities in many industries. The competition authority of Russia also draws attention to the pace of changes in the market, which is not followed by the speed of competition authorities' responses. Finally, the global nature of business and cross border violation of antimonopoly legislation on the one hand, and the national character of competition regulation on the other, is for the Federal Antimonopoly Service of Russia, one of the most important problems that competition authorities face worldwide.

For the Competition Commission of South Africa, the emergence of the digital economy gives rise to a new theory of regulatory infiltration, which questions the legitimacy of existing laws and policies in the face of new technologies, as well as the pace of regulatory reform relative to the pace of change in digital markets. In the context of competition enforcement, this includes the question on whether the existing laws and policies can be applied to virtual competition or if a shift to a 'smart regulation' is needed. In this regard, Competition Authorities in general share the challenge of examining whether the respective competition law and enforcement tools currently in place are adequate to analyse new business models (such as multi-sided digital platforms) and address new theories of harm (network effects).

The CCSA also draws attention to a particular enforcement challenge related to the definition of companies operating in a disruptive market, such as Uber, since the legal framework does not always reflect the operating business models of firms in digital markets. The CCSA mentions Uber as an example – should this company be defined only as the

platform, as a taxi company (including the drivers), or as some combination of both? This would lead to an associated challenge, since the definition would change the way in which the conduct is characterised. For example, if the drivers are considered independent competitors and not part of Uber, there would be a valid questioning on whether Uber facilitates collusion.

Finally, it is worth noting that the CCSA mentions the importance of understanding the effects of new technologies on employment in South Africa as, on the one hand, more companies see value in replacing people with smart technology and, on the other, new ways of work and deliverables that only humans can perform could be created.

2.6 Cases Involving the Digital Economy

In order to illustrate some of the challenges mentioned above, as well as to reveal how Competition Authorities have been dealing with the digital economy, this section presents selected cases reviewed or currently being reviewed by Brazil, India, Russia and South Africa, discussing the particularities of the markets, the conclusions and remedies adopted in these cases. The section is divided in three groups of cases: mergers and acquisitions, cartels and unilateral conducts.

2.6.1 Mergers and acquisitions

Bayer/Monsanto

The merger between Monsanto Company and Bayer Aktiengesellschaft, in which Bayer acquired Monsanto's unitary control is an interesting case to discuss, as it was reviewed by all Competition Authorities. A total of 29 jurisdictions were notified of the transaction and the merger analysis was characterized by intense international cooperation between competition authorities, including not only Brazil, India, Russia and South Africa, but also the European Union and the United States, among others.

In Brazil, the transaction raised competition concerns related to horizontal overlaps and reinforcement of vertical integrations in the markets of soybean seeds and transgenic cotton, as well as with possible conglomerate effects that could arise from the transaction. The companies proposed remedies to address the competition concerns identified by

CADE. As a result, the transaction was cleared conditioned to the signature of a Merger Control Agreement (ACC in its acronym in Portuguese), negotiated between the parties of the transaction and CADE's Administrative Tribunal. The main remedy consisted in the divestment of all Bayer's assets related to the soybean seeds and cotton businesses, as well as the unit of non-selective herbicides based on ammonium glufosinate. This divestment encompasses the selling of the soybeans and herbicides units to BASF (for an approximate value of € 5.9 billion). In addition to the structural remedies, Bayer and Monsanto also proposed behavioral commitments that involve the transparency of the commercial policies, the prohibition to impose exclusivity on the sales channels, tie-in sales and bundling, as well as a wide and non-discriminatory licensing practice of its products. The ACC established that the commitments agreed would also be monitored by a Trustee.

In Russia, the Bayer/Monsanto merger affected the markets of products used by agricultural producers, including agricultural crops (seeds), certain crop protection products (in particular nonselective herbicides), and digital offerings for agriculture. In the context of the accelerating pace of innovation in the agrotechnology sector, the FAS assessed not only the merging parties' market shares but also the most probable scenarios for market transformation including changes in their competitive structure and dynamics in the short and medium term perspectives.

The FAS concluded that the merger could cause the following anticompetitive effects: (i) new and increasing existing barriers to entry in relevant markets (including those generated by the introduction of closed digital agronomic platforms to the Russian market); (ii) enhancing incentives for anticompetitive agreements and concerned practices; and (iii) increasing possibility of abuse of market power.

Hence, the FAS imposed conditions for the approval of the merger, which included the transfer, by Bayer AG to Russian companies, of the molecular means of selection and germplasm needed to create new varieties and hybrids, with which the combined company has a strong position in the Russian market. In addition, in order to develop competition in the digital farming markets, the FAS also imposed obligations to provide Russian companies engaged in the development of agricultural software and applications with non-discriminatory access to digital farming platforms, including access to historical data related to the Russian Federation, as well as to the data that will be collected by Bayer AG after it commercializes its software products on the territory of the Russian Federation. For FAS,

access to such data would consist in a key factor for the development and implementation by Russian companies of their IT-developments in the field of precision farming. The obligations of Bayer AG also included the creation of a plant biotechnology research centre in the Russian Federation, to provide practical training for Russian specialists in the field of accelerated breeding. The FAS used a mechanism which is new for Russian practice for the monitoring of the conditions imposed to the approval of the merger, which included the involvement of a third-party organization in the process.

The Competition Commission of India, in turn, concluded there was no direct horizontal overlap between the parties, as only Monsanto was offering IT solutions in India and none of Bayer's digital farming solutions was available in the country. However, the competition authority noticed from Bayer's website that the company envisaged further development of digital farming and thus, Bayer had plans to offer its digital farming applications in India. The CCI also noted that the combined entity would be in a significantly more advantageous position to adapt and tweak its global digital applications to suit Indian conditions. The CCI considered that the combined entity's transformation into one-stop-shop platform, providing packaged solutions to the farmers in the seed and traits value chain and the agrochemical supply chain through their digital applications would enhance its market power in relation to its competitors, who could be unable to offer similar integrated services to the farmers. The CCI also considered that digital agriculture would be an important enabler for integrating businesses in neighboring or complementary markets. Thus, the CCI cleared the transaction with restrictions, subjected to the remedy that the combined entity would grant access to its digital platform and Indian agro climatic data on fair, reasonable, and nondiscriminatory terms, through non-exclusive, non-transferrable, non-sublicensable and royalty bearing licenses.

In South Africa, the transaction raised competitive concerns in the market of GM cotton seeds due to the resulting combined market share, that would lead to a monopoly in this market. Additionally, concerns were raised due to the removal of the potential competition that Bayer could impose on Monsanto in the markets of GM seeds and accompanying herbicides. Last but not least, the CCSA identified public interest concerns specific to South Africa related to employment and support for emerging farmers. The merger was cleared with remedies, which included but were not limited to the divestment

of the entire global Liberty Link trait technology and the associated Liberty branded agro-chemicals business of Bayer.

Itaú/XP Investimentos

In Brazil, one of the most relevant mergers recently analyzed by CADE involving an innovative business model was the acquisition of XP Investimentos, a leading investment platform, by Itaú-Unibanco, a Brazilian private bank. XP Investimentos distributed investment products from many financial institutions, including Itaú, and used a new investment platform operated by decentralized investment agents. On the one hand, the transaction could be perceived as part of a strategy adopted by an incumbent to restrain a disruptive player, which had been gaining a significant share of the financial investment market in Brazil. On the other hand, the deal could be considered an attempt by the incumbent (Itaú/Unibanco) to enter in a new market of provision of services operated by 'fintechs'. The parties negotiated an ACC with CADE in order to address competition concerns related to possible Itaú interferences to XP, potential reduction of XP's competitive pressure on the market and risks of discrimination or market foreclosure resulting from the reinforcement of vertical integrations between XP and Itaú.

Microsoft/LinkedIn

In Brazil, the majority of cases involving Microsoft analyzed by CADE were related to mergers and acquisitions. In the past, the acquisitions of Skype and Yahoo!'s shares were submitted to CADE's approval and cleared without restrictions. More recently, in 2016, Microsoft filed at CADE the acquisition of the social network LinkedIn. CADE noted that many forms of advertising (sponsored content, sponsored e-mail, dynamic adds, etc.) were involved in the transaction. However, due to the low market share of both parties to the transaction in the markets involved, CADE did not perform an in-depth review of the case. The proposed transaction was cleared without restrictions. In South Africa, the merger was cleared without restrictions as well, because both firms generated low revenues in the country. The main competitive concerns were on the vertical relation and the scope of exclusionary practices between a social network and a cloud computing company.

Yandex/Uber

In 2017, the FAS Russia approved a joint venture between Uber and Yandex Taxi. The Federal Antimonopoly Service of Russia conducted an analysis of the market of services for rendering information about the interaction between passengers and taxi drivers (market of taxi aggregators). The authority also held a number of meetings with participants of the Russian markets of taxi and taxi aggregators. A survey of market participants showed that administrative barriers to entry would be easily overcome. Given the fact that the market of taxi aggregators is sufficiently young and that there is still room for significant changes and modernization to take place, the FAS Russia concluded that there were no current dominating companies. The FAS Russia noted, however, that Yandex and Uber have signs of dominance that could arise in the future.

In order to improve the conditions for the development of competition in the market for taxi aggregators and related markets, the FAS Russia issued an order to Yandex, Uber and their joint venture to implement actions aimed at optimizing the relationship between aggregators, taxi drivers and passengers. In particular, companies were required to provide complete and accessible information to users, store a history of trips, and not prevent partners, drivers and passengers to work with other taxis aggregators.

Takealot/Kalahari

In 2015, the Competition Commission of South Africa cleared a merger between the two largest online retailers of consumer goods and products, Kalahari.com and Takealot Online (Pty). While the combined market share was high, the CCSA concluded that brick-and-mortar retailers constrained online retailers. Interestingly, the merger raised public interest concerns on employment, which were addressed with conditions on the parties.

2.6.2 Cartels

The Anti-Cartel Department of the FAS Russia has evidenced the use of big data and computer algorithms for anticompetitive agreements. One example cited by the FAS Russia was the use of auction robots to violate antitrust laws. According to the authority, the auction robot is an optional function of the auction participants on the electronic

platform that allows (with the settings of the auction robot filled and signed by the participant) the automatic submission of price proposals on a specific electronic auction on behalf of the auction participant, to the specified limit of the price offer. According to the FAS Russia, when creating and using "auction robots", the participants agree in advance on the limit of reduction of the initial (maximum) price of the contract, as well as the winner of the auction.

Another case mentioned by FAS involved the coordination of economic activity in the market of locking and sealing mechanisms (LSM) used for rail transportation. The FAS concluded that since 2008, LSM manufacturers have concluded and implemented an anticompetitive agreement to establish and maintain prices, as well as to divide the commodity market by sales volume and the composition of buyers (consumers) of LSM used in rail transportation. The FAS concluded that the investigated companies (JSC IPK Strazh, LLC Trans-plombir, LLC TD KZMI, LLC SotekKomTsentr and CJSC OTSV) used a special software to exchange information in the cartel, that allowed the control of the life cycle of any LSM from the time of production until disposal. At the same time, all the cartel members had access to this system, which allowed them to track the sales volumes and counterparties of their competitors. The antimonopoly authority stopped the activity of the hard core cartel, which existed for about 10 years and controlled the market, including through the section of procurement procedures of almost all Russian consumers in the private sector.

Similarly, in Brazil, CADE analyzed a collusive conduct case in which four Brazilian airlines (VARIG, TAM, Transbrasil and VASP) made use of an automated system to coordinate price fixing agreements. In that case, CADE considered that there was no reasonable cause for the price fixing and the companies were found guilty of cartel behavior. The case was closed with a judicial agreement in which the companies agreed to pay heavy fines in settlements with CADE. In that case, CADE concluded that the cartel was facilitated by the use of a software tool provided by Airline Tariff Publishing Company (ATPCO), which was used as a coordination system by the Brazilian airlines. This resulted in another investigation involving this company. The case was closed with a cease-and-desist agreement, in which ATPCO agreed to implement changes to its system in order to prevent competitors to have access to competitors' fares too fast. ATPCO also committed to send CADE reports of any system update or the implementation of any new functionality.

More recently, CADE investigated another two cases involving the use of software to implement price fixing agreements. In one of them, competitors hired an IT company to develop a software tool that would facilitate the cartel coordination related to driving schools. CADE considered that there was a clear intention of developing an algorithm and a computer program to coordinate anticompetitive behavior. The companies and the industry association were fined due to cartel behavior. In the second case, two companies were investigated for being part of a cartel related to vehicle registration plates. The companies used an electronic system to fix the prices of the plates and to prevent companies that were not part of the agreement from receiving orders, restricting customers' choice. Both companies were found guilty of cartel and fined by CADE.

In India, the CCI is investigating one case in the cab aggregators market involving an alleged cartelization through algorithmic pricing. The case, however, contains slight differences from how algorithm cartels are generally understood. The main allegation is that in the cab aggregator's market, the individual drivers do not negotiate prices with the potential riders. Rather, the pricing power is given to the platform (*i.e.* the cab aggregators like Ola or Uber) to fix the prices using algorithm, which would take the freedom of riders and drivers to negotiate prices and would hence amount to price fixing cartelization. (There were no allegations regarding collusion between these cab aggregators).

In Brazil, a similar case involving Uber was analyzed by CADE in 2016. In the occasion, the Public Prosecutor's Office from São Paulo and the Association of Autonomous App Drivers argued that Uber's business model would lead to problems related to pricing and cartel, as well as incentives to the adoption of uniform commercial conduct by the drivers, through its dynamic pricing algorithm. In 2018, CADE concluded that there were not enough evidences to open a formal proceeding against the company. However, CADE also noted that Uber's dynamic pricing tool could enable coordination of the drivers in order to raise prices artificially, which could be considered a cartel. Thus, the SG recommended the adoption, by the company, of measures to improve competition, such as changes in the pricing tools of the app. One alternative proposed by CADE was the implementation of an auction mechanism, so that drivers could compete for rides by offering competitive fares.

In South Africa, there are a number of ongoing investigations involving the use of digital instruments by companies, such as algorithms or third party software to facilitate

collusion. One example is the 'Glass case', which looks at the use of algorithms to fix prices and facilitate collusion between two autoglass fitment companies. Further information about this ongoing case is restricted.

2.6.3 Unilateral conducts

Search Engines

The activities of Google were investigated by all four Competition Authorities: Brazil, Russia, India and South Africa, with different aspects reviewed in each case.

In Brazil, CADE opened five cases to investigate Google's conducts, with three of them closed this year. CADE investigated Google's activities with concerns related to the abuse of dominant position as a search engine by allegedly giving illegal advantage to its own comparison-shopping. Google was also under investigation for allegedly scraping content from downstream competing price comparison sites (e.g. reviews provided by users of the site Buscapé) to improve the results of its own comparison shopping engine. Google's advertisement tool (AdWords) was also investigated by CADE, under allegations that it prevented advertisers from transferring data from Google's platform to competitors' sponsored search platforms, preventing multi-homing and illegally restricting competition. These three cases were closed by the Tribunal due to lack of evidence. Recently, CADE has opened an investigation involving an alleged use by Google of the Android Operating System. A fifth investigation relates to a potential abuse of dominance by Google involving the use of third parties' content to leverage its own platforms, such as Google Shopping and Google News. Information on these cases is restricted and the investigations are under way.

In India, Google was found to be abusing its dominant position on the following three counts: first, for ranking of Universal Results (prior to 2010) at certain fixed positions on the Search Engine Result Page (SERP) instead of by their relevance. Second, for prominent display of Commercial Flight Unit by Google on SERP with link to Google's specialized search options/services (Google Flights). Third, for prohibitions imposed under the negotiated search intermediation agreements upon the publishers.

In Russia, the FAS examined a case against Google in 2016. The object of consideration was the refusal of manufacturers of Android smartphones and tablet

computers to cooperate with Yandex, Google's local competitor. In the past, the manufacturers used to preinstall certain Yandex applications, as well as the Yandex browser as a default on mobile devices running Android. However, the FAS Russia found that Google, who owns Android and dominates the market of pre-installed Android application stores was imposing restrictions and prohibitions to its manufacturers, as well as the following conditions: (i) mandatory pre-installation in conjunction with the Google Play application store of a collection of other Google applications, products, services and (ii) mandatory pre-installation of Google as the default browser on mobile devices. The FAS Russia concluded that these impositions provided Google with a competitive advantage in the application software markets and harmed Yandex. In 2017, the FAS reached a settlement with Google, under the terms of which Google agrees, among others, to stop the requirements of exclusivity of its applications on Android devices in Russia and to cease practices that restrict the pre-installation of any competing search engines and applications (including on the home screen by default). In accordance with the settlement, for devices that are currently in circulation in the Russian Federation, Google developed an active "window of choice", which provides the user with the opportunity to choose a search engine "by default". FAS notes that the results of the implementation of the settlement confirms its assumption about consumers' passive behavior regarding installation of applications by themselves if applications of a certain functionality are already installed on the device: since the consumer has been visually offered the choice of search engine (since the settlement came into force two years ago), the share of the Russian developers in the market of search engines has grown from 37% to 49% on Android mobile devices.

In South Africa, Entelligence Ltd placed a complaint alleging that Google South Africa was requiring and inducing one of its clients to deal directly with Google and not with the complainant. Entelligence provided online advertising solutions to its clients. According to the company, Google used the information from the advertising solutions using its platform AdWords to capture its customers. The allegation was dismissed because Entelligence was a small player and the conduct of Google was unlikely to result in a substantial lessening of competition in the relevant market.

Ride-Hailing

Cases analyzing unilateral conducts in ride-hailing markets have been presented in Brazil, India and South Africa.

In Brazil, CADE analyzed two proceedings related to Uber's activities in Brazil. In one of them, taxi drivers' unions presented a case against Uber alleging unfair competition and violations of the economic order. CADE found no evidences of violation of competition law and recently closed the case. In the other case, Cade received allegations from representatives of taxi drivers' unions with regard to possible abusive coordinated pressure for the exclusion of competitors and sham litigation by Uber. After preliminary investigation, however, the allegations were considered unsubstantiated and the case was closed.

In India, in the case of the ride-hailing industry, allegations were received with regard to predatory pricing and exclusive agreements but were found to be unsubstantiated after investigation.

A similar situation was found in South Africa, involving a complaint by the Metered Taxi Industry, which represents the traditional meter taxis. The complainant alleged that Uber was conducting unfair business practices by securing partnerships with multinational companies, with access to their client base, which would ultimately give Uber an unparalleled market access. The Metered Taxi Industry also alleged non-compliance with the South African public transport rules and regulations, as it does not pay any permit renewal, rank fees and licencing fees as do other traditional metered taxis, and would charge below-cost rates to the detriment of traditional metered taxi operators.

The Commission investigated the complaint under abuse of dominance provisions that prohibit predatory pricing. Preliminary findings, during the screening of the complaint found that Uber driver-partners were not charging prices that are below cost in any of the cities in which Uber operated. The Commission decided not to pursue the case to full investigation as the complaint was lodged within one year of Uber commencing its operations in South Africa and it was unlikely to establish anti-competitive effects⁶.

⁶ Subsequent to this complaint, the CCSA decided to conduct a market inquiry into land based public passenger transport. The market inquiry provisions have a broader remit as it looks at the general state of competition in the industry. According to the CCSA, market inquiries also have a lower test to show anticompetitive effect in that they allow the Commission to probe any conduct that prevents, distorts or restricts competition rather than having to show a substantial lessening or prevention of competition. This market inquiry focuses on a range of issues, including: price setting mechanisms for different public transport modes and their impact on intra- and inter-modal competition; impact of regulations (such as including route allocation, licensing and entry requirements) on competition; the impact of operational subsidies granted to other modes of transport on competition.

2.6.4 Other Cases

In India, in the case of vertical agreements, the CCI investigated cases involving exclusive dealings, refusal to deal and resale price maintenance (RPM) in the online platform industry. However, none of the allegations against the internet giants were found to contravene the Competition Act, whereas some of the allegations related to resale price maintenance are still under investigation.

In Russia, the FAS completed the analysis of a case on violation of antimonopoly legislation involving the Microsoft Corporation. In 2015, the Windows manufacturer did not give antivirus software developers enough time to ensure that their anti-virus applications would be compatible with the new Windows 10 operating system. At the time, Microsoft Corporation held a dominant position in the market for providing operating systems for desktops and laptops. Thus, the FAS Russia concluded that Microsoft Corporation created unequal conditions for the antivirus software produced by other companies, favoring its own anti-virus, i.e. Windows Defender. The FAS Russia also investigated LG Electronics RUS LLC for having coordinated the economic activities of LG smartphones resellers, which led to the establishment and maintenance of their prices, resulting in the violation of the antimonopoly legislation. The FAS Russia concluded that the investigated company monitored the retailers' compliance with the recommended retail prices through regular collection of price data using a special pricing algorithm and provided the resellers with information about their competitors' non-compliance. The investigated company was considered guilty and fined.

In Brazil, another recent case of unilateral conduct in the digital market involved three major online travel agencies (OTAs) operating in Brazil, Booking, Expedia, and *Decolar*, which were investigated due to the adoption of parity clauses, also known as most favored-nation clauses (MFN). According to the General Superintendence, such clauses may restrict competition between the OTAs in question and other OTAs and hinder new platforms from entering the market. The case was closed with cease-and-desist agreements involving the three companies, in which the companies agreed to cease the adoption of wide MFN clauses. The use of narrow MFN clauses, however, was allowed so that the companies could request parity treatment with regard to websites of the accommodation providers. This conclusion was based on the understanding that prohibiting MFN clauses under all

circumstances might give hotels incentives to free ride and offer deals at lower prices than the ones announced on the OTAs platforms.

More recently, in 2018, CADE started investigations regarding exclusionary practices by traditional banks against emerging technology companies, especially companies offering financial services (such as crypto currency companies) known as *fintechs*. CADE is investigating allegations that Brazilian banks have been denying *fintechs* access to bank accounts and other traditional banking services in order to restrict competition in the financial market.

Given the relevance of the telecommunications infrastructure for digital markets and the perceived high cost of data, a good example in which an incumbent uses its market power to impose anticompetitive barriers to entrants in digital services is the series of Telkom cases in South Africa. Telkom is the dominant firm in fixed line internet services, the former state monopoly. After a series of cases where value added services providers complained of refusal to sale, foreclosure, and/or discriminatory practices in the access to essential facilities, the Competition Commission of South Africa imposed the functional separation of Telkom's wholesale and retail operations.

2.7 Is the Current Legal Framework Fit for the Task?

This subsection addresses the Competition Authorities' views on changes to the existing legal framework of competition policy to deal with the digital economy.

Despite the challenges posed by the digital economy to competition law and policy enforcement, the Competition Authorities in general, consider that the respective antitrust tools and methods are suitable to analyze digital markets. Brazil, India and South Africa hold that the respective legal framework leaves enough room to adapt the existing concepts and tools, so that the current toolkit has been suitable to analyze the cases involving digital markets. In the words of the CCI, the existing principles and provisions of the competition law are flexible and holistic enough for antitrust assessment of practices emerging in the digital space.

Russia, in turn, understands that under conditions of rapid expansion of the digital economy, its competition legislation requires amendments. For the FAS, the improvement of antimonopoly regulation in the digital age is considered one of the fundamental

principles of the state policy for the promotion of competition and economic growth. Therefore, the Federal Antimonopoly Service of Russia drafted a federal law "On Amendments to the Federal Law "On Protection of Competition" and other legislative acts of the Russian Federation" (referred as the "fifth antimonopoly package") to address some of the current challenges in competition enforcement related to the classification of certain market players and pricing algorithms. The fifth antimonopoly package also aims to strengthen control over M&A transactions associated with the acquisition of technology or other intangible assets, as well as immunities to objects of intellectual property that are to be excluded from the application of competition legislation⁷.

In Brazil, no particular formal changes in the legislation are under consideration to specifically address the digital economy. The same applies for changes in notification thresholds, as the Brazilian Competition Law provides the Administrative Tribunal of the Brazilian Competition Defense System with the possibility of reviewing any merger and acquisition upon its request, within one year of the execution of the agreement, regardless of the parties' annual gross sales or total turnover. Nonetheless, CADE is constantly studying and reevaluating its activities in order to identify opportunities to enhance its practices.

In India, the CCI has formed a Competition Law Review Committee to consider possible changes to its laws. This Committee has recently submitted a report to the Ministry of Corporate Affairs regarding regulation of digital markets, and the following subjects, among others, have been object of the report: (i) introduction of additional thresholds to review non-notifiable mergers; (ii) new provisions on agreements that do not fit within typical horizontal or vertical anti-competitive agreements; and (iii) additional enforcement mechanism of 'Commitments' in the interests of speedier resolution of cases of anti-competitive conduct.

With regard to non-notifiable mergers, the Committee suggested the introduction of additional thresholds to review M&A transactions of businesses that are not structured traditionally - especially when they integrate digital markets. The Committee suggested that even if the traditional asset and turnover thresholds are not met, it could be brought within the ambit of merger review based on the transaction value or the deal value of a

⁷ According to the FAS of Russia, the amendments address, among others, the following aspects: (a) additional criteria to classify certain owners of large infrastructure platforms, internet platforms as dominant business entities; (b) tighter control over price algorithms; (c) further control over M&A transactions associated with the acquisition of technology or other intangible assets; and (d) "immunities" for the application of competition legislation related to intellectual property.

combination. For the CCI, this is a forward-looking recommendation that seeks to take into account new age indicators of business activity. As for the provisions on agreements, according to the CCI, to address the shift in traditional market realities by widening the net for identification of anti-competitive conduct, the Committee suggested that express provisions be introduced to identify 'hub and spoke' agreements as well as agreements that do not fit within typical horizontal or vertical anti-competitive agreements. The CCI notes that this would be a significant step towards covering varied business structures and models synonymous with new age markets. The additional enforcement mechanism of 'Commitments' was proposed by the Competition Law Review Committee in the interests of speedier resolution of cases of anti-competitive conduct. However, the provision of commitments is proposed to be included in the Competition Act with respect to Section 3(4) and Section 4 i.e. vertical restraint and abuse of dominance matters, respectively. It is worth noting that the Competition Law Review Committee has also proposed for inclusion of 'any other factor' while considering factors for determining the relevant product market under Section 19(7) of the Competition Act, keeping in mind the evolving digital market.

