REPORT ON THE RESULTS OF THE ICN SURVEY ON DOMINANCE/SUBSTANTIAL MARKET POWER IN DIGITAL MARKETS

1. Introduction

Digital technologies have entered all sectors of the economy and more and more companies are transitioning to the use of digital systems and technologies. Competition authorities are increasingly confronted with the need to assess unilateral conduct in digital markets. A number of competition authorities have commissioned studies aiming at understanding how digital markets operate and many authorities have already gathered experience in dealing with unilateral conduct in such markets. The literature on this subject has been growing exponentially too.

In response to these developments, in 2019 the Unilateral Conduct Working Group (UCWG) decided to start a new multi-year project which focuses on issues relating to unilateral conduct in digital markets, and in particularly, on the assessment of dominance/substantial market power² in these markets. The discussions held in May 2019 at the annual ICN conference in Cartagena, and in November 2019 at the UCWG workshop in Mexico, showed that these issues are of interest to many ICN members. Indeed, establishing dominance/substantial market power is an important step, and often the starting point, in the assessment of unilateral conduct.

Therefore, as part of the UCWG multi-year project, the co-chairs of the UCWG prepared a survey, which sought to collect information on the ICN members' experience in assessing dominance/substantial market power in digital markets. Its aim was to clarify whether this experience suggests that the assessment of dominance/substantial market power in digital markets requires considerations or techniques of assessment different from those applied in non-digital markets. In addition, it sought to collect views on the need for a new or specific ICN guidance on this matter.

The survey was sent to 97 competition authorities, of which 39 responded.³

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¹ The term digital market is used in this report to refer to offering products or services by use of digital technologies, mainly internet, but also by any other digital medium.

² Some jurisdictions use the term "dominance," others the term "substantial market power" to refer to the minimum level of market power required for unilateral conduct to raise competition concerns. The report uses the two terms in parallel to account for the different legal traditions.

³ The responding authorities are Australia Competition and Consumer Commission (Australia), Barbados Fair Trading Commission (Barbados), Brazil Administrative Council for Economic Defence (Brazil), Bulgaria Commission on Protection of Competition (Bulgaria), Canada Competition Bureau (Canada), Chile Competition Authority (Chile), Egypt Authority on the Protection of Competition and the Prohibition of Monopolistic Practices (Egypt), EU Directorate General for Competition of the EU Commission (EU), Georgia Competition Agency (Georgia), Germany Federal Cartel Office (Germany), Greece Competition Commission (Greece), Hungary Competition Authority (Hungary), Ireland Competition and Consumer Protection Commission (Ireland), Israel Competition Authority (Israel), Italy Competition and Market Authority (Italy), Japan Fair Trade Commission (Japan), Competition Authority of Kenya (Kenya), Lithuania Competition Council (Lithuania), Luxembourg Competition Council (Luxembourg), Mauritius Competition Commission (Mauritius), Mexico Federal Economic Competition Commission (Mexico), Mongolia Authority for Fair Competition and Consumer Protection (Mongolia), Montenegro Agency for Protection of Competition (Montenegro), Netherlands Authority for Consumers and Markets (Netherlands), Norway Competition

In parallel, a survey inquiring into the same issues was prepared and sent to non-governmental advisors (NGAs) with a view to collecting and benefiting from their experience. This survey was sent to 251 NGAs and responses were received from 24 NGAs. The responding NGAs advise 12 different competition authorities, and have broad experience as academics, consultants or practitioners.⁴

The present report provides an overview of the information gathered from the two surveys. Its structure follows the structure of the surveys and covers:

- General information about the respondent;
- Experience in assessing unilateral conduct in general and in digital markets in particular;
- Views on the main characteristics of digital markets;
- Views on the relevant factors in the assessment of market power in digital markets;
- Views on the need for an ICN guidance on the assessment of market power in digital markets.

For the purpose of the report, the competition authorities that have responded to the survey are referred to as "the responding agencies". The NGAs and the responding agencies together are referred to as "the respondents."

On each of the topics of the surveys, the report first presents the views of the responding agencies and then provides a summary of the NGAs' views, outlining the differences if any.

The surveys and the report encompass the experience of the responding agencies in the period 2013 - 2019. The report is based solely on information provided in the responses to the surveys. Documents, such as studies or literature, to which respondents referred, were consulted only where concrete pages or paragraphs were made available. Many of the responding agencies have based their views primarily on a particular case that they have investigated. Others have not been able to share much of their experience due to the confidentiality of on-going investigations.

The aim of the report is to collect the available information on the relevant topics. The report does not aim to make recommendations on the way forward, nor to take a position on the issues

support their answers. These documents have not been further examined for the purpose of the report.

Authority (Norway), Peru National Institute for the Defence of Free Competition and the Protection of Intellectual Property (Peru), Poland Office of Competition and Consumer Protection (Poland), Portugal Competition Authority (Portugal), Seychelles Fair Trading Commission (Seychelles), Slovenia Competition Protection Agency (Slovenia), Slovakia Antimonopoly Office (Slovakia), Spain Commission on Markets and Competition (Spain), Sweden Competition Authority (Sweden), Switzerland Competition Commission (Switzerland), Taiwan Fair Trade Commission (Taiwan), Turkey Competition Authority (Turkey), UK Competition and Market Authority (UK), US Federal Trade Commission (US FTC), Zambia Competition and Consumer Protection Commission (Zambia).

⁴ A list of the names of the responding NGAs, their affiliations and the authorities they advise is attached in Annex 1 to this report.

⁵ Individual responding agencies are referred to as indicated in footnote 3 above.

⁶ Some respondents provided links to voluminous studies without clearly indicating specific paragraphs or pages to

discussed. Its findings, however, will give orientation to the UCWG about the issues that may need to be further explored in the near future.

2. Existing Experience

The majority of the responding agencies have had laws on unilateral conduct and functioning competition authorities for more than several decades.⁷ The laws of only two of the responding agencies are less than ten years old.⁸

It appears that the increasing digitalisation of businesses has not prompted (or at least not yet) a wave of amendments to the unilateral conduct laws. Only three agencies indicate that their laws have been amended to account for the digital economy but only one provides explanations on the purpose of the amendments. In particular, Germany explains that a legal reform of June 2017 led to an amendment to the law on unilateral conduct and intended, amongst other, to respond to the challenges of digitisation by introducing new provisions on market dominance. The law has clarified that the provision of free services does not preclude the possibility of defining a relevant market for such services. It also sets out specific factors that are relevant for the assessment of market power in digital markets (e.g. network effects, multi-homing, innovation-driven competitive pressure and access to data).

More than half of the responding agencies have carried out or commissioned studies aiming to get a better understanding of how digital markets operate. The scope of these studies differ between themselves. Many appear to have aimed at exploring the characteristics of the digital economy and whether these characteristics require a rethinking of well-established competition law concepts as well as tools and methods used to assess unilateral conduct. Some studies have focused, in addition, on specific issues, such as access to data 10, or on particular services, for example in the area of online video streaming platforms, 11 mobile app stores, 12 payment systems, 13 sharing economies, 14 and transactions in B2C E-Commerce. 15

Some responding agencies have also organised public hearings or conferences, attracting academics and practitioners to share their views on whether broad-based changes in the economy might require adjustments to competition laws, enforcement priorities, and policy, as well as whether new tools need to be designed.¹⁶

⁷ 31 out of 39 agencies have had laws enacted before 2000 and their respective competition authorities have been set up in the same year or shortly after that.

⁸ The law of Kenya was adopted in 2012 and the authority was set up in 2014; the law of Georgia was enacted in 2014 and the authority - set up in the same year.

⁹ 22 of the responding agencies have carried out or commissioned studies. The reported studies are listed in Annex 2 to this report.

¹⁰ The EU, Israel, Italy, the UK.

¹¹ The Netherlands.

¹² Japan, the Netherlands.

¹³ Brazil.

¹⁴ Brazil, Japan.

¹⁵ Japan.

¹⁶ For example, Brazil, the EU, the US FTC.

While many of the responding agencies may still be in the process of analyzing or drawing lessons from such studies, the mere fact of initiating and completing them testifies to an increased interest and material knowledge gathered thanks to these studies.

In addition, many of the responding agencies have indicated that they have practical experience in analyzing unilateral conduct in digital markets. In the period 2013 - 2019, 30 of the responding agencies have investigated the impact on competition of unilateral conduct in digital markets. ¹⁷ For 17 agencies, the investigations led to concrete enforcement actions. However, for most of these agencies the enforcement actions comprise less than 25% of all their enforcement actions against unilateral conduct in total. ¹⁸ This means that, despite the trend towards digitalisation of the economy, the greater part of enforcement actions of most of the responding agencies in the period 2013-2019 was concentrated on unilateral practices in non-digital markets.

The types of investigated unilateral conduct vary. It appears that the conduct raising most concerns is refusal to deal, investigated by 12 responding agencies, tying by 11 responding agencies, exclusive dealing by five responding agencies, most favoured nation (MFN) clauses ¹⁹ by three responding agencies, self-preferencing, excessive pricing, predatory pricing, margin squeeze, rebates - each by two responding agencies, price discrimination and retail-price maintenance - each by one. Based on the survey, it appears that the practices that raise concerns in digital markets are not fundamentally different from those dealt with in non-digital markets.

3. Characteristics of Digital Markets

3.1. Overview

As a scene setter, the survey enquired about the characteristics of digital markets, allowing respondents to provide their general understanding of these markets. The objective was to obtain information based on concrete enforcement or practical experience.

There is almost a consensus among the responding agencies that digital markets do exhibit specific characteristics that distinguish them from other markets. ²⁰ The same view, almost unanimously, is expressed by the NGAs. ²¹

¹⁷ Including investigations where formal proceedings were not opened.

