

Competition Policy for Regulating Online Platforms in the APEC Region

MEXICO



APEC Project: CPLG 02 2018

Produced by the Federal Telecommunications Institute (IFT) México
Insurgentes Sur 1143
Col. Nochebuena, Benito Juárez
Mexico City 03720
Tel: (52) 55 5015 4000
Email: asuntosinternacionales@ift.org.mx
Website: www.ift.org.mx

For Asia Pacific Economic Cooperation Secretariat
35 Heng Mui Keng Terrace
Singapore 119616
Tel: (65) 68919 600
Fax: (65) 68919 690
Email: info@apec.org
Website: www.apec.org

© 2019 APEC Secretariat

APEC#219-EC-01.3

Table of Contents

Competition Policy for Regulating Online Platforms in the APEC Region.....	4
1. Alignment of the CPLG 02 2018 Project with APEC Priorities.....	4
2. Report on the APEC Workshop on Competition Policy for Regulating Online Platforms in the Asia-Pacific Region	4
3. Summary of the Responses to the Questionnaire on Online Platforms Regulation	8
4. Key Elements of Online Platforms.....	11
5. Economics behind Online Platforms	13
5.1 Direct Network Effects	14
5.2 Indirect Network Effects	14
5.3 Increasing Returns to Scale.....	14
5.4 Economies of Scope.....	15
5.5 Big Data and Free Services	15
5.6 Single-homing and Multi-homing.....	16
6. Competitive Analysis of Digital Platforms.....	16
6.1 Market Definition.....	17
6.2 Mergers	20
6.3 Platforms and Dominance.....	26
6.3.1 Barriers to Entry.....	27
6.3.2 Evaluation of Dominance.....	29
6.4 Anti-competitive Practices.....	37
7. Conclusions and Recommendations.....	43
Annex: Responses to the Questionnaire on Online Platforms Regulation	49
References	80

Competition Policy for Regulating Online Platforms in the APEC Region

1. Alignment of the CPLG 02 2018 Project with APEC Priorities

Mexico, with the co-sponsorship of Australia, Canada, Chile, Indonesia, Japan, the Philippines, Russia, Chinese Taipei, the United States of America and Viet Nam, obtained APEC funding from the general project account for the project CPLG 02 2018 “Competition Policy for Regulating Online Platforms in the APEC Region”.

This project aligns itself with the:

- *2014 APEC Initiative of Cooperation to Promote Internet Economy*, in which APEC Leaders recognized the role of internet economy in promoting innovative development and increasing economic participation.
- *2017 APEC Internet and Digital Economy Roadmap*, which provides guidance to facilitate technological and policy exchanges among member economies and to promote innovative, inclusive and sustainable growth, as well as to bridge digital divide in the APEC region.

In 2018, The Economic Committee (EC), aiming to support the implementation of the Roadmap, created an Informal Roadmap Group (IRG) prioritizing its work on the following focus areas of the Roadmap:

- Development of holistic government policy frameworks for the Internet and Digital Economy (focus area 4);
- Promoting coherence and cooperation of regulatory approaches affecting the Internet and Digital Economy (focus area 5); and
- Enhancing the inclusiveness of the Internet and Digital Economy (focus area 10).

Since the project CPLG 02 2018 “Competition Policy for Regulating Online Platforms in the APEC Region” fell in line with the IRG priorities, it was included as one of the activities in the *2019 Internet and Digital Economy Work Plan* of the EC.

2. Report on the APEC Workshop on Competition Policy for Regulating Online Platforms in the Asia-Pacific Region

In this framework, Mexico organized a 3-day *APEC Workshop on Competition Policy for Regulating Online Platforms in the Asia-Pacific Region* on 7-9 May 2019, in the Federal Telecommunications Institute (IFT) headquarters in Mexico City, Mexico, with the participation of 13 APEC economies: Canada, Chile, Indonesia, Malaysia, Mexico, Papua New Guinea, Peru, the Philippines, Russia, Singapore, Chinese Taipei, the

United States of America and Viet Nam. Non-member participation included the European Union, the Organization for Economic Co-operation and Development, the Latin American Internet Association, and participants from academia, legal firms and industry.

The discussions were beneficial for the participants and included the interventions from Mexican institutions that take part in the development of the internet and the digital economy, such as the IFT, the Ministry of Economy (SE), the Office of the Federal Prosecutor for the Consumer (PROFECO), the Federal Economic Competition Commission (COFECE) and the Central Bank.

The number of speakers and active participants that attended to the workshop amounted to 74 attendees, out of which 44 were males (59.5%) and 30 were females (40.5%). The Opening Keynote Session registered an attendance of 140 participants at the IFT Auditorium and 670 via streaming, for a total amount of 810 attendees.

In order to comply with the successful development of the Workshop, APEC authorized funds were \$128,594.00 USD and IFT co-founded an amount of \$14,392.04 USD, for a total value of \$142,986.04 USD. The Project funded eight speakers. Additionally, from the 11 travel-eligible APEC economies, 10 of them sent participants as follows: Chile and China sent one participant; Indonesia sent five participants (two of them were self-funded); Malaysia, Papua New Guinea, Peru, Russia and Viet Nam sent two participants; The Philippines sent three participants; and Mexico sent 38 self-funded participants. From the non-travel-eligible economies: Canada sent one participant; The United States of America sent two participants; and Singapore sent two participants.

The purpose of the APEC Workshop on Competition Policy for Online Platforms in the Asia-Pacific Region was to exchange best practices, information and tools used by competition authorities, regulatory agencies and policy makers to perform economic competition analysis of online platforms markets. It presented an opportunity to share different approaches, criteria, conceptual frameworks and tools for an adequate assessment, enforcement and intervention. The exchange of experiences on these topics sought ways to define markets with multiple sides, in order to assess competition conditions or dominance and to eliminate barriers to entry or market failures. This report aims to gather the main findings and best practices regarding competition assessment in online platforms.

The Workshop began with the participation of Harvard University professor Jason Furman, who explained to the audience that, in this new economy of digital platforms, monopolies tend to exist, and most of them could probably be justified because they tend to be efficient, while bringing important benefits for users and consumers.

Although professor Furman believes that the greatest source of innovation is competition in the markets, he pointed out that we should not worry about the fact that there might be only one or two companies in a market. The important thing is to avoid barriers to entry and to recognize that even if barriers exist, often a company that competes with

existing ones, and might even displace them, can always enter the market (e.g. Facebook with Myspace).

Finally, he also highlighted that it is always important to reflect on three questions, when analyzing the markets of digital platforms:

- Is market concentration harmful in a particular market?
- Is there a lack of competition (current or potential)?
- Can competition policy be effective, in a specific case, to promote such competition?

The Workshop was divided into panels that aimed to strengthen the capacity and understanding of competition authorities in the APEC region about economic and technological aspects of online platforms in order to face the challenges that these platforms represent for competition authorities regarding mergers, dominance and anticompetitive practices assessment.

During the merger panel, the representative of the US indicated the importance of updating the merger analysis guidelines, in a way that emphasizes enhancing competition, but also considering its effect on innovation. Several presentations discussed moving the analysis from the balance of probabilities towards the balance of risks.

Another interesting contribution regarding mergers in the digital platforms was to not falling into the a priori belief that acquisitions and purchases of companies belonging to the main digital platforms are bad per se for society.

The exchange of ideas continued about the risks involved in the new forms of collusion for platforms through algorithms. Faced with this challenge, one of the raised proposals was to establish a code of conduct applied to dominant companies.

Given the question of whether the current antitrust laws or the prevailing competition analysis tools are flexible enough to adapt to the new economy of digital platforms, it was suggested a rule of reason (case-by-case) analysis, based on evidence, since it provides better results than ex-ante regulation. In this regard, the representative of the US detailed that the anti-monopoly division of his economy constantly seeks to promote competition by eliminating regulations that unnecessarily increase the costs of entry to the new potential entrants.

Forum participants agreed that digital platforms cannot be regulated in the same way as usual services. They also agreed that innovation should not be inhibited nor prevent new entrants from joining the markets. Among other recommendations mentioned during the forum were that, when analyzing competition cases, neutrality and an appropriate use of information should be promoted, as well as coordination between regulators and a flexible regulation that does not suffocate the markets.

A topic frequently mentioned during the workshop was the use of data and how can it improves the services that a platform offers to the users. The existing feedback loops in these markets (better services attracts more users, which results in more data available which in turn generates more income, better services and more users), are strengthened by network effects and economies of scale and scope. In this way, one of the conclusions of the participants was to seek a non-intrusive *ex ante* regulation, in order to avoid a negative impact on innovation as well as on the elaboration of algorithms.

One of the most mentioned tools during the forum was the theory of harm, which provides a reasonable explanation on how a behavior can displace, impede entry or detriment some economic agents. Thus, participants suggested guiding investigations in a way that the best available evidence can be obtained, empirical and material, about of the harmful effects that a non-competitive behavior could produce. The representative of the European Union pointed out that they focus on the implementation of *ex-ante* rules and the theory of harm, rather than on a very narrow definition of the relevant market. Likewise, the analysis tool of the hypothetical monopolist test (Small but Significant, Non-Transitory Increase in Price –SSNIP–) was criticized, since it does not capture the interdependencies between the different types of consumers.

While there is no generally accepted methodology for analyzing competition cases related to digital platforms, it is clear for the APEC member economies that traditional tools are not as effective or applicable when analyzing markets based on digital platforms, though they are still very useful when analyzing traditional industries. Therefore, the recommendation is to analyze on a case-by-case basis (rule of reason approach), recognizing that we are not facing static scenarios but dynamic ones of constant innovation, in which competition can occur even in complex components of the digital platforms, such as algorithms (in particular, cases of collusion) which have not been addressed by economic or regulatory agencies before.

A central aspect prevails in the analysis of digital platforms' markets; emphasis must be placed on data protection and privacy of users. Also, rather than the use of particular analysis tools, it is relevant to put special attention on the principles of competition policy. One must go beyond the search for an appropriate definition of the relevant market and prioritize the analysis based on the theory of harm.

As a general result, the Workshop on Competition Policy for Regulating Online Platforms in the Asia-Pacific Region strengthened the understanding of online platforms' business models and competition authorities' assessment tools for economic analysis and enforcement actions. The support from APEC was essential to bring together experiences from competition and regulation agencies, policy makers, regional and international organizations. Its main insights, the principal findings in the questionnaire, the contributions of the economies and conclusions are gathered in this APEC Report with recommendations aimed at tackling some of the competition challenges raised by online platforms in APEC economies.

3. Summary of the Responses to the Questionnaire on Online Platforms Regulation

As part of the Project, Mexico designed a Questionnaire on Online Platforms Regulation that aimed to collect information from APEC economies regarding their legal frameworks and competition analysis approaches to assess new digital services, particularly, online platforms.

Out of the 21 APEC economies, 11 responded: Canada, Chile, Hong Kong, China, Indonesia, Japan, Mexico, Papua New Guinea, the Philippines, Russia, Chinese Taipei and the United States.

According to the information provided by APEC economies, the authorities in charge of competition policy regarding online platforms are the following:

Table 1. Authorities Involved with Competition Policy for Online Platforms

Economy	Authorities
Canada	<ul style="list-style-type: none"> - Ministry of Innovation, Science and Economic Development - Competition Bureau
Chile	<ul style="list-style-type: none"> - Office of the National Economic Prosecutor - Free Competition Defense Tribunal - Ministry of Finance
Hong Kong, China	<ul style="list-style-type: none"> - Competition Commission
Indonesia	<ul style="list-style-type: none"> - Commission for the Supervision of Business Competition
Japan	<ul style="list-style-type: none"> - Japan Fair Trade Commission - Ministry of Economy, Trade and Industry - Ministry of Internal Affairs and Communications
Mexico	<ul style="list-style-type: none"> - Federal Telecommunications Institute - Federal Economic Competition Commission - Specialized Courts on Competition, Broadcasting and Telecommunications
Papua New Guinea	<ul style="list-style-type: none"> - Independent Consumer and Competition Commission - National Information and Communications Technology Authority
The Philippines	<ul style="list-style-type: none"> - Philippine Competition Commission
Russia	<ul style="list-style-type: none"> - Federal Antimonopoly Service
Chinese Taipei	<ul style="list-style-type: none"> - Fair Trade Commission

The representatives of these economies pointed out that since trading environment regarding online platforms requires other policy considerations, in order to ensure free competition in online markets, competition authorities must cooperate with ministries from the executive branch, courts from the judicial branch and communications regulators.

The main challenges of competition policy identified by the economies regarding online platforms are:

- Establishing methods for defining markets and market structure;
- Evaluating market power and dynamic competition;
- Identifying the relevant market and determining geographical coverage;
- *Ex post* enforcement given online platforms trends to monopolization and oligopolization of the market;
- Understanding network effects in merger cases;
- Ensuring transparency and fairness for users in their transactions;
- Expanding and improving the infrastructure to support online platform services, making available a variety of choices for the citizens;
- Delivering a level playing field for companies of all sizes through competition regulation without hindering innovation;
- Coordinating with sector regulators to ensure market contestability;
- Balancing innovation support, privacy safeguarding and consumer trust.

It is noteworthy that there are economies that have not yet encountered significant challenges, either because of the soundness of their legal framework or because not enough time has passed since its implementation or due to low internet penetration rates. Nevertheless, several economies have recently amended or are in the process of amending some of their legal ordinances in order to protect consumer and privacy rights. Some are aiming to protect personal data, the right to be forgotten, the right to opt-out, the right of universal access, the right to data portability and the right to object; while others are focusing their efforts in protecting small and medium businesses, tackling spam and enabling a safe digital environment. Specifically, one economy is aiming to regulate private transport platforms.

The Questionnaire also explored the issue of foreign enterprises operating through online platforms in other economies. In this regard, most of the economies apply their existing legal framework to either foreign or domestic-based enterprises.

Additionally, there is a general agreement among the economies regarding the sufficiency of their current regulatory framework to combat anticompetitive behavior in online platform markets. Yet, several economies continue to examine some of the challenges raised by the digital economy in general, advocacy or enforcement strategies and thematic studies.

Table 2. Further References on Challenges Raised by the Digital Economy

Economy	References
Canada	<ul style="list-style-type: none"> - Digital Charter - Discussion paper on Big Data and innovation: implications for competition policy in Canada - Summary Report on Big Data and innovation: key themes for competition policy in Canada
Chile	<ul style="list-style-type: none"> - Digital Agenda 2020
Indonesia	<ul style="list-style-type: none"> - Presidential Regulation No. 74 Year 2017 on the e-Commerce Road Map - Report on The Digital Economy in Indonesia
Japan	<ul style="list-style-type: none"> - Fundamental Principles for Improvement of Rules Corresponding to the Rise of Digital Platform Businesses - Improvement of Trading Environment surrounding Digital Platforms
Russia	<ul style="list-style-type: none"> - Digital Economy National Program

Nowadays, competition authorities are analyzing an increasing number of cases involving online platforms. Even though such authorities have slight differences in the way they look at certain antitrust cases in their economy, all of them continue evaluating these cases as they evaluate traditional ones, but also considering network, multi-sided and non-price effects (quality, variety, innovations, privacy) of online platforms on both static and dynamic competition.

Table 3. Relevant Cases Involving Online Platforms in APEC Economies

Economy	Cases
Canada	<ul style="list-style-type: none"> - Google Inc. Online search, search advertising and display advertising services (Abuse of dominance)¹. - Toronto Real Estate Board (Abuse of dominant position).
Chile	<ul style="list-style-type: none"> - Cornershop-Walmart Chile (Acquisition). - Transbank (Abuse of dominant position).
Indonesia	<ul style="list-style-type: none"> - Start-up companies (Acquisitions). - (Currently under review) News portal industry (Acquisitions).
Japan	<ul style="list-style-type: none"> - Amazon (Parity clauses). - Online intermediary platform for pets (Exclusive dealing). - Airbnb (Exclusive dealing). - Ikyu Corporation - Yahoo Japan Corporation (Acquisition).

¹ "Competition Bureau Statement regarding its investigation into anticompetitive conduct by Google". 19 April 2016. Available at: <https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04066.html>

Economy	Cases
Mexico	<ul style="list-style-type: none"> - SixSigma-Metronet (Merger).² - Cornershop-Walmart Chile (Acquisition).
The Philippines	<ul style="list-style-type: none"> - Uber - Grab (Acquisition).
Russia	<ul style="list-style-type: none"> - Google LLC (Anti-competitive practices). - Microsoft Corp. (Anti-competitive practices). - (Currently under review) three job posting platforms. - (Currently under review) Apple Inc. (Anti-competitive practices).
Chinese Taipei	<ul style="list-style-type: none"> - Google Inc. Google Maps (Abuse of market power).

Recognizing that technology and business practices continue to evolve, some authorities have developed network neutrality rules and guidelines for assessing differential pricing practices of internet services providers and regulations to manage electronic transactions and systems, while they remain aware of the debates on potential competition issues that could be raised by algorithms, big data and artificial intelligence.

A deeper consideration goes into whether data could be defined as a separate market and its role in digital markets. Predominantly, economies pointed out the need of a case-by-case analysis, which would entail the definition of the relevant market. Data holds an intrinsic value and as a separate market, it could generate switching costs, which could constitute a significant barrier to entry and expansion and could create a barrier because of network effects; yet no definitive stance can be made without a previous analysis.

Finally, current legal and regulatory framework of APEC economies for online platforms mostly derives from civil, consumer protection, partnership, e-commerce, data privacy, cybercrime prevention, tax, communications and competition laws.

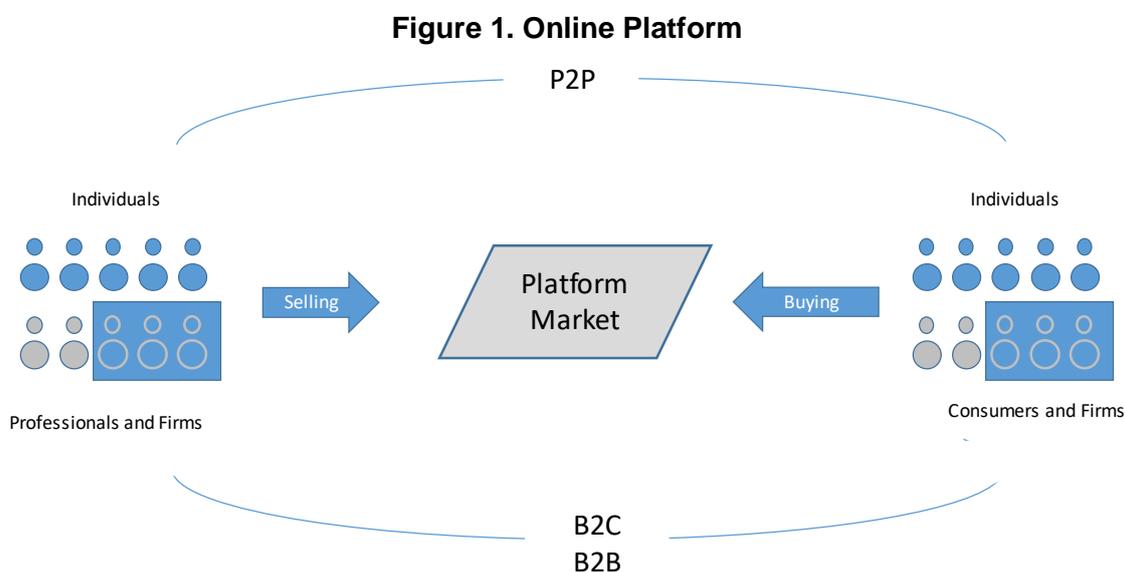
4. Key Elements of Online Platforms

Online platforms are considered a subset of the services known as OTT (Over the Top Services). Online platforms are IT (information technology) and content applications that enable the interaction of two or more user groups. The main features of the platforms are:

- They serve two or more user groups;
- User groups need each other in some way and cannot capture for themselves the value of their mutual interaction; and
- They depend on the platform's catalyst to facilitate interactions between them that generate value.

² Public Version in Spanish of the "Resolution by which the Board of the Federal Telecommunications Institute authorizes the merger under file No. UCE/CN-004-2014, notified by SixSigma Networks México S.A. de C.V. and Metro Net, S.A.P.I de C.V." Available at: http://apps.ift.org.mx/publicdata/P_IFT_011014_332_Version_Publica_UCE.pdf

Online platforms communicate different user groups, and this element constitutes a multi-sided market, in which the decisions of one group affect those of the other groups, usually through an externality. The interaction between two groups through a platform is represented in the following figure.



P2P: Peer to peer.

B2C: Business to consumers.

B2B: Business to business.

Source: "New forms of work in the digital economy"; Working Party on Measurement and Analysis of the Digital Economy; OECD, 2016.³

Transactions on platforms can involve only peers (P2P), businesses and users (B2C) or only businesses (B2B). Different business models can be set by identifying the types of platforms and transactions.

Platforms provide a common meeting place (virtual) providing search, matching, transaction and payment services that facilitate interactions. Multisided platforms differ from traditional firms in the following:

- Supply each group with access to the other group;
- Facilitate interactions by reducing transaction costs;
- They need to build a critical mass in each group of users, and
- They usually have rules or mechanisms to prevent harmful interactions.

Regarding pricing structure, platforms have to determine the price they will charge on each side of the platform for the access they offer, considering that the price charged to one group will affect the other, it is necessary to find the right balance. In a two-sided

³ Organization for Economic Co-operation and Development (OECD). (2016). *New forms of work in digital economy, Working Party on Measurement and Analysis of the Digital Economy*. Retrieved from: [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DST/ICCP/IIS\(2015\)13/FINAL&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DST/ICCP/IIS(2015)13/FINAL&docLanguage=En)

market, for example, profit-maximizing prices can result in below-cost price, perhaps free or even a negative price to one side, while the other side might pay a very high price. Therefore, it is common that one group of the platform is subsidized by the other group.