South Africa, in turn, recently (Feb. 2019) enacted the Competition Amendment Act 18 of 2018⁸ that aims to strengthen the Competition Commission's ability to address market concentration directly and to open markets to greater participation. Although the Amendment has not been designed to specifically address the digital economy markets, its provisions indicate an intention of competition policy makers in South Africa to respond to changing dynamics and resolve constraints to effective intervention by the authorities in technology/digital markets. In particular, three provisions may have important effects on the assessment of competition in digital markets: (i) the "national security provision"; (ii) the market inquiry provisions; and (iii) the "buyer power" provision. The national security provision relates to the section in the Amendment Act that provides for a Committee of Ministers and Public Officials appointed by the President to intervene in merger proceedings to assess the effects of a merger involving a foreign acquiring firm on the national security interests of the country. "National security" is not defined in the Act - the President is yet to publish a list of national security interests, including the markets, sectors

⁸ Available online at: <https://www.gov.za/documents/competition-amendment-act-18-2018-englishafrikaans-14-feb-2019-0000>.

or regions in which a merger involving a foreign acquiring firm must be notified to the Committee. Secondly, the Amendment also strengthens market inquiry provisions. Currently, the outcomes of a market inquiry have the status of recommendations submitted to the Minister of Economic Development, with no binding effects. The Amendment Act changes this, imposing a duty on the Commission to take action to remedy adverse effects on competition uncovered during a market inquiry. All actions prescribed by the Commission, other than divestiture, are binding to the parties. The Commission may recommend a divestiture remedy to the Competition Tribunal, the adjudicative body, for determination. These provisions strengthen the market inquiry provisions significantly and lay the basis for market inquiries to become a powerful tool to design and impose pro-competitive remedies even in technology markets if an inquiry finds evidence of adverse effects on competition. Finally, the Amendment introduces a prohibition against abuse of buyer power. The provision states that dominant firms are prohibited to impose unfair prices or trading conditions on a small or medium-sized firm or on firms owned or controlled by historically disadvantaged individuals. This provision only applies to certain sectors, which must be specified by the Minister of Trade and Industry in regulations. The first draft regulations, which are still subject to review, included online trading platforms in the preliminary list. It thus seems likely that the buyer power provisions will apply to technology firms.

3. Selected Cases

In this section, the authorities selected specific cases in each of the three categories displayed below (i.e., mergers, cartels and unilateral conducts) that highlight different dimensions that are relevant to competition policy and enforcement in digital markets.

3.1 Brazil

3.1.1 Mergers

Number SEI	Market	Parties	Brief description	Reference to related material, including press release/papers
08700.00 2792/ 2016-47 (Nov. 2016)	Credit information services	Banco Bradesco S.A., Banco do Brasil S.A., Banco Santander (Brasil) S.A., Caixa Econômica Federal and Itaú Unibanco S.A.	The transaction consisted of a joint-venture between the Brazilian five largest banks which creates a new credit bureau that operate with both insolvency and solvency registers. The transaction would affect the market of solvency and insolvency information on firms and individuals due to the existing vertical integration between banks and credit bureaus. This is a two-sided market for providers of credit information and users of credit information. The business is data intensive, with big data issues. On the one hand, CADE considered that this vertical integration could result in anticompetitive conducts such as the discrimination in access to information provided by the banks to the credit bureaus that will compete with the created credit bureau after the joint venture, or the discrimination in access of banks that are competitors to the new bureau's services. On the other hand, CADE considered that the consolidation of such database could stimulate positive impacts beyond the market of credit information services, with the reduction of insolvency, interest rates and banking spreads, which would benefit all credit borrowers. To eliminate competition concerns raised by the transaction, the banks agreed to sign a Merger Control Agreement (ACC) as a condition for the transaction's approval. The ACC contained provisions related to the register's expansion, guarantees of non-discrimination for competing credit bureaus accessing credit information and mechanisms of corporate governance	Press release (General Superintendence conclusions) Press release (Tribunal Decision) Case public documents (in Portuguese)

			in order to avoid information exchange between the associated banks through the joint venture.	
08700.00 1390/ 2017-14 (Out/2017)	Television programming and pay-tv operations	Time Warner Inc. and AT&T	Acquisition of Time Warner by AT&T. The transaction resulted in the vertical integration between channel licensing to pay-tv operators (programming) provided by Time Warner Group and the pay-tv services via satellite provided by Sky Brasil (packing and distribution), controlled company of AT&T Group. To solve the competition issues identified, the companies signed a Merger Control Agreement (ACC) with CADE. By means of the ACC, the parts have committed to comply with several obligations imposed by the antitrust authority. Among the commitments undertaken by AT&T are the maintenance of Sky Brasil and Time Warner's program channels as independent companies with their own different governance and administration structures. They must prevent the exchange of sensitive information or information that could discriminate the agents that do not belong to the same economic group of the companies involved in the merger. AT&T also committed to offer Time Warner's programming channels to non-affiliated packers and providers of pay-tv with all the programming channels licensed to Sky, upon non-discriminatory conditions. The company should also formalize the current licensing agreements. Additionally, in the licensing of programming channels for pay-tv distribution, Sky Brasil will not be allowed to refuse broadcasting or to impose terms to broadcasting that could be considered discriminatory to the providers of programming channels not affiliated to AT&T, compared to those applicable to the Time Warner's channel programmers. In order to comply with this condition, the adjustment of the currently valid contracts was also determined.	Press release (General Superintendence conclusions) Press release (Tribunal Decision) Case public documents (in Portuguese)
08700.00 4431/ 2017-16 (14, março 2018)	Financial services	Itaú Unibanco S.A. and XP Investimentos S.A.	Acquisition by Itaú Unibanco of a stake in XP Investimentos. The approval was conditioned to the signature of a Merger Control Agreement (ACC in its acronym in Portuguese) proposed by the parties within CADE's Administrative Tribunal. The transaction involved horizontal overlaps and vertical integration in several markets within the segment of financial services and products. The deal also raised concerns for involving a disruptive firm (XP) in a market traditionally dominated by banks. Competitive concerns were	Press release (General Superintendence conclusions) Press release (Tribunal Decision)

			<p>present in a market with a two-sided platform characteristic, namely, the distribution of financial investment products, using an app/software developed by XP and used by their independent financial advisors. Financial institutions, including the Acquiring Party, join the platform to reach investors. This raised vertical integration anticompetitive potential effects. The conditions imposed by the Tribunal through the ACC aim at reducing possible negative effects to the competition on the relevant markets analyzed, such as the possible reduction of XP's competitive pressure on the market. The other commitments agreed by the companies aim to mitigate the risks of discrimination or market foreclosure resulting from the reinforcement of vertical integrations between XP and Itaú. On one side of the two-sided relevant market, XP is forbidden to adopt exclusivity clauses with other providers of investment products. On the other side XP is not allowed to require exclusivity clauses from autonomous investment agents, except to meet regulatory requirements.</p>	<p>Case public documents (in Portuguese)</p>
08700.00 7262/ 2017-76 (março/2018)	Online food delivery	Rocket Internet SE (Delivery Hero) and Naspers Ventures B.V. (iFood and Spoonrocket)	<p>The transaction consisted in the acquisition by Naspers of around 13% of Rocket Internet's shares in Delivery Hero. The transaction would result in horizontal overlap in the market of online food delivery. The main conclusions of the General Superintendence were that (i) there was a high expectation of growth for the segment in the next years; (ii) there were recent entries of important global players in the market, such as UberEATS and Rappi; and (iii) although there was low domestic rivalry, there was expectation of increased future competition. It is worth mentioning that the General Superintendence considered it important to monitor iFood's strategy of acquiring companies in the segment, as well as exclusive agreements with restaurants in future cases, as these could become entry barriers for new players. The transaction was cleared without restrictions due to low concentration resulting from the deal, as well as the existence of sufficient rivalry and contestability in this fast growing market.</p>	<p>Opinion (in Portuguese)</p> <p>Case public documents (in Portuguese)</p>

<p>08700.00 4494/2018-53 (março 2019)</p>	<p>Movies distribution business, licensing of TV content and products, and programming for cable TV.</p>	<p>The Walt Disney Company and Twenty-First Century Fox Inc.</p>	<p>Acquisition of Twenty-First Century Fox by The Walt Disney Company. Both firms provide content that is distributed digitally. The merger generated competition concerns in the market of cable sports channels - CADE understood that there was a potential for quality and diversity reduction in the available sports content. In addition, CADE's General Superintendence and Tribunal considered that the cost increase of licencing sport channels to satellite or cable TV operators could be passed on to consumers. The Tribunal decided for the application of structural remedies, since it understood that the merger generates competition concerns in the market of cable sports channels. Currently, there is only one large rival capable of competing with those channels.</p> <p>The sale of Fox Sports allowed the market structure to remain with the same competitive level that preceded the merger, with three options of sports channels for Brazilian consumers. The assets package that shall be disinvested includes all transmission rights of sports events that belong to Fox Sports and all contracts with cable TV operators; as well key-staff, real estate and transmission equipment. The Disney/Fox operation was notified in 25 jurisdictions and culminated in the collaboration among antitrust authorities from all over the world. In Latin America, there was international cooperation with agencies from Mexico and Chile. The transaction was filed in 25 jurisdictions and resulted in cooperation by antitrust authorities worldwide. In Latin America, CADE engaged in international cooperation with competition agencies from Mexico and Chile.</p>	<p>Press release (General Superintendence conclusions) Press release (Tribunal Decision) Case public documents (in Portuguese)</p>
--	--	--	---	--

3.1.2 Cartels

Number SEI	Market	Parties	Brief description	Reference to related material, including press release/papers
08012.00 0677/199 9-70	Airlines	TAM, Varig, Transbrasil, Vasp and ATPCO	Four Brazilian airlines were accused of using an airtravel online reservation system (ATPCO) to coordinate price fixing agreements. The Tribunal imposed a fine.	Case public documents (in Portuguese)
08012.00 2028/200 2-24 and 08012.00 3572/200 4-55	Ticket fare system	Airline Tariff Publishing Company (ATPCO)	As a follow up of the airline cartel case above, ATPCO was investigated for providing a software tool which would facilitate price agreements between competitors. The case was closed with a TCC agreement, in which the company agreed to implement changes in its system in order to prevent price fixing.	Case public documents (in Portuguese)
08012.011 791/2010 -56 (fev. 2016)	Driving schools	Centro de Formação de Condutores Estrela Ltda., Auto Escola e Despachant e Helly, Auto Escola e Despachant e Mundial, Auto Escola e Despachant e Santa Bárbara Auto Escola	Driving schools and brokers, gathered in an association, hired an IT company to develop a software that would register and verify if services were rendered according to a centrally pre-determined range of prices. The software allowed the implementations and monitoring of price fixing agreements. The companies and the industry association were considered guilty of cartel behavior and fined.	Vote (in Portuguese) Case public documents (in Portuguese)

		Sinal Verde, Auto Escola Pérola and others		
08012.00 5660/2010-30	Vehicle registration plate	Aface and ITV	AFACE, a trade association of vehicle license plate manufacturers and ITV, a software company, were investigated for using an electronic system (Sistema de Placa Eletrônica) provided by ITV to fix plate prices made by firms associated to AFACE. The software centralized orders made by the public as the single source for license plates, distributed the orders across associates and imposed a commonly agreed price for the license plate services to each associate. Both companies were found guilty of cartel and fined by CADE.	Press release (General Superintendence conclusions -in Portuguese) Report of the case (in Portuguese) Case public documents (in Portuguese)
08700.00 8318/2016-29	Paid individual transportation of passengers	Associação de Motoristas Autônomos de Aplicativos, Ministério Público do Estado de São Paulo and Uber Tecnologia do Brasil Ltda.	Investigation requested by the taxi drivers in São Paulo, on alleged violations of the economic order related to below cost pricing by Uber, hub-and-spoke driver's cartel organization and the provision of incentives to the adoption of uniform commercial conduct by its drivers. The case recognizes the market where uber operates as a two-sided market. The case was closed due to lack of evidence that the conducts were practiced or that the practices could generate the alleged negative competitive effects.	Opinion (in Portuguese) Case public documents (in Portuguese)
08012.00 2812/2010-42	Mobile phone recharge market	Beira Mar Participações S.A, Check Express S.A, Rede Ponto Certo Tecnologia e Serviços Ltda, Rede Digital Comércio e Serviços Ltda. (currently Rede de	The case refers to practices in the market of distribution of electronic "top-up" or "refill" services for prepaid phones. The investigation was initiated from a leniency agreement signed by the company Telecom Net, an individual related to the company. During the evidentiary stage, CADE verified that the parties held meetings to fix prices, divide market and exchange sensitive information amongst themselves. The Brazilian competition authority considered that the anticompetitive conducts affected the relationship between the second and the third links of the prepaid phone refill services chain (electronic distributors and points of sale, respectively) and imposed fines for violation of the economic order.	Press release (Tribunal Decision) Case public documents (in Portuguese)

		Transações Eletrônicas Ltda.) and Others		
--	--	---	--	--

3.1.3 Unilateral Conducts

Number SEI	Market	Parties	Brief description	Reference to related material, including press release/papers
08012.010 483/2011- 94	Online search	E-Commerce Media Group Informação e Tecnologia Ltda (Buscapé) and Google	The case deals with Google's possible abuse of dominant position as a search engine by giving illegal advantage to its own comparison-shopping. Google practices were related to related two-sided relevant markets: (i) the market for general search services (organic) e (ii) the market for price comparison search (sponsored). The case involved Google's algorithms that were active in Brazil. They differed from the algorithms that were active in other jurisdictions that led to reprimands in those countries. Cade's General Superintendence and the Tribunal majority vote closed the case based on an opinion issued by the Department of Economic Studies on the alleged effects of the conduct and the lack of evidence of anticompetitive behavior. The case was heavily debated at the Tribunal with a dissenting, minority opinion that Google's search engine results presentations generated competitive harm to the non-integrated price-comparison sites by abusing its search engine ubiquity to leverage its position for the vertically integrated price-comparison website.	Press release (General Superintendence conclusions) Press release (Tribunal Decision - in Portuguese) Case public documents (in Portuguese)
08700.00 5694/201 3-19	Online advertisement	Microsoft and Google	Google was investigated for anticompetitive practices related to its advertisement tool (AdWords). According to Microsoft, the Terms of Service (ToS) of the AdWords' API (application programming interface) prevented advertisers from transferring data from Google's platform to competitors' sponsored search platforms, preventing multi-homing and illegally restricting competition. CADE's analysis delimited a two-sided market than included sponsored search in one side with cross-network effects from/to the general search market. The case was closed by the Tribunal due to lack of evidence, as ToS were not capable of blocking advertiser's multihoming of sponsored search engines.	Press release (General Superintendence conclusions) Press release (Tribunal Decision - in Portuguese) Case public documents (in Portuguese)

08700.00 5679/2016-13	Online travel agencies	Expedia, Decolar, Booking, and Fórum de Operadores Hoteleiros do Brasil - FOHB	Online travel agencies (OTAs) operating in Brazil were investigated due to the adoption of parity clauses, also known as most-favoured-nation (MFN) clauses. The case was closed with cease-and-desist agreement. As stated by the terms of the agreement signed, Booking.com, Decolar.com and Expedia must cease the use of broad parity clauses in their commercial relations with accommodation suppliers. Therefore, the defendants should not forbid better offers made by these hotels in their offline sales channels (check-in counters, physical travel agencies, and call-centers). In addition, the listed OTA's shall refrain to impose parity in relation to the prices charged by other online travel agencies.	Press release Case public documents (in Portuguese)
08700.00 4314/2016-71	Mobile internet service providers	CLARO S.A., TIM Celular S.A., Oi Móvel S.A and TELEFONICA BRASIL S.A	The investigation involved alleged market foreclosure due to zero-rating policies for selected apps in the mobile apps segment. CADE concluded that the mobile service operators participated as a platform in a two-sided market with two, different but related, markets: the market of mobile phone communication and the market for apps and content. The case investigation led to the conclusion that the operators were dominant in the phone communication before the dissemination of apps and that the platforms are not vertically integrated with any of the zero-rated apps. The case was closed due to lack of evidence of violations against the economic order.	Opinion (in Portuguese) Case public documents (in Portuguese)
08700.00 6964/2015-71	Paid Individual Transportation	Taxi drivers, taxi drivers' unions, and Uber	Investigation of alleged anticompetitive conducts by taxi drivers and taxi class associations, which would have practiced abusive actions to exclude and block the entry of the ride hailing online platform Uber in the market of paid individual transportation. The taxi unions would have abused their right to petition in courts to block entry of Uber in markets (sham litigation) and threatening uber drivers. The cases were closed due to the lack of evidence of authorship in threats and the potential reasonableness of cases opened, concluding to lack of anticompetitive practice.	Press release Case public documents (in Portuguese)

3.2 Russia

3.2.1 Mergers

Market	Parties	Brief description	Reference to related material, including press release/papers
Taxi	Yandex/Uber	<p>On November 24, 2017 FAS agreed on the application of the Yandex N.V., Uber International C.V. for conclusion of an agreement on the creation of joint enterprise, subject to conditions.</p> <p>The results of analysis of the market for the organization of information interaction between taxi drivers and passengers showed that the market is in the stage of active growth, depending on how this happens, and in this case, there will be aggregators providing services through a new convenient way to order a taxi - in the mobile device application.</p> <p>At the same time, taking into account the increasing role of digital technologies in the economy and social sphere, the increasing penetration of wireless access to the Internet and the increasing share of smartphones in the total volume of subscriber units, trends and prospects for the development of the market with a "digital component" the FAS Russia decided to impose remedies aimed at promoting competition within the new cooperation conditions of passengers and drivers..</p> <p>Companies should provide users with the most complete and accessible information of the legal person carrying out the transportation, with the preservation of the history of trips; should not limit the ability of partners, drivers and passengers to work with other taxi aggregators.</p>	http://en.fas.gov.ru/press-center/news/detail.html?id=52562
Agricultural	Bayer/Monsanto	<p>The FAS Russia approved the merger by issuing a Ruling to carry out certain activities aimed at the development of competition in the Russian agro-technical area through creation of potential competition of Russian companies. According to the Ruling, Bayer shall provide technological transfer of molecular selection tools and germplasm of the selected crops necessary to create highly productive seeds. Besides, the company shall provide non-discriminatory access to digital platforms of precise farming, including access to historical data referred to the Russian Federation, as well as to the data that will be collected by Bayer after commercialization of its program products on the territory of Russia. Access to such a data plays a key role for developing and introducing IT-products in the sphere of precise</p>	http://en.fas.gov.ru/press-center/news/detail.html?id=52952

		<p>farming by Russian companies. The period of validity of the Ruling is five years.</p> <p>The Technology Transfer Center organized by the National Research University Higher School of Economics will coordinate the technology transfer. In the framework of its activities, the Center will select recipients interested in technology transfer and monitor the execution of the Ruling.</p>	
Cross-border electronic commerce	Alibaba Group, Mail.ru LLC, Russian Direct Investment Fund (RDIF) and PJSC Megafon	<p>In 2019, the FAS considered a transaction on the establishment of a joint venture (JV) in the field of electronic commerce between Alibaba Group, Mail.ru LLC, Russian Direct Investment Fund (RDIF) and PJSC Megafon. Under the terms of the transaction, the joint venture will combine the Russian Alibaba Group business in the field of cross-border electronic commerce (Aliexpress store) and the Mail.Ru LLC business in the field of cross-border electronic commerce (Pando store). In addition, the Aliexpress store will be integrated with the largest Russian social network Vkontakte (up to 100 million users per month). Also, under the terms of the transaction, Russian producers of goods will be able to go with their products to these sites in the field of electronic commerce and trade these products in all markets where the sites are present.</p>	

3.2.2 Cartels

Market	Parties	Brief description	Reference to related material, including press release/papers
Reselling of smartphones	LG	<p>LG Electronics RUS" Ltd. was fined 2,500,000 RUB. The circumstances mitigating administrative liability were voluntary termination of unlawful conduct prior to opening the antimonopoly case and assisting FAS in the investigation.</p> <p>Earlier FAS Commission made a decision that "LG Electronics RUS" Ltd. violated the antimonopoly law: the company coordinated economic operations of resellers of LG, that resulted in fixing and maintaining prices for smartphones (Part 5 Article 11 of the Federal Law "On Protection of Competition").</p>	<p>http://en.fas.gov.ru/press-center/news/detail.html?id=53101</p>
Reselling of smartphones and tablets	Samsung	<p>On 12 February 2019 the FAS initiated proceedings against "Samsung Electronics RUS Company" (a Russian unit of "Samsung") upon signs of coordinating prices for smartphones and tablets.</p> <p>In 2018, the competition authority carried out an unscheduled inspection of "Samsung Electronics RUS Company" Ltd. Based on the results of an analysis of the obtained information, FAS exposed signs of violating Part 5 Article 11 of the Federal Law "On Protection of Competition" by "Samsung Electronics RUS Company" – coordinating economic activity of Samsung resellers that led to fixing and maintaining prices for some smartphones and tablets.</p> <p>During the case consideration, it was established that Samsung determined the recommended retail prices for Samsung smartphones and tablets, which were then communicated to the resellers verbally and in writing.</p> <p>In addition, it was established that Samsung monitored compliance by resellers of the recommended retail prices for Samsung smartphones and tablets, which included, among other things, regular collection of price data from using a price algorithm called the Price Monitoring Tool.</p> <p>Samsung applied "sanctions" to resellers who violate the recommended retail prices reducing the number of smartphones (tablets) shipped to them.</p> <p>On 26 August 2019, the FAS imposed a fine on the company of 2 500 000 RUB.</p> <p>The staff of "Samsung Electronics Rus Company" Ltd. who were directly involved in control over resellers' prices are held administratively liable.</p>	<p>http://en.fas.gov.ru/press-center/news/detail.html?id=53768</p> <p>http://en.fas.gov.ru/press-center/news/detail.html?id=53993</p> <p>http://en.fas.gov.ru/press-center/news/detail.html?id=54313</p>

		In the course of the investigation, the company stopped coordinating economic operations and assisted the FAS, which was taken in account when fixing the size of the fine.	
Coordination of economic activity in the market of locking and sealing mechanisms	JSC IPK Strazh, LLC Trans-plombir, LLC TD KZMI, LLC SotekKomTsentr, CJSC OTSV	<p>On June 29, 2017, the FAS Russia initiated a case against JSC IPK Strazh, LLC Trans-plombir, LLC TD KZMI, LLC SotekKomTsentr, CJSC OTSV.</p> <p>On March 28, 2018, the decision was issued on violation by the five first companies of clauses 1 and 3 of Part 1 of Article 11 (Prohibition of agreements between business entities restricting competition), and also by CJSC OTSV of Part 5 of Article 11 of the Law on Protection of Competition, which resulted in coordinating the economic activities of the defendants, which led to the establishment of prices for locking and sealing mechanisms (hereinafter referred to as LSM) on the market for LSM used for rail transportation .</p> <p>Since 2008, LSM manufacturers have concluded and implemented an anticompetitive agreement, the purpose of which was to establish and maintain prices, as well as to divide the commodity market by sales volume and the composition of buyers (consumers) of LSM used in rail transportation .</p> <p>Using a special software, the cartel exchanged information that allows to control the life cycle of any LSM from the time of production until disposal. At the same time, all the cartel members had access to this system, which allowed them to track the sales volumes and counterparties of their competitors.</p> <p>During the inspections, correspondence and documents were discovered, according to which the cartel regularly coordinated sales volumes, as well as selling prices for LSM. A correspondence was found between coordinated persons (cartel members) and the coordinator (CJSC OTSV), as a result of which, following the instructions of CJSC OTSV, the producers raised prices for LSM.</p> <p>In addition, the illegal coordination of economic activities of business entities by CJSC OTSV in order to establish prices for certain types of LSM has been established.</p> <p>Coordination of the economic activities of manufacturers of LSM has led to the maintenance of prices in the market for the realization of locking and sealing mechanisms used in the implementation of rail transportation.</p> <p>Based on the results of the consideration of this case, the purchase prices for the LSM for final consumers are reduced by two or more times .</p> <p>The antimonopoly authority stopped the activity of the hard core cartel, which existed for about 10 years and controlled the</p>	<p>http://en.fas.gov.ru/press-center/news/detail.html?id=52882</p> <p>http://en.fas.gov.ru/press-center/news/detail.html?id=53601</p> <p>http://en.fas.gov.ru/press-center/news/detail.html?id=54114</p>

		<p>market, including through the section of procurement procedures of almost all Russian consumers in the private sector. In addition to typical evidence (correspondence, protocols, etc.), the use of special software for monitoring and recording of locking and sealing mechanisms used by cartel members was revealed.</p> <p>Administrative cases have been initiated against all defendants, which are currently under consideration.</p> <p>Competition in the product market for locking and sealing devices used in rail transportation has been restored. The materials of the case and the decision were transferred to the Russian Ministry of Internal Affairs to resolve the issue of initiating a criminal case on the grounds of corpus delicti provided for by Article 178 (Restriction of competition) of the Criminal Code of the Russian Federation.</p> <p>This decision of the antimonopoly authority can be used to file private claims for recovery of damages caused by the unlawful actions of the defendants, since the case contains information on the price of the goods both in the cartel and after its end.</p>	
--	--	--	--

3.2.3 Unilateral Conducts

Market	Parties	Brief description	Reference to related material, including press release/papers
Antivirus applications	Microsoft	<p>In 2017, in accordance with the statement of the company Kaspersky Lab, the FAS considered the case on the violation of antimonopoly legislation against Microsoft Corporation. Practices of the Microsoft Corporation aimed at providing benefits to its own antivirus application and encouraging users to abandon third-party antivirus applications were reviewed. Circumstances and commodity markets that had not previously been subject to review by the antimonopoly authority were examined.</p> <p>In the course of case consideration, the multilateral market of operating systems for stationary devices (computers and laptops) of end users, trial versions of operating systems for stationary devices (computers and laptops) for adaptation of third-party application software was analyzed. The analysis found that Microsoft Corporation, having a dominant position in this multilateral commodity market, has an impact on related commodity software application markets, as it owns the operating system (Microsoft Windows) for which the application software is created.</p> <p>FAS issued two warnings to Microsoft Corporation regarding the termination of actions (inaction) that contain signs of violation of the antimonopoly legislation (abuse of dominant position – Article 10, and unfair competition – Article 14 of the Law on Protection of Competition).</p> <p>In consequence of the execution of warnings, Microsoft Corporation made the necessary adjustments to the "Antimalware Platform Requirements". This document regulates the interaction between Microsoft Corporation and independent vendors of antivirus software. Moreover, Microsoft Corporation eliminated all calls for the abandonment of third-party software. Execution of the requirements of the FAS created equal conditions for developers of antivirus products across not only the Russian Federation, but also other territories where Microsoft Corporation is present, thereby ensuring effective competition in the global information technology market.</p>	http://en.fas.gov.ru/documents/documentdetails.html?id=15343
Pre-installed applications in stores	Google	<p>On 18 February 2015, FAS Russia has received a complaint from Yandex company indicating the presence of antitrust law violations in Google actions.</p>	http://en.fas.gov.ru/documents/documentdetails.html?id=14677