¹⁸ Only Barbados, Germany and the UK indicate a higher percentage.

¹⁹ These are clauses in an agreement which oblige a supplier to guarantee to a buyer that the conditions offered to the buyer will be no worse than the conditions offered to other buyers for the same or similar product. In online settings a similar, but still distinct, type of clauses is found, usually referred to as across-platform-parity clauses, or price parity clauses or retail most favoured customer clauses, which oblige an upstream supplier that sells its products through a downstream online platform to guarantee that the price and/or terms it sets for a particular product on that platform are no worse than the price or terms it sets for the same or similar products elsewhere online.

²⁰ Only two agencies (Lithuania and Mongolia) reply that in their experience digital markets do not exhibit specific characteristics. However, Mongolia, at the same time, states that it has no experience with cases in digital markets. The US FTC does not provide a yes/no answer, and explains it analyses each market based on individual characteristics. All together eight agencies indicate that they have no experience with cases in digital markets (Georgia, Mongolia, Montenegro, Norway, Peru, Slovenia, Slovakia, Seychelles,), but Norway and Slovakia indicate that they have started investigations.

²¹ Only one NGA expresses the opposite view.

The following specific features of digital markets are mentioned by the majority of the responding agencies and NGAs: their multi-sidedness²² (with a zero price or non-monetary side), the existence of strong network effects, significant economies of scale, usually low or zero marginal costs,²³ their fast moving or fast developing nature, rapid innovation cycles and the relevance of data.²⁴ Some respondents point out the tendency for a single company or a small group of companies to take control in these markets (referred to as "market tipping"). This tendency is related to e.g. the existence of strong network effects, economies of scale and scope and those companies' access to large volumes of data.²⁵ The EU specifies that this list of features is not exhaustive, nor are all the features necessarily present in all digital markets.

Some respondents make the point that digital markets typically exhibit many of the same characteristics which also non-digital markets can display (e.g. network effects, economies of scale, collection and monetisation of data, multi-sidedness) but that in digital markets the effects of these characteristics are far more pronounced. It is indicated that large fixed costs in R&D and very low marginal costs lead to 'extreme' returns to scale. ²⁶ This is echoed by respondents who observe that the scale and global nature of some platforms²⁷ and/or the degree of concentration²⁸ in digital markets is without precedent. ²⁹

Another observation that needs to be mentioned is that digital markets may not only be distinct from non-digital markets, but digital markets may be very different between themselves and each requires specific, case-by-case examination.³⁰

Some respondents draw attention to the fact that platforms determine the rules for their users on both sides, and argue that this puts them in a particularly powerful position and can lead to harm to consumers, businesses and markets.³¹ Other respondents remind that platforms may often be suppliers of services but at the same time compete with users of these services. Amazon is given as an example in this regard.³²

One NGA points to the emergence of "ecosystems" that can be described as a phenomenon characterized by the development or acquisitions of complements that are gradually integrated into the same platform, conferring the potential on the platform to create significant lock-in effects with users. Other NGAs underline that competition in these markets is often taking place not on price

²² They serve more than one category of user (e.g. retail customers and sellers; consumers looking for a meal and restaurant owners etc.).

²³ The cost of serving one more consumer is minimum costs.

²⁴ Highlighted by several NGAs.

²⁵ For example Germany, Hungary, the UK.

²⁶ Australia, Germany.

²⁷ The UK.

²⁸ Germany.

²⁹ The UK.

³⁰ Germany, Hungary, Poland, the US FTC.

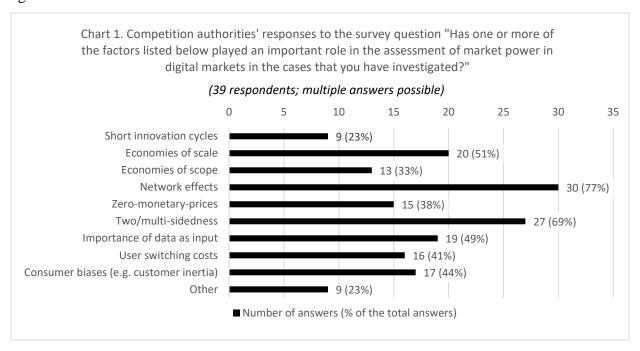
³¹ The UK

³² Luxembourg points out that Amazon is a supplier of platform services for third-party sellers, but is also an important competitor for many of them on its own platform.

but on quality and diversity and that service providers have the unique possibility to track their customers and receive quick feedback allowing them to further improve their services and grow.

As the survey sought to collect information based on concrete enforcement experience, the responding agencies were requested to choose from a list of factors those which they had found particularly relevant in their investigations. It appears that "network effects" is a relevant factor identified by the majority of the responding agencies, followed by the factor multi-sidedness, "economies of scale" and the "importance of data as an input". The choice of a particular factor does not mean that it has necessarily contributed to establishing market power.³³

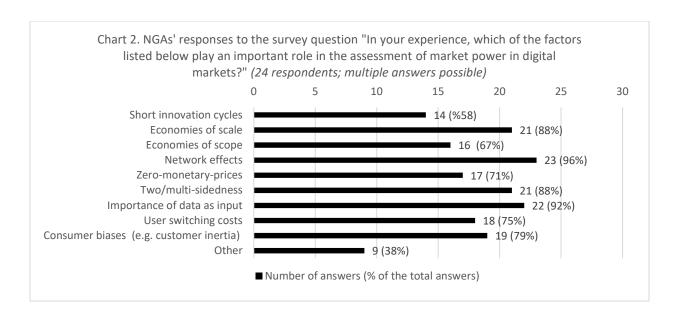
<u>Chart 1</u> below reflects the responses and the weight attributed to each factor by the responding agencies. ³⁴



NGAs' experience, presented in <u>Chart 2</u> below, also confirms the primary relevance of network effects.

³⁴ Several respondents have chosen "other", but in the follow-up explanation of this answer they indicate that they have no practical experience. One respondent indicates that the number of competitors could also be a relevant factor.

³³ For example, Bulgaria and Hungary have considered that, because of the short innovation cycles, significant market power cannot be established.



In addition, a number of NGAs point out the following factors: the gatekeeping role, access to rivals' data, first mover advantage, lack of transparency and asymmetric information. Some emphasize that the presence of the factors represented in Chart 2 above, are not necessarily and not in all circumstances indicative of market power. One NGA points to the limited empirical evidence and limited understanding of the process through which a start-up becomes the largest in the market. In this regard, it is argued that an overlooked aspect remains that, because digital companies incur large sunk costs and are sometimes loss making for several years, their financial success (and survival) is predominantly dependent on achieving exponential growth over a sustained period of time. In addition, metrics vary from one business model to the other: some players will engage in a race to grow their subscriber base as fast as possible; others will seek to grow the number of visitors and active users on their platforms as quickly as possible to secure future revenues (they may do so with significant discounts on the use of their service - for example delivery costs - or by offering the service for free). What matters is to build a "community" of users and/or watchers, which can be leveraged or monetized.

The experience informing the responses was gathered in cases dealing with different types of products and services. These include online sales of tickets, ³⁵ content for TV platform ³⁶, provision of digital financial services, ³⁷ online card payments, ³⁸ online ready-to-eat food ordering platform, ³⁹ Facebook, ⁴⁰ real estate advertising and platform sales, ⁴¹ mobile operating systems, app

³⁵ Transport tickets in Sweden, tickets for events in Germany.

³⁶ Switzerland.

³⁷ Kenya.

³⁸ Peru.

³⁹ Hungary.

⁴⁰ Germany.

⁴¹ Barbados, Lithuania, Turkey.

stores, ⁴² access to data, electronic prescription routing and eligibility, ⁴³ Amazon or other market places, ⁴⁴ Google search services. ⁴⁵

Although several agencies have investigated Google, Amazon and Facebook, experience goes far beyond investigating the conduct of these market players and the services they offer.

3.2. The relevance of multi-sidedness

In the digital economy markets may often be multisided. ⁴⁶ The survey sought to ascertain at what stage of the antirust analysis competition authorities usually take this feature into account – at the stage of the market definition, the dominance assessment, the assessment of effects of the conduct or of efficiencies. All but one responding agencies indicate that they take this factor into account already at the stage of market definition. ⁴⁷ Most of them however, also consider it, in parallel, at other stages of the antitrust analysis. A significant number of responding agencies state that it is relevant to consider the multi-sided nature of digital market at every stage of the analysis, ⁴⁸ some emphasising that the exact modalities depend on the specific circumstances of the case. ⁴⁹

The NGAs' replies reflect the same experience. All but one NGA consider that it is a relevant consideration already at the stage of market definition and that in any case it can also play a role at other stages of the assessment.

The requirement to take the multi-sidedness into account already at the stage of market definition is explained by some responding agencies with the need to consider demand-side substitutability⁵⁰ in defining the relevant market, which usually leads to the conclusion that the different sides of a platform constitute different product markets.⁵¹ They nevertheless emphasise that the interaction between the different sides, and in particular, the potential reaction of the users to a hypothetical degradation of the conditions offered to users at each side, could be informative in the assessment

⁴² The EU.

⁴³ The US FTC.

⁴⁴ Italy, Luxembourg, Mexico.

⁴⁵ Brazil, the EU.

⁴⁶ There are various definitions of a multi-sided market, but a broadly shared one is a market in which a firm acts as a platform and sells different products to different groups of consumers, while recognising that the demand from one group of customer depends on the demand from the other group(s). See "Rethinking Antitrust Tools for Multi-Sided Platforms", OECD, 2018, https://www.oecd.org/daf/competition/Rethinking-antitrust-tools-for-multi-sided-platforms-2018.pdf. p.12.