Online platforms usually have very low marginal cost (even zero) of serving an additional user. In this case, when a platform determines profit-maximizing prices it is more likely that it sets a price below or equal to marginal cost in a side of the market.

Online platforms monetize their services based on the following models:

- i. **Advertising.** The providers offer the platform to a group of users for free in exchange of exposure to a certain type of advertising, with the aim of attracting the largest number of users on one side of the platform and selling advertising time, spaces and banners to another group on the platform (the advertisers);
- ii. **Data.** The consumer groups that use the platforms generate a large amount of data, which is collected, stored and processed (Big Data) by the platforms. This type of databases is very valuable for the platforms themselves (it allows them to improve the personalization of their services) and for other users, such as advertisers, banks, among others;
- iii. **Commissions per transaction.** For the management of demand and supply of some good or service, platforms allow linking supply and demand in real time, reducing transaction costs. The providers of this type of services can identify the transactions that are made between the different user groups, so they have the ability to assign a fee/commission for each of the transactions made between them; or
- iv. **A combination of the above.**

5. Economics behind Online Platforms

Online platforms enable interactions or exchanges that make all participants better off. The platform benefits buyers by coordinating sellers and it benefit sellers by coordinating buyers. Without the platform, transaction costs would make it impossible for the interactions to take place.⁴ Thus, online platforms exhibit important economies of scale and scope, direct and indirect network effects and a low marginal cost. The key economic elements of online Platforms are defined below.

⁴ Coyle, Diane; "Platform Dominance: The shortcomings of antitrust policy"; in Digital Dominance: The power of Google, Amazon, Facebook, and Apple; Martin Moore and Damian Tambini (eds.), Oxford University Press; 2018.

5.1 Direct Network Effects

The utility that a given user derives from a certain good or service depends upon the number of other users who are in the same network as them. Consider a telephone network; clearly, the utility for a user depends on the number of other users that they can reach in the network. Economists call this effect direct network externality.⁵

Online platforms exhibit strong direct network effects. Consider a social network platform, the more users joining the platform, the higher the utility for the next user joining the platform. In other words, the user's utility is directly proportional to the number of users within the network. In addition, direct network effects have an impact on the quality of the product or service.

5.2 Indirect Network Effects

Indirect network effects are common in multisided markets, where two or more groups interact and the decisions of one group affect the other group through an externality. In this case, the utility that a given user derives from a certain good or service depends upon the number of other users who are in the other group.

As mentioned above, online platforms are multisided markets, because they interconnect different groups of users and therefore exhibit strong indirect network effects. Consider for example, a food delivery platform, the utility of a buyer does not directly increase with the presence of more buyers, but it does increase with the presence of more restaurants, which are in turn attracted by the presence of buyers.

Indirect network effects are prominent on online platforms, because paid advertising finances a great number of them, the more consumers viewing a site the more valuable is the advertising. In addition, digital markets can target and personalize advertisements, which makes this mean very cost-effective.

On multi-sided platforms, it is common to observe a price of zero for one or more groups in a very lucrative model. This is because the presence of those groups attracts paying customers, such as advertisers, sellers, among others.

5.3 Increasing Returns to Scale

Increasing returns to scale occur when the average unit cost decreases when sales expand. Online platforms exhibit increasing returns to scale because they have a high fixed cost and a low variable cost. For example, it is very costly to develop a ride-sharing platform, but once it is established, the cost of serving one additional user is close to zero. The same dynamic is observed in almost any other online platform, like search engines, food delivery and social networks, among others.

⁵ Katz, Michael, & Shapiro, Carl; "Network Externalities, Competition and Compatibility"; *American Economic Review* 75, no. 3; June 1985.

The existence of increasing returns to scale has several implications on economic competition, in the coming sections the report will explore this topic, in particular the creation of barriers to entry.

5.4 Economies of Scope

Online platforms are intensive in data and technology. They can collect extensive, granular, real time data at low cost, resulting in big datasets that can be analyzed with advanced and automatized data techniques (machine learning). The use of Big Data can drive improvements in products or services and expand their activities into new areas.

Firms that receive extensive datasets of an existing service can use the information to enter into an adjacent service with a better quality product: quantity drives quality. For example, combining mapping software in a platform that already offers email, allows that platform to offer a higher quality restaurant recommendation product.⁶

On the other hand, economies of scope on platforms also exist when a firm can enter into a new market at a lower cost than a new entrant. For example, a firm that invested an important amount of money to develop a ride-sharing platform, has developed the knowledge and the technology to enter into a new market, like food delivery.

5.5 Big Data and Free Services

Big Data can be defined as very large sets of data that are produced by people using the internet and that can only be stored, understood, and used with the help of special tools and methods. Online platforms use data for two main purposes:

- **To improve their services.** For example by showing content that is more relevant to a user; and
- **To target advertising.** Data analysis allows OTT Platforms to profile consumers in order to show them relevant advertisement.

Data is an important asset for online platforms, a great number of them base their business model on data, either by selling big datasets or by offering personalized advertisements.

As mentioned above, online platforms are capable of extracting, storing and analyzing big datasets with the help of new technology like machine learning and cloud computing. The more detailed the data, the wider the range of transactions, the bigger the user sample and the greater the company's analytics experience. Therefore data offers cost and revenue economies of scale and scope.⁷ Thus, there is clearly a data market that is driven by the digital economy and especially by online platforms.

⁶ *Committee for the Study of Digital Platforms Market Structure and Antitrust Subcommittee: Report* (July 2019). George J. Stigler Center for the Study of the Economy and the State. Available at: <https://research.chicagobooth.edu/-/media/research/stigler/pdfs/market-structure--report-as-of-24-june-2019.pdf?la=en&hash=872E4CA6B09BAC699EEF7D259BD69AEA717DDCF9>

⁷ Barwise, Patrick & Watkins, Leo; "The evolution of digital dominance"; in *Digital Dominance: The power of Google, Amazon, Facebook, and Apple*; Martin Moore and Damian Tambini (eds.), Oxford University Press; 2018.

The value of data aggregation is enormous, yet most people are not aware of its economic value and they significantly underestimate it. Online platforms offer “free” services to one or more groups. There are two reasons for it: The first one is that they need to create a scale in order to make the platform attractive to paying consumers; and the second one is that users are actually paying with their data, and some platforms are making money with this model.

There is an interesting and enriching debate regarding data protection, privacy and transparency in privacy policies, but this debate is out of the scope of this report.

5.6 Single-homing and Multi-homing

The situation when a group of consumers uses only one platform to access a certain product or service is known as single-homing. For example, consumers that only use Uber even when they have other alternatives like Didi, Lyft or Grap. Users that single-home can create a competition bottleneck, because there is only one way to reach those costumers.

On the other hand, the term multi-homing refers to a group of consumers that uses more than one alternative platform. For example, consumers using Uber, Didi and Lyft. The decision whether to multi-home or not, depends on different elements ranging from the existence of significant switching costs to consumer’s preferences.

6. Competitive Analysis of Digital Platforms

Recent developments in the digital economy are challenging established approaches that authorities relied on to protect competition, ensure market confidence and promote social welfare.

Multi-sided markets can be understood as those in which “a company acts as a platform, selling different products to different groups of consumers, with the knowledge that the demand of one of the groups depends on the demand of the other group.”⁸

Multi-sided markets are characterized by the presence of indirect network effects between their sides. In other words, the demand of a group of consumers, given the price in that group, varies as the number of users in another of the consumer groups served by the platform changes.

This feature implies that the fixing of prices by a multi-sided platform is different from that of the agents that operate in one-sided markets. A platform must not only set a price level (the sum of the prices it establishes for each side) but also a price structure (the rationality between the prices they fix on each side).⁹ As a result, it is possible for a platform to set a price below marginal cost for either side, or even zero as a long-term

⁸ Organization for Economic Co-operation and Development (OECD); “Rethinking antitrust tools for multi-sided platforms”; 2018. Available at <http://www.oecd.org/daf/competition/Rethinking-antitrust-tools-for-multi-sided-platforms-2018.pdf>

⁹ Rochet, Jean, & Tirole, Jean; “Two-Sided Markets: A Progress Report”; The RAND Journal of Economics, 37(3), 645-667, 2006. Retrieved from <http://www.jstor.org/stable/25046265>

equilibrium and without suggesting the presence of an anti-competitive practice. In this way, variables such as quality, functionality and some other features of the platforms acquire a more relevant role in these markets, in comparison with the prices *per se* on some sides of the market. That is, companies can compete in other dimensions, in addition to the price.¹⁰

The platform business model is not new, but the irruption of the internet, software and applications, as well as fixed and mobile connectivity have boosted its extension to a wide variety of sectors.¹¹ Currently, network effects, both direct¹² and indirect, are the main source of value for many business models of digital platforms. Network effects are not exclusive to digital markets, but in these, they are particularly important, since it is easier and cheaper to grow user networks.¹³

The following section aims to contribute to the debate of new approaches to competition analysis in the digital market, regarding market definition, abuse of dominance and merger analysis.

6.1 Market Definition

The methodology for market definition in online platforms must take into consideration the interrelation between the different groups of consumers that a platform communicates. Hence, a question arises as to whether these groups are considered as different markets or as elements of a single market. One possible approach is to make the following distinction in platforms:¹⁴

- **Transactional platforms:** Those in which two or more groups of consumers interact simultaneously, generating an observable transaction by the platform, which charges a commission for each transaction.¹⁵ In other words, one side can consume the product only if a transaction also occurs on the other side. E-commerce platforms, credit cards and ride-sharing fall into this category.
- **Non-transactional platforms:** Those in which two or more consumer groups interact without the platform being able to observe transactions between these groups. Within this category, Rasek and Wismer¹⁶ distinguish two groups:
 - *Matching platforms:* They generate pairings between users from different sides. For example, dating platforms or subscription content.

¹⁰ "The 'Free' Economy Comes at a Cost. But Economists Struggle to Work out how Much". The Economist, 24 de agosto del 2017. Available at: <https://www.economist.com/finance-and-economics/2017/08/24/the-free-economy-comes-at-a-cost>

¹¹ Evans, David & Schmalensee, Richard; "Matchmakers: The New Economics of Multisided Platforms"; Boston: Harvard Business School Press, Boston 2016.

¹² The direct network effects are those that arise when the valuation of a product or service by a user increases when the number of users of said good or service increases.

¹³ Comisión Federal de Competencia Económica; *Repensar la competencia en la economía digital*, Mexico, 2018. Available in Spanish at: https://www.cofece.mx/wp-content/uploads/2018/03/RepensarlaCompetenciaenlaEconomiaDigital_01022018.pdf

¹⁴ Organization for Economic Co-operation and Development (OECD); "Rethinking antitrust tools for multi-sided platforms"; 2018. Available at <http://www.oecd.org/daf/competition/Rethinking-antitrust-tools-for-multi-sided-platforms-2018.pdf>.

¹⁵ Filistrucci, Lapo; "Market Definition in multi-sided markets in OECD"; "Rethinking antitrust tools for multi-sided platforms".

¹⁶ Wismer, Sebastian & Rasek, Arno; "Market definition in multi-sided markets"; In OECD; "Rethinking antitrust tools for multi-sided platforms". 2018

- *Audience platforms*: The network externality is positive only for one side, while the other serves as an audience. Media and advertising platforms fall into this category.

Since a platform requires taking into account the interrelation between different sides when establishing their prices, this can increase the complexity of the hypothetical monopolist's test (SSNIP test). In the case of transaction platforms, some authors suggest using the price level (the sum of the prices for each side) in the application of the SSNIP test. In interrelated markets, the profitability of an increase in one of the prices on all sides of the platform must be evaluated.¹⁷

In any case, the SSNIP test must take into consideration the sign and magnitude of the indirect network effects between the sides, which can widely modify the profitability of an increase in the price. Additionally, the optimal structure (or proportion) of the prices fixed by the platform can be modified by an increase in the price. Therefore, each iteration of the SSNIP test should consider the following three scenarios: A monopolist could i) increase one price and leave another constant, ii) increase one of the prices and reduce another, or iii) increase both prices. If this is not considered, there is a risk of overestimating the size of the market.

In the case of interrelated markets where one of the sides has a zero price, applying the SSNIP test on that side is erroneous, since a positive increase based on a zero price can be interpreted as an infinite increase in the price. However, alternatives such as the SSNDQ (Small but Significant and Non-Transitory Decrease in Quality) have been tested, which measures the reaction of consumers to a small, but not significant, reduction on the quality of a good that is offered free of charge.¹⁸ The Qihoo vs. Tencent case is an example of the application of said alternative.

Table 4. Use of the SSNIP/SSNDQ

Case	Authority	Description, Criteria and Rationality
Investigation into monopolistic practices by Tencent (China, 2010-2014) ¹⁹	Guangdong High Court / The People's Supreme Court	<p>Rationality of authority: Qihoo defined the market from a SSNDQ test, because the product was offered free to users. However, this definition was rejected by the High Court of Guangdong, which resorted to a SSNIP test calculated from incorporating a positive increase to the zero price of the service. The Guangdong High Court agreed with Tencent in 2010.</p> <p>However, Qihoo appealed the ruling before the People's Supreme Court,</p>

¹⁷ Filistrucci, Lapo. "Market Definition in multi-sided markets" in OECD; "Rethinking antitrust tools for multi-sided platforms". 2018

¹⁸ European Commission; "The competitive landscape of online platforms. JRC Digital Economy Working Paper 2017-04", 2017. Available at: <https://ec.europa.eu/jrc/sites/jrcsh/files/jrc106299.pdf>

¹⁹ Evans, David; Yanhua Zhang, Vanessa & Chang, Howard; "Analyzing competition among internet players: Qihoo 360 v. Tencent. Competition Policy International"; 2013. Available at: <https://www.competitionpolicyinternational.com/assets/Uploads/EvansetalMay-2.pdf>

		<p>which criticized the use of the SSNIP test by the Guangdong Court. The use of a SSNDQ test to define the relevant market was resumed, among other observations.²⁰ However, the People's Supreme Court also ruled in favor of Tencent in 2014.</p>
--	--	---

An additional element to observe in the definition of the relevant market in digital platforms and services is the analysis of the simultaneous use of several platforms or services by users to access a specific product or service (multi-homing). Failing that, a consumer can only use a single service platform (single-homing).²¹ This practice should be carefully analyzed in each of the two sides, as it can show either substitution between platforms or their complementarity (in the presence of wide differentiation between platforms).²² It is necessary to understand the reasons of the consumer's behavior and the degree of substitution between the products or services offered by the platforms. Surveys and descriptive statistics can help to identify this practice.²³

Some approaches suggest that, before analyzing substitution on the demand side, emphasis should be placed on the identification of the business model and the platform's profit source, focusing on what could "subtract" profits from it. This approach would identify potential rivals who would "steal" income, not by substitution but by weakening their profit base.²⁴

Additionally, the convergence between products or services that belong to platforms with different business models must be taken into account,²⁵ since short innovation cycles can reduce the differences between two products or services that could have belonged to two different markets in the past. In digital markets substitution on the supply side can be very accentuated, because it is relatively cheap for a platform or digital service to break into new markets when modifying or developing new products.²⁶

On the other hand, considering that there may be asymmetries in the substitution between different services, the definition of the market will also depend on the choice of product or service to analyze.²⁷ Additionally, it must be taken into account that the

²⁰ Charles River Associates; "Qihoo v. Tencent: economic analysis of the first Chinese Supreme Court decision under Anti-Monopoly Law. China Highlights." 2015. Available at: https://www.crai.com/sites/default/files/publications/China-Highlights-Qihoo-360-v-Tencent-0215_0.pdf

²¹ Armstrong, Mark; "Competition in Two-Sided Markets"; The RAND Journal of Economics, 2006, Vol. 37/3, pp. 668-691, Available at: <http://www.jstor.org/stable/pdf/25046266.pdf?refreqid=excelsior%3A15b7252f47763063fd9fc448b7659579>.

²² Wismer, Sebastian & Rasek, Arno. "Market definition in multi-sided markets" in OECD; "Rethinking antitrust tools form multi-sided platforms". 2018

²³ Organization for Economic Co-operation and Development (OECD); "Rethinking antitrust tools for multi-sided platforms"; 2018.

²⁴ Van Gorp, Nicolai & Batura, Olga; "Challenges for Competition Policy in a Digitalised Economy"; Directorate General for Internal Policies, European Parliament, 2015 p. 56. Available at: http://www.europarl.europa.eu/RegData/etudes/STUD/2015/542235/IPOL_STU%282015%29542235_EN.pdf

²⁵ Peitz, Martin & Valletti, Tommaso; "Reassessing competition concerns in electronic communications markets." Telecommunications Policy 39, 2015. pp. 896-912. Available at: <https://www.sciencedirect.com/science/article/pii/S0308596115001159>

²⁶ Evans, David; "Multisided platforms, dynamic competition, and the assessment of market power for internet-based firms"; Coase-Sandor Working Paper Series in Law and Economics: 2016; No. 753 (2016). Available at: https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=2468&context=law_and_economics

²⁷ Krämer, Jan and Wohlfarth, Michael; "Market power, regulatory convergence, and the role of data in digital markets"; Telecommunications Policy 42, pp. 154-171, 2018. Available at: <https://www.sciencedirect.com/science/article/pii/S0308596117302744>

products or services offered by digital platforms are usually offered in a package (for example, Messenger's messaging service is included within the profile of the user of the Facebook social network).²⁸ In turn, digital platforms may choose to differentiate themselves by offering exclusive content or personalized services. Furthermore, the dynamic nature of digital markets requires frequent revision of market definitions by the authorities, since frequent innovations and disruptions tend to constantly displace the borders of these markets.

Other approaches have chosen to define attention span markets.²⁹ That is to say, that platforms of social networks, video on demand or video games actually compete for a limited window of attention of their users. As a consequence, digital platforms and services compete to develop new products, contents or functionalities, venturing into new markets, in order to attract and retain their users as long as possible. This means defining much broader markets that encompass platforms with different services and business models, such as Facebook, Netflix, Amazon and Google in the same market. Even in the case of online advertising, advertisers may see platforms with different products and business models, such as Google and Facebook, as substitutes.³⁰

In terms of the geographical dimension, some digital markets can have a supranational scope.³¹ However, these can be limited in the presence of legal restrictions, geographical restrictions on content and services and linguistic or cultural barriers between users.

6.2 Mergers

The evaluation of mergers between digital platforms has acquired a growing interest for competition authorities, with cases increasing in the last decade.³² Authors such as Shapiro³³ warn that some of these operations can reduce competition in the future, when an established platform acquires another that does not represent a competitive rival in the short term, but that could well have been constituted in the future in a competitive pressure through the introduction of new goods and services. The innovative dynamic of these markets should be taken into account when assessing mergers. The competition authorities must change the “traditional” approach into a forward-looking one.

It is necessary to evaluate the effects of a merger between platforms on all sides involved. This can be complicated due to the presence of zero prices in some cases, for which qualitative measures can be used related to:³⁴

- **Quality:** A merger could give a platform or digital service the ability to reduce the quality of its good or service by increasing its market power. However, this

²⁸ Idem.

²⁹ OXERA; “Market Power in digital platforms”, 2018. Available at: <https://www.oxera.com/wp-content/uploads/2018/10/Market-power-in-digital-platforms.pdf>

³⁰ Idem

³¹ Comisión Federal de Competencia Económica; “Repensar la competencia en la economía digital” Mexico, 2018. Available in Spanish at: https://www.cofece.mx/wp-content/uploads/2018/03/RepensarlaCompetenciaenlaEconomiaDigital_01022018.pdf

³² Organization for Economic and Co-operation Development (OECD); “Plataformas digitales y competencia en México”; 2018. Available in Spanish at: <http://www.oecd.org/daf/competition/esp-plataformas-digitales-y-competencia-en-mexico.pdf>

³³ Shapiro, Car; “Antitrust in a time of Populism”; International Journal of Industrial Organization, Elsevier, vol. 61(C), pp. 714-748; 2017. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3058345

³⁴ Organization for Economic and Co-operation Development (OECD); “Plataformas digitales y competencia en México”; 2018 Available in Spanish at: <http://www.oecd.org/daf/competition/esp-plataformas-digitales-y-competencia-en-mexico.pdf>.

only applies when the reduction in the quality of the good or service is profitable (generates lower costs), being this perceived by the users that are not able to attain other alternatives.³⁵ Surveys could be used on users' perception of quality with respect to service, reviews or online rankings.³⁶

On the other hand, the mergers can affect the repositioning of the products offered by the agents involved, differentiating them and increasing the variety in the market. Nevertheless, it is also possible that products that could damage others belonging to the agent resulting from the mergers are eliminated.³⁷

- **Advertising attention time:** Advertising could be considered as a quality dimension, considering that users want to be exposed to a smaller number of advertisements which in turn ought to be of higher quality.³⁸ A merger that increases the market power of a platform, by increasing the proportion of ads with respect to the content, or reducing the quality of the same, could affect both aspects. Some suggested measures of this could be the proportion of advertisements with respect to a unit of content time.
- **Privacy and security of information:** Privacy can be understood as the control of users regarding the range and frequency with which the platforms extract their data, as well as the use and disposition of them to third parties and the protection with respect to inappropriate or unauthorized uses.³⁹ In some cases, privacy is a dimension of competition between companies or a differentiation between them. If a merger could reduce the degree of privacy of users, it must be evaluated. The buyer may acquire a company that provides greater privacy for their users or it may reduce alternatives for the consumer.