		<p>FAS Russia Commission (hereafter – Commission) has discovered that Google corporation has more than 50% market share of pre-installed application stores localized for redistribution on Russian markets and according to Part 1 Article 5 of the Law on Protection of Competition has a dominant position on the market. The Commission also takes note of the fact that Google owns the rights to Android OS, which strengthens its dominant position.</p> <p>During the proceedings, violation of Part 1 Article 10 of the Law on Protection of Competition was detected in Google actions. In order to access Google Play app store Google contractors should follow certain Google restrictive requirements. According to this provision, actions of an economic entity occupying a dominant position, which result or can result in prevention, restriction or elimination of competition, are prohibited.</p> <p>Since the Commission found that Google corporation actions, which is currently occupying a dominant position on the market of pre-installed app stores for Android OS localized for distribution on the territory of the Russian Federation, lead to restriction of competition on the adjacent product markets (app stores), the acts of this company should be considered under Part 1 Article 10 of the Law on Protection of Competition.</p> <p>On 18 December 2015, FAS Russia has found Google Inc. and Google Ireland Ltd. violated the antimonopoly legislation and issued a determination to eliminate a violation of the Federal Law "On Protection of Competition". The FAS Russia's decision and prescription were approved by court and entered into force on August 17, 2016, which include the following provisions:</p> <ul style="list-style-type: none"> • Google must adjust its contracts with mobile devices vendors, that is exclude anticompetitive requirements from the contracts that restrict installing applications and services of other vendors. • Google must inform mobile phone users using Android OS about de-activating pre-installed Google applications, possibility to change the search engine in Google Chrome browser, to install another search widgets and other applications similar to those included in the GMS package, as well as about possibility to change icon locations in the screen in the form of a notice appeared on the screens of their mobile devices. <p>Due to the fact of abuse of dominant position, the case of administrative offence of Article 14.31 of the Code of Administrative Offences of the Russian Federation was considered, and on August 11, 2016 Google Inc was imposed a fine of 438.067.400,39 rubles.</p>	
--	--	--	--

		<p>As it had been mentioned previously, the trend of producing and distributing mobile devices together with the software pre-installed on them is global.</p> <p>In 2017, the FAS reached a settlement with Google, under the terms of which Google agrees to stop the requirements of exclusivity of its applications on Android devices in Russia, cease practices which restrict the preinstallation of any competing search engines and applications (including on the home screen by default), encourage to preinstall Google search as the only search engine.</p> <p>In accordance with the settlement, for devices that are currently in circulation in the Russian Federation, Google developed an active "window of choice", which provides the user with the opportunity to choose a search engine "by default".</p> <p>It should be noted that the results of the implementation of the settlement confirm the FAS assumption about consumers' passive behavior regarding installation of applications by themselves if applications of a certain functionality are already installed on the device: since the consumer has been visually offered the choice of search engine (since the settlement came into force two years ago), the share of the Russian developers in the market of search engines has grown from 37% to 49% on Android mobile devices.</p>	
--	--	---	--

3.3 India

3.3.1 Mergers

Market	Parties	Brief description	Reference to related material, including press release/papers
<p>There was horizontal overlap between the Parties. Indian Portfolio Companies of Softbank Group Corp and entities of One97 Communications Limited were engaged in the market for provision of digital payment services.</p> <p>The Commission observed that there were vertical relationships between One97 Communications Limited and some of the Indian Portfolio Companies of Softbank Group Corp. However, given the competitive conditions of the market, the Commission did not find any appreciable adverse effect on competition in India.</p>	<ol style="list-style-type: none"> 1. Softbank Group Corp. & 2. One97 Communications Limited 	<p>Acquisition of up to 20% of the fully diluted paid-up share capital of One97 Communications Limited by Softbank Group Corp. along with a right to nominate a director on the board of One97 Communications Limited.</p> <p>(Combination Registration No. C-2017/06/514)</p>	<p>https://www.cci.gov.in/sites/default/files/Notice_order_document/C-2017-06-514%20-%20Order%20for%20uploading.pdf</p>
<p>There was horizontal overlap between the parties in business-to-business sales, which was characterized by intense competition among a very large number of competitors – both online and offline.</p> <p>With respect to vertical relationship, the Commission noted that both Flipkart and Walmart are foreign investment companies and due to regulatory restrictions in India for such entities, they cannot engage in B2C sales. Thus, no vertical overlap was found in the case.</p> <p>No appreciable adverse effect on competition in India.</p>	<ol style="list-style-type: none"> 1. Wal-Mart International Holdings, Inc. (Walmart) & 2. Flipkart Private Limited (Flipkart) 	<p>Acquisition between 51% and 77% of the outstanding shares of Flipkart by Walmart.</p>	<p>https://www.cci.gov.in/sites/default/files/Notice_order_document/Walmart%20PDF.pdf</p>
<p>There was no direct horizontal overlap between the Parties as only Monsanto was offering IT solutions in India and none of the Bayer's digital farming solutions were available in India. However, from the website of Bayer it was noted that crop science technology of Bayer envisaged further development of digital farming and thus, going forward Bayer had plans to offer its digital farming applications in India. (Available at https://www.bayer.in/about/bayer-in-india/crop-science/ Last accessed on 04.03.2018)</p>	<ol style="list-style-type: none"> 1. Bayer Aktiengesellschaft (Bayer) & 2. Monsanto Company (Monsanto) 	<p>Acquisition of Monsanto by Bayer.</p>	<p>https://www.cci.gov.in/sites/default/files/Notice_order_document/Order_14.06.2018.pdf</p>

<p>The Commission noted that the combined entity would be in significant competitive advantageous position to adapt and tweak its global digital applications to suit Indian conditions. Post combination, the combined entity's transformation into one-stop-shop platform, providing packaged solutions to the farmers in the seed and traits value chain and the agrochemical supply chain through their digital applications would lead to enhancement of its market power vis-à-vis its competitors who may be unable to offer similar integrated services to the farmers. Going forward, digital agriculture would be an important enabler for integrating businesses in neighbouring or complementary markets. Accordingly, the Commission proposed modification that the combined entity will, on fair, reasonable, and nondiscriminatory terms, grant access through non-exclusive, non-transferrable, non-sublicensable, royalty bearing licenses, to its digital platform and Indian agro-climatic data.</p>			
<p>There was no horizontal overlap between the Parties. Parties were not engaged in any activity which can be regarded as being at different stages or levels of the production chain. Aceville was an investment holding company. Flipkart through its direct and indirect subsidiaries, was inter-alia, engaged in the business of wholesale cash and carry of goods, and providing marketplace based ecommerce platforms to facilitate trade between customers and sellers. The Commission concluded that the combination is not likely to cause appreciable adverse effect on competition in India.</p>	<p>Aceville Pte. Ltd. Flipkart Limited</p>	<p>Acquisition of up to 6.02% of the fully diluted paid-up share capital of Flipkart Limited by Aceville Pte. Ltd. along with a right to nominate a director on the board of Flipkart Ltd.</p> <p>(Combination Registration No. C-2017/04/501)</p>	<p>https://www.cci.gov.in/sites/default/files/Notice_order_document/Order31_501-29.05.2017-web%20upload.pdf</p>
<p>There was no direct horizontal overlap between the Parties. Through their affiliates both the Parties were engaged in the business of digital payment instruments. Parties were not engaged in any activity which can be regarded as being at different stages or levels of the production chain. The Commission concluded that the combination is not likely to cause appreciable adverse effect on competition in India.</p>	<ol style="list-style-type: none"> 1. Copper Technology Pte. Ltd. (CTPL) 2. ANI Technologies Private Limited (ANI) 	<p>Subscription by CTPL of 9.57% fully diluted paid-up share capital of ANI along with a right to nominate a director on the board of ANI.</p>	<p>https://www.cci.gov.in/sites/default/files/Notice_order_document/Order%20-31_525%20Web Upload.pdf</p>

<p>There was no direct horizontal overlap between the Parties.</p> <p>Through their affiliates both the Parties were interalia engaged in the business of B2B Sales, e-commerce market place and digital payment instruments.</p> <p>There were vertical relationships interalia in the digital payment services.</p> <p>The Commisiosn concluded taht the combiantion is not likely to cause appreciable adverce effect on competition in India.</p>	<ol style="list-style-type: none"> 1. SVF Holdings (Jersey) L.P. (SVF) 2. Flipkart Limited (Flipkart) 	<p>Acquisition of up to 20 % stake in share capital (on fully diluted basis) of Flipkart by SVF along with a right to nominate a Director and an observer on the Board of Directors on the board of Flipkart.</p>	<p>https://www.cci.gov.in/sites/default/files/Notice_order_document/Order%20-31_528%20Web Upload.pdf</p>
---	---	---	--

3.3.2 Unilateral Conducts

Market	Parties	Brief description	Reference to related material, including press release/papers
Cab Aggregator Market	Fast-Track Call Cabs and Anr.v. Ani Technologies Pvt. Ltd	<p>As many as 10 cases have been received in the radio taxi industry by the Commission involving allegations regarding unilateral conduct. These have been filed by the traditional radio taxi players against online cab-aggregators (Ola and/or Uber) alleging abusive low pricing strategies (predatory pricing) by the online cab aggregators which allegedly the former were not able to match because of the high capital investment in the owned fleet.</p> <p>Most of these cases were closed at the prima facie level as the CCI did not find any of the cab-aggregators to be dominant in the relevant market and in the absence of dominance, an enquiry with regard to abuse could not have been looked into as per the scheme of Competition Act, 2002. However, one case⁹ concerning abuse of dominant position by a domestic cab aggregator (namely, 'OLA') in the relevant market of Bengaluru (a city in Karnataka) was sent for investigation. The DG, after detailed investigation, was of the view that OLA does not hold a dominant position in the relevant market because of the presence of competitive constraints posed by UBER (a global cab aggregator). While assessing the dominance of OLA, CCI applied a nuanced approach considering the challenges posed by traditional antitrust tools and approaches. CCI disregarded high market share held by OLA, realizing that over-reliance on market shares in the assessment of such cases may lead to absurd outcomes. CCI noted that market share is but one of the indicators for assessing dominance, and the same cannot be seen in isolation to give a conclusive finding. Though market share can be an important indicator for lack of competitive constraints, there cannot be any set guideline and criteria for determining uniform market share thresholds and a standard time-period to apply in all cases. The variance across industries in terms of their inherent characteristics, such as nature of competition, technology and innovation dimensions, calls for a case-by-case assessment of market share and its implications for dominance with reference to the totality of the market dynamics and competitive strategies of firms. CCI also recognized the limitation of market shares as an indicator of market power in case of new market economy cases. Rather CCI relied on factors such as strength of network effect, entry barriers,</p>	Case No. 6 & 74 of 2015

⁹ Case No. 6 & 74 of 2015, *Fast-Track Call Cabs and Anr.v. Ani Technologies Pvt. Ltd*, 19th July 2017, available at <http://www.cci.gov.in/sites/default/files/6%20%26%2074%20of%202015.pdf>.

	<p>and assessment of strategies adopted by the players to assess dominance. Based on these factors, CCI found that the OLA did not hold the position of dominance in the relevant market for 'radio taxi services in Bengaluru' and was not able to act independent of the competitive forces in the market.</p> <p>It was further noted that in two-sided markets, network effects may enable a large platform/network to become dominant and insulate itself from potential competition as entrants may find it difficult to challenge the large incumbent. However, there can be certain countervailing market forces that reduce the ability of even a very large platform to insulate itself from competition. CCI noted that despite OLA having the largest network, the network effect was not strong enough to deter entry and rapid expansion of other big competitor 'UBER' who was competing fiercely with OLA. Further, there were no significant costs preventing consumers from switching between different radio taxi apps. The radio taxi apps are offered for free and can be easily downloaded on smartphones and can coexist on the same handset, thus, multi-homing was found to be possible for both drivers and riders. The CCI also noted that the competition in the relevant market was still unfolding and decided not to interfere in a market which is yet to fully evolve. The following paragraph from the concluding paragraphs of the order also shows the approach adopted by CCI:</p> <p style="padding-left: 40px;">"123. At this stage, it is difficult to determine with certainty the long-term impact of this pricing strategy as the market is yet to mature. Without going into the legitimacy of OP's pricing strategy, suffice to say that besides statutory compulsion of non-intervention in the present case, as OP is not dominant in the relevant market, the Commission is hesitant to interfere in a market, which is yet to fully evolve. Any interference at this stage will not only disturb the market dynamics, but also pose a risk of prescribing sub-optimal solution to a nascent market situation."¹⁰</p> <p>Besides, CCI has recently decided 4 cases where dominance by OLA and UBER has been alleged collectively and/or as part of the same 'group'. Though collective dominance is not recognized under the Indian Competition Act, the Commission analysed if both the cab aggregators can be considered as part of the same 'group' pursuant to common shareholding. Though CCI observed that there are apprehensions that existence of common investors having overlapping shareholdings in competing firms may lead to a reduction in firms' incentives to compete, compared to a</p>	
--	---	--

¹⁰ Case No. 6 & 74 of 2015, Fast-Track Call Cabs and anr. V. Ani Technologies Pvt. Ltd., 19th July 2017, available at <http://www.cci.gov.in/sites/default/files/6%20%26%2074%20of%202015.pdf>.

		<p>situation in which competing firms are controlled by separate sets of investors, and may thus give rise to antitrust risks.</p> <p>However, it was opined that investigation under the Act cannot be ordered on the basis of apprehensions. No case for abuse of dominant position under the Act could be made out as there was no evidence of any abusive conduct.</p>	
Cab Aggregator Market- Pending Cases	Meru Travels Pvt. Ltd. vs Uber	<p>There is one matter which is under investigation at present against Uber in the Delhi-NCR market (Meru Travels Pvt. Ltd. vs Uber¹¹).</p> <p>Though the Commission closed the said matter at the prima facie stage, the appellate authority (i.e. erstwhile COMPAT) referred the matter to Director General for investigation. However, pursuant to an appeal filed by Uber against the said order of the erstwhile COMPAT, the Hon'ble Supreme Court issued a stay on investigation. Thus, till the Supreme Court finally decides the matter or vacate the stay, the matter cannot be investigated.</p>	Case No. 96 of 2015
E-Commerce Sector	Mohit Manglani vs. Flipkart/Snapdeal and Others	<p>The Informant alleged that the e-commerce entities and product seller enter into 'exclusive agreements' to sell the selected product exclusively on the selected portal to the exclusion of other e-portals or physical channels and accordingly cause an appreciable adverse effect on competition (AAEC). The CCI held that the bare perusal of such agreements on the touchstone of the factors in Section 19(3) of the Competition Act, 2002 suggests that these agreements do not result in AAEC. The CCI found it unlikely that an exclusive arrangement between a manufacturer and an e-portal will create any entry barrier as most of the products which are sold through exclusive e-partners face competitive constraints. Further, with regard to the abuse of dominance allegations, CCI held that every product cannot be taken as a relevant market in itself and therefore none of the e-portals were dominant individually in the relevant market (irrespective of whether the e-portal market was considered as a separate market or as a sub-segment of the market for distribution).</p>	Case No. 80 of 2014
E-Commerce Sector	M/s Counfreedis vs. Timex Group India Limited	<p>The Informant, an e-commerce seller, alleged that Timex Group (an innovative timepieces and jewellery globally manufacturer), alleged that Timex Group is insisting the Informant to control discount (via email), denying after sale service to customers of the Informant who purchased watches of Timex Group on the pretext of being unauthorized seller and filing of frivolous case against the Informant alleging that it is involved in manufacture and sale of counterfeited watches of Timex</p> <p>Based on the submissions of the Parties, the Commission held as under:</p>	Case No. 55 of 2017

¹¹ Case No. 96 of 2015

		<p>With regard to alleged RPM, the Commission noted that mere mention of the term 'control discount' in a single isolated email to a single seller, without any adverse consequence to the other online sellers including the Informant, is not sufficient to infer any anti-competitive conduct on the part of the Timex Group. The Commission noted that for RPM to be effective in the form of discount control, it has to be imposed on all the online retailers and not just the Informant. The Commission observed that Timex Group was just one of the many players in the wrist watch market in the organised sector and players like Titan etc. are way ahead of it. Moreover, the Informant is only one of the intermediaries of Timex Group in the online space, and online sales account for less than one-seventh of the total sales of Timex Group. The Commission notes that the Informant has failed to place on record any evidence to establish that Timex Group enforced RPM across the distribution channel so as to be able to cause an AAEC in the relevant market. Further, the Commission agreed with the submission of the Timex Group that its mandate is to service genuine watches only and it cannot offer warranty or after-sale services for a counterfeit product or a product without a document/invoice as proof of it being an original product. The Commission also noted that Timex Group was facing the menace of counterfeit products, especially on account of online retailers. Since Timex Group suspected the Informant of indulging in counterfeiting of its products, any refusal to deal on this account cannot be termed as anti-competitive.</p>	
E-Commerce Sector – Pending Cases	Jasper Infotech (Snapdeal) vs. Kaff Appliances	<p>This case involved alleged imposition of resale price maintenance by a kitchen appliance manufacturer (Kaff) on an e-portal (Sanpdeal). Kaff Appliances was aggrieved by the displaying of its products on Snapdeal's web portal at a discounted price. Eventually, Kaff Appliances displayed a 'caution notice' on its website stating that the products sold by Snapdeal are counterfeit and not authorized by it. Further, it was stated that Kaff Appliances will not honour the warranties of the products in its brand name sold through the platform of Snapdeal and any purchase made from Snapdeal shall be at the risk of the consumers. Lastly, an email from an official of Kaff Appliances was enclosed by Snapdeal evidencing how Kaff Appliances warned Snapdeal that if the 'Market Operating Price' of its products was not maintained then Kaff Appliances will not allow the sale of its products to Snapdeal either by authorized or unauthorized dealers or distributors. Snapdeal alleged that the said email amounted to resale price maintenance.</p> <p>The CCI eventually ordered an investigation by the Director General as it found the email of Kaff Appliances as prima facie in</p>	Case No. 61 of 2014

		violation of the provision relating to resale price maintenance (Section 3(4)(e) read with Section 3(1) of the Competition Act, 2002). The initial investigation report in this case was received in 31.03.2017. However, the CCI sent it back for supplementary investigation as certain areas were left out during investigation. The supplementary investigation report has been received in August 2018 and the matter is under the consideration of the Commission at present.	
Web based search services	Matrimony.com Limited Vs. Google LLC & Others	<p>Google was found to abuse its dominant position on the following three counts:</p> <ol style="list-style-type: none"> 1. Ranking of Universal Results prior to 2010 which was not strictly determined by relevance. Rather the rankings were pre-determined to trigger at the 1st, 4th or 10th position on the SERP. Such practice of Google was unfair to the users and was in contravention of the provisions of Section 4(2)(a)(i) of the Act. 2. Prominent display and placement of Commercial Flight Unit with link to Google's specialised search options/ services (Flight) amounts to an unfair imposition upon users of search services as it deprives them of additional choices and thereby such conduct is in contravention of the provisions of Section 4(2)(a)(i) of the Act 3. The prohibitions imposed under the negotiated search intermediation agreements upon the publishers were found to be unfair as they restrict the choice of these partners and prevent them from using the search services provided by competing search engines. Imposing of unfair conditions on such publishers by Google ; using its dominance in the market for online general web search to strengthen its position in the market for online syndicate search services and denial of access to competitors to the online search syndication services market, were in contravention of Section 4(2)(a), (e) and (c) of the Act. <p>Accordingly, the Commission ordered Google to not enforce the restrictive clauses with immediate effect in its negotiated direct search intermediation agreements with Indian partners. Further, the Commission directed Google to display a disclaimer in the commercial flight unit box indicating clearly that the "search flights" link placed at the bottom leads to Google's Flights page, and not the results aggregated by any other third party service provider. In addition to that, monetary penalty of 1.35 billion rupees was also levied on Google.</p>	Case Nos. 07& 30 of 2012

3.4 South Africa

The Telkom Cases

Telkom is the former state-owned monopoly fixed line provider. It supplies upstream fixed line infrastructure to downstream suppliers who utilise fixed line infrastructure as a backbone to deliver value added network services (“VANS”) such as internet access and VPN. Telkom is also active downstream and competes in the downstream market for the provision of VANS. The Commission has investigated two sets of complaint, alleging similar conduct, against Telkom.

The first case: In 2004, the Commission referred a complaint against Telkom to the Tribunal alleging that Telkom had abused its dominance by: i) Refusing to supply essential access facilities to rival VANS providers, ii) Inducing customers not to deal with competing VANS, iii) Charging their customers excessive prices for access services, and iv) Discriminating in favour of its own customers by giving them a discount on distance related charges which it did not advance to customers of the rival VANS providers.

In August 2012, the Tribunal found that Telkom’s conduct did amount to a refusal to supply access to essential access facilities and inducement and that the conduct had resulted in a substantial lessening or prevention of competition in the VANS market. Thus, the Tribunal ruled in favour of the Commission in terms of Telkom’s non-pricing practices but made no findings in relation to Telkom’s alleged pricing practices. The Tribunal imposed an administrative penalty of R449 million.

The second case: Between 2005 and 2006 the Commission received additional complaints against Telkom from Internet Solutions (“IS”), Internet Service Providers Association (“ISPA”) and Verizon South Africa. Similar to the earlier complaints, these complainants also alleged that Telkom had abused its dominance upstream in the infrastructure market to engage in anti-competitive conduct in the downstream VANS market. Collectively, the complaints alleged that Telkom’s conduct included excessive pricing of certain upstream infrastructure inputs, refusal to supply essential access facilities to independent VANS, engaging in margin squeeze/raising rival’s costs, inducing customers not to deal with downstream competing VANS providers and tying and bundling of certain upstream and downstream services resulting in exclusion of downstream competing VANS.

In October 2009, the Commission referred a consolidated complaint to the Tribunal. In particular, the Commission referred to the Tribunal conduct characterised as a contravention of sections 8(a), 8(b), 8(c) and 8(d)(iii) of the Competition Act. Notably, the pricing conduct referred to the Tribunal in October 2009 was similar to the conduct referred in 2004. In 2012, the Commission and Telkom began settlement discussions which were confirmed by the Tribunal in July 2013.

The essence of the Settlement Agreement was that Telkom would ensure the nondiscriminatory treatment of its downstream rival VANS and allow for the monitoring of its conduct. This resulted in Telkom implementing a functional separation between the supply of upstream fixed line infrastructure and the supply of downstream managed network services. The Settlement Agreement also included a pricing program outlining how prices of upstream products would be determined as well as committed price reductions in certain products over an agreed period of time.

4. Final Remarks

This Report enables some conclusions on how the BRICS countries under consideration in this Report have been conducting the respective competition policies in light of the digital era.

The Competition Authorities have been, within their own agendas, conducting internal studies and assessments to evaluate whether the respective competition law and policy continue fit for the task in a fast-moving digital economy. In general, Competition Authorities converge in the view that the existing legal framework provides enough room for adaptation. In this sense, so far, the Competition Authorities have been able to respond to the challenges posed by digital markets on a case-by-case basis, which include, for example, business models operating on zero-price offers and multi-sided markets that act as marketplaces offering not only the infrastructure but their own products as well. Competition Authorities have also been increasingly dealing with elements such as privacy, consumer choice and dynamic competition in their competition assessment. These have been addressed so far through the existing analytical tools and legal framework.

On the other hand, there are substantive and procedural challenges that might need to be addressed by changes to the existing legal framework, such as the accountability in anticompetitive conducts using pricing algorithms, or the classification of new business models arising within the digital economy. Some authorities, such as the FAS of Russia, have been keener to conduct changes to the existing framework through amendments to its current laws. Others, such as CADE, have decided to further evaluate how to adapt competition policy to the digital era, if needed be.

An important convergence by Competition Authorities was that the multifaceted and global nature of the digital economy calls for increased cooperation, both in the domestic arena, as well as in international fora. In a domestic level, the different dimensions affected by disruptive markets, such as privacy, consumer protection and competition, usually have to be dealt with by different authorities. This calls for cooperation and coordination in the domestic sphere. The borderless nature of digital economy, in turn, requires international cooperation, especially in the designing of remedies that will potentially affect various jurisdictions.

As a non-exhaustive work, there are important subjects that were not covered in-depth by this Report. They include, but are not limited to intellectual property rights and its interplay with competition policy in the digital economy; insights from behavioral economics and the effect of conglomerates and potential competition. The design of effective remedies and the interplay between the different realms to address the issues (regulatory and competition) have also been in the agenda for future discussion among the Competition Authorities.

Although it has not been object of this Report, the Competition Authorities also agree on the need for further empirical evidence to base its policy and case decisions. In this sense, ex-post analysis, market studies and competition assessment of public policies play a crucial role in producing empirical evidence to enhance and support decision-making for competition policy in the BRICS' respective jurisdictions. This is being addressed internally by each Competition Authority and will hopefully be object of future joint work within the Working Group on Digital Economy.

To conclude, as mentioned earlier, the aim of this Report was not to provide normative answers to how the Competition Authorities should deal with the digital economy, but rather to understand how they have been dealing with selected aspects of competition policy in light of the innovations brought forth by the digital economy. As such, this Report contributed to its primary aim of enhancing mutual understanding on competition enforcement practices in place in each of the countries herein involved.

With the publication of this Report, we hope to stimulate debate on the issues covered herein and remain open to further discuss the development of competition law and policy in the digital era in the BRICS with the academia, practitioners and other competition authorities worldwide.

Annex

Questionnaires Transcription

This Annex presents the transcription of the Competition Authority's replies to the questionnaire circulated within the BRICS Authorities Working Group for the Digital Economy, which provided the basis for the comparative analysis presented in this report.

Annex I

- Brazil -

I. General Questions: the Digital Ecosystem

1. Who are the internet giants in your country? In which markets (both online and offline) do they operate?

In Brazil, many companies operating in different sectors of the digital economy could be classified as having a significant presence in the digital landscape, either because they dominate the market for internet access (companies known as internet service providers, or ISPs) or because they control key internet platforms, in which they offer products and services to a large number of internet users (companies known as internet application providers).

Regarding ISPs, data published by the telecommunication portal *Telco* shows that three groups concentrate 75.61% of the broadband internet provision in Brazil: Claro (30.09%), Vivo (25.28%), and Oi (20.24%)¹². The market for mobile internet connection is also concentrated, with 97.70% of the market on the hands of four groups: Vivo (30.20%), Claro (26.98%), Tim (24.37%), and Oi (16.15%).

Regarding content and application providers, in Brazil, as in the rest of the world, Google reigns as the most accessed website. According to the database Alexa, developed by Amazon,¹³ some of the most popular websites in Brazil as for September 2018 are the following:

1. Google.com.br	6. Live.com	11. Instagram.com
2. Google.com	7. Uol.com.br	12. Blogspot.com
3. Youtube.com	8. Otvfoco.com.br	13. Wikipedia.org
4. Facebook.com	9. Mercadolivre.com.br	14. Whatsapp.com
5. Globo.com	10. Yahoo.com	15. Netflix.com

¹² Available at: <http://www.teleco.com.br/blarga.asp> (last access 27 September 2018).

¹³ Available at: <https://www.alexa.com/topsites/countries/BR> (last access 27 September 2018).

The operation of internet companies and platforms, however, is not restricted to web browsing. The report 'Survey on the Use of Information and Communication Technologies in Brazilian Households', published by the Brazilian Internet Steering Committee (CGI.br), shows that half of the Brazilian population access the internet exclusively via mobile phones (58.7 million people)¹⁴. Data from StatCounter indicates that Google Android is the distant leader in the smartphone market, responding for 86.6% of Mobile OS market share, with Apple holding 13.4%¹⁵. In terms of devices, Samsung leads the market with a 40% share, followed by Motorola (20%) and Apple (13.4%).

In addition, according to the report 'Brazil 2018: Perspectives of the Digital Market' (*Brasil 2018: Perspectivas do Mercado Digital*), published by the company ComScore Brazil, mobile internet users spend 80% of their online time on apps, of which 95% is spent on social media applications¹⁶. Thus, the use of mobile phone applications is also relevant to identify companies with a significant presence in Brazil.