⁴⁷ Only Poland has not indicated that it takes multi-sidedness into account at the stage of market definition.

⁴⁸ For example, Australia, Brazil, the EU, Germany, Italy, Israel, the Netherlands, Sweden, Zambia.

⁴⁹ Australia, Israel, the US FTC.

⁵⁰ The EU, Lithuania.

⁵¹ The EU, Egypt.

of dominance.⁵² For some respondents, it is their laws that require considering the multi-sided nature at the stage of market definition.⁵³

Several responding agencies explain that the multi-sided nature of markets often implies the presence of indirect network effects which have to be taken into account as a barrier to entry either at the stage of the assessment of dominance or of the effects. For instance, for barriers to entry, the EU refers to the Google Android case where it has analysed the behaviour of users and app developers in the markets for Android app stores and licensable smart mobile operating systems (OS). It has considered that in the event of a small but significant non-transitory deterioration of the quality (SSNDQ) of the Play Store, app developers would be unlikely to switch from developing apps for Google Android devices to start developing apps for smart mobile devices with a different licensable OS because, in doing so, they would forego access to the large number of users of Google Android devices. The EU has also concluded that Google's rivals were not attractive to users given that the number of apps developed for other licensable smart mobile OS was very limited.

In the Google Shopping and Google Android cases, the EU has concluded that the existence of positive feedback effects on both sides of the two-sided platform formed by general search services and online search advertising has created a barrier to entry. The positive feedback effects on the online search advertising side were due to the link between the number of users of a general search service and the value of the online search advertisements shown by that general search engine. The higher the number of users of a general search service, the greater the likelihood that a given search advertisement is matched to a user and converted into a sale. This in turn has increased the price that a general search engine can charge advertisers if their search advertisements are clicked on. The general search engine can then reinvest that revenue in seeking to attract new users of its general search service.

As regards the relevance of multi-sidedness at the stage of the assessment of the effects of the conduct, the EU indicates that in the Google Android case it has found that the practice of tying of Google Search to Google's app store, by securing or increasing the number of users of Google Search, reinforced the positive feedback loop of more users, more data, better targeted advertising and more advertisers/advertising revenues in Google's favour.

Hungary refers to a case in the online ready-to-eat food ordering market, where the effects of an MFN clause, which was strengthened by the strong network effects and customers' switching costs, impacted the two sides of the platform - the supplying restaurants and the customers looking for food supply. Mexico emphases that the pricing of the incumbents and the possible existence of "freemium" strategies should also be considered in the assessment of the effects of an anti-competitive conduct.

⁵² Unlike in markets where price is a significant basis for competition and where substitutability for a product can be measured by considering whether consumers would switch away from a product in case of a small but significant and non-transitory increase in price (SSNIP), in zero-price markets, where price is not typically a major basis of competition, substitutability or the lack of it, can be measured by considering whether consumers would switch away from a product in case of a small but significant non-transitory decrease in its quality (SSNDQ).

⁵³ For example, Egypt, Switzerland.

⁵⁴ The EU, Hungary, Poland, Switzerland, the UK.

While respondents generally acknowledge that the two-sided nature of digital markets may be taken into account at the stage of the efficiency defence, the only example provided is the EU's Google AdSense case where Google has argued that the challenged exclusivity clause was necessary to maintain and improve the quality of Google's search advertising intermediation platform and that Google's search advertising intermediation platform delivered procompetitive benefits in terms of higher quality experience for users, more advertising revenue, increased usefulness of search results pages for publishers and increased exposure to interested users for advertisers. In the concrete case, these arguments were considered unconvincing by the authority.⁵⁵

The NGAs' replies reflect the same experience. All but one NGA consider that multi-sidedness is a relevant consideration already at the stage of market definition. There is a consensus that it might be relevant also in other stages of the assessment.

3.3. Primary and secondary market

Only six out of the 39 responding agencies⁵⁶ indicate that they have had cases in digital markets in which they have defined separate primary markets and secondary markets in an aftermarket setting as opposed to a system market. Of those, only four provide further details.

Barbados explains that the assessment in the primary market affected the assessment in the secondary one because the operation of the investigated company on both, the primary and secondary markets, allowed it to use its power on the primary market to leverage it on the secondary market.

The EU, which also indicates that the assessment on the primary market has affected the assessment on the secondary, refers to its Google Android case, in which the authority has defined a separate market for licensable smart mobile OS (primary market) and Android app stores (secondary market). The fact that the Android OS' penetration was very high among users had informed the finding that a hypothetical degradation of the conditions to Android app developers would not make them switch away from the Android app store and start developing apps for app stores on other smart mobile OS.

Luxembourg refers to its investigation of Amazon's practices where two markets were defined: the "platform services" market, on which Amazon offered its platform to third-party sellers and consumers, and a second market concerning the sale of products to consumers as such. The authority points out that its investigation focused merely on the first "platform" market, without any further consideration of the second one.

Kenya, referring to its investigation in Uber, suggests that the conduct on one side of the platform might have actually benefited the other side of the market.

In response to the question, in what circumstances a system market or separate primary and secondary markets should be defined, one NGA suggests that the SSNIP test should apply to determine whether it is appropriate to define a system market or it is necessary instead to define a separate primary and secondary market. In particular, it is necessary to examine how the increase

⁵⁵ The EU's decision is currently on appeal.

⁵⁶ Barbados, the EU, Kenya, Luxembourg, the UK and Zambia.

in price of a product sold in a secondary market would affect consumers' demand for the product sold in the primary market. If in response to an SSNIP test customers would switch to the use of other products in the primary market, it would be appropriate to define a system market. If they do not switch, defining a secondary market would be justified. It is also argued that, in addition, factors such as switching costs, the product's durability, and the relative price of the products sold in the primary and secondary market may matter for the assessment. Another NGA emphasizes the importance of the intensity of competition in the primary market matters and whether secondary products are compatible (can be used) with any of the primary products. In the latter case, there the primary market encompasses all primary products and a separate market for all secondary products need to be defined. Another NGA emphasizes that if the products on the primary and secondary markets are strict complements and are offered by all relevant competitors in a bundle, then a system market is likely to exist. If this is not the case, the two markets should be defined separately. In the latter case, one should, however, not ignore the potential interactions between the two markets when assessing the conduct of a player operating on both markets. Another NGA considers that as long as the indirect network effects play a major role for the functioning of a platform, both sides of the market should be taken into account as a system market. In case of non-transaction platforms however, depending on the extent of the cross-group effects, separate markets should be defined. Others point out that it is relevant to consider whether users can make an informative whole life cycle cost analysis before purchasing the primary product, and whether they can easily switch to another competing primary product in case the price of the complementary product (in the aftermarket) rises.

4. Relevant Factors in the Assessment of dominance/substantial market power

The survey sought to understand whether in establishing market power competition authorities rely on the same factors and make the same considerations as they do when assessing market power in non-digital markets.

4.1. Single-market vs multi-sided market approach

In the context of multi-sided platforms, the assessment of relevant markets can in principle follow two different approaches: 1) defining as many relevant markets as the sides of a platform (multi-market approach) or 2) defining a single market for intermediation services offered to the different sides of the platform (single-market approach).

A starting question therefore was, whether the competition authorities define a single market or multiple markets in the case of platforms and what the rationale for their approach is.

The majority of the responding agencies (30 out of 39) point out that their approach would depend on the circumstances of the case, some indicating that this depends on whether the case concerns transactional or non-transactional platforms. Only three agencies indicate that they have defined

or would define more than one market,⁵⁷ while six agencies indicate that they have defined or would define one market.⁵⁸

From the examples provided by some of the agencies to illustrate their approaches, the following can be outlined. The EU's starting point is that a relevant market comprises the collection of products that are sufficiently close substitutes. The experience of the authority in digital markets suggests that the goods/services offered to one side of the platform are typically not substitutes for the goods/services offered to the other side and that the price level and the price structure on each side matter on their own. This is because the parties at the different sides of a platform usually do not have aligned interests, and none of them cares about the full price, that is, the sum of prices charged to each side. Where users at the different sides of the platform are heterogeneous, the effects of an increase in the full price are not informative. In addition, from the perspective of the users, the degree of substitutability of multisided platforms as a whole may be very different from the degree of substitutability of the products/services at each side. In other words, the competitive constraints exercised on the platform as a whole and on each side of the platform could be very different. On this basis, in unilateral conduct cases, the EU has so far defined sides of a platform as separate markets. Concretely, it defines as a relevant market the side of the platform that is relevant for identifying the harm in the particular case, without necessarily going all the way of also defining a market on the other side. For instance, in the Google Shopping case, the EU has defined a relevant market for general search, but has not considered it necessary to define a market on the other side of the platform – providing services to advertisers.

Brazil also illustrates its experience by reference to its investigation of allegations of an abuse of a dominant position by Google in relation to comparison-shopping engines. Two markets were considered i) general search engines; and ii) price comparison engines (thematic search – price comparison). The general search market, which is a two-sided platform, was analyzed considering both the users' perspective (as a market including only general search websites) and the advertisers' perspective (as a market involving any advertising in search mechanisms directed to users interested in purchasing a product). The price comparison market, in turn, was analyzed from the users' perspective, involving Google as well as other specific websites of price comparison.

Germany provides an example concerning its investigation of Facebook's practices in which the authority defined a national private social network market, whereby customers were private users of the social network. This market constituted one side of a multi-sided platform market, another side being the advertising side of the platform. As regards the latter, the investigation concluded that offline and online advertising are separate product markets and that search and non-search online advertising have to be considered as separate markets. In other cases, in particular involving so called "matching platforms" (e.g. dating platforms), Germany has however considered defining one market that comprises both sides.