Some measures could be related to the scope of the data collection made by the platform (the number of variables that the platform collects from the user), as well as the frequency of the collection. Other measures could be if the collection occurs only during the use of the platform or occurs even when the user uses other services and the degree to which the data is shared with third parties.⁴⁰

- **Effects on innovation:** The effects of a merger on innovation can be ambiguous.⁴¹ On one hand, the effort in innovation is stimulated by a greater degree of competition in the market to a certain extent, from which it decreases,⁴² while a merger may or may not reduce the competitive pressure on

³⁵ Ratliff, James and Rubinfeld, Daniel; "Is There a Market for Organic Search Engine Results and Can Their Manipulation Give Rise to Antitrust Liability?"; Journal of Competition Law and Economics; 2014. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2473210.

³⁶ Organization for Economic and Co-operation Development (OECD); "Quality Considerations in digital zero price markets"; Background note by the Secretariat; 2018; Available at: [https://one.oecd.org/document/DAF/COMP\(2018\)14/en/pdf](https://one.oecd.org/document/DAF/COMP(2018)14/en/pdf).

³⁷ Organization for Economic and Co-operation Development (OECD); "Considering non-price effects of merger control. Background note by the Secretariat"; 2018. Available at: [https://one.oecd.org/document/DAF/COMP\(2018\)2/en/pdf](https://one.oecd.org/document/DAF/COMP(2018)2/en/pdf).

³⁸ Organization for Economic and Co-operation Development (OECD); "Quality Considerations in digital zero price markets"; Background note by the Secretariat; 2018; Available at: [https://one.oecd.org/document/DAF/COMP\(2018\)14/en/pdf](https://one.oecd.org/document/DAF/COMP(2018)14/en/pdf).

³⁹ Idem.

⁴⁰ Idem.

⁴¹ Organization for Economic and Co-operation Development (OECD); "Considering non-price effects of merger control. Background note by the Secretariat"; 2018. Available at: [https://one.oecd.org/document/DAF/COMP\(2018\)2/en/pdf](https://one.oecd.org/document/DAF/COMP(2018)2/en/pdf).

⁴² Aghion, Philippe, et al.; "Competition and Innovation: An Inverted-U Relationship"; Quarterly Journal of Economics, Vol. 120(2), 2005. Available at: https://www.ucl.ac.uk/~uctp39a/ABBGH_QJE_2005.pdf

rivals to innovate. On the other hand, a merger could also generate synergies in terms of innovation, improve the appropriation of its benefits and stimulate innovations in the process.

There are three traditional approaches to evaluating the effects of a merger on innovation:⁴³

- i. Defining an innovation market and evaluating the consequences of the merger in it;⁴⁴
- ii. Evaluating if the merger would generate a "significant impediment to the innovation of the industry";⁴⁵ and
- iii. Evaluating the impacts of the merger on incentives and the ability of companies to innovate.⁴⁶

For any of these approaches, it should be taken into account the relevance of innovation in the activities of the merging companies, their established and potential rivals in terms of innovation and whether they exert competitive pressure through innovation (if they develop or not complementary or substitute products or services).⁴⁷

Network effects, both direct and indirect, must be taken into account when evaluating the consequences of a merger between platforms. The presence of prominent indirect network effects between the sides of the platforms can generate efficiencies, when combining user databases.⁴⁸ However, some of these efficiencies are not achievable exclusively through a merger; allowing interoperability or shared standards between platforms can generate them. Therefore, the analysis of efficiencies should focus on the magnitude and specificity of these with respect to the merger, being possible to resort to standard econometric tools for their estimation.⁴⁹

Additionally, the analysis of multi-homing practices on each side is also relevant to evaluate a merger, as it can serve to evaluate complementarity or substitution between

⁴³ Organization for Economic and Co-operation Development (OECD); "Considering non-price effects of merger control. Background note by the Secretariat"; 2018. Available at: [https://one.oecd.org/document/DAF/COMP\(2018\)2/en/pdf](https://one.oecd.org/document/DAF/COMP(2018)2/en/pdf).

⁴⁴ Gilbert, Richard & Sunshine, Steven; "Incorporating dynamic efficiencies concerns in merger analysis: the use of innovation markets"; Antitrust Law Journal, Vol. 63 (2); 1995. Available at: <https://www.jstor.org/stable/40843292?seq=1/subjects>.

This approach indicates that the relevant market of a product does not necessarily correspond to the innovation market, so a concentration between two agents that do not compete directly with each other can still generate damages if it reduces a potential rival in innovations. Its steps are the following: i) identify if both agents have overlapping innovation efforts, ii) evaluate the potential competition in the market associated with the innovation efforts analyzed, iii) define a market using a small reduction but significant and non-transitory innovation efforts; iv) assess whether concentration would reduce innovation in the market; v) evaluate the efficiencies generated by the concentration. However, this approach is criticized for implicitly assuming that concentration generates negative effects on the market, as well as focusing on research and development expenses instead of the products they generate, which may lead to misinterpretations.

⁴⁵ Petit, Nicolas; "Significant Impediment to Industry Innovation: A Novel Theory of Harm in EU Merger Control"; 2017. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2911597.

⁴⁶ Shapiro, Carl; "Competition and Innovation: Did Arrow Hit the Bull's Eye?"; 2012; in J. Lerner and S. Stern (eds.) (2012), *The Rate and Direction of Inventive Activity Revisited*, University of Chicago Press. : www.nber.org/chapters/c12360

This approach incorporates the analysis of efficiencies on innovation because of concentration, wondering if concentration allows achieving levels of innovation that were not previously achievable.

⁴⁷ Organization for Economic and Co-operation Development (OECD); "Considering non-price effects of merger control. Background note by the Secretariat"; 2018. Available at: [https://one.oecd.org/document/DAF/COMP\(2018\)2/en/pdf](https://one.oecd.org/document/DAF/COMP(2018)2/en/pdf).

⁴⁸ Organization for Economic Co-operation and Development (OECD); "Rethinking antitrust tools for multi-sided platforms"; 2018. Available at <http://www.oecd.org/daf/competition/Rethinking-antitrust-tools-for-multi-sided-platforms-2018.pdf>.

⁴⁹ Idem.

the merging platforms, the switching costs faced by consumers and the intensity of the competition.⁵⁰ There may be a scenario where, if on one side of the platforms involved in the merger consumers practice multi-homing and on the other they do not, it is possible that the merged platform exerts greater market power on the former side.

Finally, the authority must also evaluate the effects of the merger on the data they handle and if this allows them to limit competition in the market.⁵¹ Data markets have gradually been formed,⁵² which may be adversely affected by an eventual merger that increases market power. Therefore, the exclusivity in the access to data under the control of the agents involved in the merger must be evaluated, as well as the presence of alternative suppliers. The analysis of data has to consider the following aspects:

- **Relevance:** What kind of data are we considering?
- **Uses:** Is data a product's input? Is it being used to train a machine learning algorithm?
- **Importance:** Is data giving a significant advantage over competitors?
- **Replicability:** Can entrants replicate the data or is there a substitute for the data?

Thus, the evaluation of a merger between digital platforms must take into account the economic characteristics of the platforms (economies of scale, scope, low marginal cost and direct and indirect network effects), the role played by data and the evolution of the markets in a forward-looking approach, on a case-by-case basis.

Additionally, competition authorities should pay extra attention to mergers and acquisitions, which may not trigger traditional turnover thresholds.⁵³ As these markets are intensive in innovation and technology, the acquisition of a smaller firm with a potential disruptive technology should be reviewed by competition authorities.

Over the last 10 years Facebook, Google and Apple have made more than 300 acquisitions; authorities have not analyzed some of them because of the turnover thresholds. Incumbents might have a major ability to identify disruptive technology that could jeopardize their position in the market. Therefore, a valid question is: are merger thresholds accurate? Competition authorities could face this situation by pursuing some actions. For example, the Canadian competition authority (Competition Bureau Canada) has a unit that looks for mergers that, even though they do not trigger traditional turnover thresholds, they could potentially affect the competition process.

Table 5. Merger Analysis Cases

⁵⁰ Organization for Economic and Co-operation Development (OECD); "*Plataformas digitales y competencia en México*"; 2018 Available in Spanish at: <http://www.oecd.org/daf/competition/esp-plataformas-digitales-y-competencia-en-mexico.pdf>

⁵¹ Idem.

⁵² Idem.

⁵³ Organization for Economic and Co-operation Development (OECD); "*Plataformas digitales y competencia en México*"; 2018 Available in Spanish at: <http://www.oecd.org/daf/competition/esp-plataformas-digitales-y-competencia-en-mexico.pdf>

Case	Authority	Description
Facebook-WhastApp Merger (2014) ⁵⁴	European Commission	<p>Description: Facebook acquired the WhatsApp messaging service.</p> <p>Rationality and criteria of the authority: The effects of the merger on the markets of communication services to users, social network services and online advertising services were evaluated. In terms of data, the evaluation consisted in whether the merger of the databases would increase the market power of the merged entity on the data market, which was ruled out due to the low participation of this entity compared to other online services such as Google. Regarding the integration of Facebook and WhatsApp user databases, the overlap between these databases reduced the possible anti-competitive effects.</p>
Axel Springer SE/Immowelt Merger(Germany, 2015) ⁵⁵	<p style="text-align: center;"><i>Bundeskartellamt</i> (Competition Authority in Germany)</p>	<p>Description: In 2015, Axel Springer SE merged with its competitor Immowelt, both online real estate platforms.</p> <p>Rationality and criteria of the authority: In its evaluation, the <i>Bundeskartellamt</i> considered that these platforms acted as intermediaries that facilitated transactions between real estate providers and property buyers. Between both groups there were indirect network effects and their transactions could not be divisible into two markets.</p> <p>As a result, the <i>Bundeskartellamt</i> defined a single relevant two-sided market to analyze the merger, which was approved.</p>

⁵⁴ European Commission. "Case No COMP/M.7217 - FACEBOOK/ WHATSAPP". 2014. Available at: http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf

⁵⁵ Bundeskartellamt; "Clearance of Merger of Online Real Estate Platforms"; Case Summary; 2015. Available at: www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Fallberichte/Fusionskontrolle/2015/B6-39-15.pdf?__blob=publicationFile&v=2

Decisions on whether to approve mergers in digital markets should focus on long-run effects and the technology dynamics of these markets. It is therefore important to answer the following questions:

- Could the company that is being acquired grow into a competitor to the platform?
- Is the source of its value an innovation that, under alternative ownership, could make the market less concentrated?
- Is it being acquired for access to consumer data that will make the platform harder to challenge?⁵⁶

The main factor to consider is whether a merger results in the creation or strengthening of a dominant position, keeping in mind that the competition policy protects the consumer welfare. Therefore, in cases where a merger is approved subject to commitments, these commitments should be constructed to foster competition and avoid the creation of a dominant agent. Commitments regarding, non-exclusive clauses, access to data, data portability, interoperability, replication of datasets and the removal of switching cost could be good practices.

Box 1. Philippine Competition Commission Grab-Uber Case

The Philippine Competition Commission (PCC) has by law the power to prohibit mergers that result in substantial lessening of competition (SLC): The merger review of the Grab-Uber concentration (Grab buying Uber) was finalized in August of 2018 and the merger was accepted but subject to a set of commitments to service quality and pricing standards imposed to Grab by the PCC. Grab is now the only provider of ride-hailing services in the Philippines.

- Service Quality Commitment: Grab shall commit to bring back market averages for acceptance and cancellation rates before the transaction and response time to rider complaints.
- Fare Transparency Commitment: Grab will revise its trip receipt to show the fare breakdown per trip, including distance, fare surges, discounts, promo reductions and per-minute waiting charge (if reinstated by the transportation sector regulator).
- Commitment on Pricing: Grab shall not have prices that have an “extraordinary deviation” from the minimum allowed fares. Grab will be penalized equivalent to 5% of Grab’s commissions, or up to P2 million, in the identified trips with extraordinary deviation that do not have sufficient justification.

⁵⁶ Furman, Jason et al., H.M. Treasury (U.K.); “Unlocking digital competition: Report of the digital competition expert panel”; March 13, 2019; Available at: www.gov.uk/government/publications.

- Removal of “See Destination” Feature: Grab will remove “see destination” feature for drivers with low ride acceptance rate.
- Driver/Operator Non-Exclusivity Commitment: Grab shall not introduce any policy that will result in drivers and operators being exclusive to Grab. Current Grab drivers/operators are allowed to register/operate under other Transport Network Companies (TNCs) through a multi-homing scheme.
- Incentives Monitoring Commitment: Since incentives may result in drivers remaining exclusive to Grab and thus affect its competitors’ conditions of entry and the ability to expand, the Commission shall monitor and evaluate Grab’s incentives on the basis of mandatory quarterly reports.
- Improvement Plan Commitment: Grab will implement the following: (1) enhance driver performance standards, (2) adopt a Driver Code of Conduct, (3) establish a Grab Driver Academy; (4) adopt an emergency SOS feature, help center and passenger no-show feature; (5) adopt a Passenger Code of Conduct; (6) maintain dedicated service lines subject to prevailing labor regulations; (7) adopt a Driver Welfare Program; and (7) implement a Driver Rewards Program.

The PCC said it will appoint a third-party to monitor Grab’s progress in adhering to these terms, which it hopes will hold the company accountable in the same way Uber’s competition did.

PCC Chairman Arsenio M. Balisacan said in a statement: *“The PCC’s Commitment Decision holds Grab to a standard as if Uber were present in the market. In effect, while Grab operates as a virtual monopolist, the commitments assure the public that quality and price levels that would prevail are those that had been when they still faced competition from Uber. Moreover, the commitments ensure that the merger will not make it more difficult for new players to enter and grow.”*⁵⁷

6.3 Platforms and Dominance

The economic literature has identified the elements that can facilitate market concentration. The economics behind online platforms fulfill the requirements that, under certain circumstances, favor concentration. Therefore, many digital markets are prone to tipping because of their winner-takes-all or winner-takes-most dynamics. The elements identified are the following:

- Economies of scale;
- Direct and indirect network effects;

⁵⁷ Jon Russell, “Grab-Uber deal wins Philippines approval but ‘virtual monopolist’ concern remains”, TechCrunch, 10 August 2018. Available at: <https://techcrunch.com/2018/08/10/grab-uber-deal-gets-philippines-approval/>

- Big data and machine learning;
- Switching costs and lock-in;
- Access to financial markets; and
- User's behavior.

These elements can create barriers to entry and help maintain dominance. Nevertheless, many of these factors are not inherent to the market and there are alternatives to foster competition in digital markets.

This section describes how the winner-takes-all (most) elements favor concentration.

6.3.1 Barriers to Entry

The production of the services offered by online platforms requires high fixed costs and low variable costs. The cost of serving an additional user is very close to zero. As the base of users increases, the average cost decreases significantly.

It is well known that large economies of scale create barriers to entry and give incumbents an important advantage in the market. New firms cannot offer the quality of the incumbent without the same scale operation. However, a firm can only achieve a large scale with higher quality. Thus, a potential entrant, foreseeing that it will not be profitable at the smaller scale, will not enter the market to challenge the incumbent.⁵⁸

Network effects also create barriers to entry. In online platforms markets it is important to have a large base of users on the different sides of the platform in order to make profits. New entrant platforms will need to sustain losses as they grow users. This situation is not easy to overcome, because a large installed base and the scale are difficult to obtain quickly and cost-effectively. Thus, without a critical mass, it is difficult for a platform to survive.

Network effects can be overcome, due to multi-homing or switching between platforms. Nevertheless, multi-homing and platform switching can be limited, either by technological design decisions (lack of data mobility and interoperability) or by consumer's behavior. Some of these limitations are inherent to platform markets, but others reflect choices made by the incumbent companies and the preferences of the users. These limitations include:⁵⁹

- **Loss of data.** Users moving to a new platform will be unable to take their data with them, losing important information ranging from consumption history to rating or trust scores (for example, a driver using Uber).

⁵⁸ "Committee for the Study of Digital Platforms Market Structure and Antitrust Subcommittee: Report (July 2019). George J. Stigler Center for the Study of the Economy and the State. Available at: <https://research.chicagobooth.edu/-/media/research/stigler/pdfs/market-structure--report-as-of-24-june-2019.pdf?la=en&hash=872E4CA6B09BAC699EEF7D259BD69AEA717DDCF9>.

⁵⁹ Furman, Jason et al., H.M. Treasury (U.K.); "Unlocking digital competition: Report of the digital competition expert panel"; March 13, 2019; Available at: www.gov.uk/government/publications.

- **Abusive terms.** Dominant platforms have strong bargaining power over their users. They might use this advantage to enforce unfair or even anti-competitive terms onto them, strengthening their market position, for example, with exclusivity clauses.
- **Technical barriers.** Platforms make the decision to adopt different technical standards between them, which limits interoperability between services, strengthening the position of an incumbent platform.
- **Tying of services.** Some economic agents with participation in multiple markets can tie a service to another for different purposes, including anticompetitive purposes. For example, pre-install by default certain applications on a new device.
- **Consumer's behavior.** Consumers in digital markets display strong preferences for default options and loyalty to brands they know. Default options have an important impact on consumers and can pave the way to strengthen a market position. For example, Google pays \$1 billion to Apple to be the default search engine on the iPhone. Users make little or no effort to search for new options, which in many cases are better options. The vast majority of users do not run a search in more than one search engine, or even scroll down to see more results.

In recent years, there has been a lot of research regarding consumer's behavior on economics, which is called behavioral economics. The understanding of this topic is relevant to understand platforms markets. It is possible that even when entry barriers are removed, human factors are very likely to maintain the status-quo.

Consumers are not one hundred per cent rational, or they do not have all the information available. Thus, some factors can influence consumer's decisions, like the following:

- i. Presentation of choices to consumers can have a great impact on people's decision, for example, pre-installing a search engine on a phone;
- ii. Platform users are very loyal to a brand; thus, even when it exists a better option in the market, consumers will maintain their preference to a brand; and
- iii. Consumers appreciate more their immediate benefit relative to their welfare in the future. For example, a consumer agreeing privacy terms and conditions without even reading the contract, in order to enjoy immediately the service of the platform.

Other way consumers affect market conditions is by single-homing even when they can multi-home. A multi-homing user, for example, checks the price of a ride

on different ride sharing platforms. A user that single-homes uses one platform exclusively because advertisers and other content providers can only get the user's attention by going through that platform. While users sometimes have the ability to employ multiple services, there is usually a convenience cost to doing so. Making multi-homing easier will be a key element in encouraging competition.⁶⁰

The increase of switching-cost produces the lock-in effect. As stated above, some of the elements producing this effect are inherent to platforms markets and incumbents artificially create others. For example, it will be costly for users to switch from a software or a system, when they expended a lot of time and effort to learn how to use it. However, the switching-cost could be artificial, for example, platforms avoiding data portability; in this case, the user faces the difficult choice of losing their data.

Competition authorities should be able to differentiate between entry barriers that are inherent to the market and those that are artificially created by incumbents.

6.3.2 Evaluation of Dominance

Platforms and digital services require the adaptation of traditional tools or the adoption of new elements to assess dominance. Tools such as market shares are usually static, being inadequate to the dynamic nature of digital platforms. Indicators related to the contestability of the market must have greater relevance.⁶¹ In this regard, some competition authorities have opted to reduce the importance of market shares in favor of analyzing the direct and indirect network effects, multi-homing practices, changing costs for users, the access to data by rivals and the competitive pressure exerted by innovation for the evaluation of market power in platforms.⁶²

It is not accurate to infer dominance from the analysis of only one of the sides of a platform, without considering the interrelationships between the communicated sides. In particular, the indirect network effects can put pressure on the ability of a platform to raise its prices, especially if these effects take place in both directions of the sides.⁶³

For the analysis of dominance in digital platforms, competition authorities can evaluate the following elements:⁶⁴

- **Market shares:** In the digital economy, the shares are volatile and can change constantly and drastically. In that sense, a high market share will not necessarily reflect dominance and it is more useful to analyze its evolution over time, especially

⁶⁰ "Committee for the Study of Digital Platforms Market Structure and Antitrust Subcommittee: Report (July 2019). George J. Stigler Center for the Study of the Economy and the State. Available at: <https://research.chicagobooth.edu/-/media/research/stigler/pdfs/market-structure-report-as-of-24-june-2019.pdf?la=en&hash=872E4CA6B09BAC699EEF7D259BD69AEA717DDCF9>.

⁶¹ GSMA; "Competition policy in the digital age. A practical handbook; GSM Association", 2015. p. 110. Available at: https://www.gsma.com/publicpolicy/wp-content/uploads/2015/10/Competition-Policy-Handbook.pdf?bcsi_scan_95c8aec8c177a0e8=0&bcsi_scan_filename=Competition-Policy-Handbook.pdf

⁶² Heinrich, Christoph; "The New German Competition Law in a Nutshell. Lexology"; 2017. Available at: <https://s3.amazonaws.com/documents.lexology.com/be6aea89-bb6b-409e-a6fa-e95892f064e1.pdf>

⁶³ Organization for Economic Co-operation and Development (OECD); "Rethinking antitrust tools for multi-sided platforms"; 2018. Available at <http://www.oecd.org/daf/competition/Rethinking-antitrust-tools-for-multi-sided-platforms-2018.pdf>.

⁶⁴Idem.

if a prolonged persistence is observed. Certain markets tend to present high shares due to network effects, which facilitate market concentration.⁶⁵ On the other hand, if a change is observed in the relative value of the products offered on each side, the evolution of the market shares can give indications of the sensitivity of the consumers.⁶⁶

Market shares are more relevant in markets with homogeneous products or services and should be evaluated on all sides of a platform. For the case of sides with zero price, one can resort to non-monetary indicators such as the number of users or interactions (for example, visualizations, searches or transactions completed).⁶⁷

- **Entry into the market and switching costs for users:** Authorities must evaluate the frequency of entry of companies in the market, as well as the possible barriers to entry. Digital markets tend to have a greater entry of companies than traditional markets, due to lower capital and infrastructure requirements, with low costs for the introduction and development of new products or services.⁶⁸ Even a digital platform or service with a different business model could quickly enter a different market by adding components or modifying the product or service it already offers. Nevertheless, it is very difficult and costly to obtain a critical mass of users, which makes it very difficult for a platform to survive. In fact, the vast majority of new entrant platforms leave the market in early stages.