The report 'Concentration and Diversity on the Internet: A study of the application and content layer' (*Concentração e Diversidade na Internet: um estudo da camada de aplicações e conteúdos*), published by the civil society organisation Intervezes, examined the apps with the highest numbers of downloads from application stores in Brazil.¹⁷ Facebook Inc. controls six (6) of the thirteen (13) most downloaded apps examined: Facebook, FB Lite, FB Messenger, FB Messenger Lite, WhatsApp, and Instagram. Considering the number of downloads, the dominance of the company is even more evident: Facebook is responsible for 85% of the total number of downloads on Play Store (Android's app store). Intervezes' list is complemented by Snapchat, Spotify, Google, Netflix and Pinterest, each of which have around 5% of the total number of downloads. When analysing this data, however, it is important to highlight that many Android devices (as seen above the majority of Brazilian smartphones) come with applications from Google preinstalled, including Google Search, YouTube, and GoogleMaps. Therefore, the number of downloads is not necessarily the best measure of mobile dominance, requiring additional info.

¹⁴ Available at: https://cetic.br/media/docs/publicacoes/2/TIC_DOM_2016_LivroEletronico.pdf (last access 27 September 2018).

¹⁵ Available at <http://gs.statcounter.com/vendor-market-share/mobile/brazil>

¹⁶ Available at: <https://www.comscore.com/Insights/Presentations-and-Whitepapers/2018/Perspectivas-do-Cenario-Digital-Brasil-2018> (in Portuguese, last access 26 September 2018).

¹⁷ Available at: <http://monopoliosdigitais.com.br/site/> (in Portuguese, last access 26 September 2018).

The Brazilian Institute of Public Opinion and Statistics (*Ibope*, in the acronym in Portuguese) recently conducted surveys about the use of internet platforms and applications in Brazil. The CONECTA research shows that WhatsApp is the most used social media application in Brazil: 91% of mobile internet users are also WhatsApp users.¹⁸ Facebook comes second (86%), followed by Instagram (60%), Messenger (59%), Twitter (28%), Skype (25%), Snapchat (18%), and Telegram (10%).

The CONECTA research also shows that 62% of mobile users in Brazil have at least one e-commerce app installed on their phones. Mercado Livre and OLX are the most popular ones, with 34% of users each. Buscapé (10%), Peixe Urbano (9%), and Groupon (7%) were also mentioned.¹⁹ Regarding ride-hailing apps, Ibope shows that Uber is the most popular one, used by 54% of Brazilian mobile internet users. 99Taxis comes in second (12%), followed by EasyTaxi (5%), and Cabify (4%). Regarding GPS apps, Google Maps is the favourite one, with 85% of mobile internet users, followed by Waze, with 25%.²⁰ Thus, the landscape can be summarised as follows:

Table 1. Non-exhaustive exemplificative list of main companies operating in digital markets in Brazil in specific sectors

Internet service providers	Mobile	Vivo, Claro, Tim, Oi
	Broadband	Claro, Vivo, Oi
Internet application providers	Search engines	Google
	Video streaming	YouTube, Netflix
	E-commerce	Mercado Livre, OLX, Buscapé, Peixe Urbano, Groupon
	Social media	Facebook, Instagram, Snapchat, Twitter
	Messaging	WhatsApp, Telegram, Skype
	Hardware and software	Samsung, Google, Microsoft, Apple
	Ride-hailing	Uber, 99Taxis, Easy Taxi, Cabify
	Online publishers/portals	Globo.com, Live, UOL
	GPS/Maps	Google Maps, Waze

¹⁸ Available at: <http://www.ibopeinteligencia.com/noticias-e-pesquisas/whatsapp-e-o-app-de-rede-social-mais-usado-pelos-internautas-brasileiros/> (in Portuguese, last access 26 September 2018).

¹⁹ Available at: <http://www.ibopeinteligencia.com/noticias-e-pesquisas/62-dos-internautas-brasileiros-tem-app-de-compras-em-seus-smartphones/> (in Portuguese, last access 26 September 2018).

²⁰ Available at: <http://www.ibopeinteligencia.com/noticias-e-pesquisas/uber-e-o-aplicativo-de-transporte-de-passageiro-mais-usado-no-brasil/> (in Portuguese, last access 26 September 2018).

2. Do the activities of any of these internet giants raise specific competition concerns in any of these markets? Please provide examples of such activities.

Google. Google's activities have been investigated by CADE, with allegations related to abuse of dominant position as a search engine by allegedly giving illegal advantage to its own comparison shopping engine (Administrative Proceeding²¹ 08012.010483/2011-94). Google was also under investigation for allegedly scraping content from downstream competing price comparison sites (e.g. reviews provided by users of the site Buscapé) to improve the results of its own comparison shopping engine. A third investigation involving Google in Brazil related to possible anticompetitive practices in its advertisement tool (AdWords), which prevented advertisers from transferring data from Google's platform to competitors' sponsored search platforms, preventing multihoming and illegally restricting competition. These three cases were dismissed by the Tribunal due to lack of evidence, though the Shopping investigation was a 3x3 split vote, with CADE's President using its powers to untie the vote. Recently, CADE has opened an investigation involving Google, with regard to an alleged use of the Android Operating System. The fifth investigation relates to a potential abuse of dominance by Google involving the use of third parties' content to leverage its own platforms, such as Google Shopping and Google News. Information on these last two cases is restricted and the investigations are under way.

Microsoft. The majority of cases involving Microsoft analyzed by CADE were related to mergers and acquisitions. More recently, CADE cleared the acquisition of 100% of Skype Global shares by Microsoft Corporation. Both companies sell software that allows users to exchange text, voice and video messages in real time through the internet. The acquisition

²¹ There are different types of procedures applicable to investigations of anticompetitive conducts in the Brazilian Competition Policy System. These are: (i) Preparatory Procedure of Administrative Inquiry ("Preparatory Procedure"); (ii) Administrative Inquiry and (iii) Administrative Proceeding for the Imposition of Administrative Sanctions for Violations of the Economic Order. In sum according to CADE's Bylaws (Section II, articles 138 to 161), the Preparatory Procedure is used by the General Superintendence when analyzing whether the conduct falls under CADE's jurisdiction. The Administrative Inquiry is applicable when the General Superintendence understood there is room for further investigation but not enough evidence to initiate an Administrative Proceeding. The Administrative Proceeding, at last, is applicable when the General Superintendence has enough information to bring formal charges against the investigated party. Among the three proceedings, the Administrative Proceeding is the only one which constitutes an adversarial proceeding, with parties exercising its rights to due process and full defense. Also according to CADE's Bylaw, the decision on which procedure will be used for the investigation pertains solely to the General Superintendence (Article 134, CADE's Bylaws).

enabled the integration of Skype with the products and services that Microsoft offers to consumers, such as Windows Live Messenger and Hotmail. The parties informed Cade that after the approval of the transaction, Skype would continue to be offered to consumers without charge. Additionally, Microsoft affirmed that there would be no harm to other companies that offer products with the same characteristic and purpose and the use of Skype will be expanded to television and other platforms and devices such as Xbox and Kinect. The Reporting Commissioner found that Skype market share was not significant as compared to the instant messengers market via internet communicators (Merger Review 08012.006188/2011-33). The transaction was cleared without restrictions. In the case involving Microsoft's acquisition of LinkedIn, CADE considered that both companies held small participations in the relevant market and the transaction would not result in horizontal or vertical overlap in the market. The case was approved without restrictions (Merger Review 08700.006084/2016-85). Microsoft also submitted to CADE a cooperation agreement with Yahoo! through which, on the one hand, Microsoft would offer Yahoo! technology for algorithmic search and sponsored search services as well as contextual advertising services and, on the other hand, Yahoo would become the exclusive global sales and relationship manager for premium search advertisers of both companies. The transaction was cleared without restrictions (Merger Review 08012.006419/2009-94)..

Uber. CADE analyzed two proceedings related to Uber's activities in Brazil. In one of them, taxi drivers' unions presented a case against Uber alleging unfair competition and violations to the economic order (Preparatory Procedure 08700.004530/2015-36). CADE found no evidences of violation of competition law and recently closed the case. The other case involved allegations regarding alleged abusive coordinated pressure for the exclusion of competitors and sham litigation (Administrative Proceeding 08700.006964/2015-71). After conducting a preliminary investigation, however, CADE considered the allegations unsubstantiated and the case was closed.

Internet service providers (ISPs). CADE has recently analyzed a case that raised specific competition concerns within the telecommunication sector. The Federal Public Prosecutor Office (MPF) presented a claim arguing that Brazilian biggest ISPs were restricting competition through their differentiated pricing policies and discriminatory

treatment of content and applications, through the offer of zero-rating deals. According to the MPF, the companies Claro, Vivo, TIM and Oi, which together control almost the entire market of mobile internet provision, were adopting discriminatory practices by offering internet access plans with privileged conditions for certain content and applications (e.g. Facebook and WhatsApp). After preliminary investigations, however, the General Superintendence (SG) did not find enough evidences to open a formal proceeding and the case was dismissed (Administrative Inquiry 08700.004314/2016-71).

Additionally, CADE is aware of investigations taking place in other jurisdictions and share some of the concerns of other competition authorities. For example, CADE is aware of concerns recently raised by the European Commission about Amazon's relationship with third-party suppliers and the adoption of clauses that could potentially harm competition, such as MFN or exclusivity agreements.

3. In the digital ecosystem, which markets are prone to raise competition concerns in your country? Please describe.

Markets dominated by single players are object of special attention by competition enforcers. For example, in 2017, Google had a market share of 97.05% in the market for general internet search in Brazil,²² which would make the company's activities towards horizontally or vertically related companies in the market object of special antitrust scrutiny. CADE is also attentive to possible predatory practices by incumbent companies.

In general, key companies in the digital economy control important internet platforms that operate as multi-sided markets. Many of these online multi-sided markets present features that make them more susceptible to competition concerns, such as strong networks effects (network externalities), high switching costs for users, susceptibility to foreclosure and aspects related to the definition of relevant market and market power. Platforms also often present particular pricing dynamics, which challenge conventional economic analysis.

²² Market share presented in technical opinions issued by the SG in two cases involving Google (Administrative Proceeding 08700.005694/2013-19 and Administrative Proceeding 08700.009082/2013-03). The information was obtained from StatCounter at <http://gs.statcounter.com/search-engine-market-share/all/brazil/#yearly-2014-2017> (last accessed on 15 Aug 2017) and was not contested by Google.

II. Legal Framework

1. What is the legal framework concerning competition policy your country?
What are the main government bodies in your country responsible for competition enforcement?

In Brazil, the legal framework for competition enforcement is set out by Law N. 12.529/2011, which structures the Brazilian Competition Defense System (SBDC) and sets forth preventive measures and sanctions for violations against the economic order. CADE's Internal Regulation (RICADE) and other Resolutions issued by CADE are also part of the legal framework.

The main body responsible for competition enforcement in Brazil is the Administrative Council for Economic Defense (*Conselho Administrativo de Defesa Econômica* – CADE), an independent agency reporting to the Ministry of Justice. CADE is composed by three bodies: (i) the Administrative Tribunal for Economic Defense, (ii) the General Superintendence, and (iii) the Department of Economic Studies. There is also a Specialized Attorney General's Office associated with CADE.

CADE has a strong agenda of domestic cooperation with other national authorities, such as the Federal Prosecution and regulatory agencies. Therefore, in cases involving regulated sectors, CADE usually acts in cooperation with the regulatory agencies of the sector involved, such as ANATEL (National Telecommunications Agency) for cases in the telecommunications sector, and ANCINE (National Film Agency) for cases involving content production. Exceptionally, in cases involving the banking and financial sector, the Brazilian Central Bank (*Banco Central do Brasil* – BACEN) is also responsible for giving a green light in merges.

2. Did you undertake any recent (or are you considering) legislation alteration to adapt to the digital economies, such as expanding the threshold for the merger to be reviewed?

At the moment, no formal changes in the legislation are being considered in order to specifically address the digital economy. As for mergers in the digital economy, the Brazilian Competition Law provides CADE with the possibility of reviewing transactions that

do not meet the filing requirements (in Brazil, based on parties' total turnover in the year preceding the transaction). The Brazilian Competition Law also grants CADE significant powers to conduct investigations on practices that may adversely impact markets – including those undertaken within the digital economy.

Nonetheless, CADE is constantly studying and reevaluating its activities in order to identify opportunities to enhance its practices.

3. Which do you consider the main challenges regarding the digital economy in your country?

For CADE, the main challenge in the context of the digital economy is how to intervene in highly dynamic markets. In such markets, on the one hand, intervention might be necessary to protect competition and consumers, and, on the other hand, it might hamper innovation or have unintended exclusionary effects. In high-technology markets where innovation is markedly more dynamic, estimating the long-run effects of competition policy intervention and tailoring measures that are fit for the specificities of the digital economy are particularly challenging tasks.

Digital platforms often present particular pricing dynamics, as services and products are usually offered to one side of the market at a monetary price of zero. The definition of relevant market, the assessment of market power (and many of the proxy measures such as market share, marginal costs, or the SSNIP test) are not easily applicable to multi-sided markets. Also, a platform operates simultaneously with different interdependent customer groups, which make the review more complex.

Moreover, there are new ways through which abuse of dominance might take place in the digital economy. For example, there are concerns about data concentration and its effects to competition and barriers of entry, as well as on the adoption of clauses which might unduly restrict competition by companies of the digital economy. In this sense, practices such as limitations to multi-homing (Administrative Proceeding 08700.005694/2013-19) or the adoption of MFN clauses (Administrative Inquiry 08700.005679/2016-13) are examples of cases that were investigated by the Brazilian Competition Authority.

Furthermore, the digital economy opens up the possibility of discriminatory treatment based on users' data. Personal data collected and processed by companies reveal

a great deal about users' preferences and characteristics, which in turn allows the employment of highly tailored and segmented profiling technologies, such as microtargeting or geotagging. These technologies make it possible to restrict competition and prevent users from accessing certain goods or services based on their personal features.

The dynamics of digital platforms also give rise to a close relationship between privacy and competition policy, which challenges traditional competition policy. Thus, there are also coordination challenges emerging from the relationship of competition policy with other regulations, such as data protection legislation.

III. Competition Cases involving digital markets

III.1 Mergers and Acquisitions

1. Did you review (or are currently reviewing) mergers and acquisitions in the digital economy in the last years? Which ones? In which markets? What were the conclusions? Did you require remedies?

One of the most relevant cases recently analyzed by CADE was the acquisition of XP Investimentos, a leading investment platform, by Itaú Unibanco, Brazil's biggest private bank (Merger Review 08700.004431/2017-16). There was a concern that the transaction could be part of a strategy adopted by an incumbent company to restrain a disruptive player, which had been gaining a significant share of the financial investment market in Brazil. On the other hand, considering the design of the deal, it could also be considered an attempt by the incumbent to enter in a new and promising market, through acquisition of shares of a 'fintech' in the sector. During the review, CADE identified concerns related to the independence of XP, to a possible reduction of XP's competitive pressure on the market, as well as to risks of discrimination or market foreclosure resulting from the reinforcement of vertical integrations between XP and Itaú. Therefore, CADE adopted remedies to limit how far Itaú could interfere with XP businesses and also to prevent the adoption of clauses which could have anticompetitive effects on other competing platforms. Ex-post, CADE

evidenced the transaction led to positive effects in the fintech sector, as many smaller platforms received significant investments.

CADE recently analyzed other M&As involving companies from the digital economy, which were approved without restrictions. For instance, in 2013, Google acquired shares from VEVO, triggering a review of the virtual advertising market by CADE. The online entertainment delivery market was regarded as the other side of the two-sided platform, since VEVO offers free entertainment to users and profits from advertisers. Google was considered the main player in the online advertising market, with revenues close to 60% of the market, while its share of the online entertainment market was considered small. Despite Google's high share in one of the markets, CADE considered that the transaction would not harm competition in either of them considering VEVO's market shares. The transaction was cleared without restrictions due to low concentration deriving from the deal and the fact that Google would not have the right to vote.

More recently, in 2016, CADE reviewed Microsoft's acquisition of the social network LinkedIn (Merger Review 08700.006084/2016-85). CADE noted that many forms of advertising (sponsored content, sponsored e-mail, dynamic adds, etc) were involved in the transaction. However, due to the low market share of both parties to the transaction in the markets involved, CADE did not perform an in-depth review of the case and cleared the transaction without restrictions.

Please refer to the part "Selected Cases" for further M&A cases and related documents.

III.2 Cartels

1. Did you analyse (or are currently analyzing) any collusive conduct or cartel case in digital markets? Which cases? Did you convict any of them? Among these cases, were there cases related to algorithmic collusion? If so, how were these cases investigated?

In 1999, CADE analyzed a collusive conduct case in which four Brazilian airlines (VARIG, TAM, Transbrasil, and VASP) made use of an automated system to coordinate price fixing agreements (Administrative Proceeding 08012.000677/99-70). In that case, CADE considered that there was no reasonable cause for the price fixing and the companies were

found guilty of organizing a cartel. The case was closed with an agreement in which the companies agreed to pay heavy fines in settlements with CADE.

In that case, CADE concluded that the cartel was facilitated by the use of a software tool provided by Airline Tariff Publishing Company (ATPCO). ATPCO controls a database that gathers and displays fare prices of the main airlines in the world and provides updates about competitors' pricing policies. CADE understood that ATPCO was used as a coordination system by the Brazilian airlines, which made the price fixing possible. Because of that, the company was also subject to a separate investigation (Administrative Proceeding 08012.002028/2002-24). In this case, CADE considered that ATPCO provided a 'private forum' in which competitors could indicate future fares through an information system which only competitors had access to. Thus, it facilitated anti-competitive practices even when there was not an explicit price fixing arrangement. The case was closed with a cease-and-desist agreement through which ATPCO agreed to implement changes to its system in order to prevent competitors to have access to competitors' fares too fast, and committed to send CADE reports of any system update or the implementation of any new functionality.

More recently, CADE has investigated a case in which driving schools and brokers were using a software in order to implement price fixing agreements (Administrative Proceeding 08012.011791/2010-56). The competitors hired an IT company to develop a software tool that would facilitate the cartel coordination. Consumers could only hire the services through a particular website, which would automatically invoice the price the companies had previously agreed with. CADE considered that there was a clear intention of developing an algorithm and a computer program to coordinate anticompetitive behaviour. The companies and the industry association were fined a total of 880 thousand Brazilian Reals in fines due to cartel behaviour.

In a similar case, two companies (ITV and AFACE) were investigated for being part of a cartel related to vehicle registration plates (Administrative Proceeding 08012.005660/2010-30). The companies used an electronic system (*Sistema de Placa Eletrônica*) provided by ITV in order to fix the prices of the plates, which were produced by AFACE. The system not only set the agreed prices but also prevented companies that were not part of the agreement from receiving orders, thus restricting customers' choice. Both companies were found guilty of cartel and fined by CADE.

In 2016, CADE started a preliminary proceeding in order to investigate Uber, due to allegations presented by the Public Prosecutor's Office from São Paulo and the Association of Autonomous App Drivers about violations against the economic order (Preparatory Procedure 08700.008318/2016-29). The main allegations were centred on Uber's business model that allegedly led to pricing and cartel and provided incentives for the adoption of uniform commercial conduct by the drivers, through its dynamic pricing algorithm. In 2018, CADE's General Superintendence concluded there were not enough evidences to open a formal proceeding against the company. However, the authority also noted that Uber's dynamic pricing tool might enable coordination of the drivers in order to raise prices artificially, which could be considered a cartel. Thus, the General Superintendence recommended the adoption, by Uber, of measures to improve competition, such as changes in the pricing tools of the app. One alternative, for example, would be the implementation of an auction mechanism, so that drivers could compete for rides by offering competitive fares.

2. Is algorithmic pricing legal in your country? Are there examples of algorithmic pricing in your jurisdiction? Do they raise competition concerns?

At the moment, there are no specific provisions regulating the use of algorithmic pricing in Brazil. The use of algorithms is legal as long as it does not lead to any form of anticompetitive behaviour (e.g. the cartel organized through algorithms described above). For example, an online travel agency (Decolar.com) was under judicial investigation and was recently fined by the Brazilian National Consumer Secretariat (Senacon) due to practices known as geopricing and geotagging, in which products were offered at very different prices to consumers depending on their location.

III.3 Unilateral Conducts

1. Did you analyse (or are currently analysing) unilateral conduct cases in the digital markets? Which cases? Did you convict any of them? Did you apply antitrust remedies?

CADE has been investigating unilateral conducts of companies in digital markets for many years²³. More recently, CADE opened five cases to investigate Google's conducts, with three of them closed this year. CADE investigated Google's activities with concerns related to the abuse of dominant position as a search engine by allegedly giving illegal advantage to its own comparison-shopping. Google was also under investigation for allegedly scraping content from downstream competing price comparison sites (e.g. reviews provided by users of the site Buscapé) to improve the results of its own comparison shopping engine. Google was also investigated for possible anticompetitive practices related to its advertisement tool (AdWords), which prevented advertisers from transferring data from Google's platform to competitors' sponsored search platforms, preventing multi-homing and illegally restricting competition. These three cases were closed by the Tribunal due to lack of evidence. Recently, CADE has opened an investigation involving an alleged use by Google of the Android Operating System. A fifth investigation relates to a potential abuse of dominance by Google involving the use of third parties' content to leverage its own platforms, such as Google Shopping and Google News. Information on these cases is restricted and the investigations are under way.

Another recent investigation of unilateral conduct in the digital market involved three major online travel agencies (OTAs) operating in Brazil (Booking, Expedia and Decolar) which were investigated due to the adoption of parity clauses, also known as most-favoured-nation clauses (MFN) (Administrative Inquiry 08700.005679/2016-13). According to the General Superintendence, such clauses may restrict competition between the OTAs in question and other OTAs and hinder new platforms from entering the market. The case

²³ One of the most recent investigations date back to 1998, when CADE started a high profile proceeding to investigate allegations that Microsoft had agreements with the company TBA Informática Ltda. regarding the exclusive retail and distribution of its products, which included the provision of software packages and services to the Brazilian government (Administrative Proceeding 08012.008024/1998-49). In 2004, the two companies were found guilty of violation against the economic order and were imposed a fine amounting to 5 million Brazilian Reals. According to the Reporting Commissioner of the case, the exclusivity agreement between the companies prevented the government from opening public procurement processes to buy software and prevented competition in the market.

was closed with cease-and-desist agreements involving all three companies, in which the companies agreed to cease the adoption of wide MFN clauses. The use of narrow clauses, however, was allowed so that the companies could request parity treatment with regard to websites of the accommodation providers. This conclusion was based on the understanding that prohibiting MFN clauses under all circumstances might give hotels incentives to free ride and offer deals at lower prices than the ones announced on the OTAs' platforms.

In 2018, CADE started investigations regarding exclusionary practices by traditional banks against emerging technology companies, especially companies offering financial services (such as crypto currency companies) known as 'fintechs' (Administrative Inquiry 08700.003599/2018-95). The General Superintendence is investigating allegations that Brazilian banks have been denying fintechs access to bank accounts and other traditional banking services in order to restrict competition in the financial market.

Other relevant unilateral conduct cases in the digital markets analyzed by CADE are described in "The Digital Ecosystem" section, question two (2), namely the Uber case and the investigation regarding zero rating agreements offered by ISPs.

IV The Antitrust Toolbox for the Digital Economy

IV.1 Applying Antitrust Concepts to the Digital Economy

1. How do you assess market power in the digital economy? For example, do you define relevant market in every case? In cases involving multi-sided platforms, how do you define relevant market and measure market power?

Whilst CADE understands that the assessment of market power in digital markets should not greatly differ from that made in other markets, it is important to acknowledge that multi-sided markets, either online or offline, present some particularities that may result in a more nuanced analysis. For CADE, an accurate analysis of the relevant market in multi-sided markets takes into account all interdependent groups of customers that a platform serves. Multi-sided markets are also subject to stronger network effects, both direct and indirect, which antitrust analysis also consider when assessing market power and potential anti-competitive effects.

As mentioned previously, Law 12.529/11 provides CADE with enough powers and flexibility with regard to the analytical tools used in the definition of relevant markets and assessment of market power, as well as in the collection and review of evidence in conduct investigations. For example, in the Microsoft/Yahoo merger of 2009, the relevant market was defined as the market for sponsored searches in Brazil (Merger Review 08012.006419/2009-94). The market for online advertisement was considered very different from other forms of advertisement, since sponsored searches offer the possibility of tailoring the content to the interests of the consumer, different from other forms of target advertisement. When assessing the market in the Buscapé/Bondfaro merger of 2006 (Merger Review 08012.005478/2006-01) other definitions of online advertisement markets were considered, including sponsored links, banners, and directed emails. In that case, the Reporting Commissioner argued that such markets are highly dynamic and the cases should be assessed considering the characteristics of the players involved in each particular context. In that case, two relevant markets were analysed: (i) the national market of online advertising; and (ii) the national market of online price search and comparison. In the Administrative Proceeding between Google and Buscapé (08012.010483/2011-94) that involved allegations of abuse of dominant position related to Google's comparison-shopping engine, the analysis detailed the market of price search and comparison and the possible scenarios for the review. Two markets were considered for the product dimension: (i) generic search engines; and (ii) price comparison engines (thematic search – price comparison). Both markets were considered national in the geographic dimension. The generic search market was analysed considering both the users' perspective (as a market including only generic search websites) and the advertisers' perspective, as a market involving any advertising in search mechanisms directed to users interested in purchasing a product. The price comparison market, in turn, was analysed from the users' perspective, involving only price comparison services, and from the advertisers/retailers' perspective, involving Google, as well as other specific websites of price comparison, due to its product advertising to users interested in marking a purchase.

Also recently, CADE's General Superintendence cleared Buscapé's acquisition by Mosaico S.A., which resulted in the horizontal overlap between the services of online price search and comparison from the user/consumer's perspective, and in the provision of space for online advertising from the retailer/advertiser's perspective. In this merger, the General

Superintendence noted that nowadays, Google's general search can create results that work like a price comparison function, and marketplaces currently operating in Brazil can also work as comparison services, as they gather various suppliers in their platform. Therefore, CADE concluded that Google's universal search functionality is very similar to a marketplace, with a tendency to develop to a marketplace *per se*. CADE also noted that social medias' share in online advertising has been facing exponential growth. CADE considered important to analyse both sides of the platform: retailers and consumers, due to mutual network effects to consumers and advertisers. The competition review thus considered two market scenarios: (i) national market of online advertising analysed from the advertisers' perspective and (ii) national market of price search and comparison, analysed from the consumers' perspective. These scenarios considered Google, social media, marketplaces and price comparison websites as part of the same relevant market. CADE observed, however, that due to the complexity and dynamism of the sector, this definition related specifically to this merger and should be reevaluated in future cases.

2. In your jurisdiction, what is the role of innovation and dynamic competition in the analysis of antitrust cases involving digital economies?