Italy explains that in its ongoing investigation against Amazon, the authority considers two relevant markets in relation to the two-sided platform of Amazon. The investigation focuses on the market for intermediation services of marketplaces to sellers' side (outreach to consumers,

⁵⁷ Israel, Switzerland, Zambia.

⁵⁸ Egypt, Hungary, Lithuania, Luxembourg, Poland and Turkey.

targeted advertising, secure payments methods etc.) but indirectly considers the services provided to the consumers' side (comparison of offers, brand reliability, post-sale services etc.). The Italian authority also refers to its ongoing investigation into Google Android, where several separate relevant markets for the multi-sided platform of Google Android have been identified and where the focus of the authority lays on the market for operating systems licensable to smart mobile manufacturers.

Several agencies share their experience with their single-market approach. For example, both Turkey and Hungary have had cases concerning MFN clauses in the food online ordering platform services and both agencies have defined a single platform market, determined by the demand side from end-user perspective. Turkey has followed the same approach in the Sahibinden case concerning an online platform where users can publish adverts under various categories such as real-estate, vehicles, vehicle spare parts, secondhand goods, handy work requests and pet adoption, where the platform facilitates the match making between buyers and sellers. Egypt has defined a relevant market of app-hailed passenger vehicles. The authority has looked at the possible substitutability at both sides (the rider side and the driver side) but found that, due to the different usage and characteristics of the services, users on each side were unwilling to switch to any other service. Canada refers to a case against Visa and MasterCard about certain rules imposed on merchants for the operation of their networks. While there was a common understanding that the card networks were examples of two-sided platforms, where cardholders are on one side of the platform and merchants on the other, the parties questioned whether the hypothetical monopolist test known as small but significant and non-transitory increase in price (SSNIP) should be applied to one, or both sides of the platform. The Canadian authority has found that it can apply to one side of the platform provided the interdependence of demand, feedback effects and ultimately changes in profit on both sides of the platform are taken into account.

Although the experience shared by the responding agencies is diverse, it appears that a single-market approach has been followed in the so-called transaction markets, that is, where the platform sells the ability to find a match and transact with another side of the market and where the product in the market is the transaction itself (e.g. the cases described by Turkey, Hungary, Egypt), though not always (e.g. the case described by Canada). In the case of non-transactional markets, that is, where the platform does not serve primarily as a matching point for all category of users, usually separate markets on each, or on one of the sides, have been defined. There seems to be general agreement though that the interrelationship between the different sides of a multi-sided platform needs to be taken into account if not at the stage of market definition, at least in the subsequent assessment of market power or the effects of the conduct.

The NGAs' replies correspond to the views expressed by the responding agencies. Most of the NGAs (20 out of 24) consider that the definition of one or more markets in the case of multi-sided platforms will depend on the circumstances of the case, some pointing out that in transactional platforms it is more likely to define a single market which incorporates both sides, while under other circumstances it may be advisable to define markets at each side of the platform concerned by the investigated conduct.

4.2. Relevance and calculation of market shares

In most markets, a company's market share is an important factor that provides a first indication as to whether the company has substantial market power.⁵⁹ The survey sought to clarify whether market shares have the same relevance in the assessment of market power in digital markets. It therefore first raised the question of whether market shares are a good proxy for dominance/substantial market power in digital markets. 25 of the 39 responding agencies consider that market shares are a good proxy, 13 consider they are not, ⁶⁰ and one does not provide an answer. ⁶¹ However, the explanations supporting these answers show that there is no fundamental difference in the approaches taken by those giving affirmative and those giving negative answers. This is because both underline that, in fact, market shares are only a starting point of the assessment, that their relevance depends on the circumstances of the concrete case and that, in any case, other factors also need to be taken into account. ⁶²

It thus appears that no agency would dismiss the relevance of market share in the assessment of market power in digital markets, nor is there a agency that would rely solely on market shares.

It is useful to highlight some of the further clarifications provided by the responding agencies.

For example, Germany points out that the market shares of platforms give an idea about the market structure and the market positions of the competitors and thus serve as a good basis for further assessment. It points out that the relative market share, i.e. the gap in market share between the leading company and its competitors is of greater relevance for the assessment than the absolute figure of the investigated company's market share. It also emphasizes the need to look at the evolution of market shares in order to determine the sustainability of the company's market position. High market shares and/or a considerable lead in market shares may be indicative of a tipping process and of the platform's competitive edge. However, in this context – just like in the context of one-sided traditional markets – it is necessary to examine other factors, such as barriers to entry and the potential for innovation in the market.

Several of the responding agencies consider that market shares in digital markets should be handled with caution because digital markets are dynamic and market shares may fail to reflect the actual market development, including the possible attractiveness of new products.⁶³ Cautiousness is necessary also because market shares may be volatile and may fail to reflect the competitive

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⁵⁹ See Recommended Practices, p.3., available at https://www.internationalcompetitionnetwork.org/portfolio/dominance-substantial-market-power-analysis-pursuant-to-unilateral-conduct-laws/

⁶⁰ Australia, Barbados, Bulgaria, Chile, Georgia, Germany, Ireland, Mauritius, Mexico, Mongolia, Peru, Portugal, Slovenia.

⁶¹ The US FTC did not answer whether market shares are a "good proxy" and explained that market shares are a useful initial indicator of monopoly power, but are considered with other relevant factors as to a conclusion of monopoly power.

power. ⁶² See the responses of Australia, Chile, Germany, Mauritius supporting the position that market shares are not a good proxy and the responses of Brazil, Canada, Greece, the EU, Israel, the Netherlands, Norway, Poland, Sweden, Switzerland, taking the position that market shares are a good proxy. See also the response of the US FTC, described in the previous footnote.

⁶³ Bulgaria, see similar Brazil and Spain.

constraint exercised by a company at the time of the assessment.⁶⁴ That is why these agencies find it essential to take into account the evolution of the market over time and ascertain whether the market exhibits tipping effects. In this regard, analyzing trends can be helpful to verify whether high market shares are indicative of market power. Looking at other factors, in addition to market shares, may also show that despite the small market share of the investigated company, the market is prone for tipping in the near future.⁶⁵ Another agency points out that when maintained for a significant period of time (e.g. five years), market shares could indeed reflect the market power held.⁶⁶

Asked to respond to the same question, 16 out of 24 NGAs reply that they consider market shares a good proxy, while 9 reply that they do not. However, similar to the explanations given by the responding agencies, it appears that almost everyone, including those considering market shares a good proxy, do not view market shares the sole factor or prevalent factor, but only as a starting point of the assessment.⁶⁷ The arguments made by the NGAs are broadly the same or similar to those of the agencies.

4.2.1. Market shares in platforms

The responding agencies were also asked to explain whether they look at the market shares on each side of a platform. The majority responds that in the case of multi-sided platforms, they do that.⁶⁸ However, these replies may not be fully representative, as the additional explanations provided by the responding agencies show: some based their explanations on a single case only,⁶⁹ others indicate that, although providing a reply, they do not have practical experience,⁷⁰ while many emphasise that the answer would be contingent on the specific circumstances of the case.⁷¹

In this regard, the US FTC points out that there are many different business models for digital platforms, and each one must be assessed using appropriate market definition tools. In addition, the type of conduct under review may determine how to assess potential market power. Similarly, Brazil points out that in some cases the market power on one side of the market can influence the other, while in other cases, the evaluation of both sides simultaneously is more appropriate, considering that the platform (similar to any other company) aims to profit-maximize the sides, which in itself has no anticompetitive purpose or result.

Greece, however, emphasizes that competition law should protect consumers on all sides of the platform and assessing market shares on both sides could be an important starting point of the

⁶⁴ The EU, Mexico.

⁶⁵ Italy.

⁶⁶ The EU.

⁶⁷ Only one NGA argues against the use of market shares as a proxy, pointing out that there is little empirical basis to presume any systematic relationship between market structure, competition, and innovation and that the empirical literature attempting to link market structure and product market competition to innovation are based on cross-section analyses that do not produce casual inference and as a whole yield inconclusive results.

⁶⁸ The formal Yes answers are provided by 25 responding agencies, but at least 3 of them say that the do not have practical experience. The formal No answers are provided by 14 responding agencies but at least 6 of them indicate they have no relevant experience.

⁶⁹ Egypt, Hungary, Lithuania, Turkey.

⁷⁰ Chile, Georgia, Mongolia, Peru, Slovakia, Slovenia.

⁷¹ See for example Canada, Chile, Greece, Israel, Ireland, Japan, Montenegro and the US FTC.

market power assessment. Poland considers that market shares should be considered at all sides as this gives a good overall orientation. Italy also considers that accounting for market shares at both sides is important as the two sides of a platform are related via indirect network effects and as switching costs on the two sides may be different. This could imply, for example, that the condition for multi-homing may be different at the various sides of the platform.

Several agencies explain that the answer depends on whether each side is a relevant market or not; once the relevant market or markets are defined, the market shares will be determined on those market or markets. In this context the EU indicates that the demand-side substitutability assessment has often led the authority to the conclusion that a single side of a multi-sided platform is a separate relevant market. Consequently, market shares have been determined on that side. However, the other side of the platform, may also be assessed and quantitative metrics may be used. For instance, in the Google Android case, the market shares of the market for Android app stores were calculated based on user-side metrics (e.g. pre-installation of the app store and downloads of apps from the app store). In addition, the number of apps in each Android app store was taken into account in the assessment of dominance given that the large number of apps available on the Play Store makes it more attractive to its users, creating a positive feedback loop.