Regarding switching costs, it is usually assumed that they can be reduced, since users are free to download a new application or access a new page. However, aspects such as the lack of interoperability between platforms (for example, the inability of a rival application to operate in a certain operating system) are examples of possible switching costs for the user, which can constitute barriers to entry. Other examples can be the non-portability of user data (when a user cannot move their contact list from one social network to another) and loyalty programs (bonuses and rewards for seniority and activity).

- **Frequency of disruptive innovations (dynamic competition):** Due to the winner-takes-all dynamics in digital markets, the nature of competition among online platforms is competition for the market, rather than in the market.⁶⁹ That is, online platforms are prone to tipping. Nevertheless, frequent innovations can significantly modify the conditions in the market, generating new products and services. In this manner, competition is driven by innovation and the development of new products or services,⁷⁰ with market shares changing rapidly and new leaders emerging.

⁶⁵ OXERA; "Market Power in digital platforms"; 2018. Available at: <https://www.oxera.com/wp-content/uploads/2018/10/Market-power-in-digital-platforms.pdf>

⁶⁶ Organization for Economic Co-operation and Development (OECD); "Rethinking antitrust tools for multi-sided platforms"; 2018. Available at <http://www.oecd.org/daf/competition/Rethinking-antitrust-tools-for-multi-sided-platforms-2018.pdf>.

⁶⁷ Organization for Economic and Co-operation Development (OECD); "Quality Considerations in digital zero price markets: Background note by the Secretariat"; 2018. Available at: [https://one.oecd.org/document/DAF/COMP\(2018\)14/en/pdf](https://one.oecd.org/document/DAF/COMP(2018)14/en/pdf)

⁶⁸ Evans, David; "Multisided platforms, dynamic competition, and the assessment of market power for internet-based firms"; Coase-Sandor Working Paper Series in Law and Economics, No. 753; 2016. Available at: https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=2468&context=law_and_economics

⁶⁹ Coyle, Diane; "Practical competition policy implications of digital platforms"; Bennett Institute for Public Policy working paper no: 01/2018. Available at: https://www.bennettinstitute.cam.ac.uk/media/uploads/files/Practical_competition_policy_tools_for_digital_platforms.pdf

⁷⁰ OXERA; "Market Power in digital platforms"; 2018. Available at: <https://www.oxera.com/wp-content/uploads/2018/10/Market-power-in-digital-platforms.pdf>

Therefore, market evolution and the agents that participate in it must be evaluated, as well as the probability of disruptive innovations that modify it in the future. Thus, it is important to evaluate dominance in a forward-looking approach considering long term effects.

However, the effect of innovations on the exercise of dominance can be lessened if these innovations are incremental or if an established platform demonstrates adapting to them or co-opting them.⁷¹

- **Multi-homing:** The presence of multi-homing practices by users on all sides of a platform can diminish dominance, provided that such practice involves potential substitute platforms. Nevertheless, this practice can also shape the competition between platforms in the following way:⁷²
 - If platforms face single-homing on both sides, they will try to make exclusivity agreements, in either side of the platform. This situation becomes a barrier to entry, because it will be harder for a new entrant to grow a user base and achieve a critical mass.
 - If the platforms face multi-homing on one side and single-homing on the other, the competition between platforms will focus on the side where users single-home, while they exercise dominance on the other side (competitive bottleneck).
- **Direct and indirect network effects:** The presence of direct and indirect network effects can generate a dynamics in which a single platform significantly increases its market share, even to the level of monopolization (market tipping).⁷³ This is because the positive direct network effects can discourage users to change platforms. On the other hand, the positive indirect network effects force a new entrant to venture into more than one market, establishing barriers to entry that facilitate the exercise of dominance.⁷⁴ Only a credible threat of disruptive entry may restrain this platform from exercising dominance.⁷⁵

On the other hand, when indirect network effects occur in only one direction (only one side generates effects on the other, not vice versa), evaluating the side benefited by these effects may be sufficient to reach conclusions about the degree of dominance sustained by the platform. However, when there are indirect network effects in both directions (both sides generate effects on the other), it must be evaluated if these effects increase (or reduce) dominance.⁷⁶

⁷¹ Bundeskartellamt; "Facebook, Exploitative business terms pursuant to Section 19(1) GWB for inadequate data processing. Case Summary." February 15, 2019. Available at: https://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Fallberichte/Missbrauchsaufsicht/2019/B6-22-16.pdf?__blob=publicationFile&v=3

⁷² Belleflame, Paul y Peitz, Martin; "Platform competition: Who benefits from multihoming?" International Journal of industrial organization; 2018. Available at: <https://www.sciencedirect.com/science/article/pii/S0167718718300353?via%3Dihub>

⁷³ Collyer, Kate; Mullan, Hugh and Timan, Natalie (2017) *Measuring market power in multi-sided markets*, in OECD (2018). Rethinking antitrust tools for multi-sided platforms.

⁷⁴ Bundeskartellamt; "Facebook, Exploitative business terms pursuant to Section 19(1) GWB for inadequate data processing. Case Summary." February 15, 2019. Available at: https://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Fallberichte/Missbrauchsaufsicht/2019/B6-22-16.pdf?__blob=publicationFile&v=3

⁷⁵ Organization for Economic Co-operation and Development (OECD); "Rethinking antitrust tools for multi-sided platforms"; 2018. Available at <http://www.oecd.org/daf/competition/Rethinking-antitrust-tools-for-multi-sided-platforms-2018.pdf>.

⁷⁶ Idem.

- **Access, accumulation and durability of data:** Data is an asset of key importance for digital platforms, since it can be used to improve the quality and personalization of the service for the user. This can give a company advantages over its competitors, especially if it has presence in multiple markets, accumulating a greater volume of data that allows it to exploit economies of scale, scope or network effects.⁷⁷ Consequently, data accumulation, as well as the exclusivity in access to them, could facilitate the exercise of market power by a platform, since these elements can constitute barriers to entry.⁷⁸

This situation can be aggravated if an agent has control over multiple platforms, as this not only increases the volume and variety of the data it collects, but also restricts the sources its rivals' use to generate their own data.

However, authors such as Krämer & Wohlfarth⁷⁹ or Evans⁸⁰ point out that data is a depreciating asset, which may condition the ability of a platform to exercise market power, since they must still attract and retain their users in order to maintain updated data. Certain data can be collected in various ways so that a dominant company in data collection in a specific service (such as a search engine) can face the threat of entry of another dominant company in the collection of data in another service (social networks). At the same time, a large volume of data does not always represent significant advantages, because it can incur higher costs and complexity to deal with such data and only certain segments of the data it accumulates can be useful.

The presence of multi-homing practices and low switching costs can reduce inequalities in data volume between new entrants and established companies. Besides, a greater awareness of users regarding the use of their data could put pressure on digital platforms and services to limit their collection.⁸¹

On the other hand, there are tools that can be used in the analysis of dominance:

- *Margins of operation:* A margin analysis must evaluate all sides of the platform and interpret correctly the interrelation between them. It should not be forgotten that sometimes the optimal strategy of a platform may involve subsidizing one of its sides in order to reach high margins in another. On the other hand, platforms can sometimes adopt a strategy of incurring losses in order to attract enough users and reach a critical mass that allows them to consolidate in the market, recovering afterwards with high margins the losses incurred previously.

⁷⁷ Organization for Economic and Co-operation Development (OECD); "Plataformas digitales y competencia en México"; 2018 Available in Spanish at: <http://www.oecd.org/daf/competition/esp-plataformas-digitales-y-competencia-en-mexico.pdf>.

⁷⁸ Argenton, Cédric, and Prüfer, Jens; "Search engine competition with network externalities". Journal of Competition Law and Economics, 8(1), 73–105; 2012.

⁷⁹ Krämer, Jan and Wohlfarth, Michael; "Market power, regulatory convergence, and the role of data in digital markets"; Telecommunications Policy 42, pp. 154-171, 2018. Available at: <https://www.sciencedirect.com/science/article/pii/S0308596117302744>

⁸⁰ Evans, David; "Multisided platforms, dynamic competition, and the assessment of market power for internet-based firms"; Coase-Sandor Working Paper Series in Law and Economics, No. 753, 2016. Available at: https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=2468&context=law_and_economics

⁸¹ OXERA; "Market Power in digital platforms"; 2018. Available at: <https://www.oxera.com/wp-content/uploads/2018/10/Market-power-in-digital-platforms.pdf>

- *Upward Pricing Pressure Test (UPP) and the Gross Upward Pricing Pressure Index (GUPPI)*: These are tools based on consumer sensitivity and can be reformulated to be applied to platform contexts, using estimates that include the indirect network effects. Specifically, it is necessary to estimate the following effects:⁸²
 - i. The effect of an increase in the price on the A side on the demand on the A side (price elasticity of A);
 - ii. The effect of the increase of a price on A on the demand of B (price elasticity of A on B);
 - iii. The effect of the increase in the price of A over the price of B. (elasticity between prices);
 - iv. The analogous effects to the previous ones, with respect to the variation of the price in B on the demand of B, the demand of A and the price of A.

These data is usually obtained from demand estimates or surveys.

Some examples of international experience take up these considerations.

Table 6. Economic Competition Analysis Cases

Case	Authority	Description, rationality y criteria
Investigation into monopolistic practices by Tencent (China, 2010-2014) ⁸³	Guangdong High Court / People's Supreme Court	Rationality and criteria of the authority: The People's Supreme Court considered that the high participation in the Chinese online instant messaging market held by Tencent (greater than 85%) was not sufficient to demonstrate the presence of market power. The People's Supreme Court concluded that the dynamic nature of the market caused it to expand frequently, with a high possibility of entry of new competitors in the future.
Facebook-WhatsApp Merger (2014) ⁸⁴	European Commission	Rationality and criteria of the authority: Despite achieving a joint participation of close to 40% with regard to communication services to European users, it was considered that this market was characterized by frequent entry and short disruptive innovation cycles, which is why market shares would be ephemeral. There were several alternatives for users, who could resort to multi-homing between applications and the changing costs were

⁸² Brekke, Kurt; Measuring Market Power in multi-sided markets in OECD; "Rethinking antitrust tools for multi-sided platforms"; 2018.

⁸³ Evans, David; Yanhua Zhang, Vanessa and Chang, Howard; "Analyzing competition among internet players"; Qihoo 360 v. Tencent. Competition Policy International, 2013. Available at: <https://www.competitionpolicyinternational.com/assets/Uploads/EvansetalMay-2.pdf>

⁸⁴ European Commission; "Case No COMP/M.7217 - FACEBOOK/ WHATSAPP." 2014. Available at: http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf

Case	Authority	Description, rationality y criteria
		low. The barriers to entry were small, as were the costs of developing a new application. Also, the agents involved did not control essential infrastructure or a mobile operating system. Although the network effects were large, its anti-competitive potential could be neutralized by the reduced barriers to entry, multi-homing and overlap between the user databases of those applications.
Fine to Google for monopolistic practices in search services (2017) ⁸⁵	European Commission	Rationality of authority: Google was found dominant in general search services on the Internet, with over 90% participation, high barriers to entry, prominent network effects, infrequency of multi-homing practices, brand loyalty and lack of a compensatory power on the part of consumers. ⁸⁶
Prohibition to combine databases from different platforms to Facebook (2019) ⁸⁷	<i>Bundeskartellamt</i>	Rationality and criteria of the authority: The conclusion was that Facebook had dominance in the multilateral market of private social networks, with economical geographic scope. Facebook had high shares in terms of users per day, with very prominent direct network effects, which increased the changing costs for users. The reduction in the participation of rival social networks suggested a process of concentration in a single platform (market tipping), while the indirect network effects generated a barrier to entry, forcing entrants to enter both the advertising and the social network users' markets. Facebook's access to a large volume of high-quality data could also be another barrier to entry. On the other hand, Facebook proved to have the ability to counteract recent innovations in the market, so they could not discipline their exercise of market power.

⁸⁵ European Commission; "Case AT.39740 — Google Search (Shopping)". 2017. Available at: [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018XC0112\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018XC0112(01)&from=EN)

⁸⁶ European Commission; "Case AT.39740 — Google Search (Shopping)". 2017. Available at: [https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1516198535804&uri=CELEX:52018XC0112\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1516198535804&uri=CELEX:52018XC0112(01))

⁸⁷ *Bundeskartellamt*; "Facebook, Exploitative business terms pursuant to Section 19(1) GWB for inadequate data processing. Case Summary." February 15, 2019. Available at: https://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Fallberichte/Missbrauchsaufsicht/2019/B6-22-16.pdf?__blob=publicationFile&v=3

Box 2. The Role Played by Data

Data has become a key competitive asset in digital markets. As online platforms extend their importance in the economy, the firms increase their ability to collect information about the profile, behavior and preferences of the consumers. Competition agencies increasingly focus on issues related to the collection and use of personal data in the digital economy.

Data has certain characteristics that makes it different from other goods such as:

- **Non-rivalrous.** More than one user can use the same data at the same time. However, restrictions can be placed on access to consumer data, for example through contractual conditions. This implies that efficient markets may involve sharing data in order to minimize the costs of multiple firms collecting, storing and processing the same data multiple times.
- **Cost structure.** The collection, storage and analysis of data is likely to involve substantial fixed costs and low marginal costs. These elements drive economies of scale and scope, which can represent an advantage to larger firms, raising potential entry barriers.
- **Value.** There are different types of data collected by online platforms; some data is more valuable than other. For example, a list of ages and addresses has not the same value than a list of goods consumed by a group of people of the same age. The extent to which data holds its value over time may impact on the extent to which it is sold and the availability of alternatives sources and may therefore be a relevant factor to consider in assessing whether competition concerns may arise.⁸⁸

The cost structure of data gives the incumbents an advantage over new entrants, which could represent barriers to entry. Nevertheless, some other characteristics of data can be used to foster competition when needed. For example, giving the fact that data is non-rivalrous, one possible solution to a potential competition problem could be the creation of copies of databases.⁸⁹

Data has an important value to online platforms, because it serves the following purposes:

- It can be an input of production that enables a business to improve its service offerings and increase its returns;
- It can be a strategic asset that allows a platform to maintain a lead over rivals and to limit entry into its market; and

⁸⁸ Competition and Markets Authority (CMA); "The commercial use of consumer data"; 2015. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/435817/The_commercial_use_of_consumer_data.pdf.

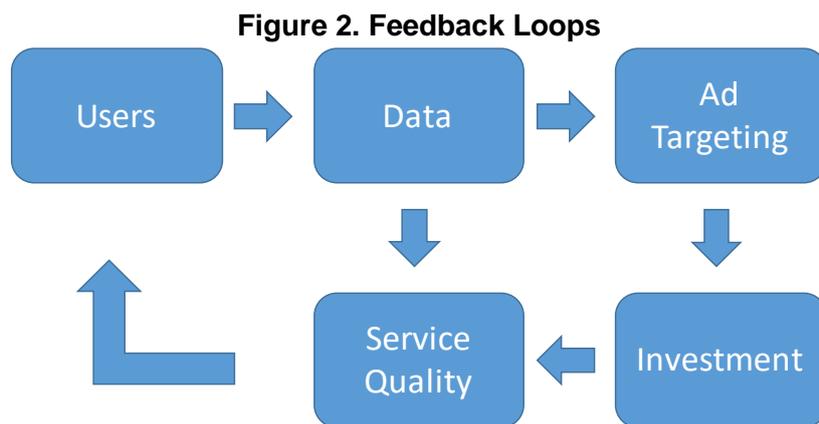
⁸⁹ Schepp, Nils-Peter, & Achim, Wambach; "On big data and its relevance for market power assessment"; Journal of European competition Law and Practice 7, no. 2: 120-24; 2016.

- It can be a commodity, which the firm could sell to other businesses that cannot collect the data themselves.

Data can represent a competitive advantage in digital markets due to the creation of feedback loops. An online platform with large datasets is able to constantly improved services and making them more targeted for users, as well as better targeting its advertising. There are two distinct types of feedback loops:

- User feedback loop. Occurs when companies collect data from users and use it to improve the quality of their product or service, which then draws in more users, creating a virtuous circle, and
- Monetization feedback loop. Enables revenues generated from business users (such as for targeted advertising) to be reinvested in improving the quality of service and attracting more users.⁹⁰

Feedback loops are illustrated in the following figure:



Source: Jason Furman et al., H.M. Treasury (U.K.); "Unlocking digital competition: Report of the digital competition expert panel"; 13 March 2019; Available at: www.gov.uk/government/publications

Considering the above, data can give, maintain or rise dominant position in digital markets. Nevertheless, the collection of large datasets and analysis of data could lead to benefits for consumers, such as accessing to better and personalized services. Therefore, competition authorities should act in a case-by-case basis. For example, when assessing dominance or mergers, competition authorities should respond questions like, what is the role played by data? Is data a significant element of a product's success? Is data reproduction possible under reasonable financial conditions and within a reasonable period of time?

There are two relevant factors when considering whether data can contribute to dominance:

⁹⁰ Furman, Jason et al., H.M. Treasury (U.K.); "Unlocking digital competition: Report of the digital competition expert panel"; March 13, 2019; Available at: www.gov.uk/government/publications.

- The scarcity and ease of replicability of data, and
- Whether the scale and scope of data collection matters to competitive performance.⁹¹

The relevance of these elements should be assessed in order to determine whether the data produce or strengthen dominance. As an example, in mergers regulation the main factor to consider is if the merger results in the creation or strengthening of a dominant position. There are different elements that should be taken into account. While data may be an important input of production that cannot be easily duplicated in some scenarios, the analysis may be different in other cases where data cannot be made exclusive and alternative data sets are available in the market.⁹²

Abuse of Data Dominance

It is common that online platforms offer their services for “free”, but the real cost that a customer pays is the information that she creates by using the platform. Data is the cost that customers pay in exchange for using digital services. Thus, it is possible that a dominant platform can use its dominance harming consumers.

Abusive behavior may be exploitative or exclusionary. The former is related to the extraction of excessive rents and the latter refers to actions that prevent other firms from participating in markets. Exclusionary behavior intends to protect or enhance the platform’s position in the market, or to leverage its position into related ones.

Some examples of possible abuse of dominance regarding data are the following:

- Exploitative abuse: Since personal data replaces price as a type of currency in some digital markets, exploitative abuse may be related to the excessive collection of information. In practice, consumers are constantly confronted with take-it-or-leave-it offers about the use and extraction of their information and do not have real options but to accept in order to access a digital service. The question that the authority should answer is what amount of data is to be considered excessive?
- Exclusionary abuse: Possible anticompetitive practices include exclusivity contracts, cross-usage of data sets and refusals to access data.⁹³

6.4 Anti-competitive Practices

⁹¹ Autorité de la Concurrence and Bundeskartellamt; “Competition Law and data”; 2016. Available at: <http://www.autoritedelaconcurrence.fr/doc/reportcompetitionlawanddatafinal.pdf>.

⁹² Graef, Inge; “When data evolves into Market Power; Data Concentration and Data Abuse”; in Digital Dominance: The power of Google, Amazon, Facebook, and Apple; Martin Moore and Damian Tambini (eds.), Oxford University Press; 2018.

⁹³ Idem

The characteristics of online platforms facilitate market concentration, but this is not harmful per-se. There is evidence that, in some cases, dominance can increase consumer welfare through the capture of indirect network externalities. Nevertheless, it is important to evaluate the size of those gains, the division of welfare as between suppliers, consumers and platforms as well as the dynamic consequences.⁹⁴

On the other hand, the fact that online platforms favor market concentration makes it very possible that a dominant platform might want to maintain or strengthen its dominant position by any means, including anti-competitive practices. The risk that anti-competitive conduct leads to the market tipping emphasizes the need for quick and effective intervention. In digital markets, dominant online platforms could commit the following anti-competitive practices:

- **Depredation:** It should be noticed that a price below cost on one of the sides is not an indication of this practice.⁹⁵ Because of the indirect network effects, a platform may find it optimal to subsidize one of the sides it serves. However, one platform may depredate another by modifying the balance between the prices charged to each side, even when said prices are above cost; or by reducing the price level that the platform charges as a whole on all sides. To assess the profitability of an alleged practice of predation, the authority must ask if this practice is not part of a strategy to attract users (and therefore, profitable), and evaluate the profitability of the practice against a counterfactual exercise in which this practice does not generate costs for rival platforms. Authorities must also evaluate the future profitability of the practice, since it is possible for a platform to recover the costs of a practice on one side by resorting to the benefits it obtains on the other sides.⁹⁶ Other tools to evaluate an alleged practice of collusion are the use of an Areeda Turner test adapted to consider costs and income on all sides;⁹⁷ or the equally efficient competitor's test.⁹⁸
- **Exclusivity clauses:** In the case of exclusivity clauses, it is suggested to evaluate the impact on rivals' costs (specifically, given the economies of scale between the sides generated by indirect network effects, if the practice makes it difficult for rivals to attract and generate a user base on all sides). In addition, authorities must evaluate the impact on the intensity of competition (if the presence of these clauses forces the platforms to move from competing in prices to competing for the celebration of exclusivities with users).

Box 3. Exclusionary Conduct Foodpanda Case

Complaint: On September 2016, the Commission received a complaint from one of the food delivery platforms against Foodpanda. The Complainant claimed that Foodpanda had prevented restaurants to partner with other food delivery

⁹⁴ Coyle, Diane; "Platform Dominance: The shortcomings of antitrust policy"; in Digital Dominance: The power of Google, Amazon, Facebook, and Apple; Martin Moore and Damian Tambini (eds.), Oxford University Press; 2018.