As previously noted, one of the challenges of antitrust enforcement in highly innovative markets consists in estimating the long-run effects of antitrust intervention. CADE understands innovation and dynamic competition should be assessed on a case-by-case basis, taking into account the business reality and the particularities of all sides of the markets. It is also important to consider the extent to which a company will continue having incentives to innovate after the approval of a merger or acquisition. For example, the Itaú/XP merger described previously involved a disruptive player being partially acquired by a traditional player. This case raised concerns, among others, about the suppression of potential competition that could have been imposed by XP if it were not for the transaction. These concerns were addressed mostly through behavioural remedies aimed at ensuring the independence of XP.

Innovation and dynamic competition also integrate part of the analysis on conduct cases in digital markets. In the investigation involving fintechs, for example, CADE is analysing if the traditional banks could be using their market power to limit or impair the activities of disruptive companies by restricting their access to banking services.

3. How is your agency analysing the recent trend of acquisitions of new born companies in the digital economy by incumbents?

The acquisition of new born companies is usually not subject to *ex-ante* analysis in Brazil due to the mandatory filing thresholds, that are based on a company (or its group)'s turnover in the country in the year preceding the transaction. Nonetheless, the Brazilian legislation gives CADE the prerogative of reviewing any transaction within one year as of the execution of the transaction, even when it does not trigger the mandatory filing thresholds. Thus, CADE conducts monitoring of the market through sectorial units and might request the filing of transactions that could have a negative effect on competition.

While acquisitions of new players by incumbents may pose the risk of eliminating potential competition, it may also lead to know-how and technology transfer from the traditional company to the newcomer, which could have positive impacts to innovation and competition. CADE is also aware that it is important to consider the risks of any restrictive policy regarding M&A, as it might discourage innovation, since many new companies perceive the acquisition by a significant player as an important exit strategy.

4. Have you analysed (or are you analysing) cases in which the incumbent firms use their market power to impose anticompetitive barriers to entrants in the digital economy? If yes, how is your agency dealing with these cases?

CADE has been diligently monitoring attempts by incumbent firms to use their market power to prevent new companies to enter the market. Oftentimes, incumbents control key market structures, which alongside with their market power give them significant power to control the market, for example by controlling how companies access strategic information or connect with key users. In the financial sector, for instance, as mentioned before, there are on-going proceedings to investigate possible exclusionary practices adopted by traditional banks towards *fintechs*.

5. Do you consider traditional antitrust tools and methods suitable to properly analyse digital markets? Do we need innovation in antitrust analysis as well?

Concepts such as network effects, switching costs, abuse of dominance position and market definition become more nuanced in the context of the digital economy. However, the Brazilian legal framework leaves enough room for adapting the existing tools. Therefore, CADE considers that the current toolkit has been suitable to analyse cases involving digital market so far.

Nonetheless, CADE also recognises that due to the rapid pace of innovation and transformation of the digital economy, legal and economic concepts employed by competition policy need to be constantly studied and reviewed. In that sense, CADE constantly attentive to whether competition policy remains well-equipped to perform its role and to identify areas in which adaptation may be required.

IV.2 Big Data and Competition Law

1. What is the importance of big data for competition in the digital economy in your view?

In the digital economy, large amounts of data about the user's preferences and characteristics (also known as *big data*) are crucial to inform the creation of content that is better tailored to people's interests and also for the development of more efficient products and services. Information harvested by companies, thus, can contribute to the reduction of production costs and to quality improvements in such markets. In contrast, precisely because collection and processing of data are key to digital markets, restrictions in access to data can often lead to a decrease in competition. Lack of data can prevent companies from building a critical database, or from offering goods and services at competitive levels, which makes them less likely to survive in data-driven markets, leading to a decrease in competition.

However, these are only a few of the elements regarding the importance of big data for competition. As new technologies and uses involving collection and processing of data are in constant and rapid evolution, new challenges and possibilities related to competition constantly arise. For example, artificial intelligence and machine learning technologies are still in relatively early stages of development but have the potential of spreading across

different industries and sectors, bringing with them concerns (such as discriminatory practices) but also promises of enhanced efficiency and productivity.

2. Have you faced competition problems regarding data flows, data processing or big data analytics? If so, please inform if the problems were related to any one of the alternatives below or any other issues regarding competition law:
 - a. Big data as a source of market power;
 - b. Big data as entry barriers;
 - c. Big data and exclusionary conducts;
 - d. Big data and algorithmic collusion.

The collection and processing of data through information and communication technologies has been subject of intense discussions worldwide and CADE has also shown concerns about the effect of big data on competition. The digital economy is based on intense flow of data and information through the internet. In this context, users' data, such as browsing histories and preferences, have become an important asset for companies in the digital economy. As access to data is a determinant of which companies succeed in these markets, the variety and speed of capturing and harnessing data are also relevant sources of market power.

In the case *Google vs. Buscapé/Bondfaro*, CADE discussed how big data has become a relevant competitive factor. According to documents from the case, the availability and access to data make it possible for both companies to leverage assets and extract value from them, selling information about consumers' patterns and behaviour to advertisement companies (Administrative Proceeding 08700.009082/2013-03).

In 2016, CADE analysed a case in which Brazil's leading banks formed a joint venture for credit scoring (Merger Review 08700.002792/2016-47). Credit scoring companies are multi-sided markets with strong network effects. Financial institutions are the main suppliers of inputs (information about users' financial transactions) to credit bureaux, while they are also the main consumers of the bureaux's products (credit scores). CADE was concerned the deal would lead to vertical integration. In this case, CADE analyzed whether data (information about consumers) might act as an entry barrier. When data is also a source of market power, a dominant platform can leverage its user base in order to prevent potential

competitors to enter the market, which might lead to market foreclosure. The General Superintendence and the Reporting Commissioner of the case highlighted the risks of foreclosure in both the markets of positive and negative credit scoring, due to the great amount of consumers' data held by the proposing banks. Accordingly, one of the remedies agreed by the parties was the commitment that the banks would continue providing data to all credit bureaux, with no discrimination or provision of favourable treatment to their own bureau.

3. Do you have specific laws and specific authorities regarding data protection in your country?

In August 2018, Brazil enacted the Brazilian Data Protection Law (Law N. 13.709/2018, *Lei Geral de Proteção de Dados – LGPD*), which regulates the collection and treatment of personal data, defined as information relating to an identified or identifiable person. The LGPD introduces rights for data subjects, including the right to obtain information regarding the processing of data, the right to access, to rectify and delete data, and the right to data portability, which ensures users the right to transfer data across different providers of services and products. In 2019, the Brazilian Congress approved a modification to the LGPD Act, creating the National Data Protection Authority (Autoridade Nacional de Proteção de dados - ANPD), which will be in charge of drafting the guidelines to the National Personal Data and Privacy Protection Policy. This Law will only come into force in February 2020.

a. Is there any interplay between data protection and antitrust law/policy?

Personal data collected and processed by internet companies reveal a great deal about users' preferences and characteristics. On the one hand, companies might use data to improve the design and features of their own platforms, or to better tailor the marketing of products and services according to the specific interest of their customers. On the other hand, such technologies allow the employment of highly sophisticated segmentation, like micro targeting or geotagging, which in turn makes it possible to restrict competition and prevent users' access to certain goods or services based on their personal features.

Additionally, CADE is aware of the risks that the exploitation of big data by companies may pose to the protection of other users' rights, such as the right to privacy. Therefore, CADE understands that the dynamics of digital platforms give rise to a close relationship between data protection, privacy and competition policy. Accordingly, it is important to have an active co-operation and coordinated work between competition and other related authorities, such as Senacon (Consumer Protection Secretariat) or the now being-established Brazilian Data Protection Authority to deal with the multifaceted aspects of data in the digital world.

4. Do you have experience using data mining, screening methods or similar strategies to detect cartels or collusive conducts?

CADE acknowledges the importance of employing both reactive and proactive investigative methods to detect cartels or collusive conducts. Alongside CADE's large expertise with well-established tools, such as leniency agreements and international cooperation, the Brazilian Competition Authority is also interested in constantly updating its toolkit, especially in the context of the digital economy.

In that sense, since 2013 CADE has been working on the development of data mining techniques to detect violations of the economic order. The first stage of this initiative involved desk research about best practices related to the use of information technology to detect cartels and gather information both from other jurisdictions, as well as from other Brazilian public authorities with expertise in the use of big data, such as the Federal Court of Accounts (TCU), the Ministry of Inspection, Transparency and Control (MFTC) and the Council for Financial Activities Control (COAF).

The second stage of the project involved hiring consultants with specialised knowledge in statistics, IT and data mining, with the purpose of developing analytical tools. The development and the review of the proposed tools involved both CADE's cartel investigation team, as well as experts from the Department of Economic Studies, who designed the tools based on the highest investigative and technical standards available. The output of this project was the development of an interface called *Cérebro* (Brain, in Portuguese), that provides data mining tools and automates analyzes which were formerly conducted by human investigators and case handlers. This new tool helps identifying

evidence of cartels in public bids and provides an economic filter based on big data related to prices, costs, profit margins, market share, and spatial econometrics.

These data mining and screening tools are already in operation and undergoing steady improvement. CADE's experience with the development of *Cérebro* shows that proactive data mining and screening techniques for the detection of cartels are important and effective complements to reactive tools.

V. Market Studies, Guides and Other Documents

1. Has your agency conducted any market studies regarding digital economies? If so, are any of them publicly available?

All documents prepared by Cade to inform proceedings and decisions, such as technical reports, petitions and votes are publicly available online at the Electronic System of Information (*Sistema Eletrônico de Informações – SEI*) portal, which also provides a user-friendly search engine. All public documents related to the cases mentioned throughout this questionnaire are available at SEI and can be easily retrieved using as reference the proceeding numbers.

Also, CADE's Department of Economic Studies (DEE) regularly publishes studies that address topics related to the digital economy. In 2015, the DEE published two studies about the impacts of new technologies in the private transportation market. First, the DEE published the study "The market for individual passenger transportation: regulation, externalities and urban balance" (Working Paper 01/2015)²⁴. Later in the same year, the DEE published "Post entry rivalry - the immediate impact of Uber's app on taxi rides" (Working Paper 03/2015)²⁵.

More recently, in early 2018, the DEE published the updated version of the previous studies: "Competition effects of the sharing economy in Brazil: Has Uber's entry affected the cab-hailing app market from 2014 to 2016?" (Working Paper 01/2018)²⁶.

²⁴ Available online at: <http://en.cade.gov.br/topics/about-us/dee/working-paper-001-2015.pdf>.

²⁵ Available online at <http://en.cade.gov.br/topics/about-us/dee/working-paper-003-2015.pdf>.

²⁶ Available online at: available online at http://en.cade.gov.br/topics/about-us/dee/working-paper-uber_01-2018.pdf.

2. Do you have guides or reports on the digital economy?

CADE has not yet published any specific guide or report on the digital economy.

3. Have you relied on studies or documents from other agencies to guide your authority's approach to digital economy?

CADE's proceedings and investigations are informed by empirical evidence, information and documents obtained through international cooperation with other competition authorities upon waivers granted from parties to the transaction and academic literature. This also holds true for cases related to the digital economy. As an example, Cade's findings related to Google cases quote both rulings from the European Commission and the US Federal Trade Commission (FTC). It is also worth mentioning that documents from international organizations, such as the OECD's report 'Market definition in multi-sided markets' are also referenced by CADE when it comes to the analysis of platform markets.

Annex II

- Russia -

I. General Questions: the Digital Ecosystem

1. Who are the internet giants in your country? In which markets (both online and offline) do they operate?

Over the past ten years, domestic Internet giants such as Yandex, Mail.ru, Rambler Internet Holding have appeared in the Russian Federation. In addition, the global Internet giants Microsoft, Google, Apple and others operate in the Russian Federation.

It is worth noting that every year the influence of these companies on the economic life of businesses and consumers in the Russian Federation is increasing. At the same time, this influence extends not only to the information technology markets, but also often affects the entire production chain of goods (work, services), not limited to the IT market.

2. Do the activities of any of these internet giants raise specific competition concerns in any of these markets? Please provide examples of such activities.

The influence of Internet giants is achieved by the fact that at present they are simultaneously producers of software (applications), hardware (smartphones, tablets, laptops, personal computers, etc.) and related services (cloud services, app stores, delivery of goods, various payment instruments, etc.).

Thus, due to the diversification of their business models, Internet giants have the opportunity to influence not only the "traditional" markets in which they have risen, but also the associated ones.

Google

For example, in 2016, the FAS Russia examined the case against Google. The subject of consideration was the refusal of manufacturers of smartphones and tablet computers (hereinafter referred to as mobile devices), which preinstalled certain Yandex applications, as well as the Yandex browser as a default one on their mobile devices running the Android operating system (hereinafter, Android OS), from further cooperation with Yandex. This situation, according to the

applicant, has developed in view of the restrictions and prohibitions established for its counterparties (device manufacturers) by a competitor of Yandex - Google.

During the consideration of the case of the FAS Russia, it was established that Google is the owner of the Android OS, designed to ensure the functioning of mobile devices.

According to the results of the case, the FAS Russia found that Google, which dominates in the market of pre-installed Android application stores, provided its counterparties - manufacturers with the Google Play app store under the following conditions:

- Mandatory pre-installation in conjunction with the Google Play application store a collection of other Google applications, products, services;
- Mandatory pre-installation on mobile devices of Google as the default browser;
- Others.

As a result of such actions, the most effective channel for the distribution of application software — pre-installation on user mobile devices — turned out to be fully reserved by Google, which provided Google with a competitive advantage in the application software markets (mail, browser, etc.). (For more details please see the press release of the FAS Russia using following link <http://en.fas.gov.ru/press-center/news/detail.html?id=46765>).

Microsoft

In addition, in August 2017, the FAS Russia completed the consideration of a case on violation of antimonopoly legislation committed by Microsoft Corporation (complaint of Kaspersky Lab). In 2015, the Windows manufacturer did not give anti-virus software developers (including Kaspersky Lab) before launching the Windows 10 operating system enough time to ensure that their anti-virus applications are compatible with the new Windows 10 operating system.

During consideration of the complaint, it was found that Microsoft Corporation holds a dominant position in the market for providing operating systems for desktops and laptops for adapting application software.

The Microsoft Corporation, as the dominant entity in the market of the Windows operating system for software developers, influenced the software development market and thus created unequal conditions for the antivirus software produced by Kaspersky Lab comparing with the anti-virus software produced by Microsoft Corporation - Windows Defender. (For more details, please

see the press release of the FAS Russia using following link <http://en.fas.gov.ru/press-center/news/detail.html?id=50521>.

These examples of anticompetitive practices of Google and Microsoft in the Russian Federation show how the ownership of a single infrastructure platform (Google - Android OS, Microsoft - Windows) and abuse of this dominant position can affect the associated markets (development of applied antivirus, browser, email and other programs (applications) and the companies operating on them.

3. In the digital ecosystem, which markets are prone to raise competition concerns in your country? Please describe.

The digital economy is a modern reality that is developing and gaining momentum at a frenzied pace, ranging from explicitly digital goods / services (computer programs, big data, Internet platforms etc.) and extending to classical markets.

II. Legal Framework

1. What is the legal framework concerning competition policy your country? What are the main government bodies in your country responsible for competition enforcement?

The Federal Antimonopoly Service of the Russian Federation (the FAS Russia) is the main regulatory body related to competition enforcement. The main law is the Federal Law "On Protection of Competition" (as amended in 2016), adopted by the State Duma on July 8, 2006, approved by the Federation Council on July 14, 2006.

2. Did you undertake any recent (or are you considering to undertake) legislation alteration to adapt to the digital economies, such as expanding the threshold for the merger to be reviewed?

In conditions of rapid expansion of the digital economy, acceleration of the processes of globalization, development of innovation, the competition law requires amendments. The improvement of antimonopoly regulation in the digital age is considered one of the

fundamental principles of the state policy for the promotion of competition and economic growth.

In this regard, the FAS Russia drafted a federal law "On Amendments to the Federal Law "On Protection of Competition" and other legislative acts of the Russian Federation" (the so-called "fifth antimonopoly package")²⁷. The main legislative innovations address the following aspects:

a) Additional criteria should appear to classify owners of large infrastructure platforms, Internet platforms that have the appropriate market power as dominant business entities.

b) The tighter control over price algorithms that analyse markets, adjust the price and hence entail anticompetitive, particularly cartel agreements.

c) Strengthening of the requirements to control M&A transactions associated with the acquisition of technology or other intangible assets.

d) "Immunities" to the objects of intellectual property to be excluded from the application of competition legislation.

3. Which do you consider the main challenges regarding the digital economy in your country?

We believe the regulatory challenges regarding the digital economy are similar in most jurisdictions.

Nowadays, new markets appear. Also, traditional markets change their structure in digital conditions. Trade becomes e-trade. In all industrial sectors robot, machine learning become valuable assets. Transportation became human free, and fintech changed all financial markets in general. We face new velocities in every sector of economy, new velocities of changes in innovations, business decision making, market development, information exchange. One cannot argue that now there is also a totally new role of IP rights and data collection in all business processes.

We face new ways of attraction of consumers, of communication with consumers through individualization of B2P contact, through the personal data collection, through the important role of social networks in business processes and product placement. And all these processes are interactive, so the computers become a part of the business process in general.

²⁷ Available online at: <http://en.fas.gov.ru/documents/documentdetails.html?id=15345>.

Due to the processes of globalization and growing role of transnational corporations, global value chains, we have totally new geographical boundaries of the markets: of both new markets and traditional ones. All these new things we call digital economy.

What are the challenges?

- First of all, the process of data collection, processing and analysis creates added value, and at the same time it creates the market power.
- We have an enormous variety of the forms of monetization as the result of business activities.
- The velocity of market changes does not match the velocity of the response of competition authorities.
- In the modern life we have the high role of aggregators, platforms and algorithms.
- And the network effects issues are recognized and should be taken in mind in many M&A and many enforcement cases that we are dealing with.
- We recognize the IP rights as the barrier to market entry and the barrier to entrepreneurial activities in many industries.
- One of the most important problems in everyday life of competition authorities throughout the world is sort of a conflict between the global nature of business and the cross border violation of antimonopoly legislation and the national character of competition regulation.

III. Competition Cases involving digital markets

III.1 Mergers and Acquisitions

1. Did you review (or are currently reviewing) mergers and acquisitions in the digital economy in the last years? Which ones? In which markets? What were the conclusions? Did you require remedies?

Yandex/Uber

In 2017, the FAS Russia approved the merger (joint venture) of Uber and Yandex.Taxi. The FAS Russia conducted an analysis of the market of services for rendering information interaction between passengers and taxi drivers (the market of taxi aggregators), as well as held a number of meetings with participants of the Russian markets of taxi and taxi aggregators.

A survey of market participants showed that administrative barriers to entry are characterized as easily overcome.

Given the fact that the market of taxi aggregators is sufficiently young and significant changes and modernization take place in this market all the time, the FAS Russia concluded that currently there are no dominating organizations but Yandex and Uber have signs of dominance that may arise in the future.

In order to improve the conditions for the development of competition in the market for taxi aggregators and related markets, the FAS Russia issued an order to Yandex, Uber and their joint venture to implement actions aimed at optimizing the relationship between aggregators, taxi drivers and passengers. In particular, companies are required to provide the most complete and accessible information to users about a legal entity that carries out transportation with the preservation of the history of trips and does not impose a ban on partners, drivers and passengers to work with other taxis aggregators.

As part of the merger, the FAS Russia consulted with the competition authorities of Kazakhstan and Belarus based on the waivers received from the companies (for more details please see the press release of the FAS Russia using following link <http://en.fas.gov.ru/press-center/news/detail.html?id=52562>).

Bayer/Monsanto

In 2017-2018, the FAS has considered the merger between "Bayer AG" (Germany) and "Monsanto Company" (USA) and concluded a review of it in two phases: the competition analysis and the imposition of conditions on the merging company (7 November 2017) and the final approval of the merger (20 April 2018).

This merger affects the markets for the products used by agricultural producers including agricultural crops (seeds), certain crop protection products, in particular nonselective herbicides, as well as digital offerings for agriculture.

Both Bayer and Monsanto are vertically integrated full-cycle agrotechnology companies active in agrotechnology research and development as well as in the distribution and marketing of their products to agricultural producers.

The first phase of the review corresponded to the FAS decision to impose conditions on the merging company. The conditions put forward on November 7, 2017, contained requirements

to “Bayer AG” aimed at creating conditions for the development of potential competition from Russian companies.

In the course of this merger review, the FAS organized a series of consultations with the relevant federal authorities, as well as scientific and business communities, and foreign competition authorities. The FAS also met the parties of the merger in order to discuss the possible negative effects the merger could have on competition as well as remedies helping to eliminate them.

Considering that technological transformations, including digitalization worldwide, have become key to understanding competitive dynamics in the agricultural sector, the FAS has applied new methodological approaches to identify potential anticompetitive effects of the merger both in the Russian and global markets developed in cooperation with reputable academic institutions.

The FAS has conducted market analysis for the factors of agricultural production relevant to the merger review including emerging market integrated agrotechnological solutions that has been recently formed in a process of ongoing systemic technological and business transformations within the agricultural sector.

All these markets were analysed by the FAS in the context of increasing globalization of the world economy and integration of agricultural production into the global food value chains. This required the FAS to assess not only ‘horizontal’ relations between the market competitors but also ‘vertical’ interactions between different segments of the global food value chains.

In the context of the accelerating pace of innovation in the agrotechnology sector, the FAS assessed not only the merging parties’ market shares but also the most probable scenarios for market transformation including changes in their competitive structure and dynamics in the short and medium term perspectives.

These changes are caused by an ongoing systemic shift in the agrotechnology markets that requires from companies if they want to be globally competitive to provide integrated (packaged) solutions to farmers which includes customized seeds, targeted crop protection solutions, as well as digital solutions based on big data analysis (with regards to soil, climate and other agronomic parameters) collected and processed within the digital farming platforms.

Moreover, due to a high degree of globalization of Russian agricultural production both in terms of export of agricultural products and importation of factors of production, the

abovementioned global systemic transformations in the agricultural sector are transmitted to the Russian market.

In assessing the impact of the transaction on competition in the Russian market, the FAS based on the assumption that the combined company possesses strong capacities including big genetic data; latest technologies for accelerated genetic selection allowing the development of biotechnology seeds with predicted characteristics not subject to regulatory restrictions aimed at the control of cultivation of genetically modified organisms; as well as big data and algorithms for digital farming. All this may allow the combined company to increase its market power in a technologically changing environment quickly and effectively. This may possibly lead to a fast increase in the combined company's market share up to reaching a dominant position in the affected markets dependent on the abovementioned technological changes; as well as to creation of high entry barriers for market player lacking some of those technological and data capacities at once.

The FAS has concluded that the merger can cause the following anticompetitive effects:

- creating new and increasing existing barriers to entry in relevant markets (including those generated by introduction of closed digital agronomic platforms to the Russian market);
- enhancing incentives for anticompetitive agreements and concerned practices (considering already high level of concentration in this sector, the merger might substantially reduce a number of market players having all necessary technical and data capacities to effectively compete in the new technological and economic environment);
- increasing possibility of abuse of market power (combining innovative technologies, data, and platform solutions will allow the combined company to rapidly increase its market share up to a dominant position in a short term perspective).

Hence, the FAS has concluded that the merger creates substantial risks of restriction of competition, and those risks should be leveled in the course of the merger review.

The requirements contained in conditions imposed by the FAS on Bayer AG provide for the transfer to Russian companies of the molecular means of selection and germplasm needed to create new varieties and hybrids, with which the combined company has a strong position in the Russian market.

In addition, in order to develop competition in the digital farming markets, the prescription of the FAS also contains obligations to provide Russian companies engaged in the development of agricultural software and applications with non-discriminatory access to digital

farming platforms, including access to historical data related to the Russian Federation, as well as to the data that will be collected by Bayer AG after it commercializes its software products on the territory of the Russian Federation. Access to such data is a key factor for the development and implementation by Russian companies of their IT-developments in the field of precision farming.

The obligations of Bayer AG also imply the creation of a plant biotechnology research centre in the Russian Federation, which will provide practical training for Russian specialists in the field of accelerated breeding with the involvement of highly qualified specialists with significant experience in this field.

On April, 2018, the FAS made a decision to approve the merger²⁸.

Considering the global nature of this transaction (the transaction is being considered in more than thirty jurisdictions), in preparing its decision, the FAS actively cooperated with foreign competition authorities using waivers, which allow competition authorities to exchange confidential information, with the purpose of developing common approaches and synchronizing requirements for participants in the transaction.

Taking into account the fact that in order to monitor the fulfilment by Bayer AG of the requirements contained in the FAS prescription, as well as that special knowledge in the field of selection and IT technologies is required to efficiently transfer molecular breeding tools and germplasm, a mechanism which is new for Russian practice was used entailing the involvement of a third-party organization in the process, on the basis of which the Technology Transfer Centre was established.

Alibaba Group, Mail.ru LLC, Russian Direct Investment Fund (RDIF) and PJSC Megafon

In 2019, the FAS considered a transaction on the establishment of a joint venture (JV) in the field of electronic commerce between Alibaba Group, Mail.ru LLC, Russian Direct Investment Fund (RDIF) and PJSC Megafon.

Under the terms of the transaction, the joint venture will combine the Russian Alibaba Group business in the field of cross-border electronic commerce (Aliexpress store) and the Mail.Ru LLC business in the field of cross-border electronic commerce (Pandao store). In addition,

²⁸ <https://br.fas.gov.ru/ca/upravlenie-kontrolya-agropromyshlennogo-kompleksa/ia-28184-18/>

the Aliexpress store will be integrated with the largest Russian social network Vkontakte (up to 100 million users per month). Also, under the terms of the transaction, Russian producers of goods will be able to go with their products to these sites in the field of electronic commerce and trade these products in all markets where the sites are present.

III.2 Cartels

1. Did you analyse (or are currently analyzing) any collusive conduct or cartel case in digital markets? Which cases? Did you convict any of them? Among these cases, were there cases related to algorithmic collusion? If so, how were these cases investigated?

The FAS Russia found the Russian Subsidiary of LG to have illegally coordinated the economic activity of smartphone resellers using a special algorithm.

The LG case is thoroughly described in point 2 of question 2.1.2.

Apple case

In 2016, a case was initiated against the group of companies Apple on the grounds of violation of Part 5, Article 11 ("coordination of economic activities of economic entities") of the Law "On Protection of Competition". Commencement of the case was driven by the appeal of a citizen in October 2015 on the establishment of the same prices for new models of smartphones Apple iPhone 6s and iPhone 6s Plus by 16 major resellers.

Investigation that was carried out by the Federal Antimonopoly Service of Russia in 2016 using information obtained from resellers showed that since the start of official sales of the Apple iPhone 5s, iPhone 5c, iPhone 6, iPhone 6 Plus, iPhone 6s and iPhone 6s Plus in Russia, most resellers fixed and maintained the same prices for these products during nearly 3 months. At the same time, the prices that were set coincided with prices from press releases and price lists published and distributed by LLC "Apple Rus" employees from e-mail addresses in the apple.com domain.

The decision regarding LLC "Apple Rus" was made in 2017. As part of the case, the illegal practice of coordinating the economic activities by Russian smartphone resellers that was carried out by a Russian subsidiary of the Apple group, was considered and stopped. During the

consideration of the case, prices for Apple's smartphones significantly decreased, LLC "Apple Rus" developed and implemented a new compliance policy in the company as well as paid fine.