In the EU's Google AdSense case, the market shares of the market for online search advertising were calculated based on revenues earned with advertisers. However, the market share of Google's general search service was also assessed given that the interaction of general search services with online search advertising conferred competitive advantages on Google that competing providers of online search advertising could not easily match.

Mexico draws attention to the fact that the unit of a measure or the characteristics of the users for each side are not the same and therefore the participants of the multiple sides cannot be grouped. This necessitates the use of different metrics on the various sides in order to measure market shares.

Asked the same questions, 21 of the NGAs respond that it is necessary to consider market shares on each side, while four believe that it is not necessary to do so. However, the answers are often given under the caveat that it will very much depend on the circumstances of the case. Those who see the need of looking at market shares at both sides indicate that although a multi-sided player may not face the same sort of competitive constraints on each of the markets in which it operates, the indirect constraints coming from the other side of the market may be important. It is argued that in the case of strong network effects, market shares on one side of the platform could play a critical role in determining the ability of the platform to abuse its position on the other side of the platform. More generally, the importance of the interrelation between the two sides is underlined.

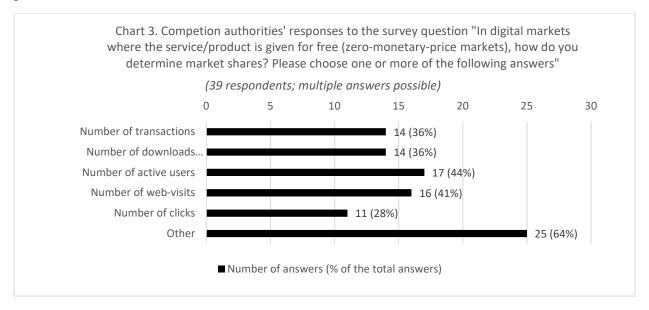
Those who take the view that it is not necessary to look at the market share at both sides, base their position on the understanding that market shares need to be calculated only on a relevant market. To the extent that only one side of a platform is defined as a relevant market, they do not see the need of considering the market shares on the other side or sides.

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⁷² The EU, Germany, Spain.

4.2.2. Market shares in zero price markets

The responding agencies have indicated that in determining market shares in digital markets where the service/product is given for free (zero-monetary-price markets), market shares can be determined on the basis of number of active users, number of web-visits, number of downloads of software applications, and number of transactions. The importance given to these indicators is presented in Chart 3 below.⁷³



Many of the responding agencies state that, in any case, the list of metrics that may be used is not exhaustive. The exact choice would depend on the specific circumstances of the case⁷⁴ and on what is available and traceable.⁷⁵

For example, Australia notes that in digital markets where a zero-monetary price is charged, an assessment of market power requires an evaluation of the competitive constraints on quality and other non-price features of the product or service. The widespread and frequent use of particular platforms means that these platforms occupy a key position for businesses looking to reach consumers. Therefore, in addition to the factors represented in the chart above, the Australian authority may also consider the percentage of time spent online.⁷⁶

The EU states that the authority often selects the metrics which are commonly used in the industry and are best suited to measure market power in view of the specificities of the case. In some cases, the use of a combination of several metrics may be helpful to provide a more comprehensive assessment.

⁷⁵ See for instance replies of Lithuania, Poland, Spain, Zambia.

⁷³ Sixteen respondents have indicated "other" indicators, but to the question requesting clarification, ten have replied that they have no experience.

⁷⁴ Canada, the EU, Germany, Ireland, Israel, Italy, Japan, the Netherlands, Spain, the US FTC.

⁷⁶ For example, the amount of time consumers spent on the platforms operated by Google and Facebook compared with the amount of time spent on alternative platforms.

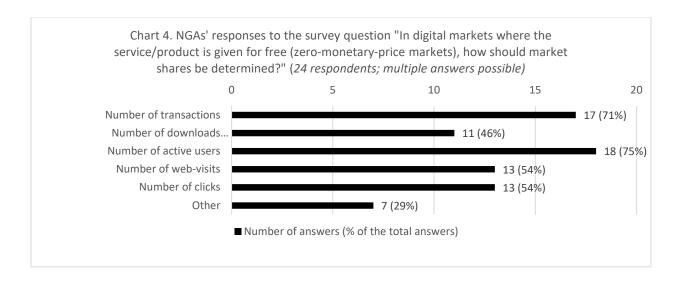
Italy suggests that the selection of the appropriate metrics will depend on the type of free services/products investigated and to which extent users multi-home. In the presence of free services and multi-homing, it might be useful to look at the "intensity" with which such services are used: in this respect, while the number of clicks or downloads may be metrics of limited usefulness, the number of "active" users could be more relevant. However, it might not be easy to define an "active" user, also because in some cases (e.g., when these free services are "integrated" into ecosystems) only the providers of the free services would observe the actual "consumption" behaviour of the users. If available, also data on the number of transactions could provide a basis for the calculation of market shares depending on the type of market under investigation. For instance, transactions data could be useful in assessing the shares of marketplaces selling goods or products at retail level. However, in other cases transaction data might provide only a partial picture: for example, in cases of "premium" services, these data would capture only users that pay for extra add-ons on the basic services.⁷⁷

Germany refers to its Facebook case, where Facebook's share of daily active users of social networks was the key indicator of the network's market position. For users, social networks have the main purpose of allowing finding back persons known to the user and to connect with them as well as to exchange daily experiences, opinions and content within specifically identified contact groups. Therefore, the number of daily active users is the primary indicator of the value of a network and its market success. The time spent by users also provides an important indication of the competitors' actual market positions and the likely tipping of the market. Germany also points out that in some cases, e.g. related to marketplace platforms, the number of transactions can be a valuable indicator, while in others the number of registered users can be insightful. Where there is a requirement for users to register when using a platform, the number of visitors can also be helpful to assess the extent to which a service is used and be a relevant parameter.

The NGA's responses are reflected in <u>Chart 4</u> below. Many point out that all of the listed metrics can be useful and depending on the particular case and the purpose of the platform, a combination of them can be used. Several NGAs advise to use more than one metric in each investigation. It is also suggested that where it is not possible to measure the use of a platform because there is no transaction that can be observed (e.g. dating sites where matches are anonymous and not registered) then market shares could be calculated based on total numbers of the subscribed members to the platform (e.g. profile listings on dating sites).

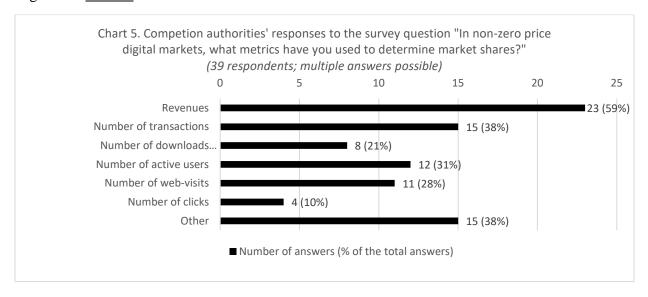
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⁷⁷ Italy.

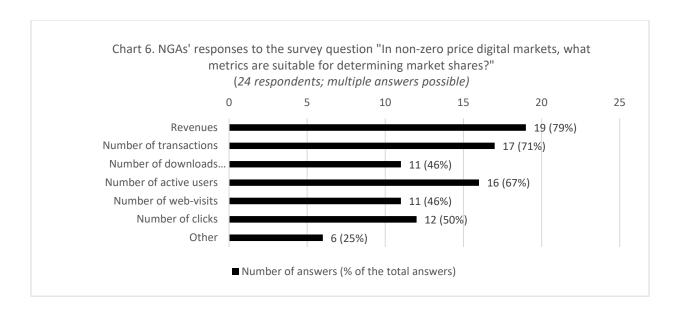


4.2.3. Market shares in non–zero-price markets

As regards non-zero-price markets, it appears that revenues are the most often used metric, though many responding agencies also indicate other types of metrics and underline that the specific circumstances of the case are decisive for which metrics to be used. A snapshot of the responses is given in <u>Chart 5</u> below.



The NGAs' replies are very similar to the ones of the agencies and are reflected in Chart 6 below:



4.2.4. Relevance of multi-homing

Only few agencies appear to have practical experience in accounting for multi- or single- homing in the assessment of market shares. Some just indicate that their approach would depend on the circumstances of the case. The following experience shared by some of the responding agencies is worth reporting.

Egypt recognizes the importance of categorizing users into single-homing and multi-homing users and points out that the authority conducts consumer surveys inquiring whether one or more platforms are used in certain digital markets.

Ireland makes the point that multi-homing may lead to double counting and points out that metrics such as usage volume might be more informative than number of downloads as they would reveal users' preference for one product over the other.

Australia explains that it is likely to consider the effect of single-homing and/or multi-homing in the context of various market share metrics. The different metrics that can be used to indicate market shares in digital platforms will account for single-homing and/or multi-homing to varying degrees. In a given context, a single metric may not provide a complete picture of market dynamics and market shares, and therefore multiple metrics may need to be taken into account. For example, in a market where consumers typically make use of multi-homing possibilities, the number of active users of a service may provide an indication of the reach of that service but may not sufficiently capture the extent of engagement users have with it. Australia therefore may consider different metrics to capture the extent of user engagement, rather than relying on the number of active users as a definitive measure of market share. Canada has similar views.

The EU reports that in its Google Android case the shares of pre-installation of all Android app stores amounted to more than 100% since some devices had more than one app store pre-installed. The analysis then focused on comparing the reach of each app store on Android devices and the

authority concluded that no other app store had achieved the same level of distribution as the Play Store.

Italy cautions that the weight to be given to market shares might differ depending on whether and to what extent multi-homing (including low switching costs) exists on each side of the platform.