⁹⁵ Organization for Economic Co-operation and Development (OECD); "Rethinking antitrust tools for multi-sided platforms"; 2018. Available at <http://www.oecd.org/daf/competition/Rethinking-antitrust-tools-for-multi-sided-platforms-2018.pdf>.

⁹⁶ Katz, Michael; "Exclusionary conduct in multi-sided markets", in OECD (2018). Rethinking antitrust tools for multi-sided platforms.

⁹⁷ Filistrucchi, B, "Areeda-Turner in Two-Sided Markets", Review of Industrial Organisation, Vol. 46/3, pp. 287-306, 2015 Available at: <https://link.springer.com/content/pdf/10.1007%2Fs11151-015-9460-5.pdf>.

⁹⁸ Posner, R.; "Antitrust Law"; University of Chicago Press; 2001.

platforms through the exclusivity contracts signed between Foodpanda and its restaurants.

Applying Traditional Tools:

Market definition: Multi-restaurants food ordering and delivery platform.

Infringing conduct: Exclusive agreement. Foodpanda made an agreement with the restaurant owners so that they could not sign up with any other food delivery companies.

Theory of harm: Foodpanda's conduct of including the exclusivity clause in its agreement with restaurants prevents other food delivery companies from entering the market and limits consumer choices.

On February of 2017, Foodpanda informed the Commission that it commits to issuing a nulification letter to its restaurant vendors about the annulment of any exclusivity clauses. Following that, the Commission took note and closed investigations.

- **Packaging and conditional sales:** To define when they constitute an anti-competitive practice, authorities can resort to traditional theories of, as long as the business model of the digital platform involved is correctly understood.⁹⁹
- **Discrimination of prices and exploitation practices:** Regarding practices considered as exploitation (price discrimination and excessive pricing), the use of data by digital platforms can make them more relevant, since digital platforms can use a large amount of information to customize their prices. Nonetheless, there have been precedents in Mexico regarding the regulation of excessive prices, as is the case of the ceiling on the dynamic rate of Uber.¹⁰⁰
- **Vertical restraints:** These can be exercised on the users of the platform, or on the platform itself by a user. The effects of vertical restraints must be assessed on a case-by-case basis and in the case of multi-sided markets they may require more scrutiny. However, when cross-network effects are strong, vertical restraints may be necessary in some cases to prevent opportunistic use (free riding) and improve the performance of the platform.¹⁰¹ Some of these practices could generate negative effects on competition, by limiting the entry or expansion of new competitors (by means of exclusivity clauses), or by facilitating collusion practices (through price-fixing agreements).

⁹⁹ Organization for Economic and Co-operation Development (OECD); "*Plataformas digitales y competencia en México*"; 2018 Available in Spanish at: <http://www.oecd.org/daf/competition/esp-plataformas-digitales-y-competencia-en-mexico.pdf>.

¹⁰⁰ *Uber Elimina tarifa dinámica en fase de contingencia*. *El Economista* journal, May 3, 2016. Electronic version. Available in Spanish at: <https://www.eleconomista.com.mx/tecnologia/Uber-elimina-tarifa-dinamica-en-fase-de-contingencia--20160503-0113.html>

¹⁰¹ Organization for Economic Co-operation and Development (OECD); "Rethinking antitrust tools for multi-sided platforms"; 2018. Available at <http://www.oecd.org/daf/competition/Rethinking-antitrust-tools-for-multi-sided-platforms-2018.pdf>.

E-commerce is one of the environments most prone for these practices.¹⁰² Among such practices there are the agreements of equality of conditions between platforms, which are clauses between a seller and an e-commerce platform that establish that, the price charged by the seller to the buyers on a platform cannot be greater than the prices charged to buyers who use other platforms. While they are designed to prevent opportunism on the part of sellers between platforms, they can also jeopardize competition, by discouraging rivals or new competitors from implementing aggressive pricing strategies, or facilitating collusive agreements.¹⁰³

Other restrictions relate to the prohibition by a producer to his distributor to resort to e-commerce websites operated by third parties. On this practice, the European Commission suggests using the rule of reason in its evaluation, being practices that represent a low risk for competition.¹⁰⁴

Some platforms can also penalize their users (especially, retailers and distributors) when they resort to multi-homing practices, relegating them in the allocation of orders or search results, delaying their payments, or suspending them from the application.

Box 4. Abuse of Dominance e-Hailing Case

Complaint: Before March 2018, there were two dominant players in the e-hailing market, EHO1 and EHO2. On that month, these two players merged into the actual EHO1. After the merger, the Commission received multiple complaints from March to October 2018 which alleged that EHO1 had abused its dominant position in the e-hailing market, basically in three ways: i) Increment of prices; ii) reduction of level of service quality provided by EHO1 to its customers/riders, and iii) unfavorable terms and conditions in the contract of services imposed on the existing and potential drivers.

Applying Traditional Tools:

Market definition: Platform that facilitates the arrangement, booking or transaction for both drivers and riders which are facilitated through electronic mobile application for taxis and private car.

Assessment of dominance: In 2018, EH01 had 92% of registered drivers by e-hailing operators and 97% of market share (number of trips).

Alleged abusive conduct. Discriminatory practices against taxi drivers:

- i. Pricing range and location range on app between metered taxi and executive taxi.
- ii. Delayed ping system.

¹⁰² Organization for Economic and Co-operation Development (OECD); "Plataformas digitales y competencia en México"; 2018 Available in Spanish at: <http://www.oecd.org/da/competition/esp-plataformas-digitales-y-competencia-en-mexico.pdf>.

¹⁰³ Buccrossi, P.; "Vertical Restraints for On-line Sales"; 2013. - OECD Background note. Available at: <http://www.oecd.org/competition/VerticalRestraintsForOnlineSales2013.pdf>

¹⁰⁴ European Commission; "Final Report on the E-commerce Sector Inquiry - Commission Staff Working Document". 2017 Available at: http://ec.europa.eu/competition/antitrust/sector_inquiry_final_report_en.pdf

Theory of harm: Restrict the ability of the drivers to obtain better income from other parties. Raise the barriers to entry to its current and potential competitor in the e-hailing market.

EH01 Current status: The Commission is in the midst of assessing the effects of the alleged abusive conduct it has in the e-hailing markets and other related markets.

- **Discriminatory advantages:** Digital platforms such as search engines can offer discriminatory treatment in their search results on the products or services of their competitors in favor of their own. Some platforms with dominance in their respective markets could try to extend this dominance in new markets where they venture, exploiting resources from their home market as the customer base. These practices are often referred to as discriminatory advantages and have become more relevant in digital environments.¹⁰⁵

Table 7. Anticompetitive Practices and Abuse of Dominant Position Cases

Case	Authority	Description
Investigation on Amazon for abuse of dominant position in electronic books (2015) ¹⁰⁶	European Commission	Amazon was investigated for the application of clauses that forced publishers of e-books to disclose the terms agreed with other e-book distributors, so that Amazon could match or improve those offers. This practice could inhibit the entry and exclude other distributors. Amazon agreed in 2017 to withdraw these clauses.
Fine to Google for monopolistic practices in search services (2017) ¹⁰⁷	European Commission	Google was fined after the European Commission concluded it intentionally relegated rival services in its search results of price comparison. Previously, Google's dominance in the general internet search service was demonstrated.
Start of investigation on	European Commission ¹⁰⁸ / <i>Bundeskartellamt</i> ¹⁰⁹	The investigation focuses on the indication that Amazon abuses its dominant position through practices

¹⁰⁵ Organization for Economic and Co-operation Development (OECD); "Plataformas digitales y competencia en México"; 2018 Available in Spanish at: <http://www.oecd.org/daf/competition/esp-plataformas-digitales-y-competencia-en-mexico.pdf>.

¹⁰⁶ European Commission; "Case AT.40153. E-Book MFNS and related matters". 2017. Available at: [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017XC0811\(02\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017XC0811(02)&from=EN)

¹⁰⁷ European Commission; "Case AT.39740 — Google Search (Shopping)." 2017. Available at: [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018XC0112\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018XC0112(01)&from=EN)

¹⁰⁸ Höppner, Thomas and Westerhoff, Philipp; "The EU's Competition Investigation into Amazon's Marketplace" 2018. Available at: https://www.hausfeld.com/news-press/the-eus-competition-investigation-into-amazons-marketplace#_ftn4

¹⁰⁹ *Bundeskartellamt*; "*Bundeskartellamt* initiates abuse proceeding against Amazon". 2018. Available at: https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2018/29_11_2018_Verfahrenseinleitung_Amazon.html?n=3591568

Case	Authority	Description
alleged abuse of dominant position by Amazon over suppliers (2018/2019)	Federal Competition Authority Austria ¹¹⁰	on sellers who use its platform. Among these practices is the establishment of disadvantageous conditions in terms of payments, clauses and disputes, product reviews, blocking of accounts and payment delays, as well as the use of sensitive information of the offered products.
Investigation into monopolistic practices by Tencent (2010-2014) ¹¹¹	Guangdong High Court/ People's Supreme Court	Qihoo sued Tencent before the Guangdong High Court for alleged anti-competitive practices. Tencent offered in 2010 to its users an additional antivirus to its application package, if the user uninstalled Qihoo's antivirus from their computer. The Guangdong High Court rejected the anti-competitive nature of the practice as it focused only on one agent and did not demonstrated Tencent's market power.

Box 5. Grab-Uber Merger: CCCS of Singapore Imposes Directions and Financial Penalties

On 24 September of 2018, the Competition and Consumer Commission of Singapore (CCCS) issued an infringement decision against Grab and Uber, in relation to the sale of Uber's Southeast Asian business to Grab for a 27.5% stake in Grab in return ("the Transaction"), on the basis that the Transaction infringed section 54 of the Competition Act. The Transaction was completed on 26 March 2018, without any notification of the Transaction to CCCS by Grab or Uber. Following an investigation, the CCCS found the merger to be anti-competitive as it resulted in a substantial lessening of competition (SLC) in the provision of ride-hailing platform services in Singapore. The CCCS issued directions to remedy the SLC and imposed financial penalties amounting to over S\$13 million.

Singapore law does not require notification of mergers but parties are to conduct a self-assessment to determine whether notification is necessary. In this case, CCCS had sent a letter to each of Grab and Uber on 9 March 2018 to explain Singapore's merger notification regime and CCCS's corresponding powers to investigate and penalize anti-competitive mergers. Grab and Uber had the option

¹¹⁰ Austrian Federal Competition Authority; "Austrian Federal Competition Authority initiates investigation proceedings against Amazon". 2019. Available at: https://www.bwb.gv.at/en/news/detail/news/austrian_federal_competition_authority_initiates_investigation_proceedings_against_amazon/

¹¹¹ Evans, David; Yanhua Zhang, Vanessa and Chang, Howard; "Analyzing competition among internet players"; Qihoo 360 v. Tencent. Competition Policy International; 2013. Available at: <https://www.competitionpolicyinternational.com/assets/Uploads/EvansetalMay-2.pdf>

to notify the Transaction for CCCS's clearance prior to its completion but instead proceeded to complete the transaction and began the transfer of the acquired assets immediately, thus rendering it practically impossible to restore the pre-Transaction state of the market.

The CCCS made two main findings in relation to the anticompetitive merger. Firstly, the merger removed Grab's main rival from the market, Uber, leading to an increase in market power. This resulted in increased prices to the detriment of both categories of users, riders and drivers. The CCCS found that the merger had resulted in a 10-15% increase in effective fares for riders. Secondly, the CCCS found that the newly merged entity held around 80% market share. Despite recent entry by several small players at that point in time, their market shares remained insignificant. Strong network effects presented significant barriers to entry and expansion in the market. The CCCS emphasized the impact of exclusivity agreements with taxi companies, car rental partners and some Grab drivers, which were deemed to prevent effective competition in the market.

The directions given by the CCCS sought to remove various exclusivity arrangements and reinstate pre-merger pricing, seeking to restore contestability to the market for ride-hailing platform services in Singapore. These include:

- a. Ensuring Grab drivers are free to use any ride-hailing platform and are not required to use Grab exclusively;
- b. Removing Grab's exclusivity arrangements with any taxi fleet in Singapore;
- c. Maintaining Grab's pre-merger pricing algorithm and driver commission rates; and
- d. Requiring Uber to sell the vehicles of Lion City Rentals to any potential competitor who makes a reasonable offer based on fair market value and preventing Uber from selling these vehicles to Grab without CCCS's prior approval.

7. Conclusions and Recommendations

Online platforms are changing markets, business models and competition in innovative and sometimes, disruptive ways. The challenges that the digital economy represent for competition authorities are common around the world. The cooperation between authorities is important to face these new challenges and Mexico proposed the CPLG 02 2018 project as a good practice of international cooperation.

It is important to understand how digital markets impact competition and the best approaches to make a correct assessment of market conditions, considering the innovation dynamic and the elements inherent to multisided markets, while protecting consumers' welfare and the benefits carried by innovation. Therefore, it is necessary to update the economic competition legal framework in order to solve problems about digital platforms and digital economy.

Considering the elements stated in this report, we present the following recommendations that aim to contribute to the improvement of economic competition assessment of online platforms in the APEC region.

1) Dominance

a) Winner-takes-all (most) elements.

- Identify economies of scale and scope.
- Consider direct and indirect network effects.
- Assess switching costs (multi-homing and single homing).
- Ponder high capitalization.
- Evaluate high investment levels to enhance apps, manage large volume of data and algorithms.
- Ponder the importance of data.
- Consider low differentiation between products or services.

b) Direct and indirect network externalities and its effects on switching cost and access costs, and the limitations to multi-homing.

- Consider if direct and indirect network effects can increase switching and access costs.
- Identify the elements that make it difficult to create a critical mass, such as networks effects and incumbents' practices.
- Examine if the magnitude of switching costs and network effects reinforce the dominant position of an incumbent firm.
- Take into account barriers that hinder the development and consolidation of new platforms.
- Examine if switching costs derived from network externalities could be weakened when multi-homing conditions are assured.

c) Data concentration and data analytics.

- Identify the role played by data in the market. Specifically, identify the following elements:
 - Relevance: What kind of data are we considering?
 - Uses: Is data a products' input? Is it being used to train a machine-learning algorithm?
 - Importance: Is data giving a significant advantage over competitors?
 - Replicability: Can entrants replicate the data or is there a substitute for the data?
- Take into account the existence of feedback loops. Consider the effect of data concentration and high level of analytics. Data analytics and development of algorithms are important elements to improve the quality, personalization and differentiation of services that might not be replicable by rivals.
- Consider if there is data depreciation over time. The historical data are relevant, but there are dynamic conditions related to the preferences of users, so the online platforms must compete to attract and retain their users in order to update data.

d) Relationship between innovation, algorithms, quality of service and reinforcement of dominant position in the market.

- Consider that the strategic use of data analysis and development of algorithms can reinforce a dominant position in the market. Data scale could be a critical and no replicable input for algorithms.
- Take into account the gap of investment related to innovation between the dominant platform and its rivals. The level of capitalization could facilitate not only innovation but also startups acquisition to prevent potential competition.
- Identify if data concentration has a significant impact to develop better algorithms, for example, some techniques like neural networks depend significantly on data scale and quality.

e) Dynamic efficiencies and forward-looking analysis considering long-term effects.

- Evaluate dynamic efficiencies. Innovation and technological development create new business models and shift the production possibilities frontier of the economy.
- Consider that a dominant platform could be restrained by the threat of a disruptive entrant as long as the control of mergers is effective. However, if the dominant agent has the ability to adopt the innovations of its competitors, the competitive risk persists.

f) Competition on the merits.

- Bear in mind that dominant platforms could increase consumers' welfare by internalizing indirect network externalities. It is important to balance dominance in the market with the potential improvement of consumer welfare, through innovation and technological development.
- Consider that a higher level of information as well as market variables are necessary to compare positive effects on innovation, quality and diversity of services versus potential competitive risks (rule of reason). The evaluation of these effects could require some tools such as the test of the equally efficient company that evaluates whether the practice is capable of expelling a hypothetical company with the same level of efficiency. Consumer benefits and efficiency gains could compensate the possible anticompetitive effects under certain conditions.

2) Relevant Market

a) Relevant market determination.

- Evaluate the extent and define the relevant market case by case, based on the needs and requirements of the competition analysis in the markets of multiple sides. It may be useful to consider the following elements:
 - Multi-homing. Consider the simultaneous use of more than one platform, since it can show complementarity or substitution between online platforms.
 - Business model. The business model allows understanding how the sides of a platform interrelate and how it generates value from the interrelation.
 - Substitution on the supply side. Evaluate business models and revenue sources to determine if online platforms have a significant degree of substitution.
 - Zero prices. Consider non-monetary variables in the market definition such as attention time to advertising, privacy or quality.
 - Potential competition. Contemplate disruptive innovations that could represent competition in the market.
- Take into account that it is not necessary to define rigorously a relevant market in digital platforms. A good approximation could be sufficient to identify the effects in the process of effective competition.
- Consider the potential data markets in digital platforms. There are many alternatives to collect data, for example, a social network could compete with a search engine in terms of data collection.

b) Related markets.

- Identify all the groups of users (sides). Sometimes the question may arise if these sides should be included in a single relevant market or several related markets.
- Consider the nature of the platforms to determine if they have a single relevant market or some related markets. Some transactional platforms related to video or audiences could consolidate frequently one relevant market, but the matching platforms could have related markets. Any definition should consider interrelation between the sides as well as direction and magnitude of network effects.

c) Indicators to evaluate economic competition.

- Reconsider the indicators to evaluate the process of competition in the digital markets:
 - **Market shares.** It is necessary to identify the limits of the market share indicators because of the dynamic nature of digital markets. A high market share that persists for a long period, could suggest the presence of dominance. In the case of markets with zero pricing, non-monetary variables can be used.
 - **Operating margins:** A margin analysis should evaluate all sides of the platform and correctly interpret the interrelation between them. Sometimes the optimal strategy of a platform might involve subsidizing one of its sides in order to reach high margins in another. Online platforms can adopt a strategy of incurring losses in order to attract enough users and reach a critical mass that allows them to consolidate in the market.
 - **Entry to the market:** A digital platform with a certain business model could quickly enter a different market by adding components or modifying the product or service.

3) Mergers

a) Disruptive competitors.

- Review the criteria for authorizing mergers in digital platform markets, evaluating if a merger involves the loss of potential competitors, especially when the main platform has a considerable and persistent market share.
- Pay extra attention to mergers and acquisitions, which may not trigger traditional turnovers thresholds. As these markets are intensive in innovation and technology, the acquisition of a smaller firm, with a potential disruptive technology should be revised by competition authorities.

- Create a division, when possible, to monitor mergers and acquisitions not triggering traditional turnovers thresholds that could potentially affect competition in the market.
- Take into account incentives for innovation and the quality of services when analyzing mergers. The assessment of mergers should be based on a forward-looking approach and considering long-term effects.

b) Economic group.

- Consider that the control of multiple platforms by an economic agent could represent an advantage over its competitors, because of the synergies and scope economies related to data generation and acquisition.
- Evaluate an economic agent not only through its commercial and shareholder relationships, but also through the potential links between online platforms, market share and data concentration.

4) Entry Barriers and Essential Inputs

- Consider if the lack of interoperability between platforms can create barriers to entry. The lack of interoperability between platforms, the non-portability of user data and loyalty programs could increase switching costs for users and establish entry barriers.
- Consider the difficulties to obtain a critical mass of users. If a platform does not have a minimum scale of data its algorithms could be less competitive than others. This situation demerits the user's perception of the service quality of the rival platform and could jeopardize its permanence in the market.
- Take into account that the expectations of potential entrants in markets where a dominant platform exists could inhibit the incorporation of rival platforms. The expectation of new platforms is limited by the possibility of being acquired by a dominant player.
- Consider that it is difficult to replicate inputs like volume of data as well as the development of algorithms, in which very significant levels of resources have been invested (capital and talent).

Annex: Responses to the Questionnaire on Online Platforms Regulation¹¹²

1. What does your government consider as the most important challenges on competition policy regarding online platforms?

APEC Economy	Answers
<p>Chile</p>	<p>In Chile, there has not been a relevant debate regarding competition policies related to online platforms, so there have been no serious studies that provide a diagnosis about the challenges and areas for improvement that may exist in these policies.</p> <p>However, there have been initiatives related to tax issues that have been specially designed for online platforms such as Uber, Airbnb, Netflix, Spotify, Amazon and Aliexpress, whose objective has been to achieve "equal conditions" for these companies and others local firms can compete fairly. In particular, the Ministry of Finance, in charge of the economy's tax policies, has prompted modifications tending to make these international companies pay their taxes in Chile, as do the rest of the local firms in the different areas in which they compete with each of them. They, since it was observed that in many cases it was not like that.</p> <p>Additionally, the government of Chile launched a comprehensive program called "Digital Agenda 2020", whose objective is "to be a roadmap to advance the digital development of the economy, in an inclusive and sustainable way through ICTs, allowing disseminate, give coherence and facilitate the monitoring and measurement of the progress of the measures committed". The program covers topics such as the the digital development of the economy, in an inclusive and sustainable way through ICTs, allowing disseminate, give coherence and facilitate the monitoring and measurement of the progress of the measures committed.</p> <p>Regarding the digital economy, the challenges and goals identified by the government are:</p> <ul style="list-style-type: none"> - Massification of digital technologies in the company, with emphasis on micro, medium and small businesses and electronic commerce to digitally transform the company. - Consolidation of the growth potential of the ICT sector.

¹¹² The responses from Canada and Mexico were used as input for the drafting of this report, but remain undisclosed. In the case of the United States, rather than answer the individual questions, the economy responded by submitting its paper to the OECD Directorate for Financial & Enterprise Affairs Competition Committee of June 6, 2018 "Implications of E-commerce for Competition Policy- Note by the U.S."