Samsung case

On 12 February 2019 the FAS initiated proceedings against "Samsung Electronics RUS Company" (a Russian unit of "Samsung") upon signs of coordinating prices for smartphones and tablets .

In 2018, the competition authority carried out an unscheduled inspection of "Samsung Electronics RUS Company" Ltd. Based on the results of an analysis of the obtained information, FAS exposed signs of violating Part 5 Article 11 of the Federal Law "On Protection of Competition" by "Samsung Electronics RUS Company" – coordinating economic activity of Samsung resellers that led to fixing and maintaining prices for some smartphones and tablets.

During the case consideration, it was established that Samsung determined the recommended retail prices for Samsung smartphones and tablets, which were then communicated to the resellers verbally and in writing.

In addition, it was established that Samsung monitored compliance by resellers of the recommended retail prices for Samsung smartphones and tablets, which included, among other things, regular collection of price data from using a price algorithm called the Price Monitoring Tool.

Samsung applied "sanctions" to resellers who violate the recommended retail prices reducing the number of smartphones (tablets) shipped to them.

On 26 August 2019, the FAS imposed a fine on the company of 2 500 000 RUB.

The staff of "Samsung Electronics Rus Company" Ltd. who were directly involved in control over resellers' prices are held administratively liable.

In the course of the investigation, the company stopped coordinating economic operations and assisted the FAS, which was taken in account when fixing the size of the fine.

***Price Monitoring Tool – is a pricing algorithm developed by AFT Studio LLC for Samsung to monitor product prices. In accordance with the classification by Ariel Ezrachi and Maurice Stucke it can be classified as type No. 1 "Messenger".

The main function of this algorithm is a regular (daily) review of prices for a particular product of predefined reseller companies. The program daily sent e-mails from the @ pmt.aft.ru

domain with the subject "New price alert" to the employees of Samsung. This letter contained reports in .xls format (Excel spreadsheets) about changes in prices of monitored goods of pre-defined companies. In case of deviation from the recommended price, the program coloured the cell depending on the change in cost:

red - reseller price reduction;

green - reseller price increase (see Figure 1).

Figure 1

Model Name	BOM	Focus model price monitoring (Tabs)													
		RRP, rub	Svyaznoy	MTS	Eldorado	DNS	Ozon	Ulmart	Citilink	Beeline	NOSIMO	TechnoPoint	MasterPC	OnlineTrade	Holodilnik
Samsung Galaxy Tab A 7.0 WiFi T280N	T280N	8990	-	-	-	-	-	-	-	-	-	-	9990	-	-
Samsung GALAXY Tab 3 lite 3G 8GB (T116N)	T116N	8990	-	8990	64990	-	-	-	-	6990	-	-	-	-	-
GALAXY TAB A 2016 7.0 SM-T285N 4G 8GB	T285N	9990	9990	9790	9990	9699	9990	-	8920	-	9990	8860	9990	8990	-
GALAXY TAB E 9.6 SM-T561N 3G 8GB	T561N	11990	-	11990	11790	10999	-	10990	10030	11990	11990	10030	-	10990	10990
GALAXY TAB A 8.0 2017 SM-T385 4G 16GB	T385N	15990	15990	14490	-	-	-	-	14380	-	-	-	-	14690	-
GALAXY TAB A 2016 10.1 SM-T580N 16GB	T580N	16990	16990	-	-	-	-	-	15870	-	-	-	16990	15990	-
GALAXY TAB A 2016 10.1 SM-T585 4G 16GB	T585N	19990	19990	19990	19790	-	19990	-	-	19990	-	17490	19990	16990	17990
Samsung GALAXY Tab S2 8.0 WiFi (T713N)	T713N	21990	-	-	-	-	-	-	-	-	-	-	21990	-	-
GALAXY TAB S2 8.0 SM-T719 4G 32GB	T719N	25990	-	23599	-	31999	25990	-	-	-	-	22340	-	23590	-
Samsung GALAXY Tab S2 9.7 WiFi (T813N)	T813N	26990	-	-	-	-	-	-	-	-	-	-	26990	-	-
GALAXY TAB S2 9.7 SM-T819 4G 32GB	T819N	31990	31990	-	31990	30499	-	29990	28810	-	31990	26989	-	29490	-
GALAXY TAB S3 9.7 SM-T820 WiFi 32GB	T820N	34990	-	34990	-	-	-	-	32790	-	-	-	34990	34990	-
GALAXY TAB S3 9.7 SM-T825 LTE 32GB	T825N	44990	42990	39990	44990	39999	-	-	39560	-	44990	33990	44990	42990	-

In the framework of this case, the price algorithm was used as a tool for coordinating the economic activities of reseller of Samsung smartphones and tablets. In this decision, the FAS Russia noted that the use of such algorithms cannot be considered as independent evidence of the illegal coordination of economic activity.

Coordination of economic activity in the market of locking and sealing mechanisms

On June 29, 2017, the FAS Russia initiated a case against JSC IPK Strazh, LLC Transplombir, LLC TD KZMI, LLC SotekKomTsentr, CJSC OTSV.

On March 28, 2018, the decision²⁹ was issued on violation by the five first companies of clauses 1 and 3 of Part 1 of Article 11 (Prohibition of agreements between business entities restricting competition), and also by CJSC OTSV of Part 5 of Article 11 of the Law on Protection of Competition, which resulted in coordinating the economic activities of the defendants, which led to the establishment of prices for locking and sealing mechanisms (hereinafter referred to as LSM) on the market for LSM used for rail transportation³⁰.

²⁹ The FAS Decision on the case No. 1-11-69/00-22-17 of 28.03.2018: <https://fas.gov.ru/documents/621068> (Russian version only)

³⁰ The final court decision (ruling), which entered into force - the decision of the Ninth Arbitration Court of Appeal of 07.12.2018 № 09АП-60694/2018 on the case No. A40-124258/18

Since 2008, LSM manufacturers have concluded and implemented an anticompetitive agreement, the purpose of which was to establish and maintain prices, as well as to divide the commodity market by sales volume and the composition of buyers (consumers) of LSM used in rail transportation³¹.

Using a special software, the cartel exchanged information that allows to control the life cycle of any LSM from the time of production until disposal. At the same time, all the cartel members had access to this system, which allowed them to track the sales volumes and counterparties of their competitors.

During the inspections, correspondence and documents were discovered, according to which the cartel regularly coordinated sales volumes, as well as selling prices for LSM. A correspondence was found between coordinated persons (cartel members) and the coordinator (CJSC OTSV), as a result of which, following the instructions of CJSC OTSV, the producers raised prices for LSM.

In addition, the illegal coordination of economic activities of business entities by CJSC OTSV in order to establish prices for certain types of LSM has been established.

Coordination of the economic activities of manufacturers of LSM has led to the maintenance of prices in the market for the realization of locking and sealing mechanisms used in the implementation of rail transportation.

Based on the results of the consideration of this case, the purchase prices for the LSM for final consumers are reduced by two or more times³².

The antimonopoly authority stopped the activity of the hard core cartel, which existed for about 10 years and controlled the market, including through the section of procurement procedures of almost all Russian consumers in the private sector.

In addition to typical evidence (correspondence, protocols, etc.), the use of special software for monitoring and recording of locking and sealing mechanisms used by cartel members was revealed.

Administrative cases have been initiated against all defendants, which are currently under consideration.

Competition in the product market for locking and sealing devices used in rail transportation has been restored. The materials of the case and the decision were transferred to

³¹ <http://en.fas.gov.ru/press-center/news/detail.html?id=52882>

³² <http://en.fas.gov.ru/press-center/news/detail.html?id=53601>

the Russian Ministry of Internal Affairs to resolve the issue of initiating a criminal case on the grounds of *corpus delicti* provided for by Article 178 (Restriction of competition) of the Criminal Code of the Russian Federation.

This decision of the antimonopoly authority can be used to file private claims for recovery of damages caused by the unlawful actions of the defendants, since the case contains information on the price of the goods both in the cartel and after its end.

2. Is algorithmic pricing legal in your country? Are there examples of algorithmic pricing in your jurisdiction? Do they raise competition concerns?

The practice of the Anti-Cartel Department of the FAS Russia demonstrates the active application by the participants of anti-competitive agreements of new opportunities for illegal activities, which consist in the use of big data and computer algorithms.

It has been established that some business entities (resellers who trade both using trading objects (offline), and without using trading objects (online), and vendors use price algorithms to determine retail prices for their products or to control retail prices on products of a particular brand.

Pricing algorithms that collect information about retail prices for products of a particular brand, compare them with recommended / minimum vendor prices, and send notifications to violating resellers are considered by the FAS Russia as a tool for illegal coordination of resellers' economic activities that lead to restriction of competition. In addition, pricing algorithms without the recommended / minimum price control function can be considered as a tool for coordinating economic activities, if the vendor uses them to control the prices of resellers for brand products.

There is no doubt that similar pricing algorithms can be used by both resellers and other business entities (in other markets) in the implementation of anti-competitive agreements (as a tool for implementation).

At the same time, the norms of the current antimonopoly legislation do not provide for liability for developers of pricing algorithms with potentially unlawful functionality and for persons using pricing algorithms to generate price reports on the market used by the coordinator to establish control over prices and bring them to a certain level (partners in the illegal coordination of economic activities).

For example, the FAS Russia found LG Electronics RUS LLC to have violated the antimonopoly legislation by coordinating the economic activities of LG smartphones resellers,

which led to the establishment and maintenance of prices for them (part 5 of article 11 of the Law on Protection of Competition).

The Russian subsidiary of LG monitored the retailers' compliance with recommended retail prices, which included, among other things, regular collection of price data using a special pricing algorithm, and also providing the resellers themselves with information about noncompliance by their competitors (other LG Resellers) with the recommended retail prices. Various pricing algorithms have also been used by a number of resellers. The fine for LG Electronics RUS LLC was 2,500,000 rubles.

In addition, there is a problem with the use of auction robots in order to violate antitrust laws. The auction robot is an optional (special program module) function of the personal cabinet of the auction participants on the electronic platform, allowing (on the basis of the electronic order document with the settings of the auction robot filled and signed by the participant's EDS) the automatic submission of price proposals on a specific electronic auction on behalf of the auction participant to the specified limit of the price offer.

When creating and using "auction robots", the participants in advance have an agreement on the limit of reduction of the initial (maximum) price of the contract, as well as the winner of the auction.

Thus, the FAS Russia plans to amend the current legislation in order to adapt it to the rapidly developing digital economy and eliminate negative effects on the state of competition in various commodity markets.

III.3 Unilateral Conducts

1. Did you analyse (or are currently analysing) unilateral conduct cases in the digital markets? Which cases? Did you convict any of them? Did you apply antitrust remedies?

Microsoft case

In 2017, in accordance with the statement of the company Kaspersky Lab, the FAS considered the case on the violation of antimonopoly legislation against Microsoft Corporation. Practices of the Microsoft Corporation aimed at providing benefits to its own antivirus application and encouraging users to abandon third-party antivirus applications were reviewed.

Circumstances and commodity markets that had not previously been subject to review by the antimonopoly authority were examined.

In the course of case consideration, the multilateral market of operating systems for stationary devices (computers and laptops) of end users, trial versions of operating systems for stationary devices (computers and laptops) for adaptation of third-party application software was analyzed. The analysis found that Microsoft Corporation, having a dominant position in this multilateral commodity market, has an impact on related commodity software application markets, as it owns the operating system (Microsoft Windows) for which the application software is created.

FAS issued two warnings to Microsoft Corporation regarding the termination of actions (inaction) that contain signs of violation of the antimonopoly legislation (abuse of dominant position – Article 10, and unfair competition – Article 14 of the Law on Protection of Competition).

In consequence of the execution of warnings, Microsoft Corporation made the necessary adjustments to the "Antimalware Platform Requirements". This document regulates the interaction between Microsoft Corporation and independent vendors of antivirus software. Moreover, Microsoft Corporation eliminated all calls for the abandonment of third-party software.

Execution of the requirements of the FAS created equal conditions for developers of antivirus products across not only the Russian Federation, but also other territories where Microsoft Corporation is present, thereby ensuring effective competition in the global information technology market.

Google case

On 18 February 2015, FAS Russia has received a complaint from Yandex company indicating the presence of antitrust law violations in Google actions.

FAS Russia Commission (hereafter – Commission) has discovered that Google corporation has more than 50% market share of pre-installed application stores localized for redistribution on Russian markets and according to Part 1 Article 5 of the Law on Protection of Competition has a dominant position on the market. The Commission also takes note of the fact that Google owns the rights to Android OS, which strengthens its dominant position.

During the proceedings, violation of Part 1 Article 10 of the Law on Protection of Competition was detected in Google actions. In order to access Google Play app store Google contractors should follow certain Google restrictive requirements. According to this provision,

actions of an economic entity occupying a dominant position, which result or can result in prevention, restriction or elimination of competition, are prohibited.

Since the Commission found that Google corporation actions, which is currently occupying a dominant position on the market of pre-installed app stores for Android OS localized for distribution on the territory of the Russian Federation, lead to restriction of competition on the adjacent product markets (app stores), the acts of this company should be considered under Part 1 Article 10 of the Law on Protection of Competition.

On 18 December 2015, FAS Russia has found Google Inc. and Google Ireland Ltd. violated the antimonopoly legislation and issued a determination to eliminate a violation of the Federal Law "On Protection of Competition". The FAS Russia's decision and prescription were approved by court and entered into force on August 17, 2016, which include the following provisions:

- Google must adjust its contracts with mobile devices vendors, that is exclude anticompetitive requirements from the contracts that restrict installing applications and services of other vendors.
- Google must inform mobile phone users using Android OS about de-activating pre-installed Google applications, possibility to change the search engine in Google Chrome browser, to install another search widgets and other applications similar to those included in the GMS package, as well as about possibility to change icon locations in the screen in the form of a notice appeared on the screens of their mobile devices.

Due to the fact of abuse of dominant position, the case of administrative offence of Article 14.31 of the Code of Administrative Offences of the Russian Federation was considered, and on August 11, 2016 Google Inc was imposed a fine of 438.067.400,39 rubles.

As it had been mentioned previously, the trend of producing and distributing mobile devices together with the software pre-installed on them is global.

In 2017, the FAS reached a settlement with Google, under the terms of which Google agrees to stop the requirements of exclusivity of its applications on Android devices in Russia, cease practices which restrict the preinstallation of any competing search engines and applications (including on the home screen by default), encourage to preinstall Google search as the only search engine.

In accordance with the settlement, for devices that are currently in circulation in the Russian Federation, Google developed an active “window of choice”, which provides the user with the opportunity to choose a search engine “by default”.

It should be noted that the results of the implementation of the settlement confirm the FAS assumption about consumers' passive behavior regarding installation of applications by themselves if applications of a certain functionality are already installed on the device: since the consumer has been visually offered the choice of search engine (since the settlement came into force two years ago), the share of the Russian developers in the market of search engines has grown from 37% to 49% on Android mobile devices.

IV The Antitrust Toolbox for the Digital Economy

IV.1 Applying Antitrust Concepts to the Digital Economy

1. How do you assess market power in the digital economy? For example, do you define relevant market in every case? In cases involving multi-sided platforms, how do you define relevant market and measure market power?

In Russia, at present, market shares are determined in accordance with standard mechanisms. However, in digital markets there is a specificity associated with the peculiarities of the circulation of a digital product: its intangibility, connectivity with other markets, the versatility of such markets, network effects.

Often the product does not apply independently, in isolation from another product. For example, software acquires its consumer properties only after its installation on hardware - servers, computers, tablets. If the software is specific and is not always installed on a certain category of hardware devices (for example, applications on mobile devices), market indicators of the identified category of hardware devices are taken as indicators to determine the volume of the commodity market. This approach was used in analysing the app store market during the Google case.

Other indicators can also be taken into account. For example, when considering the Yandex.Taxi/Uber merger, the number of trips and revenues were taken as indicators of the volume of the commodity market.

It is also important to take into account the versatility of the markets and the existing network effects, namely, how market power can increase, or vice versa, weaken due to the characteristics of the digital market.

For example, when analysing the app store market, it was taken into account that Google's dominant position in the app store market is significantly enhanced by the fact that Google is the copyright holder of the Android OS and end users do not usually switch to smartphones with other operating systems.

On the contrary, when analysing Yandex.Taxi/Uber merger, it was found that both drivers and passengers can freely switch between different aggregators, moreover, most of the drivers and passengers use the services of various aggregators. Such behaviour in conjunction with the network effects of the market is regarded as a factor preventing the emergence of the market power of an individual participant.

2. In your jurisdiction, what is the role of innovation and dynamic competition in the analysis of antitrust cases involving digital economies?

The role of innovations is always taken into account by the FAS Russia in two aspects:

-When conducting a perspective analysis of the commodity market - to assess barriers to market access;

-When developing behavioural conditions issued as a result of consideration of a transaction or a case of violation of antimonopoly legislation.

As a rule, open innovation in a developing, growing market is assessed as a factor reducing barriers to market access.

At the same time, realizing that the development of digital markets is very fast, it is important to take actions aimed at protecting competition in the future in order to ensure further development of innovations, (a need to develop quite tough behavioural conditions (Bayer/Monsanto merger).

3. How is your agency analysing the recent trend of acquisitions of new born companies in the digital economy by incumbents?

N/a

4. Have you analysed (or are you analysing) cases in which the incumbent firms use their market power to impose anticompetitive barriers to entrants in the digital economy? If yes, how is your agency dealing with these cases?

Cases in which existing players in the digital markets create one or another anti-competitive obstacle for new players to enter these markets are considered and dealt with by the FAS in the standard manner provided for by Federal Law No. 135-FZ of July 26, 2006 " On the protection of competition. "

One of the examples of the above situation can be the case that is currently being considered by the FAS Russia in relation to Headhunter LLC in connection with the possible inadmissibility of services to ensure the information interaction of applicants, employers and recruitment agencies in the Internet for business entities providing software for automated recruitment.

Headhunter LLC is the owner of the largest Internet site and personnel selection services in the Russian Federation "HeadHunter.ru" (currently there are about 35 million jobseekers resumes in the databases of this service).

Due to the fact that this service is very popular among job seekers, it has also become very valuable for employers in terms of replenishment of vacancies due to the candidates (resume) from this site. Access for employers to the database of resumes on the website HeadHunter.ru is carried out on a paid basis.

At the same time, services for primary automatic recruitment (without human participation) are currently gaining popularity.

The program scans the CV from the database of sites, finds a suitable resume, conducts an automatic telephone interview and invites the employee to the next stage of the selection process.

An example of such a program is the Vera Robot Recruiter (robotvera.com). In 2018, employers working with HeadHunter.ru (in terms of finding suitable resumes for candidates) and with Vera Robot Recruiter (in terms of initial automatic selection of candidates) faced a problem. HeadHunter.ru began blocking the personal accounts of employers on the site due to the fact that they use the "Vera" robot recruiter when working with resumes on the HeadHunter.ru site. For further work at HeadHunter.ru, employers were asked to abandon work with the Vera Robot Recruiter and switch to the Headhunter LLC-developed virtual recruiter service.

Thus, Headhunter LLC (as the owner of the largest base data summary) has the ability to influence (use network effects) on business entities operating in another product market that is not directly related to the market in which Headhunter operates.

5. Do you consider traditional antitrust tools and methods suitable to properly analyse digital markets? Do we need innovation in antitrust analysis as well?

The approaches to antimonopoly regulation and the economic analysis tools in the digital economy require reconsideration.

Thus, FAS Russia has drafted "digital" amendments to the Law "On Protection of Competition" (No.135-FZ): the fifth "antimonopoly package", which is described in more details in the abovementioned questions.

IV.2 Big Data and Competition Law

1. What is the importance of big data for competition in the digital economy in your view?

Big data and technological changes of the digital economy can have very significant economic advantages. Thereby the collection and use of data can create economic efficiencies and can have pro-competitive effects. However, under certain circumstances, the collection and analysis of data can be a factor contributing to competition concerns. The debate usually circles around three aspects: 1) Data can be a factor contributing to market power. 2) Data can increase market transparency among suppliers and thereby facilitate collusion. 3) Data can be an instrument for certain anticompetitive conducts. In this sense, the availability of large amounts of information and special methods of processing them create additional incentives for cooperation of market participants, including such cooperation, which aims to limit competition by concluding anti-competitive agreements. Participation in the cartel and maintaining the rules established by the cartel become more profitable than compliance with the rules of a regulator. In the modern digital world, it is difficult to find more favorable conditions for conspiracy and concealment of actions, when participants become not just anonymous, but pseudonymous, and when all their actions are cryptographically protected.

2. Have you faced competition problems regarding data flows, data processing or big data analytics? If so, please inform if the problems were related to any one of the alternatives below or any other issues regarding competition law:
 - a. Big data as a source of market power;
 - b. Big data as entry barriers;
 - c. Big data and exclusionary conducts;
 - d. Big data and algorithmic collusion;

See the parts "The Digital Ecosystem" and "Mergers and Acquisitions".

3. Do you have specific laws and specific authorities regarding data protection in your country?

The basic law on IT and Information Security in Russia is the Federal Law No. 149-FZ "On Information, Information Technologies and Information Protection". Requirements for restricting access to information are set out in Article 9 of the Law, the requirements for the protection of information are set out in Article 16.

Other regulation is the Federal Law No. 187-FZ dated July 26, 2017 "On the Security of Critical Information Infrastructure of the Russian Federation".

Main governmental bodies that control data protection in Russia are the following:

- the Federal Service for Supervision of Communications, Information Technology, and Mass Media (Roskomnadzor) (in terms of protecting personal data and blocking websites that violate the laws of the Russian Federation (piracy, casinos, terrorism, etc.)). The creation of the Roskomnadzor has been approved by Decree of the President of the Russian Federation of March 16, 2009 No. 228.

- the Federal Service for Technical and Export Control (FSTEC) (in terms of the general protection of the information infrastructure of the Russian Federation and information not constituting a state secret + requirements (licensing) for the development of encryption tools, cryptography (for own needs of a legal entity), etc.). The creation of the Federal Service for Technical and Export Control was approved by Decree of the President of the Russian Federation of August 16, 2004 No. 1085.

- the Federal Security Service of Russia (FSB) (in terms of the general information security of the Russian Federation against cyber attacks, criminal infringements and the protection of

information constituting a state secret + requirements (licensing) to the development of encryption tools, cryptography (used when working with a state secret), etc.). The creation of the FSB was approved by Decree of the President of the Russian Federation of August 11, 2003 No. 960.

a. Is there any interplay between data protection and antitrust law/policy?

The Federal Antimonopoly Service of the Russian Federation, in carrying out its functions, as part of conducting inspections, handling cases of violation of antimonopoly legislation, monitoring economic concentration, its own requests, receives and uses information, including information that is classified as commercial secret.

According to the Russian legislation, a commercial secret is a mode of confidentiality of information, allowing its owner to increase incomes under existing or possible circumstances, avoid unnecessary costs, maintain a position in the market of goods, works, services or obtain other commercial benefits to which third parties do not have free access on a legal basis and in respect of which commercial secret has been introduced.

The mode of commercial secret is implemented only after the owner of the information constituting a commercial secret takes measures to protect it. At the same time, information containing data that cannot be a commercial secret in accordance with the legislation (for example, information contained in applications, objections, explanations and other materials submitted at the initiative of a person participating in a case of violation of the antimonopoly legislation, written or oral form on issues arising during the consideration of the case of violation of the antimonopoly legislation).

Thus, during consideration of a case, a balance must be ensured between the interests of the persons who provided information constituting a commercial secret to the case materials and those involved in the case of violation of the antimonopoly legislations whose rights and legal interests are affected by the relevant case.

The presence in the case file of information constituting a commercial secret cannot itself constitute a basis for an unreasonable restriction of the rights of persons involved in a case of violation of the antimonopoly legislation in properly preparing and stating their own position.

The rights of persons involved in a case of violation of the antimonopoly legislation are ensured, among other things, by providing persons who have established a commercial secret

mode in relation to the information they have submitted, to agree to familiarize themselves with information containing commercial secret to other persons involved in the case³³.

In the absence of such consent, the announcement in this meeting of information containing a commercial secret, submitted at the request of the antimonopoly body, is carried out in the absence of persons who do not have the right to familiarize themselves with materials containing a commercial secret.

The chairman of the FAS Commission has the right to suggest to the persons participating in the case to establish a procedure for the consideration of the case in which the announcement of information containing a commercial secret will be carried out at the beginning or during the meeting, with the removal from the meeting room of persons that are not entitled to see materials containing commercial secrets.

It is important to bear in mind that, for example, the conclusion about the circumstances of the case and the decision should contain the circumstances of the case established by the Commission and the evidence on which the Commission's conclusions are based.

In order to ensure the protection of commercial secrets by the antimonopoly authority's Commission, when preparing relevant conclusions on the circumstances of the case and decisions, the relevant circumstances and evidence should be described to the extent necessary to make the appropriate procedural decision, without including information directly constituting a commercial secret.

If it is impossible to support the findings of the Commission of the antimonopoly body without including information constituting a commercial secret, such information should be included in the relevant act, but in order to maintain the balance of public and private interests of all participants of established relations, the antimonopoly authority must issue (submit for review, send) persons involved in the case who have not obtained the relevant consent of the holder of such information, a copy of the relevant act, excluding information from it, for example, without changing the structure of the document, arrange the relevant part of its text in a non-readable form, or by transferring the text containing information constituting a commercial secret to the annex of the document that is not subject to issue (submission for review, referral) to persons participating in the case who have not obtained the relevant consent of the holder of such information).

³³ Article 45.2. (Procedure for access of persons involved in the case of violation of the antimonopoly legislation to case materials containing commercial secrets) of the Federal Law of 26.07.2006 No. 135-FZ "On Protection of Competition"

The above approaches regarding the reflection of information constituting a commercial secret are applicable to the analytical report on the results of the analysis of the state of competition in the commodity market.

At the same time, the data of the analytical report on the size of the market share of participants in the commodity market, the goods included in the product boundaries, the substitutable goods, as well as the characteristics of the goods that exclude substitutability cannot be attributed to information constituting a commercial secret of any business entity, since such information is the result of processing the collected information and a probabilistic assessment by the antimonopoly authority of the state of competition in the relevant product market and does not belong to any specific person.

Information constituting a commercial secret and obtained by the antimonopoly authority in the exercise of its powers shall not be disclosed, with the exception of cases established by federal laws.

For the disclosure of such information, employees of the antimonopoly authority shall bear civil, administrative and criminal liability.

Harm caused to an individual or legal person as a result of disclosure by the antimonopoly body or its officials of information constituting commercial, official or other secrets protected by law, shall be reimbursed by the treasury of the Russian Federation³⁴.

4. Do you have experience using data mining, screening methods or similar strategies to detect cartels or collusive conducts?