Some responding agencies report that, while they do not take into account single- or multi-homing in the context of market shares calculation, they take it into account at other stages of the competition analysis. A few agencies clarify that single- or multi-homing is relevant in fact for the market definition exercise itself, which, in turn, affects the market shares calculation. As

While not that many agencies have shared their experience with the assessment of single or multi-homing in the context of market share calculation, many acknowledge the importance of this factor in the assessment of market power (see section 4.3.2). Kenya reports that the authority has recently included single and multi-homing as a relevant factor in its Market Definition Guidelines.

Italy considers that it is important whether multi-homing occurs on the free or the paid side of the platform. It argues that, in investigations it is useful to identify the proportion of users on the free side that single-home and the proportion of those on the paid side that single-home. Moreover, it needs to be assessed how important the platform is for attracting users to the paid side and to the free side as well as how easily users can switch to competing platforms from each side. It may also be useful to know the extent to which there is an overlap in membership between various competing platforms and the users' preferred order in using these platforms.

Brazil has looked at single/multi-homing from a different perspective, that is, not as a factor in the assessment of market power but as an anticompetitive result of exclusionary conduct.⁸⁰

The US FTC, depending on the circumstances of the case, would look at multi-homing in assessing market power.⁸¹

Many NGAs share the view that single-homing may indicate market power and therefore in the case of single-homing large market shares need to be taken as a serious indication of market power. Others point out that it is important to consider whether multi-homing is broadly spread or is limited to a smaller group of consumers, as well as, what the intensity of the use of a platform is. Some NGAs point out that market shares simply reflect consumer behavior and therefore they need to be adjusted to reflect multi-homing. In a similar line of reasoning, several NGAs point out

⁷⁸ Japan, the Netherlands, Sweden, Switzerland.

⁷⁹ Mexico, the Netherlands, Switzerland, Zambia.

⁸⁰ Brazil has investigated Google for anticompetitive practices related to its advertisement tool (AdWords). The question was whether the Terms of Service (ToS) of the AdWords' API (application programming interface) prevented advertisers from transferring data from Googles' platform to competitors' sponsored search platforms, preventing multi-homing and illegally restricting competition. The authority defined a two-sided market that included sponsored search on one side with cross-network effects from/to the general search market. The case was closed due to lack of evidence, as ToS were not capable of blocking advertiser's multi-homing of sponsored search engines.

⁸¹ The US FTC reports that according to a complaint, Surescripts set out to keep e-prescription routing and eligibility customers on both sides of each market from multi-homing by using anticompetitive exclusivity agreements, threats, and other exclusionary tactics. The authority alleged that Surescripts used loyalty and exclusivity contracts to increase the costs of routing and eligibility multi-homing.

that introducing single-homing and/or multi-homing is not relevant for the assessment of market share and may even generate unnecessary complexities in this task. The analysis of market shares is essentially quantitative and can be done based on the metrics indicated above (in the charts). Those factors are nonetheless very important for the correct definition of the market in the first place, since a thorough analysis may indicate whether the investigated products or services are effective competitors and substitutes from the consumer point-of-view or are in fact complementary (i.e., consumers use both because they offer different functionalities, despite being apparently similar, e.g., LinkedIn vs. Facebook). The analysis of single-homing and/or multi-homing is also important to provide understanding of whether market shares are a good proxy for assessing market power or not, since the easier for a user to migrate between services, the higher the competitive constraint is. Therefore, if a company, even with apparent high market shares, attempted to abuse market power, this conduct would probably not be successful, as consumers would simply migrate to a competitor's service or platform. More generally, it is important for the correct understanding of the nature of competition in the market e.g., whether companies compete for each transaction or for an exclusive relationship with their clients.

4.2.5. Presumptions based on market share

Only four out of 39 agencies reply that they can rely on a presumption based on market shares in assessing dominance. ⁸² For two of them the relevant percentage is 50%, ⁸³ for one of them 40% ⁸⁴ while the fourth one does not specify the applicable percentage. ⁸⁵ However, it appears from their subsequent answers that they have not relied (yet) on the presumption in concrete cases in digital markets. ⁸⁶

The agencies that have had experience in finding dominance in concrete cases in digital markets explain that the investigated company had a market share of above 60%, some referring to market shares of above 90% and even 100%. ⁸⁷ Note, however, that Taiwan indicates a case where market shares were between 50 - 60%. Next to the significant market shares held by the companies deemed dominant, the gap in market shares between these companies and their closest competitor was generally significant, usually exceeding 30%. However, in the case reported by Taiwan, the difference between the dominant company and its closest competitor was smaller - 10-20%.

The laws of five responding agencies envisage market-share-based safe harbours below 20, 25, 30 or 40%.88

⁸² Canada, Israel, Montenegro, Seychelles.

⁸³ Canada and Israel.

⁸⁴ Seychelles.

⁸⁵ Montenegro.

⁸⁶ The agencies in question either do not reply to the subsequent question 42, asking for concrete examples of cases or reply that they do not have practical experience or indicate that in fact they also look at other factors.

⁸⁷ Barbados, Brazil, Canada, Egypt, the EU, Germany, Hungary, Lithuania, Mauritius, Poland, Switzerland, the UK, the US FTC, Zambia.

⁸⁸ Brazil, Egypt, Georgia, Mauritius, Taiwan.

It was also pointed out that the assessment of durability of market power, with a focus on barriers to entry or expansion, should be an integral part of the analysis of dominance/substantial market power.⁸⁹

4.2.6. Duration of the market share held

As regards the period during which the significant market shares were held, the responding agencies' experiences differ, mainly due to the different factual circumstances of the investigated cases. Some indicate that the significant market shares in the concrete cases they had investigated were held for about, or for even more than ten years, 90 some between four and six years, 91 some for at least three years. 92 Brazil considers that even a period of two to four years could suffice to find dominance in both digital and non-digital markets provided that factors such as the growth of the market since its emergence, the duration of the alleged practice and new entry during the period of assessment are taken into account.

Importantly, none of the responding agencies suggests that the relevant duration of the holding of market shares should differ between digital and non-digital markets.

4.3. Barriers to entry/expansion in digital markets

4.3.1. Overview

Barriers to entry or expansion are an integral part of the assessment of dominance/substantial market power. The respondents were asked a number of questions aimed at clarifying what types of barriers to entry are common in digital markets and how they affect the finding of market power in those markets.

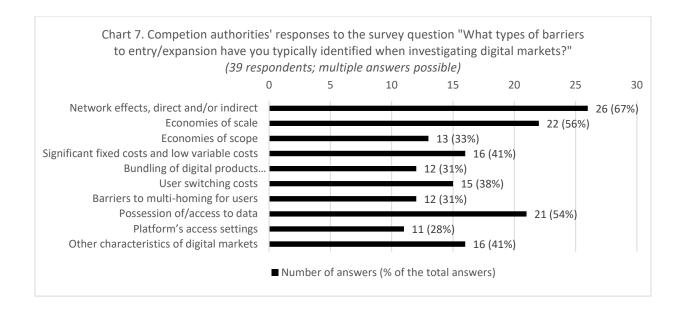
As shown in <u>Chart 7</u> below, network effects, economies of scale and access to data are the barriers to entry most typically identified by the responding agencies in digital markets.

⁸⁹ ICN recommended practices on dominance/substantial market power analysis pursuant to unilateral conduct laws, available at https://www.internationalcompetitionnetwork.org/portfolio/dominance-substantial-market-power-analysispursuant-to-unilateral-conduct-laws.

⁹⁰ Barbados, the EU, Poland, the US FTC, Zambia.

⁹¹ Germany, Egypt, Hungary, Switzerland, Turkey.

⁹² Kenya, Lithuania, Portugal, Taiwan.



The responses also show that the most frequent combination of barriers to entry and expansion is network effects and economies of scale, appearing across different digital markets and making entry or expansion particularly difficult. Some of the responding agencies add to this combination access to data, switching costs, so or single-homing. Zambia draws attention to the fact that start-up costs and regulatory requirements are also a significant barriers to entry. The need of access to funds is mentioned by Egypt.

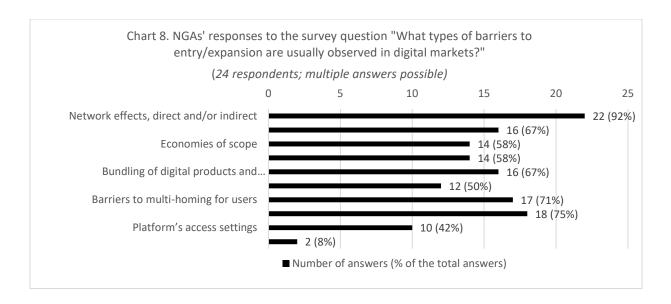
Equally, as represented in <u>Chart 8</u> below, the NGAs mention network effects and economies of scale as the most frequent combination, although they also point out that different combinations of factors may be observed depending on the circumstances of the case.

⁹³ Australia, Brazil, Canada, Hungary, Ireland, Kenya, Mexico, Switzerland, the UK.

⁹⁴ Brazil, Canada, Germany, Ireland, Kenya, Mexico.

⁹⁵ Hungary, Ireland, Kenya.

⁹⁶ The EU.



Asked to specify whether the barriers to entry, such as network effects, have resulted from the nature of the product or the investigated conduct in the cases they have investigated, 12 of the responding agencies indicate that they have resulted from the nature of the service in question, 97 six state that they have resulted from both the nature and the conduct, 98 one agency perceives them as resulting from the conduct, 99 while two agencies state that it will depend on the circumstances of the case. 100 The rest of the responding agencies have not had relevant experience.