APEC Economy	Answers
	<ul style="list-style-type: none"> - Democratization of the ecosystems of technology-based entrepreneurship, research, development and innovation in the economy. <p>Finally, one of the initiative's specific objective is to massify electronic commerce, starting with the promotion of electronic means of payment in groups traditionally not included in this world, such as informal commerce fairs. Then, work will be done to increase the population's bancarization, improve the ease to make payments on line and the protection regulations for consumers, simplify the tax regulations and the improve logistics and transport systems.</p>
Hong Kong, China	<p>The Competition Ordinance in Hong Kong, China (HKC), which came into full operation on 14 December 2015, provides a legal framework for tackling anti-competitive conduct in all sectors. The Competition Commission is an independent authority set up under the Ordinance to enforce the Ordinance. Since the full commencement of the Ordinance, the Commission has not encountered significant challenges when applying the Ordinance to address issues arising from the digital economy/ online platforms.</p>
Indonesia	<p>Since there has been no clear government regulation yet regarding online platforms, consequently, as a competition institution, KPPU, will have problems ranging from the fundamental matters such as method for defining market, describing the industry thereof, stipulating the relevant market as well as identifying market structure (its business actors). However, KPPU had started a research (survey) with regard to e-commerce to see the “performance of digital economy in Indonesia: Competition Analysis” in 2017. Based on the result of the survey, it was assumed that there are several competition issues that will emerge in the e-commerce markets in the future, among other things:</p> <ol style="list-style-type: none"> 1. Entry barriers actions à Privilege to enter the market and/or innovation development; 2. Exploitation: from platform to supplier or inter platforms; 3. Exclusive agreement to expand the market into one platform integration; 4. Potential conducts of predatory pricing or price discrimination; 5. Abuse dominant position: Giant-provider behaviors: lock-in end user/gate keeper; 6. Pre-emptive merger; 7. Tacit-Cartel.

APEC Economy	Answers
	<p>Meanwhile in merger, mergers are subject to Indonesian merger filing if they fulfil certain criteria, such as asset and sales threshold. The transaction shall be notified to Commission for The Supervision of Business Competition of Republic Indonesia (KPPU), an independent agency established for the enforcement of the Competition Law. This applies to all industries.</p> <p>The most important challenge regarding online platform is relevant market definition. As in the analysis of mergers in other industries, the first step in merger analysis is the analysis of the relevant market. it is difficult to determine the relevant product market on the online platform market, because in some cases it may overlap with traditional platforms, while in other cases it does not. Analysts must be careful in determining the product market and mapping all possible competitors in the market. There are also difficulties encountered when determining geographical coverage. These difficulties will ultimately complicate market share calculations, especially when there are many foreign competitors offer same products in Indonesian market but the sales are not known.</p>
Japan	<p>One of the most important challenges on competition policy regarding online platforms is to ensure transparency and fairness for transactions with users (businesses and consumers), given that online platforms, especially IT giants, often have unclear terms of use and systems which can lead to unfair trading practices.</p> <p>It is also an important issue for Japan Fair Trade Commission (JFTC) to pursue its enforcement actions in view of the characteristics of the digital market, considering that online platforms tend to expand and achieve monopolisation or oligopolisation of the market by their nature and competition law enforcement as ex-post regulation would play a significant role in dealing with them.</p>
Papua New Guinea	<p>As PNG is a developing economy and internet access has not yet penetrated to most of the population in PNG, we have not faced any current issues surrounding competition policy and online platforms. PNG users are just becoming familiar with using online platforms however regulators are paying close attention to developments in jurisdictions around the world and problems they are facing with anti-competitive conduct in online platforms, should in the future PNG be faced with such issues.</p>
The Philippines	<p>Despite having a population which makes extensive use of the Internet and online services, the Philippines e-commerce market</p>

APEC Economy	Answers
	<p>and the use of online platforms remains to be in its developmental stages. The challenge for competition policy and regulation is to ensure that firms' and start-ups' utilization of new business models is encouraged and supported by a responsive public policy architecture and expanding a variety of choices available for the citizens.</p> <p>This also entails that the quality of the supporting infrastructure (i.e., telecommunications services, laws and institutions concerning data privacy and security) has to be improved or expanded so that firms and consumers have more incentives to introduce or use online platforms.</p> <p>From the perspective of a competition authority that undertakes competition analysis, it has encountered several challenges. First, it has had to understand a nascent, but complex industry that is fast-evolving. Second, it has had to study the implications of platform network effects in merger cases. Third, there is also the challenge of whether to consider data as an asset that must be valued in considering whether a merging firm should notify the competition authority. Lastly, to encourage healthy competition in the market, the competition authority had to coordinate with sector regulators to ensure that market contestability remains feasible. However, most sector regulators are likewise still grappling with the issues presented by online platforms. Delays on the regulatory framework can have a negative impact on competition as it favors the traditional or dominant players who are shielded from disruption.</p>
Russia	<p>However, the main goal of FAS and competition regulation is try to not to stiff the development of big companies in IT sphere and at the same time give an opportunity to the small players to develop on equal conditions with big companies.</p>
Chinese Taipei	<p>Due to the new service model brought by the online platform, the definition of enterprises' competition scope, the evaluation of market power, and the dynamic competition characteristics will be the challenges faced by the competition law authorities in conducting online platform-related competition analysis. In other words, the competent authorities may stipulate laws and/or regulations to manage online issues</p>

2. Has your economy modified or adapted its legal or regulatory framework due to the emergence of new services like online platforms? If so, on what grounds? (i.e. competition policy concerns, data protection or consumer protection). What are the goals and objectives? Please provide details.

APEC Economy	Answers
<p>Chile</p>	<p>As mentioned above, most of the government initiatives related to the emergence of digital platforms have been related to tax issues, with the aim of ensuring that they compete on equal terms with local companies in the different areas in which they operate.</p> <p>In the same vein, there is a bill in process that will force private transport platforms (Uber, Cabify, Beat) to register as formal transport companies, their status as "platform" being invalid. Consequently, the drivers of these platforms must have a professional driver's license and companies must hire civil liability insurance for drivers and passengers.</p> <p>Regarding the rights of users/consumers, there a series of bills that modify the Consumer Law in order to: i) regulate the protection of privacy in the sending of advertising; and ii) regulate the formation of consent in the contracts offered by telephone. Both, therefore, have a focus on privacy protection and informed hiring by the user. The Personal Data Protection Law, meanwhile, seeks to protect / provide the user / consumer with a series of rights: i) right to be forgotten; ii) the right to choose not to participate; iii) right of access; iv) right to data portability; and v) right to object. Currently in the Senate, with recent advances. Additionally, it creates the necessary institutions to supervise the proper exercise of rights as well as the application of sanctions.</p>
<p>Hong Kong, China</p>	<p>The Competition Ordinance has been in full operation for around three and a half years, and has not been amended so far.</p>
<p>Indonesia</p>	<p>Yes. The modifications mostly concern on data protection and security, consumer protection, network management (ICT infrastructure and operators), and investment. And ahead will be on e-commerce tax and small medium enterprises (SMEs) empowerment. The goals and objectives are to provide consumer protection (personal data and payment safety) and to set up an environment suited to e-commerce, particularly SMEs, and also to make online transaction easier and cheaper.</p> <p>There are no changes with regard to competition law, we still use Law No. 5/1999 regarding Prohibition of Monopolistic Practices and Unfair Business Competition as well as a new mandate with regard to the Supervision of Partnership.</p>

APEC Economy	Answers
	<p>There has not been other additional policy yet for a specific policy concerning online platform/e-commerce has yet to be made by other Ministries/Institutions. As for competition issues or cases relating to online platform will be analyzed/handled in accordance with Law No. 5/1999 as well as partnership issues (supervision of partnership) is based on Law No. 20/2008 (Partnership Law).</p> <p>Meanwhile, data protection and consumer protection constitute the authority of another institution. With regard to data protection, there is Regulation of the Minister of Communications and Informatics No. 20 Year 2016 regarding Protection of Personal Data in the Electronic System. This Regulation constitutes the subsidiary legislation of Government Regulation (PP) No. 82/2012 regarding the Administration of Electronic Transaction System. Its main legal umbrella is Law No. 11 Year 2008 regarding Information and Electronic Transactions.</p>
Japan	<p>Japan has not modified competition law (the Antimonopoly Act; the AMA) and related regulations due to the emergence of online platforms. In the meantime, JFTC, Ministry of Economy, Trade and Industry (METI) and Ministry of Internal Affairs and Communications (MIC) launched the “Study Group on Improvement of Trading Environment surrounding Digital Platforms” (Study Group) and formulated the “Fundamental Principles for Improvement of Rules Corresponding to the Rise of Digital Platform Businesses” (Fundamental Principles) on 18 December 2018, based on the discussion in the Study Group. The Fundamental Principles refer to future considerations of appropriate measures to deal with the emergence of digital platforms (see question 4 and 5 below).</p>
Papua New Guinea	<p>Not to date, however we have begun the process to make amendments to our competition laws following a major review. An implementation committee has been set up to steer the implementation of recommended changes from the review report, which were endorsed in its’ entirety by our cabinet Ministers. Recommendations sought amendments to our current competition laws to make it more relevant to current business environment.</p> <p>It is also important to note that Government policy in relation to issues with online platforms and social media have been skewed towards a focus on consumer protection.</p>
The Philippines	<p>The competition authority has not modified or adapted its existing rules and regulations to adapt to emerging markets like online</p>

APEC Economy	Answers
	<p>platforms. It has not yet issued a Commission guidance specifically relating to online platforms or digital markets.</p> <p>However, based from the Department of Trade and Industry's E-Commerce Office, there are certain laws and issuances that were adapted in view of global developments and current realities. For instance, to address the developments in E-commerce, the Electronic Commerce Act (Republic Act No. 8792) of The Philippines was supplemented by E-Consumer Protection Guidelines (Joint Department Administrative Order No. 1, Series of 2008) to ensure consumer protection.</p>
Russia	<p>As already indicated current Russian competition law is in the process of change and adaptation to new challenges of digital economy. At this moment FAS Russia don't have any special methodology or regulation on how to regulate and investigate antitrust cases regarding online platforms, big data and etc. Yet, current version of Russian competition law allows FAS Russia to look at anti-competitive practices of online platforms.</p>
Chinese Taipei	<p>Current competition law in Chinese Taipei, the Fair Trade Act, and related administrative regulations are still sufficient to combat the anti-competitive and unfair competition behavior of the online platform industry. At present, regarding to regulation related to competition, there is no specific adaption or amendment on the type of business or behavior involved in the online platform.</p> <p>In order to protect the consumers of online shopping, in 2011, Chinese Taipei set the "Matters to be Included and Excluded in the Online Transaction Standard Form Contract for Retailers and Others". In 2016, the fifth point of the aforementioned administrative order was revised in conjunction with the development of technology and network operations.</p> <p>In addition, for the online service providers (including legal persons and individuals), in order to achieve a balanced development of "sustainable development of Internet services" and "a sound order of the Internet society", the authority responsible for regulating telecommunications and broadcasting services in Chinese Taipei - the National Communications Commission (NCC) has proposed a draft of the "Digital Communications Act", which no longer adopts the structural control method of issuing licenses, rather is subject to the online conduct and its governed laws such as the Civil Code, Criminal Code and/or the competent sector laws, for example: the infringement of copyright is applicable to Copyright Act, illegal child matters are applicable to child related laws or regulations etc. In</p>

APEC Economy	Answers
	other words, competent authorities may stipulate laws and/or regulations to manage online issues.

3. What is the current regulation applicable to foreign enterprises that offers services through online platforms in your economy?

APEC Economy	Answers
Chile	Currently, there are no significant differences in the regulation applied to foreign companies that offer services through virtual platforms and that applied to local firms. There are anti-dumping laws, but they have been applied to these types of markets.
Hong Kong, China	<p>The Competition Ordinance in HKC is a cross-sector legislation which, among other things, prohibits agreements, concerted practices and decisions that have the object or effect of preventing, restricting or distorting competition in HKC.</p> <p>For anti-competitive conducts under the First Conduct Rule, the Rule applies irrespective of where the agreement or decision is made, where the concerted practice is engaged in, where the parties to such practices are based, or whether online platforms are involved.</p> <p>Similarly, for anti-competitive conducts under the Second Conduct Rule, which prohibits an undertaking with a substantial degree of market power in a market from abusing that power by engaging in a conduct that has its object or effect the prevention, restriction or distortion of competition in HKC, the Ordinance applies irrespective of whether the conduct or the undertaking engaging in the conduct is outside HKC, or whether online platforms are involved.</p>
Indonesia	<ul style="list-style-type: none"> a) Undang-undang Nomor 5 Tahun 1999 tentang Larangan Praktek Monopoli dan Persaingan Usaha Tidak Sehat (Law No 5 Year 1999 on The Prohibition of Monopolistic Practices and Unfair Business Competition). b) Undang-undang Nomor 8 Tahun 1999 tentang Perlindungan Konsumen (Law No 8 Year 1999 on Consumer Protection). c) Undang-undang Nomor 36 Tahun 2008 tentang Perubahan Keempat Atas UU Nomor 7 Tahun tentang 1983 Pajak Penghasilan (Law No 36 Year 2008 on Income Tax).

APEC Economy	Answers
	<ul style="list-style-type: none"> d) Undang-undang Nomor 11 Tahun 2008 tentang Informasi dan Transaksi Elektronik (Law No 11 Year 2008 on Information and Electronic Transactions). e) Undang-undang Nomor 7 Tahun 2014 tentang Perdagangan (Law No 7 Year 2014 on Trade). f) Peraturan Pemerintah Nomor 82 Tahun 2012 tentang Penyelenggaraan Sistem dan Transaksi Elektronik (Government Regulation No 82 Year 2012 on the Management of Electronic Transactions and Systems). g) Peraturan Presiden Nomor 74 Tahun 2017 tentang Peta Jalan (Road Map) Sistem Perdagangan Nasional Berbasis Elektronik (Presidential Regulation No 74 Year 2017 on the e-Commerce Road Map). h) Peraturan Menteri Komunikasi dan Informatika Nomor 36 Tahun 2014 tentang Tata Cara Pendaftaran Penyelenggara Sistem Elektronik (The Ministerial of Communication and Information Technology Decree No. 36 Year 2014 on The Registration Procedures of Electronic System Providers). i) Bank Indonesia Regulation No. 18/40/PBI/2016 on Payment Transactions Processing. j) Bank Indonesia Regulation No. 19/8/PBI/2017 on National Payment Gateway.
Papua New Guinea	PNG competition law states that if conduct affects competition in a market in PNG then our competition laws can apply, even if the concerned entity is not a resident or not carrying on business in PNG. However the extent to which this can apply to online platforms is yet to be tested or explored by competition agencies in PNG.
The Philippines	The Philippines adheres to the principle of non-discriminatory treatment. Currently, the same existing laws, rules and regulations such as the Electronic Commerce Act is applied to all physical/brick and mortar and online/e-commerce businesses. Existing regulations in the Philippines do not have specific provisions for Foreign Service providers. Both Filipino and Foreign Service providers are governed by the same regulations.
Chinese Taipei	If a foreign business has a branch office in Chinese Taipei or a company established under the laws of Chinese Taipei and engages in a “retail trade not in stores or stalls”, it should be subject to the “Matters to be Included and Excluded in the Online Transaction Standard Form Contract for Retailers and Others”.

APEC Economy	Answers
	However, for the cross-border digital communication service providers, they are not required to provide services through the permission or registration of Chinese Taipei.

4. Do you consider your current regulatory framework sufficient to address competition policy challenges regarding online platforms? Please provide details.

APEC Economy	Answers
Chile	The Chilean regulatory framework does not currently have specific policies for competition problems associated with online platforms. There is no official statement from the authorities regarding if they consider this one of the possible improving spaces in the competition policy.
Hong Kong, China	The Competition Commission has not yet encountered significant challenges when applying the current competition law framework to address issues arising from the digital economy/ online platforms.
Indonesia	There is no specific regulation regarding competition in online platform/e-commerce that KPPU as a competition institution still has a difficulty in defining the industry thereof (the relevant market, geographic, business actors). In merger, all transaction follow same merger notification criteria. One of them is criteria on asset and sales threshold. Recently, there has been an increase in the trend of acquisition of online platforms in Indonesia, but most of their assets, sales and market share are considered small. The online platform industry is still new, and so far there is no best practice that can be a reference for us. Therefore, while the existing rules are considered sufficient.
Japan	Following the Fundamental Principles, JFTC has been conducting a large-scale and comprehensive survey on the actual condition of trading practices by digital platforms. Based on the result of the survey, JFTC will consider appropriate measures to make the current regulatory framework more sufficient to address competition policy challenges regarding online platforms. Those appropriate measures include the introduction of rules on digital platforms from the viewpoint of securing transparency and fairness in their transactions with users (businesses and consumers), and the enforcement of the AMA for securing fair and free competition in the digital market.

APEC Economy	Answers
Papua New Guinea	As I have stated previously the competition laws have not been tested yet with regards to competition laws and online platforms. As this becomes an issue we will see if the laws and regulatory framework are sufficient or flexible enough to cater for policy challenges regarding online platforms.
The Philippines	The competition authority is facing challenges in capturing potentially anti-competitive mergers and acquisitions falling below merger notification thresholds in the market for online platforms. Merger notification thresholds are determined based on gross revenues in, into or from the Philippines or value of the assets in the Philippines of the ultimate parent entity of at least one of the acquiring or acquired entities exceed PhP 5.6 Billion and the value of transaction exceeds PhP 2.6 Billion. Presently, there are no guidance on the determination of gross revenues generated and assets owned by online platforms.
Russia	However, these activities designed to pay off only in three to five years. Currently Russia have quite modest regulation of online platforms.
Chinese Taipei	Current Fair Trade Act and related administrative rules in Chinese Taipei are still sufficient to regulate the restraint competition and unfair competition behavior of the online platform industry.

5. Which authority in your jurisdiction is in charge of competition policy regarding online platforms?

APEC Economy	Answers
Chile	The FNE and the TDLC are the only bodies authorized by law to ensure free competition in all markets (investigation and prosecution in the case of the FNE and to judge and resolve in the case of the TDLC), including the online platforms markets.
Hong Kong, China	The Competition Commission is the principal enforcer of the Competition Ordinance which is a cross-sector legislation which prohibits conduct that prevents, restricts or distorts competition in HKC.
Indonesia	There is no specific authority that is in charge of competition policy regarding online platform. All competition-related issues will be handled by the Commission for the Supervision of Business Competition of the Republic of Indonesia with the implementation thereof is based on Law No. 5/1999.

APEC Economy	Answers
<p>Japan</p>	<p>In Japan, JFTC is in charge of competition policy including regarding online platforms.</p> <p>However, since the improvement of trading environment involving online platforms requires other policy considerations than competition policy, JFTC cooperated with METI and MIC in launching the Study Group and formulating the Fundamental Principles.</p>
<p>Papua New Guinea</p>	<p>ICCC would have oversight when it came to mergers and acquisitions in markets concerned with online platforms. Also there are some broad powers the ICCC has to investigate anti-competitive conduct that may happen in these markets.</p> <p>The National Information and Communication Telecommunications Authority (NICTA) would also have some competition policy oversight with regards to online platforms.</p>
<p>The Philippines</p>	<p>The Philippine Competition Commission has the original and primary jurisdiction over the enforcement and implementation of the Philippine Competition Act which includes competition policy affecting online platforms.</p>
<p>Russia</p>	<p>Russian competition authority is Federal Antimonopoly Service of the Russian Federation (FAS Russia). The view of FAS Russia on online platforms is that current (and new) Russian legal regulation (rights and obligations) must apply on online platforms from different spheres of economic life (taxi, e-commerce, social networks, procurement, travel, etc).</p>
<p>Chinese Taipei</p>	<p>The Fair Trade Act in Chinese Taipei aims to maintain the order of transactions and the interests of consumers, and to ensure free and fair competition. Therefore, regardless of the maintenance of the market competition mechanism of online platforms or traditional industries are all the duties of the competition authority in Chinese Taipei - Fair Trade Commission.</p>

6. Has your competition authority analyzed cases that involve online platforms (mergers, vertical or horizontal conducts, abuse of dominance, etc.) Please provide details regarding relevant competition tools used in the cases i.e. market definition, network externalities analysis, sides of the platforms, entry barriers, related markets and others. In your answer, please elaborate on the conclusions of market definitions, assessment of market power and abuse of dominance and tools and methodologies.