For cartel detection FAS Russia applies a multiple-parameter system for identification and proving bid rigging (hereafter – the System) that is based on a certain algorithm of searching for bid rigging evidence by specially selected indicators or combinations of indicators that can show high probability of a cartel in the course of a tendering procedure. Functioning of this system is possible only if it is connected to the Single Electronic Tender System related to six (6) electronic trading platforms, which exists in Russian Federation. The System has been approved by the Anti-Cartel Department of the FAS Russia in the federal state autonomous organization "FAS Russia Center for Education and Methodics" (Kazan) within the framework of the upgrade training

³⁴ Article 26 (Obligation of the antimonopoly authority to comply with commercial, official, other secrets protected by law) of the Federal Law of 26.07.2006 No. 135-FZ "On Protection of Competition"

course "Detecting and Sanctioning Anticompetitive Agreements" (2016). The System is currently being successfully used.

The developed System allows one trained expert to detect signs of a cartel within one day and collect all necessary evidence within one month.

The possibility of operative cartel detection and evidence collection allows to significantly reduce limitation periods for consideration of cases on violation of the antimonopoly legislation and to increase the effectiveness of antimonopoly bodies in combating bid rigging.

V. Market Studies, Guides and Other Documents

1. Has your agency conducted any market studies regarding digital economies? If so, are any of them publicly available?

Digital economy is developing at an unprecedented pace, and it concerns not only technological goods and services, such as software, big data, Internet-platforms and stores, mobile phones and applications, but also dissemination of "digit" to classical markets of raw materials and industrial goods.

The approaches to antimonopoly regulation and the economic analysis tools in the digital economy require reconsideration.

Antimonopoly law must be ready to timely and efficiently solve the modern issue. To this purpose, the requirements of the new time and the law should be synchronized.

Having analyzed the impact of digitalization on modern economy, the FAS Russia has drafted "digital" amendments to the Law "On Protection of Competition" (No.135-FZ): the fifth "antimonopoly package".

2. Do you have guides or reports on the digital economy?

The Report of the CIS Competition Authorities (approved by the members of the Economic Council of the CIS on December 7, 2018)

The issue of competitive policy formation in the conditions of the development of the digital economy is highly relevant for Competition Authorities of the CIS member states, which necessitated the conduct of an appropriate study and preparation of a report on this topic.

The purpose of preparing a Report on the formation of competition policy in the CIS member states in the context of the development of the digital economy was to determine the general

characteristics of the digital economy in the CIS member states, analyze new challenges for competitive regulation in the digital economy, and assess the readiness of competition legislation to meet new challenges and the need to amend the legislation of the CIS member states.

3. Have you relied on studies or documents from other agencies to guide your authority's approach to digital economy?

When deciding to prepare the fifth antimonopoly package we certainly studied the best examples of by foreign practice, namely, the digital amendments to competition legislation of Germany and Austria, the report "Competition Law and Data" prepared jointly by Competition Authorities of France and Germany.

Annex III

- India -

I. General Questions: the Digital Ecosystem

1. Who are the internet giants in your country? In which markets (both online and offline) do they operate?

In India, the following companies are considered to be internet giants in their respective markets (publicly available 2018 revenues in rupees in parenthesis):

- E-commerce Platform: Flipkart Private Ltd. (\$3.8 billion) and Amazon (\$3.2 billion)
- Ride-hailing Industry: ANI Technologies Private Ltd (known as "OLA") (\$311 million) and Uber Technologies Inc. (\$3 million).
- Online search services: Google LLC is regarded as the internet giant in this segment while Yahoo and Bing also have some presence in the Indian market
- Online travel industry: MakeMyTrip Ltd (\$675million), Cleartrip, TripAdvisor, Indian Railway Catering and Tourism Corporation (IRCTC) and Yatra Online Pvt Ltd
- Food delivery Industry: Zomato and Swiggy (\$19 million)
- Social Network: Facebook (\$56 billion)

Apart from these, there are many other segments in the digital industry.

2. Do the activities of any of these internet giants raise specific competition concerns in any of these markets? Please provide examples of such activities.

In India, while analysing the cases in the digital sector, the Competition Commission of India (CCI/the Commission) has applied a calibrated approach in order to ensure that intervention remains effective, it does not restrain innovation and in turn helps the market to regulate itself. Most of the cases in the digital markets have been in the form of vertical restraints which are tested under the rule of reason and the others relate to alleged abuse of dominant position.

The allegations with respect to abuse of dominant position were received in online search services and app-based ride-hailing industry. In case of the former, Google was found to be abusing its dominant position on the following three counts - for ranking of Universal Results (prior to 2010) at certain fixed (1st, 4th or 10th) positions on the Search Engine Result Page (SERP)

instead of by their relevance; for prominent display of Commercial Flight Unit by Google on SERP with link to Google's specialized search options/ services (Flights); and for prohibitions imposed under the negotiated search intermediation agreements upon the publishers. Accordingly, a monetary penalty of 1.35 billion rupees was levied on Google. In case of ride-hailing industry, allegations were received with regard to predatory pricing and exclusive agreements but were found to be unsubstantiated after investigation.

In case of vertical agreements, allegations were made with respect to exclusive dealings, refusal to deal and resale price maintenance in the online platform industry. However, none of the allegations against the internet giants were found to contravene the Competition Act, 2002 (the Act) whereas some of the allegations related to resale price maintenance are still under investigation.

3. In the digital ecosystem, which markets are prone to raise competition concerns in your country? Please describe.

The Commission has not identified, in particular, markets which are prone to raise competition concerns in the digital space. However, the complaints/information/references received by the Commission indicate that e-commerce platforms' intermediation between consumers and retailers, online search services market, ride-hailing industry etc. may raise potential competition concerns.

II. Legal Framework

1. What is the legal framework concerning competition policy your country? What are the main government bodies in your country responsible for competition enforcement?

The main law that governs antitrust in our country is the Competition Act, 2002³⁵. Also, there are various Regulations that govern antitrust including:

- i. The Competition Commission of India (General) Regulations, 2009³⁶

³⁵ Available online at: https://www.cci.gov.in/sites/default/files/cci_pdf/competitionact2012.pdf.

³⁶ Available online at: https://www.cci.gov.in/sites/default/files/regulation_pdf/cci%20general%20regulations%20as%20amended.pdf.

- ii. The Competition Commission of India (Lesser Penalty) Regulations, 2009³⁷
- iii. The Competition Commission of India (Manner of Recovery of Monetary Penalty) Regulations, 2011³⁸
- iv. The Competition Commission of India (Procedure in regard to the transaction of business relating to combinations) Regulations, 2011³⁹

The main regulatory body related to competition enforcement is the Competition Commission of India.

2. Did you undertake any recent (or are you considering) legislation alteration to adapt to the digital economies, such as expanding the threshold for the merger to be reviewed?

The issue is under consideration. The Commission has constituted a Competition Law Review Committee to look into this aspect. The Competition Law Review Committee submitted a report to the Ministry of Corporate Affairs. Regarding regulation of digital markets, and the following suggestions have been made in the report:

- (a) To address the shift in traditional market realities, by widening the net for identification of anti-competitive conduct, it has been suggested that express provisions be introduced to identify 'hub and spoke' agreements as well as agreements that do not fit within typical horizontal or vertical anti-competitive agreements. This would be a significant step towards covering varied business structures and models synonymous with new age markets.
- (b) When considering non-notifiable mergers, the Committee has also suggested the introduction of additional thresholds to review combinations of business that are not structured traditionally- especially where they form part of digital markets. The Committee has suggested that even if the traditional asset and turnover thresholds are not met, where the transaction value or the deal value of a combination exceeds a certain limit, then it could be brought within the ambit of merger review. This is a forward- looking recommendation that seeks to take into account new age indicators of business activity.

³⁷ Available online at: https://www.cci.gov.in/sites/default/files/regulation_pdf/Lesser%20Penalty%20Regulations%20with%20Amendments.pdf.

³⁸ Available online at: https://www.cci.gov.in/sites/default/files/regulation_pdf/CCI%20Manner%20of%20Recovery%20of%20Monetary%20Penalty.pdf.

³⁹ Available online at: https://www.cci.gov.in/sites/default/files/regulation_pdf/Combination%20Regulations%202016%20-%20FINAL_0.pdf.

- (c) The Competition Law Review Committee has proposed additional enforcement mechanism of 'Commitments' in the interests of speedier resolution of cases of anti-competitive conduct. However, the provision of commitments is proposed to be included in the Competition Act with respect to Section 3(4) and Section 4 i.e. vertical restraint and abuse of dominance matters, respectively.

The Competition Law Review Committee has also proposed for inclusion of 'any other factor' while considering factors for determining the relevant product market under Section 19(7) of the Competition Act, keeping in mind, the evolving digital market.

3. Which do you consider the main challenges regarding the digital economy in your country?

- Algorithmic collusion or cartel
- Vertical restraints in e-commerce
- Abuse of dominance by big players (like Google *etc.*)
- Denial of market access
- Platform markets (zero pricing *etc.*)
- Big Data leading to dominance

III. Competition Cases involving digital markets

III.1 Mergers and Acquisitions

1. Did you review (or are currently reviewing) mergers and acquisitions in the digital economy in the last years? Which ones? In which markets? What were the conclusions? Did you require remedies?

Please see the Selected Cases.

III.2 Cartels

1. Did you analyse (or are currently analysing) any collusive conduct or cartel case in digital markets? Which case? Did you convict any of them? Among these cases, were there cases related to algorithmic collusion? If so, how were these cases investigated?

We have recently received one case in the cab aggregators market where the issue of cartelization through algorithmic pricing has been alleged. However, it is slightly different from how cartelization using algorithm is generally understood. The main allegation is that in the cab aggregator's market, the individual drivers do not negotiate prices with the potential riders. Rather the pricing power is given to the platform (i.e. the cab aggregators like Ola or Uber) to fix the prices using algorithm which takes the freedom of riders and drivers to negotiate prices and hence amounts to price fixing cartelization. However, there is no allegation regarding collusion between these cab aggregators.

2. Is algorithmic pricing legal in your country? Are there examples of algorithmic pricing in your jurisdiction? Do they raise competition concerns?

At present, there is no law or regulation as such which proscribes algorithmic pricing. Algorithmic pricing is mainly seen in platform markets e.g. cab aggregators market, e-retail etc. As regards its competition concern, the Commission is yet to examine this issue.

III.3 Unilateral Conducts

1. Did you analyse (or are currently analysing) unilateral conduct cases in the digital markets? Which cases? Did you convict any of them? Did you apply antitrust remedies?

Please see Selected Cases.

IV The Antitrust Toolbox for the Digital Economy

IV.1 Applying Antitrust Concepts to the Digital Economy

1. How do you assess market power in the digital economy? For example, do you define relevant market in every case? In cases involving multisided platform, how do you define relevant market and measure market power?

The Competition Act, 2002 (the Act) provides definitions of relevant product market, relevant geographic market and relevant market. The Act also provides a list of factors, which should be considered by the Commission in delineating relevant market. The Act further defines 'dominant position' and lists out the factors that are to be relied upon in assessing market power or dominant position. The Commission, in cases pertaining to all sectors including in cases in the digital economy, adheres to the holistic and nuanced framework enshrined in the Act for assessing market power.

In cases involving multisided market, the Commission has defined the relevant market on a case-to-case basis. In the Google case⁴⁰, two relevant markets were defined for both sides of the platform, i.e. online searchers and online search advertisers. The Commission took into account that online platforms that provide search services were intermediaries that acted as an interface between search users and advertisers. The two sides of the market complement each other and they are interdependent. Further, online general web search services and search advertising would not constitute the same relevant product market on account of wide variations in the mechanism for generation and display of results and also the clicking behavior. Also, these services serve distinct goals and are perceived differently by the various categories of users, namely, publishers (websites) and internet users entering search queries. It was also noted that these services constitute complementary services from the point of view of websites striving for eyeballs. Accordingly, the Commission determined the relevant markets as:

- (a) Market for Online General Web Search Services in India
- (b) Market for Online Search Advertising Services in India

The Commission held that Google enjoyed a dominant position in Online General Web Search and Web Search Advertising Services markets in India. In coming to its conclusion on the market share of Google in the relevant markets of online general web search and online search

⁴⁰ *Matrimony.com Limited Vs. Google LLC & Others*(Case Nos. 07& 30 of 2012),

advertising in India, the Commission took into account: (a) volume of search business; and (b) total revenues generated in India, as the basis of estimation.

The Commission rejected the contention of Google that the search services offered by it are free and hence there is no purchase or sale of goods or services. It was noted in the Order that it is not unusual for one-side in a multi-sided market to receive services subsidized by customers on the other side of the market. This, however, is not suggestive of the fact that users are not providing any consideration for availing these products and services as they are providing personal data as well as “eyeballs” to the search engine as a consideration. The Commission noted that rise of new business models based on collection and processing of Big Data is currently shaping the world and with the development of data mining and machine learning, businesses are able to offer innovative, high quality and customized products and services at low or even zero prices, with great gains for consumers. Further, it can be used to target advertising better. Moreover, the data can be turned into any number of revenue generating artificial intelligence (AI) based innovations. However, the benefits of providing Big Data comes at a cost to the consumers as they face a loss of control over their data and are exposed to intrusive advertising and behavioral discrimination. Thus, there exists a commercial relationship and the conduct of the participants in such commercial relationships can be examined within the four corners of the Act.

In cases concerning the cab aggregator services, the Commission noted that though the cab aggregators have replaced the ownership/asset based model in the radio taxi service business and is operating under the platform based model, this fact alone cannot make it a distinct category of service provider when the basic nature of service provided by it is same as that provided by other players operating under the traditional business model. Accordingly, the cab aggregators were clubbed together with other radio taxi services and the market was defined as one i.e. “market for radio taxi services in Bengaluru”.

Market power of the enterprise against whom the allegations are raised is assessed by first defining the relevant market and then assessing whether the enterprise enjoys a dominant position or not in the defined relevant market. To assess the same, the Commission takes into account a host of factors and not just follows a market share based static view. For instance, the Commission, while assessing alleged dominance of a cab operator held that high and durable market share can be an important indicator for lack of competitive constraints and accordingly for dominance. However, that does not imply that uniform market share thresholds and a

standard time-period to assess durability of market share can be applied in the same manner to all businesses/sectors. The variance across industries in terms of their inherent characteristics, such as nature of competition, technology and innovation dimensions, calls for a case-by-case assessment of market share and its implications for dominance with reference to the totality of the market dynamics and competitive strategies of firms. The Commission also took into consideration that the competitive process in the relevant market was still unfolding, market was growing rapidly, effective entry had taken place thereby leading to gradual decline in the operator's market share, and there existed countervailing market forces that constrained its behavior and also the nature of competition in dynamic, innovation-driven markets. Based on collective consideration of these factors, the Commission did not find dominance of the operator.

2. In your jurisdiction, what is the role of innovation and dynamic competition in the analysis of antitrust cases involving digital economies?

The Commission while analyzing the cases involving dynamic competition tries to strike a balance between short-term static efficiencies and the longer-term gains that arise from innovation. Assessing technology sector issues requires an understanding of the underlying technology and a close following of market developments. Further, the Commission does not treat technology markets as homogenous monolith and recognizes that there are numerous relevant markets within this sector, each with specific competition dynamics. Also, cognizance is taken of the fact that a given market at one point in time mutates into another through the exploitation of complementarities. Further, during the assessment, emphasis is not placed on the fact that one firm has entrenched market power in a particular industry. This is because taking such a stance would damage incentives to innovate, and would be a denial of the realities of market preferences.

A nuanced assessment, based on the facts of the case and the market and technology in question is therefore the strategy that the Commission has adopted in the analysis of antitrust cases involving digital economies.

3. How is your agency analysing the recent trend of acquisitions of new born companies in the digital economy by incumbents?

In the digital space, most of the newborn companies fall under the de minimis exemption thresholds and hence their acquisition is exempted from notification. If any of the newborn

companies could meet the asset/turnover thresholds for notification, the acquisition would be analyzed under the relevant provisions of the Competition Act, 2002 i.e. Section 5 and 6 of the Act and as per the factors prescribed in section 20(4) of the Act. Further, in order to keep track of the mergers and acquisitions taking place in the Indian economy, the Combination Division of the CCI conducts regular media scanning to take *suo motu* action.

4. Have you analysed (or are you analysing) cases in which the incumbent firms use their market power to impose anti-competitive barriers to entrants in the digital economy? If yes, how is your agency dealing with these cases?

Yes, the Commission has analyzed the issue of imposition of anti-competitive barrier to entrants by incumbent firms. For instance, Google⁴¹ was found to be abusing its dominance by imposing restrictive conditions in online-negotiated syndicate search agreements. The prohibitions imposed under the negotiated search intermediation agreements upon the publishers were found to be unfair as they restricted the choice of these partners and prevented them from using the search services provided by competing search engines. Imposing of unfair conditions on such publishers by Google amounted to violation of the provisions of Section 4(2)(a)(i) of the Act. Since Google was using its dominance in the market for online general web search to strengthen its position in the market for online syndicate search services, it amounted to violation of the provisions of Section 4(2)(e) of the Act. Further, as competitors were denied access to the online search syndication services market, contravention of Section 4(2)(c) of the Act was also made out. Accordingly, the Commission ordered Google to not enforce the restrictive clauses with immediate effect in its negotiated direct search intermediation agreements with Indian partners. In addition to that, monetary penalty was also levied on Google.

5. Do you consider traditional antitrust tools and methods suitable to properly analyse digital markets? Do we need innovation in antitrust analysis as well?

The existing principles and provisions of the competition law are flexible and holistic enough for antitrust assessment of practices emerging in the digital space. However, some changes are needed in the merger notification thresholds so that certain transactions in the digital space that fall under de minimis exemption can be scrutinized. This is because many firms in such

⁴¹ *Matrimony.com Limited Vs. Google LLC & Others*(Case Nos. 07& 30 of 2012)

markets do not own assets as defined in a conventional form or have turnovers that are very low. However, in spite of their low levels of assets and/or turnover, consolidation in such industries would lead to creation of monopoly positions, which may inhibit competition.

Innovation is needed only in the application of platform economics to antitrust problems and accounting for the multisided nature in both the specification of the relevant market and competition assessment.

IV.2 Big Data and Competition Law

1. What is the importance of big data for competition in the digital economy in your view?

Indian economy is making a swift shift towards digital economy. Big data is the most crucial aspect of this development. Development of innovation technologies such as e-commerce, ride hailing apps, online wallets and web-based search services are dependent on the data possessed by these online entities. The use of big data by firms for development of products and processes has the potential to generate substantial efficiency and productivity gains. Therefore, access to and processing of data will be an important factor for competition in these data-driven markets. Moreover, network effects related to big data may potentially add to market power. In other words, data advantage can contribute to dominance. Thus, big data is extremely important for competition in the digital economy.

2. Have you faced competition problems regarding data flows, data processing or big data analytics? If so, please inform if the problems were related to any one of the alternatives below or any other issue regarding the competition law:
 - a. Big data as a source of market power;
 - b. Big data as entry barrier;
 - c. Big data and exclusionary conducts;
 - d. Big data and algorithmic collusion;

The Commission has dealt with the issue of big data as entry barrier in the Google case.

The Commission examined the issue within the permissible parameters in technology market. While dealing with the alleged entry barrier in the commercial units in flights, the

Commission delved into the product design of Google and refused to give immunity for the reason that the commercial units are paid/sponsored links. It was found that search results in flights were linked to Google's own specialised search results page. The Commission was therefore of the view that by integrating/ linking specialized search result pages with the Commercial Units and placing them prominently on SERP, Google is able to drive traffic to its own pages and also generate revenues through advertisements/ sponsored results. The Commission observed that by attracting consumer eye balls by every click it has been able to generate more data that further strengthened its dominant position and enhanced its capacity to innovate. Therefore, it was concluded that Google's conduct of displaying SERP in commercial flight unit has devoid consumers from getting additional choices and amounts to an imposition of unfair or discriminatory conditions upon the users of general search services.

The Commission is also cognizant of the concerns about algorithm-induced collusion. In this context, the Commission is examining an issue of sudden increase in airfares by airlines in certain routes in a specific period.

3. Do you have specific laws and specific authorities regarding data protection in your country?
 - a. Is there any interplay between data protection and antitrust law/policy?

As of now, Indian data protection regime is governed by Information Technology Act, 2000 and different rules framed thereunder. However, India is in process of coming up with exclusive data protection law after the release of Sri Krishna Committee recommendations on Data Protection. A draft Personal Data Protection Bill, 2018 has also been annexed with the released report that is to be vetted in the Parliament.

The government, the Competition Commission of India and other related agencies are trying to build a consensus on controversial issues of data-localization and cross-border data flows in the wake of increasing demands for consumer privacy. The government is trying to strike a fine balance between innovations backed by data, development by allowing for data flows beyond borders and ensure consumer privacy at the same time. The development of law in this regard is at discussions and deliberations stage and we hope that very soon India will come up with a comprehensive data protection regime that will address all the related issues and concerns.

4. Do you have experience using data mining, screening methods or similar strategies to detect cartels or collusive conducts?

Yes, structural and behavioral screens are used at prima facie stage to detect cartels and at investigation stage as circumstantial evidence of existence of collusive behavior. Screening methods are used in two scenarios – first, in the absence of specific information, to identify sectors and industries that might be prone to cartelization; and second, in the presence of specific information, to determine whether the behavior on display is likely to be due to underlying collusion. The CCI has also developed the “CCI’s Diagnostic Tool - Towards Competitive Tenders” which is a practical guide for procurement officials who can use it for review of their public procurement system to be able to detect bid rigging. It has been prepared drawing from national and international policy documents as well as practical experience in cases dealt with by the Commission.

V. Market Studies, Guides and Other Documents

1. Has your agency conducted any market studies regarding digital economies? If so, are any of them publicly available?

No, we have not conducted any market studies regarding the digital economy. However, the Commission is going to undertake a study based on app-based taxi industry shortly.

2. Do you have guides or reports on the digital economy?

No.

3. Have you relied on studies or documents from other agencies to guide your authority’s approach to digital economy?

We rely on OECD reports, ICN reports and academic literature to guide our assessment of the digital economy.

Annex IV

- South Africa -

I. General Questions: the Digital Ecosystem

1. Who are the internet giants in your country? In which markets (both online and offline) do they operate?

In response to the question, the Commission will identify the main internet uses and the associated companies/platforms in South Africa. However, given that access to high-speed internet at affordable prices remains a challenge in South Africa, we also provide a brief overview of large firms at the telecommunications infrastructure level and changing dynamics in fixed and mobile telecommunications.

The majority of the population in South Africa uses the internet for WhatsApp, Facebook, Twitter, YouTube, Instagram, LinkedIn, and Uber. This is in line with the main internet uses in other markets.

In South Africa, the following companies are considered 'internet giants':

- Online search services: Google, with limited presence of Yahoo and Bing.
- Social Networks: WhatsApp is the largest social network with an estimated 16 million users at the end of 2016 (out of a total of 21 million internet users at the time). It is followed closely by Facebook with 15 million active users, YouTube with 8.5 million, Twitter with 7.5 million and LinkedIn with about 5 million.
- E-commerce Platform: Takealot is the largest online retailer in South Africa. It started operating in 2001. Takealot is part of internet and media conglomerate, Naspers, which operates in more than 120 countries. Naspers holds shares in Chinese social networking and gaming firm 'Tencent', Indian online travel company 'MakeMyTrip', Brazil mobile marketplace 'Movile' and Russian internet firm 'Mail.ru', amongst others. Naspers also holds shares in broadcast and print media.
- E-hailing: There are two large e-hailing business in South Africa: Uber Technologies Inc which had 13 462 registered drivers in 2018 and Taxify, which had 20 459 drivers on their platform in 2018.4 Uber was the first e-hailing entrant in South Africa having entered in 2013. Taxify entered in June 2016. Both Uber and Taxify operate only in the denser South African cities of Johannesburg, Cape Town, Durban, Pretoria and Port Elizabeth.

Most people access the internet via mobile devices. Of about 21 million internet users in 2018, 7 million accessed the internet exclusively via mobile. In the mobile data space, there are four main mobile internet service providers in South Africa; Vodacom, MTN, Telkom, and Cell C. Vodacom and MTN were the first entrants and are larger than third entrant, Cell C, and fourth entrant, Telkom. In terms of number of subscribers in 2017, Vodacom had a market share of 47%, MTN's market share was 31%, while Cell C and Telkom lagged behind with shares of 17% and 5% respectively.

Despite the rise in mobile communications, fixed-line services still play a significant role in internet access. The former state-owned fixed line monopoly, Telkom, is dominant with a market share of about 73% in terms of the kilometres of national fibre fixed lines in 2017. The second largest market share is Broadband Infracore, a state-owned company, with a 14% market share. In joint third place are private providers: Neotel, Vodacom and MTN with an estimated 3% market share each.

With respect to the concern regarding the cost of data in South Africa, it bears mention that the Commission initiated a market inquiry into data costs on 18 August 2018. The Data Service Market Inquiry is being conducted in response to a request from the South African Minister of Economic Development ("the Minister"). Specifically, the Minister requested that the Commission conduct a market inquiry into the state of competition relating to the provision of data services in South Africa. The concerns of the Minister relate to high data costs in South Africa and the importance of data affordability for the South African economy and consumers. The public has also raised concerns that the high data prices in South Africa are caused by competition issues in the fixed and mobile data markets.

The purpose of an inquiry is to understand what factors or features of the market (s) and value chain may lead to high prices for data services and to make recommendations that would result in lower prices for data services. The inquiry is still ongoing and the Commission anticipates that its final report will be released before the end of the 2019 calendar year

2. Do the activities of any of these internet giants raise specific competition concerns in any of these markets? Please provide examples of such activities.

The Commission has received a number of merger notifications in the digital markets, some of which were global mergers that included some of these internet giants. Two of these

mergers, namely Microsoft/LinkedIn and Facebook/WhatsApp raised concerns relating to big data globally. The former was approved without conditions because the parties generated relatively low revenues in South Africa, whereas the latter was not notifiable because WhatsApp did not generate any revenue in South Africa. Detailed summaries of these cases are provided in the first question of the “Mergers and Acquisitions” part.

Currently, the Commission is evaluating a merger between Auto trader, a subsidiary of South African internet giant Naspers, and “We buy Cars” a physical and online retailer of second-hand cars. A summary of the case is also provided in the first question of the “Mergers and Acquisitions” part.

The Commission has also conducted a number of investigations pertaining to network operators and internet service providers as well as certain online platforms. The main complaints received by the Commission in digital markets relate to issues of exclusionary conduct, including inducement, tying and bundling, as well as predatory pricing. Summaries of the key issues from these cases are provided in the first question of the “Unilateral Conduct” part.

We have also attached a summary of the Telkom case as Appendix A. The issues in the Telkom case are primarily about its refusal to grant competing downstream firms access to its infrastructure and other exclusionary behaviour to leverage its market power in upstream infrastructure into downstream services.

3. In the digital ecosystem, which markets are prone to raise competition concerns in your country? Please describe.

The telecommunication market is prone to competition concerns due to high barriers of entry, high sunk costs and first-mover advantages. First-mover advantage is a common feature of telecommunications markets and it is a strong feature present in the South African telecommunications market.

Though the Commission has not yet investigated cases against Facebook, Amazon, and Alphabet similar to those investigated in the EU, the Commission anticipates that complaints regarding privacy and anticompetitive leveraging of access to users’ data into other markets may also arise in South Africa.