4.3.2. Relevance of single-homing

There is a general consensus that single-homing increases the likelihood for a platform to be found in a dominant position/to have substantial market power. This is because single-homing often results from barriers to entry and expansion, such as brand loyalty, network effects, switching costs. Germany and the EU report that they have used the fact that multi-homing was limited or missing as an indication of the stability of a dominant position. That was the case in the German Facebook case where the lack of substantial multi-homing by the users was an indication of a particularly stable dominant position held by Facebook. Similarly, in the EU Google Android case, the fact that only a minority of users that use Google's general search service as their main general search service actually resort to other general search services, reinforced the barriers to entry and expansion resulting from the strong network effects.

4.3.3. Presence in a number of markets

11 out of the 39 agencies explain that in the cases they have investigated, the fact that the investigated company was present in more than one market has played a role. 102 It appears that the

⁹⁷ Brazil, Chile, Egypt, the EU, Germany, Hungary, Ireland, Israel, Kenya, Mexico, Poland, Switzerland.

⁹⁸ Canada, Lithuania, Portugal, Sweden, Turkey, the UK.

⁹⁹ Zambia.

¹⁰⁰ Australia, the US FTC.

¹⁰¹ A similar approach was taken in the German CTS Eventim case.

¹⁰² Barbados, Brazil, Germany, the EU, Kenya, Mauritius, Portugal, Taiwan, Turkey, the UK, Zambia.

experience is mostly gathered in investigations concerning Google, Facebook and Amazon, and that the ubiquity of these companies, in particular their presence in complementary markets, enables them to build particularly valuable data sets. ¹⁰³ This, in turn, enables these digital platforms to offer highly targeted or personalized advertising opportunities to advertisers. The EU points out that in its Google AdSense case, the strength of Google's general search service and its interaction with online search advertising conferred competitive advantages to Google that competing providers of online search advertising alone could not easily match. Turkey provides an example of a case concerning online platform services for real estate sales and rentals and online platform services for vehicle sales. The dominant company, unlike its competitors, was providing online platform services for other products/services such as first/second-hand sale of many product categories, utility services, tutoring services etc., which, in turn, attracted more users. Therefore, complementary markets/services contributed to the market power of the dominant company.

Most of the NGAs consider that the presence of a company in several complementary markets/services (e.g. a digital ecosystem) plays a role in the assessment of dominance/substantial market power in the core market. They explain that a company that has access to several complementary markets can have a competitive advantage in the core market because this amplifies its ability to combine data from different sources. The access to different sources of data can result in a better recognition of consumers' behaviour, by tracing the individual's activity on its complementary platforms. In addition, a company could reinforce its presence in the core market by integrating its product or service with the ones offered in the complementary markets, especially if this blocks the access of competitors in the core market to users of the complementary services. It is also pointed out that conglomerate platforms may be able to leverage their strength in one market into others thereby forcing new entrants to enter several markets simultaneously, thereby making entry costly and risky, and hence less likely to occur.

However, at the same time some NGAs point out that the presence in several markets may lead to efficiencies. For example, by entering a new space, the platform is frequently able to take advantage of the efficiencies of vertical integration, and thereby pass on greater value to consumers. For example, if a digital platform integrates backward into providing its own cloud hosting (as Amazon, Google, and many others have done), it can potentially reduce its costs, while simultaneously improving security and reliability for its users. Second, by entering complementary spaces, a digital platform by definition increases the number of competitors in those spaces, often challenging entrenched incumbents in other industries to lower prices and/or innovate. This frequently has the consequence of increasing competing complements, such as logistics services, information services (like mapping or translation), or consumer apps.

4.3.4. Access/possession of data

13 responding agencies out of 39 report to have had cases in which they have treated the possession or access to data as a barrier to entry. ¹⁰⁴ In the cases of eight agencies, the volume of the data was

¹⁰³ The EU, Germany, the UK.

¹⁰⁴ Barbados, Brazil, Canada, Hungary, Egypt, the EU, Germany, Israel, Luxembourg, Slovak Republic, the UK, Zambia.

determinative for considering the possession/access to that data as a barrier to entry; 105 three indicated the data value as determinative; 106 two its full or partial irreplaceability 107 and yet another two - its variety. 108

Germany points out that in its Facebook case, in the context of direct and indirect network effects, Facebooks' superior access to competitively relevant data created an additional barrier of entry to the market for social networks. This was considered to have contributed to a market tipping process. Facebook has had a significant advantage over its competitors in the optimization of its news feed algorithm and thus in the development and improvement of its product, and this advantage has increased as the installed base grew. The EU reports that in the Google Shopping and Google Android cases, when assessing dominance on the market for general search services, the authority has concluded that the fact that Google Search had access to a larger volume and variety of data as compared to all of its rivals was relevant to determine its dominance.

The US FTC points out that the cost of collecting, aggregating, and updating the data can create significant barriers to entry in the market even where the data is publicly available. ¹⁰⁹ It adds that in general, data and access to data can be an important aspect of how companies compete. For example, data can be an input or complement or a product; access to data can be a service; a need for data can be a barrier to entry; and data can sometimes generate a distinctive competitive advantage. It underlines that traditional antitrust analysis has the tools to assess the importance of data to competitors in any type of market.

For example, if a dominant downstream company, in a market where data is a critical input, made its data suppliers commit to providing key data exclusively for a long period to itself, in order to prevent rivals entering, that conduct could be a form of exclusive dealing. Just as in any exclusive dealing case, the important issues would include: (1) the importance of the data as an input; (2) the existence and adequacy of substitutes; (3) the level of foreclosure created by the restraint; and (4) the strength of any procompetitive justifications for that exclusivity.

Many NGAs point out that the data needs to be essential to be a barrier to entry. Data itself does not constitute a barrier to entry, considering that the access to data by one company usually does not prevent other players to obtain access as well. However, in specific sectors in which the data is not accessible to every player, or where the speed with which the data is obtained plays an important factor, companies that do have access to constant and large volumes of data have a competitive advantage over their rivals. One NGA points out also that while data as such is not a competitive advantage, the know-how and capacity of a company to collect, process and use the data obtained in a significant way (Big Analytics) may also represent a competitive advantage. Companies that are not able to replicate such collection and processing may face barriers to entry and expansion.

¹⁰⁵ Barbados, Brazil, the EU, Germany, Mexico, Luxembourg, Zambia.

¹⁰⁶ Israel, Slovak Republic.

¹⁰⁷ Barbados, Mexico.

¹⁰⁸ The EU, Germany.

¹⁰⁹ The US FTC's answer to question 55.

As regards the possible advantages that the possession of data may confer, three of the responding agencies indicate that the volume or the scale of the data may reinforce the network effects and improve significantly the product of the dominant company in a way which cannot be matched by competitors. The product of the dominant company in a way which cannot be matched by competitors. The greater that the product of the dominant company in a way which cannot be matched by competitors. The greater that the product of the dominant company in a way which cannot be matched by competitions. The greater that the product of user ratings can make the average product rating more informative, a platform thus attracting more users in turn. Investigations against Google, led to the conclusion that because a general search service uses search data to refine the relevance of its general search results pages, it needs to receive a certain volume of queries in order to compete viably. The greater the number of queries a general search service receives, the quicker it is able to detect a change in user behaviour patterns and update and improve its relevance. Similarly, a general search service needs to receive a certain volume of queries in order to improve the relevance of its results for uncommon ("tail") queries. Tail queries are important because users evaluate the relevance of a general search service on a holistic basis and expect to obtain relevant results for both common ("head") and uncommon tail queries. The greater the volume of data a general search service possesses for rare tail queries, the more users will perceive it as providing more relevant results for all types of queries.

Network effects may enable a search engine to leverage its data to attract more users and advertisers to the platform. In one investigation, one of the responding agencies has also considered whether certain types of conduct had excluded rivals by denying them the search queries that may have otherwise been made on their search engines and, by extension, denying them the "search scale" necessary to compete with Google. 112

It also appears that a company's superior access to data, especially to variety of data, enables companies to continuously adapt the products by further technical developments and succeed in target personalisation. Diverse data sources make it possible to carry out very detailed targeting procedures by establishing target groups according to specific personal criteria or consisting of individually identified persons (custom audiences and lookalike audiences). Important targeting methods such as technical targeting of users, so-called behavioral targeting, semantic targeting and re-targeting can be combined and granular data sets can be used. 114

The responses of the NGAs suggest that there are numerous ways in which having access to data can confer a competitive advantage to a company. For instance, data may provide superior knowledge of what consumers want, may facilitate the design of better products and services, help to advertise better and enable companies to price discriminate more effectively. In addition, access to data might permit a company to optimize its internal processes, lower its operational costs, and increase its efficiency. Furthermore, having access to data may permit a company to identify new business opportunities, and therefore, permit it to expand to new markets. A company may then use that advantage to engage in practices that promote competition or in practices that harm competition. One NGA however points out that to confer a durable advantage, the data in question must be unique and essential to the provision of a relevant good or service. The possession of data

¹¹⁰ The EU, Ireland, Mexico.

¹¹¹ The EU.

¹¹² Canada.

¹¹³ Germany.

¹¹⁴ Germany.

without these characteristics, even in large quantities, does not confer consistent advantages to companies that compete in digital markets. Another NGA emphasizes that the value of data can be unlocked only when combined with other inputs and that firms in principle differ in their ability to do that.

4.4. Relevant time horizons

Only four agencies indicate that, in assessing entry and expansion, they apply a time horizon in digital markets different from the one applied in non-digital markets. Taiwan explains that usually a longer period of time is needed to observe a trend in digital markets when conducting a competition analysis. Instead of a one-year period, this authority will use three-year period.

Among those who respond to have not adopted a different time horizon, many emphasize that the approach is, and should be, case specific.