APEC Economy	Answers
Chile	<p>One of the most recent cases corresponds to the concentration operation consisting of the acquisition of control over Cornershop, a two-sided platform based on web application and smartphones for on-demand sales and home delivery of supermarket products, by Walmart Chile, supermarket chain with physical stores and through website.</p> <p>The relevant market was the online sale of supermarket products, distinguishing the format of physical stores and adding the differentiation between types of platforms (between websites and apps, for example) and between the on-demand format and with expanded dispatch, because, for the consumer, the goods are considered close substitutes.</p> <p>During its investigation, the FNE analyzed the different hypotheses of risks, concluding that, by virtue of the background information held throughout the investigation, the dynamism of the industry analyzed, the low barriers to entry and especially the current volume of the market and the fact that the services of Conershop were already mainly lent to Walmart, the operation would not cause a substantial impact on market competition.</p> <p>Another case that has been historically addressed by the FNE is that of Transbank, the payment network of credit and debit cards in which all local banks have participation, and which has acted, with the authorization of the TDLC, as a monopoly in practical terms. The FNE has participated in multiple instances, with the aim of opening the market of electronic means of payment, to move to a system of "four parts", unlike the current one of "three parts", where it has not been historically possible for a company other than Transbank to enter that market. In this case, the relevant market has been defined as that of universally accepted electronic means of payment, that is, bank credit and debit cards or with an international credit card brand (VISA, Mastercard, AMEX).</p>
Hong Kong, China	<p>The Competition Commission follows its Guidelines on the First Conduct Rule and Second Conduct Rule which set out the general approach of the Commission's handling of enforcement cases, including cases related to online platforms. Please refer to the</p>

APEC Economy	Answers
	<p>Guidelines for details about the relevant competition tools that are usually employed in enforcement cases.</p>
<p>Indonesia</p>	<p>Since there has not been a clear regulation issued by the Government with regard to the e-commerce/online platforms yet, consequently, KPPU defines market (relevant market) based on the data (definition of the relevant market of e-commerce) by the IdEA Association (Indonesian E-commerce Association). The definition of the relevant market is based on the justifications of the respective business actors categorized to be as follows:</p> <ol style="list-style-type: none"> 1. Marketplace; 2. Online Retail; 3. Banking; 4. Classified Ads; 5. Daily Deals; 6. Infrastructure; 7. Transportation; 8. Logistic; 9. Directory; 10. Payment Gateway; 11. Travel. <p>Meanwhile, online platform merger/acquisition is an increasing transaction in Indonesia. In merger case, KPPU deals with many transactions by large companies who acquired online platform companies to support their digitalization. Some cases involved start-up companies acquired other start-up companies. The tools used in the case are similar to “traditional” cases. Market definition is still a key and first approach in merger assessment. Other tools like network effect, entry barriers, and others will be used in the later stage of merger assessment.</p> <p>Currently KPPU is still analysing the acquisitions that occur in the news portal industry. At the starting point, we consider the activities of the parties, including the products or services, and then focuses on any areas of overlap between them. In this transaction there are two markets that are being considered, namely the content market and the advertising market. Two-sided markets arise in the context of services which generate revenue through advertising.</p> <p>In analysing product substitution between parties, we also consider the type of content supplied by each party, such as sport, entertainment, lifestyle, or quality news content. In this transaction, there is likely to be greater substitution between two platforms</p>

APEC Economy	Answers
	<p>providing quality news content. The acquisition is also expected to increase the income of the acquirer group from other products, because besides having a news portal, it also has television stations and print newspapers. So our analysis should be broader and include analysis that is usually done on horizontal and vertical merger. There is no barrier entry in this industry because the licensing is easy, this can be seen from a large number of news platform currently available.</p> <p>Not finished yet, still on progress. But some analysis already explained in the answer above.</p>
<p>Japan</p>	<p>Yes. JFTC has analysed several anticompetitive conduct and mergers which involve online platforms.</p> <p>As for anticompetitive conduct, for example, JFTC has investigated a case regarding parity clauses imposed by Amazon (June 2017) and also cases regarding exclusive dealing by an online intermediary platform for pets (June 2018) and by Airbnb (October 2018). In all of these cases, investigated companies voluntarily proposed to take appropriate measures to eliminate the suspicion of violations and JFTC consequently closed the investigation.</p> <p>With regard to mergers, JFTC reviewed a case where Yahoo Japan Corporation (Yahoo), which runs online travel reservation service on its website, planned to acquire all shares of Ikyu Corporation (Ikyu), which runs the same business as Yahoo. JFTC defined one of the relevant markets in this case as the “online travel reservation service”, which was different from the similar service provided by brick-and-mortar agencies, i.e. offline travel reservation service, by taking into account the difference in the characteristics of these online and offline services.</p> <p>Also, this market of “online travel reservation service” is regarded as a multi-sided market, which is facing two different types of users; one is for hotel business operators, the other is for consumers. JFTC’s rationale for the market definition is the following: firstly, these online travel reservation service and offline travel reservation service are different for both hotel business operators and consumers in the necessity of internet environment and thus there is no demand-side substitutability between these two services. Secondly, supply-side substitutability is deemed to be limited because online travel reservation services need to establish a system for reservation websites and develop a maintenance and management system for it while brick-and-</p>

APEC Economy	Answers
	mortar travel agencies need to develop branch facilities and relevant personnel system.
Papua New Guinea	Not to date.
The Philippines	<p>Yes, the competition authority has analysed and decided cases in merger cases involving online platforms. Notably, in the case of Grab's acquisition of Uber, the Commission had the opportunity to define a market for online platforms used for private transportation.</p> <p>With respect to the methodologies used in the analysis, especially for market definition, focus is given on demand-side characteristics of the market but with due consideration on how it will affect the supply side. Key aspects of the Mergers and Acquisitions Office's ("MAO") competition assessment is discussed below:</p> <p style="padding-left: 40px;">1. Relevant market definition</p> <p>In defining the relevant market, the competition authority finds that the relevant market is the on-demand car-based private transportation online booking service through a mobile ride-hailing application in Metro Manila, its surrounding areas, and Cebu for the following reasons:</p> <ul style="list-style-type: none"> a) An overwhelming majority of riders would choose to continue using on-demand car-based private transportation online booking service through their mobile ride-hailing application when faced with a hypothetical price increase of 5-10%, which is borne out by actual events post-Transaction; b) Prices for GrabCar and Uber are generally higher compared to other modes of public transportation, including regular taxis; c) There are significant qualitative differences between on-demand car-based private transportation online booking service through their mobile ride-hailing application and other modes of public transportation; d) Public pronouncements and internal documents of Grab and Uber show that they differentiate their services from taxis and that they view each other as their sole competitor; e) Riders and other market participants consider on-demand car-based private transportation online booking service through their mobile ride-hailing application separate and distinct from other modes of transportation, even those whose bookings are facilitated through a mobile app; and

APEC Economy	Answers
	<p>f) Regulatory regimes applicable to Grab and Uber as Transport Network Companies (“TNCs”) vis-à-vis other modes of public transportation (including regular taxis) significantly differ.</p> <p>2. Entry and expansion</p> <p>Given the still-nascent nature of e-commerce and online platforms in the Philippines, it is also useful to assess and identify the legal frameworks covering the particular industry. This is relevant since there may still be few market players in the evolving market and contestability and ease of entry are key considerations in assessing future market conditions.</p> <p>In the Grab/Uber case, while there are new entrants to the relevant market, historical data shows that it would take a significant amount of time and cost for these new players to grow a driver and rider base sufficient to contest the incumbent. During such period, Grab will not be constrained by any competitor, allowing it to exercise its market power in the relevant market. In conclusion, new entrants in the relevant market are not likely to exert sufficient competitive pressure on Grab.</p> <p>Moreover, the Land Transportation Franchising Regulatory Board’s rules and regulations governing the market were in flux and has led to delays in the entry of potential competitors.</p>
Russia	<p>In 2016 FAS Russia reviewed the case against Google LLC about its practices in the app store market. In 2017 FAS Russian reviewed the case against Microsoft Corporation about its practices in the operating system market. Currently FAS Russia reviewing case against 3 biggest Russian online platforms for job postings (job search) and reviewing complaint against Apple Inc about its anti-competitive practices in Apple app store.</p>
Chinese Taipei	<p>In 2015, the Fair Trade Commission investigated whether Google hindered the competition of other map sites as it placed its own Google Maps in the priority list of search results.</p> <ul style="list-style-type: none"> • Assessment of Google’s market power <p>According to statistics in 2013, the proportion of search engine users in Chinese Taipei using Google for online searches was nearly 60%. In terms of keyword advertisement revenue, Google Inc.’s market shares also reached 52.02% in 2013. Hence, Google Inc. meets the criteria of a monopolistic</p>

APEC Economy	Answers
	<p>enterprise set forth in Article 8 of the Fair Trade Act in terms of market shares and sales revenue.</p> <ul style="list-style-type: none"> • Fact Analysis <p>Search services provided by Google Inc. have extremely high market shares and utilization rates, and its market power is self-reinforcing due to learning effects (more accurate search results and better search quality as the number of users that use the search engine increases) and a bilateral market (search engines with more users will generate more advertisement revenue, and will consequently have more resources to invest in improving search quality). Hence, websites that only provide map information services cannot duplicate the scale and quality of search services provided by Google at a reasonable cost within a short period of time.</p> <p>However, considering other search engine operators also use the same search results as Google displays its own map service in a prominent position in the search service, it shows that this feature is beneficial to the user experience, so competitors also launched similar functions. Therefore, there is no specific evidence in this case that Google violates the Fair Trade Act's regulations on the abuse of market power by monopolized businesses.</p>

7. Does your competition authority evaluates online platforms cases in a different way than “traditional” markets? Please elaborate on thresholds for merger control, methodology for the competition analysis and market definition (multisided platforms).

APEC Economy	Answers
Chile	Currently, the markets of online platforms are evaluated with the same tools that are evaluated in the rest of the markets, that is, there are no specific techniques to apply them in the case of thresholds for mergers, methodologies for the analysis of competition or market definition.
Hong Kong, China	The Commission follows the approach set out in its Guidelines when conducting competition assessment. Currently, the Merger Rule in HKC applies to the telecommunications sector only.
Indonesia	It depends on the issue and its analysis approach. We usually see it based on the market definition approach as well as regulation issued by the Government.

APEC Economy	Answers
	<p>Currently the tools in merger assessment in online platform are similar to traditional market. The analysis is carried out more on the impact of transactions vertically, especially in determining whether there is a potential for the company to integrate its flagship product with the acquired company. For this reason, the KPPU will examine barriers to entry in the sector, especially in determining whether existing policies support entry or related technologies are easy to duplicate. Another method used is generally related to the opinions of competitors and consumers, especially in identifying barriers to entry and exit in existing platforms.</p> <p>Source of evidence for market definition in online platform mergers can be different, depend on what we are dealing with. The key for its market definition is their interaction to its consumer (indicator which can reflect the level of consumer's dependency). Tool like consumer survey is often used to understand consumer preference over a platform and its substitutes (and to help with its diversion ratio).</p> <p>Speaking of merger threshold for online platform, KPPU is still applying the threshold which is similar to other type of markets. There is no specific threshold to the online platform companies or merger transaction. Changing the threshold is not an easy task in Indonesia, since it's governed by the Government Regulation (signed by the President). Moreover, if the question is whether we need to change the threshold just for the online platform, then the current answer is no.</p>
Japan	<p>In both anticompetitive conduct and mergers, JFTC does not adopt any different rule for online platforms from “traditional” markets including thresholds for merger notifications, methodology for the competition analysis and market definition in general. JFTC evaluates all cases including ones involving online platforms on a case-by-case basis considering the characteristics of each market.</p> <p>For example, in the Yahoo/Ikyu case, JFTC took into consideration the characteristics of zero-price markets in calculation of market shares. That is to say, JFTC calculated the market shares of these two companies in the “online travel reservation service” market, which includes a zero-price service, on the basis of transaction volume through their websites.</p> <p>Besides, the Competition Policy Research Centre (CPRC) in JFTC published the “Report of Study Group on Data and Competition Policy” in June 2017, which clarified that the most of the competition concerns related to accumulation and utilization of</p>

APEC Economy	Answers
	data but at the same time sorted out points to be considered in defining markets and analysing effects on competition in cases involving accumulation and utilization of data. JFTC has been conducting case investigations taking these points into account.
Papua New Guinea	As previously, we have yet to analyze a case in relation to online platform markets, whether it be mergers and acquisitions or for anti-competitive market conduct.
The Philippines	The competition authority assesses and evaluates online platforms and “traditional” markets in the same manner. Merger notification thresholds are uniform regardless if a potential merger case involves online platforms or “traditional” markets. For market definition and competition analysis, the same methods are used (but applied on a case-to-case basis). In the PCC’s experience with the Grab/Uber case, obtaining consumer-related information was critical in defining the market.
Russia	When we in FAS Russia look at certain antitrust cases with online platforms we don’t look at them differently than “traditional” markets. At the same time when we look at these types of cases and mergers we considering (analyzing) network and multi-sided effects of online platforms on competition, companies and consumers.
Chinese Taipei	The case evaluation related to the online platform is still mainly based on the analysis of traditional tools, and considers the network effect and the operation mode of different platform markets.

8. Regarding online platforms, what does your government considered to be its role in protecting competition from the effects of ISPs (Internet Service Providers), algorithms, net neutrality and cloud computing services?

APEC Economy	Answers
Chile	<p>In 2010, the Network Neutrality Law was enacted, the first legislation in the world referring to this principle. Establishes rights for Internet users and obligations for ISPs, in addition to granting powers to the Undersecretariat of Telecommunications (regulator) to sanction infractions.</p> <p>In terms of competition, there has been some research in which the possible arbitrary discrimination of certain ISPs on their network was analyzed, which could generate competition</p>

APEC Economy	Answers
	problems in the market of ISPs (versus OMV and OMR) and the market of "content providers", but these did not result in requirements or actions in the TDLC.
Hong Kong, China	The Competition Ordinance prohibits agreements, concerted practices and decisions that have the object or effect of preventing, restricting or distorting competition in HKC in all sectors, which include online platforms.
Indonesia	In general, the Government has the legal duty to ensure fair business competition as stipulated in Law No 5 /1999 on The Prohibition of Monopolistic Practices and Unfair Business Competition and to protect consumers as regulated in Law No 8/1999 on Consumer Protection. To facilitate business (to some extent protect from unfair business competition and fraud) and protect the consumers in e-commerce transactions the Government has promulgated Government Regulation No 82 Year 2012 on the Management of Electronic Transactions and Systems. This Regulation has been on revisions to respond to the contemporary issues and problems on the impact of the use of the information technology in business (competition).
Papua New Guinea	Current Government policy has been skewed in a consumer protection direction and not really protecting 'competition' but consumers from defamation or misleading information that is distributed through online platforms.
Chinese Taipei	<p>From the standpoint of the competition authority, it should be concerned whether the online platform business conduct violates the principles of competition, and maintains the market competition mechanism as the policy objective.</p> <p>Besides, in the "Telecommunications Act" of Chinese Taipei is also stipulated that telecommunications enterprises should provide services fairly and should not be treated differently. Therefore, Internet service providers should not affect the free competition of various Internet services in various ways and hinder fair competition.</p>

9. Do you consider that online platforms could be classified as telecommunication services? If so, on what grounds?

APEC Economy	Answers
Chile	The Superintendence of Telecommunications does not consider digital platforms as telecommunications services. Telecommunications services are classified into 5 types: i) free reception or broadcasting services; ii) public telecommunications services; iii) limited Communications services; iv) amateur radiocommunication services; v) intermediate communications services. Digital platforms do not qualify in any of these definitions if the detail of each of them is analyzed. In this way, digital platforms qualify as providers of content for telecommunications services such as the Internet, but not as telecommunications services themselves.
Hong Kong, China	It is noted that online platforms refer to those top layer applications running over the Internet. They are in general content-based services, and are not classified as telecommunications services in Hong Kong, China.
Indonesia	Not yet. To date, KPPU does not yet have a specific strategy on it. However, KPPU has conducted a research (consumer survey) regarding the “performance of digital economy in Indonesia: Competition Analysis” and has been frequently involved in both the economy (with Ministries/Institutions) and international (with international institutions) seminars/discussions to discuss e-commerce/online platform-related issues viewed from the competition aspect.
The Philippines	No, telecommunications services are different from online platforms. First, telecommunication services facilitate communication, such as voice calls and Short Messaging Services (“SMS”). On the other hand, online platforms cover a wide range of services beyond communication, such as exchange of goods and services, financial transactions, etc. Second, different regulations apply to telecommunications services and online platforms. Entry into the telecommunication industry requires a (1) legislative franchise and (2) a Certificate of Public Convenience and Necessity or a Provisional Authority. In contrast, regulation for online platforms depend on the type of good or service offered by the online platform.
Chinese Taipei	The telecommunications service referred to in the "Telecommunications Act" indicates the quality assurance service

APEC Economy	Answers
	under the network control, which is different from the Internet non-quality guarantee service. Therefore, under the current regulatory framework, the online platform is not classified as Telecommunications services.

10. Do you consider that data could be defined as a separate market, considering its role played in the new digital markets?

APEC Economy	Answers
Chile	<p>In the Cornershop case, the use of sensitive information from competitors was considered one of the vertical risks associated with the operation, so it was not analyzed as a separate market.</p> <p>The case of sensitive information from customers or users was not addressed as a competitive risk or as a separate market, even though it is known to be of great value to all the companies involved in some way in electronic commerce, to the point that it is considered as one of the main assets managed by companies that own digital platforms.</p>
Hong Kong, China	<p>The Competition Commission in general does not comment on market definition without a specific context. When conducting a competition assessment under the Competition Ordinance, the Commission uses an analytical framework which involves defining the relevant market. The exercise of defining the relevant market is, however, no more than an analytical tool and not an end in itself. Please refer to the Commission's Guidelines mentioned under Q.6 on defining the relevant market for details.</p>
Indonesia	<p>The modifications have occurred on statutes and administrative orders/regulation, and also ministerial decree.</p> <p>The Indonesia government also has plans to issue the government regulation on Trade Transactions through Electronic Systems (RPP tentang Transaksi Perdagangan melalui Sistem Elektronik).</p>
Japan	<p>With regard to business transactions related to data, JFTC recognises that case-by-case analysis is necessary on whether the market for the data itself or the market for the technology using the data can be defined separately from the market for the product using the data.</p>
The Philippines	<p>Data gathered through online platforms may be considered as a separate market if such data is related to the business activity of</p>

APEC Economy	Answers
	<p>an online platform or utilized as a company resource (i.e., sale of aggregated data). In the alternative, data may also be used as a tool in defining the relevant market instead of being a separate market in itself.</p>
Chinese Taipei	<p>Data applications or big data analytics bring innovations in products, services, processes, business models, etc. Data collections also help businesses to better understand consumer needs and provide customized services to individual consumers.</p> <p>As to whether the data can be defined as a separate market, it should be judged case by case to determine whether it has the characteristics of economy value and is sufficient to constitute an economic market under the definition of competition law.</p>

11. Does your competition authority or government have a specific competition advocacy and enforcement strategy regarding online platforms? If so, please provide details.

APEC Economy	Answers
Chile	<p>It does not currently have it, there are only bills related to specific markets (Uber case and private transport of people), destined, in that case, to match the conditions under which companies such as Uber, Airbnb, Netflix and Spotify compete in the Chilean market.</p>
Hong Kong, China	<p>Statutory functions of the Competition Commission include promoting public understanding of the value of competition and how the Competition Ordinance promotes competition, and conducting market studies into matters affecting competition in markets in HKC. The Commission has not conducted online platforms-specific competition advocacy so far. The Commission will launch competition advocacy campaign and conduct market studies on topics of public concern with significant implications on competition in HKC.</p> <p>The Commission in general does not comment on enforcement matters. Guided by the principle that a key goal of the Competition Ordinance is to bring the benefits of competition to consumers, the Commission will continue to prioritise investigations and enforcement actions that would result in the greatest overall benefit to competition and consumers in HKC.</p>
Indonesia	<p>The legal framework related online platform in Indonesia concern on:</p>

APEC Economy	Answers
	<ul style="list-style-type: none"> a) Consumers protection (including the economy's payment gateway). b) Communication infrastructure (ICT infrastructures and operators, broadband development and free domain). c) Ease tax regulations for local and global e-commerce providers. d) The cyber security regulations (economy e-commerce transactions monitoring system). e) Education and human resource development about e-commerce.
Japan	<p>Yes. The Fundamental Principles, as well as the “Improvement of Trading Environment surrounding Digital Platforms” published by the Study Group on 12 December 2018, has been contributing to competition advocacy specifically for online platforms.</p> <p>Also, as one of the enforcement strategies, JFTC has established the IT task force in its Investigative Bureau, which focuses on cases in ICT related markets including online platforms. The accumulations of cases and expertise are particularly important in these fields because effects on competition there should be assessed based on specialised consideration and analysis.</p>
Papua New Guinea	<p>We do have advocacy programs but not one specifically tailored to dealing with online platforms as it has not yet become an issue.</p>
The Philippines	<p>The competition authority has been engaged in fora and workshops concerning the proper application of antitrust to online platforms within the so-called ‘digital economy.’ It has solicited the opinions of competition policymakers and experts from more developed jurisdictions regarding the treatment of digital markets.</p> <p>Further, the competition authority has commissioned an issues paper on e-commerce, to further understand the structure and supply chain of the industries where e-commerce is found, to identify the major market players across sectors, and to flag potential competition concerns that may be addressed through competition enforcement or advocacy. E-commerce is currently considered a priority sector of the PCC.</p>
Russia	<p>At the moment, Russia is implementing digital economy program. In this program, many activities dedicated to the legal regulation of new online services, digital rights, end-to-end technologies, smart contracts and other.</p>
Chinese Taipei	<p>No</p>

If the answer to Question 2 is 'yes':

12. The modifications have occurred on primary legislation, statutes, administrative orders or regulation? Please provide details.

APEC Economy	Answers
Indonesia	There is no specific periodical review on online platforms regulation. However, since 2016, the Ministry of Law and Human Right of Republic of Indonesia is evaluating and simplifying ex-post regulations in general (not only online platform regulations).
The Philippines	<p>For instance, the E-Consumer Protection Guidelines was released in a form of a Joint Department Administrative Order (No. 1, Series of 2008) by the Department of Trade and Industry, Department of Agriculture, and Department of Health. This order provided consumer protection guidelines on the selling of products and services through e-commerce.</p> <p>In 2011, the Executive Order 45 initially created the Office for Competition in the Department of Justice (DOJ-OFC) as the competition authority in the Philippines. Through the enactment of the Philippine Competition Act in 2015, the Philippine Competition Commission was created and the DOJ-OFC was strengthened.</p>
Russia	Definition of online platforms contains in Russian consumer protection law. Russian competition law now is in the process of change and adaptation to new challenges of data driven economy. These changes were imbodyed in new amendments to the Russian Federal Law on Protection of Competition. These new amendments also contain definition of online platforms. Adoption of these amendments planned for the end of 2019.
Chinese Taipei	The "Matters to be Included and Excluded in the Online Transaction Standard Form Contract for Retailers and Others" is an administrative order. The draft "Digital Communications Act" is a law.