Concerns have also been raised about the fact that the current regulatory framework does not apply to new, disruptive technology, which gives these firms an unfair competitive advantage over regulated incumbents. These concerns have been raised by ‘traditional’ meter taxis against

Uber (discussed in the “Mergers and Acquisitions” part) and by paid satellite channels against streaming service Netflix. Though complaints about asymmetric regulation may not amount to a contravention of South Africa’s competition law, it does reflect incumbents’ concern about unfair advantages and the fact that the regulatory framework is slow to catch up with technological advances.

II. Legal Framework

1. What is the legal framework concerning competition policy your country? What are the main government bodies in your country responsible for competition enforcement?

The main law that governs competition in South Africa is the Competition Act No. 89 of 1998 (Competition Act). Another relevant regulation in the context of digital markets is the Independent Communications Authority of South Africa (ICASA) Act No. 13 of 2000 that establishes the telecommunications sector regulator and regulates competition in electronic communications and postal services.

The Competition Commission of South Africa (Commission) is responsible for the investigation, control and evaluation of restrictive practices, abuse of dominant position and mergers. ICASA’s mandate is to regulate electronic communications (i.e. broadcasting and telecommunications) and postal services in the public interest. In this regard, it investigates complaints received from the public about services provided by telecommunications, broadcasting and postal licensees.

The Commission and ICASA have concurrent jurisdiction in relation to some matters, operate and consult one another on matters of common interest.

2. Did you undertake any recent (or are you considering) legislation alteration to adapt to the digital economies, such as expanding the threshold for the merger to be reviewed?

On 14 February 2019, the South African Parliament enacted the Competition Amendment Act 18 of 2018⁴². It introduces provisions that clarify and improve the determination of prohibited

⁴² See: <https://www.gov.za/documents/competition-amendment-act-18-2018-englishafrikaans-14-feb-2019-0000>

practices relating to restrictive horizontal and vertical practices, abuse of dominance and price discrimination, the promotion of competition and economic transformation through addressing the structures and de-concentration of markets to protect and stimulate growth of small and medium businesses and firms owned and controlled by historically disadvantaged persons and other related matters.

Although these legislative developments were not specifically introduced to address the digital economy, they may well have important effects on the assessment of competition in digital markets. The following provisions, in particular, could have particular relevance for the Commission's assessment of digital markets:

i) The 'national security provision'

The Amendment Act introduces a section that provides for a Committee of Ministers and Public Officials appointed by the President to intervene in merger proceedings to assess the effects of a merger involving a foreign acquiring firm on the national security interests of the country. "National security" is not defined in the Act that provides that the President must publish a list of national security interests, including the markets, sectors or regions in which a merger involving a foreign acquiring firm must be notified to the Committee. An indicative list of issues that must be considered by the Committee is provided in the amendments. These include factors such as the transfer of knowledge and know-how and well as surveillance and espionage, which indicate that technology markets may well be subject to these provisions.

The Committee has the power to prohibit a merger that has an adverse effect on national security or to impose conditions to remedy such adverse effects.

ii) Strengthening of market inquiry provisions

Presently, the outcomes of a market inquiry have the status of recommendations submitted to the Minister of Economic Development. The Minister is not compelled to take action to implement the recommendations. The Amendment Act changes this, essentially imposing a duty on the Commission to take action to remedy adverse effects on competition uncovered during a market inquiry. All actions prescribed by the Commission, other than divestiture, are binding on the parties. The Commission may recommend a divestiture remedy to the Competition Tribunal, the adjudicative body, for determination.

These provisions strengthen the market inquiry provisions significantly and lay the basis for market inquiries to become a powerful tool to design and impose pro-competitive remedies even in technology markets if an inquiry finds evidence of adverse effects on competition.

iii) The 'buyer power' provision

The Amendment Act introduces a prohibition against abuse of buyer power. The provision states that it is prohibited for a dominant firm to impose unfair prices or trading conditions on a small or medium-sized firm or on firms owned or controlled by historically disadvantaged individuals. This provision only applies to certain sectors, which must be specified by the Minister of Trade and Industry in regulations. The first draft regulations, which are still subject to review, have been published and online trading platforms have been included in the preliminary list. It thus seems likely that the buyer power provisions will apply to technology firms.

Overall, the amendments aim to strengthen the Commission's ability to address market concentration directly and to open markets to greater participation. The provisions indicate an intention, on the part of lawmakers, to respond to changing dynamics and resolve constraints to effective intervention by the authorities, also in technology/digital markets.

3. Which do you consider the main challenges regarding the digital economy in your country?

The key enforcement challenges that need to be addressed by competition authorities and regulators in South Africa:

The digital economy presents a new theory of regulatory infiltration, which questions the legitimacy of existing laws and policies in the face of new technologies, as well as the pace of regulatory reform relative to the pace of change in digital markets.

Regulators in South Africa must consider whether existing laws and policies can be applied to virtual competition or if a shift to 'smart regulation' is needed. For example, regulators must consider whether existing competition law and enforcement tools are adequate to define markets, establish market power of incumbents and address new theories of harm (network effects).

The approach of competition authorities to assessing existing abuses such as predatory pricing may also have to change in response to different commercial models in digital markets (e.g. two-sided platforms where a service on one side is provided for free and thus necessarily predatory, but there are possibilities for recoupment on the other side, which raises concerns about elimination of competition and entrenched dominance)

South African regulators also have to determine if they have adequate tools to address the problems of virtual competition in an algorithm-driven economy. It is recognised that

computer algorithms are used as a central hub or platform to coordinate competitors' prices and amplify tacit collusion. Computer algorithms enable the processing and exchange of such a volume of data in real time in response to a change in market dynamics that the underlying assumptions on which competition protection has so far been built cease to work. For example, online shopping platforms use computer algorithms to adjust pricing. Its effect on competition in the virtual market eventually becomes a policy concern.

It is necessary to consider who should be liable in the case of advanced and complex tacit collusion, involving the difficult legal issues of human accountability of a computer's behaviour.

It is also important to understand how new technologies will displace work in South Africa in the future. The increased push for digitised interactions for consumers might mean a shift in the employment landscape in South Africa as more companies see value in replacing people with smart technology. However, it may also create a myriad of different opportunities for example, new ways of work and deliverables that only humans can perform.

Another enforcement challenge that has emerged, particularly in our work on e-hailing in the Public Passenger Transport Market Inquiry, is that the legal framework is not always geared to deal with the corporate structures of firms in digital markets. For example, it is not entirely clear how a firm like Uber should be defined – should it be defined only as the platform, as a taxi company (including the drivers), or is it some combination of both? The associated challenge is that this definition may change the manner in which we characterise its conduct. For example, if the drivers are considered independent competitors and not part of Uber, there is a valid question about whether Uber facilitates collusion.

Depending on how these challenges are addressed, South Africa may either face increasingly competitive, contestable markets in the future, where efficiency and continuous innovation prevail, or a sharp rise of market concentration, resulting in an abuse of market power by dominant firms.

III. Competition Cases involving digital markets

III.1 Mergers and Acquisitions

1. Did you review (or are currently reviewing) mergers and acquisitions in the digital economy in the last years? Which ones? In which markets? What were the conclusions? Did you require remedies?

There has been very few mergers notified to the Commission involving digital markets.

Notables ones include:

Takealot/Kalahari (2015)

The merger involved two of the largest online retailers in South Africa. The Commission approved the proposed merger whereby Takealot Online (Pty) Ltd intended to acquire Kalahari.com with conditions related to public interest (employment). There was a horizontal overlap in relation to online retailing of consumer goods and products. Combined market shares were high, however, upon assessing customer purchasing patterns at the time, the Commission found that brick and mortar retailers constrain online retailers to a great extent and more so, at the time, most of the customers were once-off purchasers. The merger raised public interest concerns in respect of employment. To address the employment concerns, the Commission imposed a condition that no more than 200 employees will be retrenched as a result of the merger and that a training/re-skilling fund be established to support any retrenched employees.

Microsoft/LinkedIn (2016)

This was a global merger in digital markets, particularly social networking and off-premise (cloud) services. In South Africa, much of the focus was on whether there could be any exclusionary conduct by Microsoft especially on off premise services (cloud). The investigation revealed there were unlikely to be incentives for such as strategy. Issues relating to big data arose in other jurisdictions especially in Europe, but the merger was approved unconditionally because both Microsoft and LinkedIn generate relatively low revenues in South Africa.

Facebook/WhatsApp (2015)

The transaction was not notifiable in South Africa because WhatsApp did not generate any revenue in the country. The merger raised some issues relating to big data globally.

MIH / Autotrader (2017)

MIH is part of Naspers, South Africa's largest e-commerce and advertising platform provider. MIH acquired Autotrader, a specialist classified online vehicle advertising platform. The investigation revealed that whilst the merged entity would command a significant market share post-merger and that barriers to entry were high, the merged entity would continue to face constraint from a number of credible providers of online automotive advertising platforms. Moreover, it appeared that customers exercised appreciable countervailing power in that they could negotiate pricing and could easily switch from one service provider to another. The merger was approved unconditionally.

This transaction, in which MIH (part of the Naspers group) acquired Autotrader is relevant to the assessment of the MIH/We Buy Cars transaction currently being assessed by the Commission.

MIH (Naspers)/We Buy Cars (2019, the matter is still to be had by the Tribunal)

Autotrader is currently the largest and most popular online retailer of used cars in South Africa. In addition to Autotrader, Naspers (the parent company of MIH) owns several online advertising and retail platforms including the platform "OLX" on which users list and sell goods, including used cars. "We Buy Cars" is primarily in the business of purchasing used vehicles for cash from sellers wishing to make a quick sale. "We Buy Cars" has a team of inspectors who visit potential clients to inspect their car and conclude a cash deal on the spot. These cars are then sold through both online platforms (including on Autotrader) and via physical dealerships.

Though "We Buy Cars" is a relatively small player in the retailing of second-hand car market, which is fragmented and not dominated by any one firm, the transaction raises interesting competition questions. For example, it provides Naspers with a physical inspection and sales teams who may be able to monitor listings on Naspers-owned platforms such as OLX and Autotrader and, knowing which cars have been listed for a long time, can approach the sellers with a favourable deal. The data from in-house online advertising platforms may also give "We Buy Cars" an advantage in terms of knowing and assessing the type of vehicles to purchase and

to forecast sales trend more easily, which data would not be available to competitors. It thus seems that Naspers may be able to use its dominance in online advertising and the data it collects from its online platforms to become a much more strategic purchaser of used cars. Naspers may also be able to display/advertise its second-hand car stock favourably on its online platforms, though there are still questions about whether it has the incentive to do so.

Given that Naspers is a large company involved in several e-commerce markets, the merger may introduce new complementary markets which may result in exclusionary effects as "We Buy Cars" is a significant trader of used cars whose potential market power may be leveraged into other e-commerce markets and vice versa.

Furthermore, the merger may allow Naspers to enhance the "We Buy Cars" dominance in the buying of used cars market and potentially exclude other online car buying platforms from effectively competing in the market. "We Buy Cars" would be in a position to harness off several advantages and synergies it will now be in a position to access from the Naspers group, which information and market intelligence may place it in a competitive advantage against other online rivals in the market.

It is worth mentioning that Naspers recognises the potential for growth in e-commerce in South Africa and has embarked on a strategy to expand its presence in e-commerce, primarily through mergers. In its rationale for this merger, Naspers states that it is part of its general strategy of expanding in e-commerce and that this proposed deal is seen as way to counter and defend against "Facebook Marketplace" which was launched in South Africa in January 2018. Naspers also had a plan to enter the market and start its own online buying and sale of used cars and compete with "We Buy Cars", thus, the merger was also removing Naspers as a potential entrant in the market where "We Buy Cars operate".

In addition, it was found that barriers to entry in the market for wholesale and online buying of used cars are high especially in the market segment where We Buy Cars operates. The Commission recommended to the Competition Tribunal that the matter be prohibited.

III.2 Cartels

1. Did you analyse (or are currently analyzing) any collusive conduct or cartel case in digital markets? Which cases? Did you convict any of them? Among these cases, were there cases related to algorithmic collusion? If so, how were these cases investigated?

Yes, there are ongoing investigations involving the use of digital instruments by companies in the allocation of work. These are referred to here as the 'Bluspec cases' and the 'Glass case'.

We are currently in the process of acquiring the services of programmers to assist in the investigations by reviewing the software that is being used by companies to determine whether the criteria (if any) used by the software to allocate work.

The first Bluspec investigation looks at the use of algorithms to facilitate exclusionary conduct by a vertically integrated industry player. The second Bluspec investigation looks at the potential for market allocation downstream where the vertically integrated company, Bluspec, competes with other players who happen to be subscribers to its upstream software. The software concerned could be using algorithms to allocate work.

The Glass case looks at the use of algorithms (Digi Call Administration centers) to fix prices and facilitate collusion between two autoglass fitment companies. Both investigations are fairly new and a lot of information about these cases is still subject to restriction.

2. Is algorithmic pricing legal in your country? Are there examples of algorithmic pricing in your jurisdiction? Do they raise competition concerns?

If parties have agreed to adopt use the same software with the aim of managing competition between themselves, the case will be treated like any other collusive conduct. Price fixing is illegal in the country irrespective of the means by which it is implemented or operated.

III.3 Unilateral Conducts

1. Did you analyse (or are currently analysing) unilateral conduct cases in the digital markets? Which cases? Did you convict any of them? Did you apply antitrust remedies?

From a unilateral conduct perspective, the Commission investigated a few cases and none of the cases led to a conviction. However, given the nature of the digital markets which sometimes span over a number of jurisdictions, South Africa, like any other country benefited from global remedies in the Google case.

The challenges of prosecuting global technology firms, particularly in smaller markets that holds less sway over tech giants and where it may be more difficult to show substantial effects, will remain. In this regard, the Commission is particularly interested in how the larger, more established jurisdictions that are home to these large technology firms (like the USA) or jurisdictions that have prosecuted these firms (like the EU), view the competition and regulatory challenge. Specifically, we are interested in whether their decisions will have an influence on jurisdictions such as South Africa (by default or design) that are less likely to be able to prosecute effectively in the short run.

Some of the selected cases which were investigated by the Commission are briefly discussed below:

Dirk Lucas vs Microsoft South Africa and others (2009)

Mr. Dirk Lucas ("the Complainant") lodged a complaint in his personal capacity in 2009.

The First Respondent was Microsoft South Africa ("Microsoft"). Microsoft develops, sells and supports several types of software products for personal computers ("PCs"), including operating systems and office applications. PC operating systems control the operation of a computer by managing the interaction between the computers' microprocessor, memory and attached devices such as keyboards, display screens, disk drives, and printers. The Second Respondent was Dell Computers, which deals in the supply of PCs (desktops and laptops) to businesses and personal users globally. Dell sales channels include a direct channel via its website and through resellers. The Third Respondent was Pinnacle Micro which is a distributor of information and communications technology ("ICT") equipment to resellers, mass retailers and government. Pinnacle Micro also manufactures products like the Proline range of server desktops

and laptops. The above-mentioned Respondents will collectively be referred to as “the Respondents”.

The Complainant alleged that no distributor or retailer would sell him a version of the Dell laptop he wanted without a Microsoft operating system pre-installed. The Complainant wanted to purchase a Dell laptop PC optimised to run a Linux-based operating system called Ubuntu which is an open-source software. The Complainant alleged that when buying a new PC he should not have to pay for a Microsoft Windows license when he has no intention of using it since Ubuntu software was available for free. The Complainant further alleges that if PC retailers sold PCs without Windows pre-installed, those interested in purchasing them would be able to save the costs of the Microsoft Windows license.

The Complainant alleges that he could find only one original equipment manufacturer (“OEM”) in South Africa, Mecer, which would sell him a laptop PC without a Microsoft operating system pre-installed. The Complainant did not establish from Dell South Africa whether it sells versions of the particular machine he wanted without a Microsoft operating system preinstalled. However, the Complainant did establish that Dell UK sells such machines—most often these are optimised to run Ubuntu.

Based on this the Complainant has alleged that Microsoft and/or PC manufacturers and/or PC distributors and retailers are contravening the Competition Act. The complaint was investigated under section 8(d)(i) which covers situations in which a dominant firm induces or requires a supplier or customer not to deal with the dominant firm’s rivals; section 8(c) which covers any exclusionary act by a dominant firm. Both sections would require the Commission to show the anti-competitive effects of the alleged contravention. The Commission in its assessment of the conduct relied on international case law such as *Dickson vs Microsoft* and others.⁴³ A summary of the major points of this judgment relevant to the South African case was that:

“A. Microsoft shall not retaliate against an OEM by altering Microsoft’s commercial relations with that OEM, [...] [...]

C. Microsoft shall not restrict by agreement any OEM licensee from exercising any of the following options or alternatives:

1. Installing, and displaying icons, shortcuts, or menu entries for, any Non-Microsoft Middleware or any product or service [...] that distributes, uses, promotes, or supports any Non-Microsoft Middleware [...]

⁴³ US Court of Appeals for the Fourth Circuit, No. 01-2458, June 2002, 309 F.3d 193. This is otherwise known as the ‘Netscape case’.

In its investigation the Commission found that there were a number of Dell resellers that supply 'naked' or 'open source' PCs with alternative operating systems such as Ubuntu Linux and that the complainant could have utilised such resellers. The Commission also found that the remedies in the US case applied globally, meaning that it is highly unlikely that the licenses that HP, Dell, Toshiba and others have with Microsoft restrict the OEMs' ability to sell nonWindows PCs, or in some way illegally incentivise them to sell only PCs pre-installed with Windows. Based on this, and the fact that it would have been difficult to show anticompetitive effects due to the number of alternatives available, the Commission decided not to pursue the investigation.

Entelligence Ltd ("Entelligence") vs Google South Africa

Entelligence is an Information Technology and Digital Marketing Solutions Provider which was contracted by TDS Directory Operations (Pty) Ltd ("TDS"), to conduct its online advertising. The core of the advertising campaign designed by Entelligence was to utilise Google's AdWords program as a platform which operates the Yellow Pages in South Africa.

The first of these contracts were due to expire on 31 July 2008 and a second contract on 30 September 2008. Both of these contracts offered Entelligence the opportunity to extend the period of the contract by such periods as may be agreed with Google. The period of the first contract was extended until 31 August 2008.

As a result of the campaign, Intelligence significantly improved traffic to the TDS site and disclosed the details of its successful TDS strategy to Google in discussions on the future of the campaign. Intelligence was then informed that Google had identified TDS as a client it prefers dealing with directly and that it would not agree to further extensions of the Entelligence contracts. It is clear that Google's decision and actions are aimed at expropriating TDS from Entelligence as no alternative platform exists for Entelligence to honour its obligations to TDS.

The complainant alleged that Google's action amounts to requiring and inducing TDS not to deal with Entelligence but to deal directly with Google.

The Commission investigated the case as a possible contravention of section 8d(i) which covers situations in which a dominant firm induces or requires a supplier or customer not to deal with the dominant firm's rivals. Under this section of the Act, the Commission is required to show that the conduct has (non-trivial) anticompetitive effect. The allegation was dismissed because Entelligence was a small player and the conduct of Google was unlikely to result in substantial lessening or prevention of competition in the relevant market.

Metered Taxi Industry vs Uber (2015)

The complainant was the Metered Taxi Industry which represents the traditional meter taxis. The metered taxi industry alleged that Uber was: conducting unfair business practices in that it secures partnerships with multinational companies and has exposure to their client base ultimately giving it unparalleled market access, non-compliant with the South African public transport rules and regulations in that it does not pay any permit renewal, rank fees and licencing fees as do other traditional metered taxis, and charging below-cost rates to the detriment of traditional metered taxi operators.

The Commission investigated the complaint under abuse of dominance provisions prohibiting predatory pricing. Preliminary findings, during the screening of the complaint found that Uber driver-partners were not charging prices that are below cost in any of the cities in which Uber operated. The Commission decided not to pursue the case to full investigation as the complaint was lodged within one year of Uber commencing its operations in South Africa and it was unlikely to establish anti-competitive effects.

Subsequent to this complaint, the Commission decided to conduct a market inquiry into land based public passenger transport, as mentioned above. The market inquiry provisions have a broader remit as it looks at the general state of competition in the industry. Market inquiries also have a lower test to show anticompetitive effect in that they allow the Commission to probe any conduct that prevents, distorts or restricts competition rather than having to show a substantial lessening or prevention of competition.

The market inquiry focuses on a range of issues, including: price setting mechanisms for different public transport modes and their impact on intra- and inter-modal competition; impact of regulations (such as including route allocation, licensing and entry requirements) on competition; the impact of operational subsidies granted to other modes of transport on competition.

IV The Antitrust Toolbox for the Digital Economy

IV.1 Applying Antitrust Concepts to the Digital Economy

1. How do you assess market power in the digital economy? For example, do you define relevant market in every case? In cases involving multi-sided platforms, how do you define relevant market and measure market power?

The South African experience regarding cases in the digital economy is rather limited but as a general practice, we will define the relevant market in every case.

The Commission has also defined two-sided markets where relevant and this was done primarily in media platforms that link distinct, but interrelated, groups of consumers. After separate markets are defined, we measure market power by assessing if a firm in each of the defined market has the power to control prices, or to exclude competition or to behave to an appreciable extent independently of its competitors, customers or suppliers.

The Commission is also receptive to international practices and case precedent relating to digital markets and where applicable, the Commission would adjust the approach in line with the facts and context of each case.

2. In your jurisdiction, what is the role of innovation and dynamic competition in the analysis of antitrust cases involving digital economies?

Dynamic competition is typically a consideration in an ex ante assessment of competition and competitive effects such as that done in the assessment of mergers. Investigation of prohibited practices tends to focus on past conduct and thus the dynamism of competition is less likely to be relevant. The Commission follows international case precedent in assessing innovation and dynamic competition in the analysis of antitrust cases involving digital economies. The Commission has also assessed dynamic efficiencies in other markets.

3. How is your agency analysing the recent trend of acquisitions of new born companies in the digital economy by incumbents?

Every acquisition is assessed on its merits and if, after conducting our investigation, we find that the merger might result in substantial lessening of competition, the Commission will impose remedies. If the proposed remedies are not appropriate, the Commission will prohibit

the transaction. The normal process that is followed in analysing other acquisitions is followed if an incumbent wants to acquire new-born companies in the digital economy.

At this stage, this is not something that the Commission is concerned with but we note that it is a trend internationally. With a growing interest in this area, the Commission might reconsider its position in this regard.

A further concern from a legal standpoint is that these mergers may not trigger the relevant thresholds given the lack of current revenue for the new-born companies. While South Africa does have the power to investigate small mergers even after they have been completed, these do not need to be notified to the authorities and thus this may raise additional challenge in dynamic digital markets.

4. Have you analysed (or are you analysing) cases in which the incumbent firms use their market power to impose anticompetitive barriers to entrants in the digital economy? If yes, how is your agency dealing with these cases?

The Telkom case highlighted in the Selected Cases is a good example and one of the key remedies imposed was the functional separation of Telkom's wholesale and retail operations.

5. Do you consider traditional antitrust tools and methods suitable to properly analyse digital markets? Do we need innovation in antitrust analysis as well?

Many of the traditional tools and methods are useful as a standard guide for analysing digital markets, although authorities acknowledge that digital markets have the propensity to challenge the robustness of existing methods and they should be amenable to any future developments and changes in this area. When it comes to market definition and the assessment of market power for example, authorities normally base their views on information on existing competitors. However, in digital markets, there is a significant role played by disruptive technologies such that the market is not determined by the relative positions of competitors at a given point in time, but competitors coming from outside are also relevant. For example, Uber came from outside the metered-taxi market to disrupt the metered taxi business when nobody was expecting it.

Secondly, digital markets challenge existing methods when dealing with network effects. Existing tools of competition assessment consider network effects as an important source of market power based on the idea that consumers derive more benefits from being part of the

network of a large (or dominant firm) and therefore will tend to be reluctant to use platforms of smaller players. This in turn has the effect of entrenching the power of dominant players and marginalise smaller players. In digital markets this is not always the case as customers in these markets have the tendency to use multiple platforms. For example, social network users use multiple social networks such as Facebook, Twitter, Instagram, and WhatsApp at once thereby making network effects less important in this market. Hence, there is an added need for investigators to carefully consider customer behavior when faced with cases in digital markets. Lastly, for potential competition it may not be the incumbents, but those on the margins that matter. This means we always have to consider the extent to which incumbents prevent entry from disruptive competitors.

However, existing literature and experience on aspects such as two-sided and multi-sided markets will form an important body of knowledge for the assessment of conduct and mergers in digital markets where often the market is driven by subscribers but revenues are driven by advertisers.

It is our view that ex ante regulation is important in digital markets and that we need to pay more attention to the enabling environment.

IV.2 Big Data and Competition Law

1. What is the importance of big data for competition in the digital economy in your view?

Big data is important for competition in the digital economy in our view. Big data can have procompetitive effects, such as the creation of information assets and innovative services, as well as anti-competitive effects like new forms of customer discrimination which ultimately depend on each country's digital economy and its characteristics.

We have not, however, dealt with the competitive dynamics surrounding big data in the South African market as yet.

2. Have you faced competition problems regarding data flows, data processing or big data analytics? If so, please inform if the problems were related to any one of the alternatives below or any other issues regarding competition law:
 - a. Big data as a source of market power;
 - b. Big data as entry barriers;
 - c. Big data and exclusionary conducts;
 - d. Big data and algorithmic collusion.

We do not have experience in this regard.

3. Do you have specific laws and specific authorities regarding data protection in your country?

Yes there are laws relating to data protection in South Africa, but these laws relate more to personal data protection- the Protection of Personal Information (PoPI) Act is a key example in this regard.

- a. Is there any interplay between data protection and antitrust law/policy?

This is not common and it will be case dependent. The Commission has the power to request personal information.

4. Do you have experience using data mining, screening methods or similar strategies to detect cartels or collusive conducts?

We do not have experience using data mining to detect cartels or collusive conducts, but we have used screening methods in detecting cartels or collusive conducts. We also conduct scoping studies to a limited extent in markets.

V. Market Studies, Guides and Other Documents

1. Has your agency conducted any market studies regarding digital economies? If so, are any of them publicly available?

As highlighted above, the Commission is currently conducting a market inquiry into data prices in South Africa.

We also conducted an internal study, which assessed disruptive technologies in telecommunications, broadcasting and transport, the study was published as a working paper.

2. Do you have guides or reports on the digital economy?

We are yet to develop guides or reports on the digital economy.

On 4 July 2018, industry Ministers from the BRICS countries signed a declaration on the implementation of the Digital Industrial Revolution (DIR).⁴⁴ The declaration introduces a partnership amongst the BRICS countries to develop advanced skills, training and capacity for the DIR. Through this initiative, it established a BRICS Digital Working Group that will define an appropriate unified policy and regulatory framework among the BRICS countries for introducing new technologies

3. Have you relied on studies or documents from other agencies to guide your authority's approach to digital economy?

As a common practise, we always use international best practise (such as the OECD and the World Bank), but we haven't used any studies or documents from other agencies to guide our approach to digital economy as this has not yet become a key regulatory focus for the competition authority in South Africa. It will be guided by approaches adopted in other jurisdictions as cases impacting the digital economy are assessed in the future.

⁴⁴ South Africa is a member of BRICS.