13. Please provide a brief explanation of the legal or regulatory framework related to online platforms in your economy.

APEC Economy	Answers
Indonesia	[KPPU] However, the analysing or handling of the competition issues/cases is based on Law No. 5/1999 or that of the partnership issues is based on Law No. 20/2008 (Partnership Law). Several online platform-related issues to date is handled by virtue of Law

APEC Economy	Answers
	<p>No. 5/1999 or by virtue of Law No. 20/2008 (Partnership Law). It is very likely that KPPU will have a specific guideline for online platform/e-commerce in a near future.</p>
<p>The Philippines</p>	<p>Online Business (E-Commerce)</p> <ul style="list-style-type: none"> • RA No. 8792 (“Electronic Commerce Act”) defines policy on electronic transactions in the Philippines to enable the economy’s players and consumers to actively participate in electronic trade. The salient features of the law are as follows: <ul style="list-style-type: none"> - It provides for the legal recognition of electronic documents, electronic data messages, electronic signatures; and electronic contracts; - It mandates all government agencies to, among others, transact government business and perform government functions using electronic data messages or electronic documents with two years from the date of effectivity of the law; - It mandates the government to install an electronic network, known as RPWeb, within two years from the date of effectivity of this law; and - It penalizes the offenses of hacking and piracy, as well as violations of RA No. 7394 or the “Consumer Act of the Philippines” and other relevant laws, through transactions covered by electronic data messages or electronic documents. • RA No. 10173 (“Data Privacy Act of 2012”), which was legislated on 15 August 2012, protects individuals from unauthorized processing of personal information that is: a) private, not publicly available; and b) identifiable, where the identity of the individual is apparent either through direct attribution or when put together with other available information. • RA No. 10175 (“Cybercrime Prevention Act of 2012”), which was approved on 12 September 2012, aims to address legal issues concerning online interactions and the internet in the Philippines. <p>Online Transport Service</p> <ul style="list-style-type: none"> • DO No. 2018-12 expressly classified TNCs and TNVS as public utilities; and confirmed the full regulation and

APEC Economy	Answers
	<p>supervision of the Land Transportation Franchising and Regulatory Board (LTFRB) over TNCs and TNVS. The Department Order also affirms the LTFRB’s power to issue a Certificate of Public Convenience (CPC) for both TNCs and their accredited TNVS.</p> <ul style="list-style-type: none"> • TNCs and TNVS should ensure compliance with: (a) foreign equity restrictions and limitations on participation of foreign management (i.e. foreign equity should be limited to only 40%); and (b) jurisdictional requirements, publication and hearings, as determined by the LTFRB, when applying for a CPC. <p>Telecommunications Service</p> <ul style="list-style-type: none"> • RA No. 7925 (“Public Telecommunications Policy Act of the Philippines”) designated the NTC as the principal administrator of the law. Among the NTC’s functions are: a) facilitate the entry of qualified service providers; b) adopt a fair and reasonable pricing policy; c) mandate fair and reasonable interconnection; d) ensure quality and interoperable telecommunication facilities; e) foster fair and efficient market conduct; and f) promote consumer welfare. • Under the law, a telecommunications entity shall be authorized to operate in one or more of the following telecommunications categories, provided each category is covered by its franchise: <ul style="list-style-type: none"> - Local exchange operator – provides universal basic telephone service to all subscribers; - Inter-exchange carrier – provides inter-exchange within the territory of the economy long distance services; - International carrier – provides local exchange services and has the capability to install and operate an international gateway facility; - Value-added service provider – need not secure a franchise provided it does not put its own network; - Mobile radio services – cover local telephone exchange area; and - Radio paging services – involve either voice or data messages.
Chinese Taipei	The “Matters to be Included and Excluded in the Online Transaction Standard Form Contract for Retailers and Others” is set by the Ministry of Economic Affairs in accordance with Article

APEC Economy	Answers
	<p>17 of the "Consumer Protection Act". Therefore, the legal and regulatory framework of this administrative order comes from the authorization of the Consumer Protection Act. If the provisions are not exhaustive, it may refer to other relevant laws and regulations, such as Civil Code. For those who violate this administrative order shall be punished by the competent authority according to the provisions of the Consumer Protection Act.</p> <p>In the legislative policy, the draft "Digital Communications Act" considers four aspects simultaneously, including "maintaining the rational use of digital basic networks", "establishing a secure and trustworthy digital network environment", "protecting digital consumer rights", and "service provider responsibility and self-discipline" so as to build a good environment for the development of the digital economy.</p> <p>The draft "Digital Communications Act" is legally a civil liability. That is to say, violations of the Act will not be subject to administrative or criminal sanctions; however, those who suffer damages as a result of the service provider's violations may request damage compensation from the service provider through civil procedures.</p> <p>The draft "Digital Communications Act" emphasizes information disclosure so as to construct a self-discipline mechanism. Therefore, service providers must disclose their service terms to users in an identifiable manner, including how to use and protect users' Information as well as instant and effective contact information, etc.</p>

14. Do you plan to make periodical reviews of the regulation applied to online platforms? If so, how often do you plan to make such reviews?

APEC Economy	Answers
The Philippines	<p>Evaluation and review of regulations and regulatory policies is imperative to build better government systems and advance public interest. As the Ease of Doing Business and Efficient Delivery of Government Services Act (Republic Act 11032) has been passed into law in 2018, the reengineering of systems and procedures mandates all government agencies to undergo regulatory impact assessment and review proposed regulations. This would ensure that regulations do not add undue regulatory burden and cost to agencies.</p>

APEC Economy	Answers
Chinese Taipei	At present, we are observing the development of the domestic online platform service market, as well as the regulatory trends of major economies in the world, and exploring whether to adjust existing regulations through the “Internet Governance” model. However, there are no plans for periodic inspections.

15. How effective do you consider your regulation in achieving the goals and objectives set forth in answer to Question 2? Please consider competition, data protection and consumer protection issues in your answer.

APEC Economy	Answers
Japan	N/A
The Philippines	Since the Philippine Competition Act was just signed into law in 2015, three (3) years may not be enough to evaluate the effectiveness of the competition authority. In case an evaluation must be made, it is suggested that a third party reviewer will conduct the said evaluation.
Chinese Taipei	<p>The “Matters to be Included and Excluded in the Online Transaction Standard Form Contract for Retailers and Others” which requires the business to clearly explain the important items of the order goods and promote consumer protection.</p> <p>As the draft "Digital Communications Act" has not yet completed the legislative process, it is still impossible to assess the achievement of the goals and objectives.</p>

If the answer to Question 2 is ‘no’:

16. Do you have plans to implement regulation or modify the legal framework regarding online platforms?

APEC Economy	Answers
Chile	There are no bills or regulatory changes that are focused on modifying the legal or regulatory framework for online platforms in general.
Hong Kong, China	The Ordinance provides a legal framework for tackling anti-competitive conduct in all sectors, which include online platforms.
Indonesia	There is no plan so far to modify our competition law regarding online platform, including to justify the notification threshold, because changing regulation in Indonesia is not an easy task.

APEC Economy	Answers

Finally, additional considerations:

17. Are there any other considerations that you would like to address, regarding regulation and economic competition policies related to online platforms, either in your economy or generally, that were not explicitly covered in your answers above? What are these considerations? Please feel free to elaborate.

APEC Economy	Answers
<p>Indonesia</p>	<ol style="list-style-type: none"> 1. The justification of market power for issue of: Analysis for Determining Unicorn-Decacorn in the online platform markets; 2. The issue of Mega Alliances (the issue of rampant mergers in the online platform/e-commerce markets that merely buy assets-not including in the calculations of mergers viewed from the competition aspect by several competition institutions, including Indonesia); 3. In the event that “big data” is taken into account as a separate market, will we also consider AI (Artificial Intelligence) as a separate market in the future? How will we justify it?

References

- Aghion, Philippe, et al.; “Competition and Innovation: An Inverted-U Relationship”; *Quarterly Journal of Economics*, Vol. 120(2), 2005. Available at: https://www.ucl.ac.uk/~uctp39a/ABBGH_QJE_2005.pdf
- Argenton, Cédric, and Prüfer, Jens; “Search engine competition with network externalities”. *Journal of Competition Law and Economics*, 8(1), 73–105; 2012.
- Armstrong, Mark; “Competition in Two-Sided Markets”; *The RAND Journal of Economics*, 2006, Vol. 37/3, pp. 668-691, Available at: <http://www.jstor.org/stable/pdf/25046266.pdf?refreqid=excelsior%3A15b7252f47763063fd9fc448b7659579>
- Austrian Federal Competition Authority; “Austrian Federal Competition Authority initiates investigation proceedings against Amazon”; 2019. Available at: https://www.bwb.gv.at/en/news/detail/news/austrian_federal_competition_authority_initiates_investigation_proceedings_against_amazon/
- Autorité de la Concurrence and Bundeskartellamt; “Competition Law and data”; 2016. Available at: <http://www.autoritedelaconcurrence.fr/doc/reportcompetitionlawanddatafinal.pdf>
- Barwise, Patrick & Watkins, Leo; “The evolution of digital dominance”; in *Digital Dominance: The power of Google, Amazon, Facebook, and Apple*; Martin Moore and Damian Tambini (eds.), Oxford University Press; 2018.
- Belleflame, Paul y Peitz, Martin; “Platform competition: Who benefits from multihoming?” *International Journal of industrial organization*; 2018. Available at: <https://www.sciencedirect.com/science/article/pii/S0167718718300353?via%3Dihub>
- Brekke, Kurt; “Measuring Market Power in multi-sided markets” in *Rethinking antitrust tools for multi-sided platforms*; OECD; 2018.
- Buccirossi, P.; “Vertical Restraints for On-line Sales”; 2013. - *OECD Background note*. Available at: <http://www.oecd.org/competition/VerticalRestraintsForOnlineSales2013.pdf>
- Bundeskartellamt.; “Facebook, Exploitative business terms pursuant to Section 19(1) GWB for inadequate data processing. Case Summary.” February 15, 2019. Available at: https://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Fallberichte/Missbrauchsaufsicht/2019/B6-22-16.pdf?__blob=publicationFile&v=3
- Bundeskartellamt; “Bundeskartellamt initiates abuse proceeding against Amazon”; November 29, 2018. Available at: https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2018/29_11_2018_Verfahrenseinleitung_Amazon.html?nn=3591568
- Bundeskartellamt; “Clearance of Merger of Online Real Estate Platforms”; Case Summary; June 25, 2015. Available at: www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Fallberichte/Fusionskontrolle/2015/B6-39-15.pdf?__blob=publicationFile&v=2
- Charles River Associates; “Qihoo v. Tencent: economic analysis of the first Chinese Supreme Court decision under Anti-Monopoly Law. China Highlights”; 2015. Available at: https://www.crai.com/sites/default/files/publications/China-Highlights-Qihoo-360-v-Tencent-0215_0.pdf

- Collyer, Kate; Mullan, Hugh and Timan, Natalie. “Measuring market power in multi-sided markets”, in *Rethinking antitrust tools for multi-sided platforms*; OECD; 2018.
- Comisión Federal de Competencia Económica; “Repensar la competencia en la economía digital”; Mexico, 2018. Available in Spanish at: https://www.cofece.mx/wp-content/uploads/2018/03/RepensarlaCompetenciaenlaEconomiaDigital_01022018.pdf
- Competition and Markets Authority (CMA); “The commercial use of consumer data”; 2015. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/435817/The_commercial_use_of_consumer_data.pdf
- Coyle, Diane; “Platform Dominance: The shortcomings of antitrust policy”; in *Digital Dominance: The power of Google, Amazon, Facebook, and Apple*; Martin Moore and Damian Tambini (eds.), Oxford University Press; 2018.
- Coyle, Diane; “Practical competition policy implications of digital platforms”; Bennett Institute for Public Policy working paper no: 01/2018. Available at: https://www.bennettinstitute.cam.ac.uk/media/uploads/files/Practical_competition_policy_tools_for_digital_platforms.pdf
- European Commission. “Case No COMP/M.7217 - FACEBOOK/ WHATSAPP”. 2014. Available at: http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf
- European Commission; “Case AT.39740 — Google Search (Shopping).” 2017. Available at: [https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1516198535804&uri=CELEX:52018XC0112\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1516198535804&uri=CELEX:52018XC0112(01))
- European Commission; “Case AT.40153. E-Book MFNS and related matters”. 2017. Available at: [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017XC0811\(02\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017XC0811(02)&from=EN)
- European Commission; “Case No COMP/M.7217 - FACEBOOK/ WHATSAPP.” 2014. Available at: http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf
- European Commission; “Final Report on the E-commerce Sector Inquiry - Commission Staff Working Document”. 2017 Available at: http://ec.europa.eu/competition/antitrust/sector_inquiry_final_report_en.pdf
- European Commission; “The competitive landscape of online platforms. JRC Digital Economy Working Paper 2017-04”, 2017. Available at: <https://ec.europa.eu/jrc/sites/jrcsh/files/jrc106299.pdf>
- Evans, David & Schmalensee, Richard; Matchmakers: *The New Economics of Multisided Platforms*; Boston: Harvard Business School Press, Boston 2016.
- Evans, David; “Multisided platforms, dynamic competition, and the assessment of market power for internet-based firms”; *Coase-Sandor Working Paper Series in Law and Economics*: 2016; No. 753 (2016). Available at: https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=2468&context=law_and_economics
- Evans, David; Yanhua Zhang, Vanessa & Chang, Howard; “Analyzing competition among internet players: Qihoo 360 v. Tencent.” *Competition Policy International*;

2013. Available at: <https://www.competitionpolicyinternational.com/assets/Uploads/EvansetalMay-2.pdf>
- Filistrucchi, B, “Areeda–Turner in Two-Sided Markets”, *Review of Industrial Organisation*, Vol. 46/3, pp. 287-306, 2015 Available at: <https://link.springer.com/content/pdf/10.1007%2Fs11151-015-9460-5.pdf>
 - Filistrucchi, Lapo. “Market Definition in multi-sided markets” in *Rethinking antitrust tools for multi-sided platforms*; OECD; 2018.
 - Furman, Jason et al., H.M. Treasury (U.K.); “Unlocking digital competition: Report of the digital competition expert panel”; March 13, 2019; Available at: www.gov.uk/government/publications
 - George J. Stigler Center for the Study of the Economy and the State. “Committee for the Study of Digital Platforms Market Structure and Antitrust Subcommittee: Report”; 2019. Available at: <https://research.chicagobooth.edu/-/media/research/stigler/pdfs/market-structure---report-as-of-24-june-2019.pdf?la=en&hash=872E4CA6B09BAC699EEF7D259BD69AEA717DDCF9>
 - Gilbert, Richard & Sunshine, Steven; “Incorporating dynamic efficiencies concerns in merger analysis: the use of innovation markets”; *Antitrust Law Journal*, Vol. 63 (2); 1995. Available at: <https://www.jstor.org/stable/40843292?seq=1/subjects>
 - Government of Canada. “Competition Bureau Statement regarding its investigation into anticompetitive conduct by Google”. 2016. Available at: <https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04066.html>
 - Graef, Inge; “When data evolves into Market Power; Data Concentration and Data Abuse”; in *Digital Dominance: The power of Google, Amazon, Facebook, and Apple*; Martin Moore and Damian Tambini (eds.), Oxford University Press; 2018.
 - GSMA; “Competition policy in the digital age. A practical handbook; GSM Association”, 2015. p. 110. Available at: https://www.gsma.com/publicpolicy/wp-content/uploads/2015/10/Competition-Policy-Handbook.pdf?bcsi_scan_95c8aec8c177a0e8=0&bcsi_scan_filename=Competition-Policy-Handbook.pdf
 - Heinrich, Christoph; “The New German Competition Law in a Nutshell. Lexology”; 2017. Available at: <https://s3.amazonaws.com/documents.lexology.com/be6aea89-bb6b-409e-a6fa-e95892f064e1.pdf>
 - Höppner, Thomas and Westerhoff, Philipp; “The EU’s Competition Investigation into Amazon’s Marketplace” 2018. Available at: https://www.hausfeld.com/news-press/the-eus-competition-investigation-into-amazons-marketplace#_ftn4
 - Instituto Federal de Telecomunicaciones. Public Version in Spanish of the “Resolución mediante la cual el Pleno del Instituto Federal de Telecomunicaciones autorice que se realice la concentración radicada bajo el expediente No. UCE/CN-004-2014, notificada por SixSigma Networks México S.A. de C.V. y Metro Net, S.A.P.I de C.V.” Available at: http://apps.ift.org.mx/publicdata/P_IFT_011014_332_Version_Publica_UCE.pdf
 - Jon Russell, “Grab-Uber deal wins Philippines approval but ‘virtual monopolist’ concern remains”, TechCrunch, 10 August 2018. Available at: <https://techcrunch.com/2018/08/10/grab-uber-deal-gets-philippines-approval/>
 - Katz, Michael, & Shapiro, Carl; “Network Externalities, Competition and Compatibility”; *American Economic Review* 75, no. 3; June 1985.

- Katz, Michael; “Exclusionary conduct in multi-sided markets”, in *Rethinking antitrust tools for multi-sided platforms*; OECD; 2018.
- Krämer, Jan and Wohlfarth, Michael; “Market power, regulatory convergence, and the role of data in digital markets”; *Telecommunications Policy* 42, pp. 154-171, 2018. Available at: <https://www.sciencedirect.com/science/article/pii/S0308596117302744>
- Organization for Economic and Co-operation Development (OECD); “Considering non-price effects of merger control. Background note by the Secretariat”; 2018. Available at: [https://one.oecd.org/document/DAF/COMP\(2018\)2/en/pdf](https://one.oecd.org/document/DAF/COMP(2018)2/en/pdf)
- Organization for Economic and Co-operation Development (OECD); “*Implications of E-commerce for Competition Policy - Note by the United States*”; 2018. Available at: [https://one.oecd.org/document/DAF/COMP/WD\(2018\)48/en/pdf](https://one.oecd.org/document/DAF/COMP/WD(2018)48/en/pdf)
- Organization for Economic and Co-operation Development (OECD); “Plataformas digitales y competencia en México”; 2018. Available in Spanish at: <http://www.oecd.org/daf/competition/esp-plataformas-digitales-y-competencia-en-mexico.pdf>
- Organization for Economic and Co-operation Development (OECD); “Quality Considerations in digital zero price markets”; Background note by the Secretariat; 2018; Available at: [https://one.oecd.org/document/DAF/COMP\(2018\)14/en/pdf](https://one.oecd.org/document/DAF/COMP(2018)14/en/pdf)
- Organization for Economic Co-operation and Development (OECD); “New forms of work in digital economy, Working Party on Measurement and Analysis of the Digital Economy”; 2016. Available at: [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/IIS\(2015\)13/FINAL&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/IIS(2015)13/FINAL&docLanguage=En)
- Organization for Economic Co-operation and Development (OECD); “Rethinking antitrust tools for multi-sided platforms”; 2018. Available at <http://www.oecd.org/daf/competition/Rethinking-antitrust-tools-for-multi-sided-platforms-2018.pdf>.
- OXERA; “Market Power in digital platforms”; 2018. Available at: <https://www.oxera.com/wp-content/uploads/2018/10/Market-power-in-digital-platforms.pdf>
- Peitz, Martin & Valletti, Tommaso; “Reassessing competition concerns in electronic communications markets.” *Telecommunications Policy* 39, 2015. pp. 896–912. Available at: <https://www.sciencedirect.com/science/article/pii/S0308596115001159>
- Petit, Nicolas; “Significant Impediment to Industry Innovation: A Novel Theory of Harm in EU Merger Control”; 2017. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2911597
- Posner, R.; *Antitrust Law*; University of Chicago Press; 2001.
- Ratliff, James and Rubinfeld, Daniel; “Is There a Market for Organic Search Engine Results and Can Their Manipulation Give Rise to Antitrust Liability?”; *Journal of Competition Law and Economics*; 2014. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2473210.
- Rochet, Jean, & Tirole, Jean; “Two-Sided Markets: A Progress Report”; *The RAND Journal of Economics*, 37(3), 645-667, 2006. Retrieved from <http://www.jstor.org/stable/25046265>
- Schepp, Nils-Peter, & Achim, Wambach; “On big data and its relevance for market power assessment”; *Journal of European competition Law and Practice* 7, no. 2: 120-24; 2016.

- Shapiro, Carl; “Antitrust in a time of Populism”; *International Journal of Industrial Organization*, Elsevier, vol. 61(C), pp. 714-748; 2017. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3058345
- Shapiro, Carl; “Competition and Innovation: Did Arrow Hit the Bull’s Eye?”, 2012; in *The Rate and Direction of Inventive Activity Revisited*; J. Lerner and S. Stern (eds.); University of Chicago Press. 2012. Available at: www.nber.org/chapters/c12360
- “The ‘Free’ Economy Comes at a Cost. But Economists Struggle to Work out how Much”; *The Economist*. August 24, 2017. Available at: <https://www.economist.com/finance-and-economics/2017/08/24/the-free-economy-comes-at-a-cost>
- Van Gorp, Nicolai & Batura, Olga; “Challenges for Competition Policy in a Digitalised Economy”; Directorate General for Internal Policies, European Parliament, p. 56; 2015. Available at: http://www.europarl.europa.eu/RegData/etudes/STUD/2015/542235/IPOL_STU%282015%29542235_EN.pdf
- “Uber Elimina tarifa dinámica en fase de contingencia”; *El Economista*. may 3, 2016. Available in Spanish at: <https://www.eleconomista.com.mx/tecnologia/Uber-elimina-tarifa-dinamica-en-fase-de-contingencia--20160503-0113.html>
- Wismer, Sebastian & Rasek, Arno. “Market definition in multi-sided markets” in *Rethinking antitrust tools form multi-sided platforms*, OECD; 2018.