The NGAs' predominant view on the issue differs from that of the responding agencies. Nine of the NGAs specify that the time horizon should be the same as in non-digital markets, 16 believe it should be different. Those advocating for a different time horizon base their reasoning primarily on the rapid developments and dynamic nature of digital markets and consider that shorter periods should, therefore, be taken into account in digital markets. At the same time it is argued though that with every technological change, there is a new competitive dynamic taking place, where possibly new players enter the market and where a strong incumbent may not be able to thrive much longer. It is suggested that because of the rapid developments in these markets, interim measures may be more needed to contain the potential harm.

Conversely, those who believe that the approach to the time horizon should be the same in digital and non-digital markets, point out that the harm to consumers takes place in the same way in both types of markets. Some argue that the usual (rather than a shorter) timespan may be more useful to understand the dynamics of entry and rivalry in digital markets, since in the past apparently strong players ended up collapsing due to the rapid development of the market, technology and consumer preferences.

4.5. Competition for the market

There is a general perception that because of the specific features of digital markets, competition is often for the market (rather than in the market). In particular, it is considered that competition often takes place through sequential winner takes-all races to produce drastic innovations, as opposed to competition in the market through static price/output competition and more incremental innovation. The survey sought to ascertain whether this is the experience of the responding agencies and whether considerations related to competition for the market, such as significant R&D and series of strategic acquisitions of start-ups, have played a role in the assessment of dominance/substantial market power.

¹¹⁵ Chile, Switzerland, Taiwan, the UK. Two of these agencies do not refer to concrete experience or a case.

Only six of the responding agencies indicate that considerations related to competition for the market (e.g. amount of R&D spent, sequence of strategic acquisitions of start-ups) have been made in analysis of investigated cases but not specific examples of cases have been provided.¹¹⁶

At the same time, 21 of the responding NGAs state that considerations related to competition for the market (amount of R&D spent, sequence of strategic acquisitions of start-ups) should be part of the analysis of dominance/substantial market power. It is pointed out that competition in digital markets occurs along price and non-price dimensions and, in particular, through innovation. Therefore, understanding of R&D expense is critical to decide whether the market is competitive along the innovation dimension. In addition, the significant amount of R&D required to enter into a market indicates high entry costs and accordingly, may constitute a barrier to entry. Furthermore, it is pointed out that in dynamic industries, companies are primarily constrained by the threat of another company coming up with the next leapfrog invention that causes demand for the incumbent's product to collapse. As such, an essential element of the market power analysis is an examination of actual and potential innovative threats to leading companies. One NGA argues that the analytical framework should be shifted from one that begins with market definition to one that begins with competitive effects because where competition is driven by innovation, it is difficult to draw competitive inferences from the existing market structure.

4.6. Buyer power

The chapter on dominance in the ICN workbook states that the existence and durability of dominance of a supplier may be affected not only by the number and strength of its competitors, but may also be influenced by the structure and characteristics of the opposite market side, in particular by the countervailing buyer power of customers. Such power stems from the bargaining strength that the buyer may have vis-à-vis the seller. In some circumstances, powerful customers may have the incentive and ability to defeat the exercise of market power. Even the most powerful buyer, however, in general, has a disciplinary effect on a supplier only if there is a credible threat that it could switch to another supplier to a sufficient extent. 117

The survey sought to understand whether buyer power has played a role in cases in digital markets and whether some specific issues of buyer power in digital markets can be identified. Out of the 39 responding agencies, only six indicate that buyer power has played a role in the assessment in their cases. The replies however do not flag any particular issue in this context. A general point has been made that where effective and long-lasting multi-homing is prevalent, it may possibly mitigate the negative impact of network effects.

The majority of the responding NGAs consider that, in principle, buyer power should play a role in the assessment of market power, in the same way as it does in non-digital markets. Many of the NGAs, however, consider that it is unlikely for buyers to be able to exercise counterweighing power due to the strong network effects resulting in significant market power and also because the fragmentation of consumers makes it impossible for them to coordinate their actions.

https://www.internationalcompetitionnetwork.org/portfolio/uc-workbook-assessment-of-dominance/

¹¹⁶ Brazil, Kenya, Mexico, Switzerland, the UK, Zambia.

¹¹⁷ See UCWG Workbook, chapter on dominance, available at

¹¹⁸ Barbados, the EU, Taiwan, Turkey, the UK and Zambia.

4.7. Any other experience

Only two agencies supplement their response to the survey with additional observations. Spain adds that the authority has observed that, in practice, marketing costs play an important role in some platform markets, in order to reach a critical mass (especially, when one does not benefit from a first-mover advantage). The EU informs that in the Google Android case, when assessing dominance in the markets for licensable smart mobile OS and Android app stores, the authority has taken into account the indirect constraints from iOS devices. Despite the fact that both Apple's OS and app store were not available to OEMs, in theory, Google could be subject to an indirect constraint from Apple if, by degrading its own OS and app store, users would stop buying devices from those OEMs and would start buying Apple devices instead. The authority has concluded that this indirect constraint was not sufficient to counter Google's dominance in the markets for licensable smart mobile OS and for Android app stores. In markets with zero price, like the market for licensable smart mobile OS, the authority has analyzed the boundaries of the relevant market by way of a thought experiment following the logic of a SSNDQ, exploring whether users and app developers would switch away from Google in case of a hypothetical degradation of the quality of the Android OS.

No experience with collective dominance in digital markets was reported, except for Brazil reporting about an on-going investigation in the banking sector.

5. Usefulness of future ICN guidance, possible topics and format

The survey inquired whether the respondents have been consulting existing ICN documents, and whether, in the light of the experience shared, they see the need for a specific ICN guidance on the assessment of market power in digital markets.

5.1. Consultations of ICN documents

A third of the responding agencies state that they have consulted existing ICN documents in view of (possible) investigations into unilateral practices in digital markets. ¹¹⁹ A good number of them have consulted even several ICN documents for that purpose. ¹²⁰

The most popular of the ICN documents appears to be "Dominance/Substantial Market Power Analysis Pursuant to Unilateral Conduct Laws: Recommended Practices," ¹²¹ followed by the "ICN Unilateral Conduct Workbook." ¹²² The ICN members have referred to them in more than half of all consultations.

¹¹⁹ Australia, Barbados, Brazil, Canada, Chile, the EU, Greece, Italy, Japan, Kenya, Mexico, Peru and Spain.

¹²⁰ Australia, Brazil, Canada, Greece and Mexico.

¹²¹ https://www.internationalcompetitionnetwork.org/wp-content/uploads/2018/07/UCWG RP DomMarPower.pdf; mentioned by Australia, Barbados, Greece, Italy, Mexico and Spain.

¹²² In this context, reference was notably made to Chapter 3 on the "Assessment of Dominance" and Chapter 5 on "Exclusive Dealing" as well as Chapter 6 on "Tying and Bundling"

^{(&}lt;a href="https://www.internationalcompetitionnetwork.org/working-groups/unilateral-conduct/investigation-analysis/">https://www.internationalcompetitionnetwork.org/working-groups/unilateral-conduct/investigation-analysis/); mentioned by Australia, Brazil, EU, Greece and Mexico.

Other documents that have been consulted include the "Report on ICN Members' Recent Experiences (2015-2018) in Conducting Competition Advocacy in Digital Markets," ¹²³ the "Report on the Analysis of Refusal to Deal with a Rival Under Unilateral Conduct Laws," ¹²⁴ the "Vertical Restraints Multi Year Project 2016-2019" ¹²⁵ and the "Report on Tying and Bundled Discounting." ¹²⁶

Almost half of the authorities consulting ICN documents have run investigations into digital markets, which have also led to an enforcement action.

Similarly, ten out of the 24 responding NGAs have consulted a similar list of ICN documents in advising on (possible) investigations into unilateral practices. ¹²⁷

5.2. Future Guidance

Out of 39 responding agencies, all but one state that it would be useful to have further guidance. ¹²⁸ Similarly, 22 out of the 24 responding NGAs concur in finding that further ICN guidance would be needed.

Some state that, in general, guidance on assessing dominance/significant market power in digitals would be welcome ¹²⁹ or that particularly the specifics related to digitals should be further explained. ¹³⁰

Several responding agencies specifically requested further guidance on the aspects related to multisided markets (e.g. market definition). ¹³¹

Workshop" (https://www.internationalcompetitionnetwork.org/wp-content/uploads/2018/10/AEWG_EconWorkshop2016Report.pdf)

¹²³ This is a document of the ICN Advocacy Working Group (https://www.internationalcompetitionnetwork.org/wp-content/uploads/2019/06/AWG AdvDigitalMktsReport2019.pdf); mentioned by Canada, Chile, Mexico and Peru.

https://www.internationalcompetitionnetwork.org/wp-content/uploads/2018/07/UCWG SR ReftoDeal.pdf; mentioned by Brazil and Canada.

https://www.internationalcompetitionnetwork.org/wp-content/uploads/2019/05/UCWG-2019-Vertical-Restraints-Project.pdf; mentioned by Australia and Japan.

https://www.internationalcompetitionnetwork.org/wp-content/uploads/2018/07/UCWG_SR_TyingBundDisc.pdf; mentioned by Canada.

¹²⁷ Amongst responding NGAs, the "ICN Unilateral Conduct Workbook" was the most popular of all documents also listed by ICN members, followed by "Report on ICN Members' Recent Experiences (2015-2018) in Conducting Competition Advocacy in Digital Markets. However, contrary to ICN members, they did not mention the "Report on the Analysis of Refusal to Deal with a Rival Under Unilateral Conduct Laws", nor the "Report on Tying and Bundled Discounting". At the same time, some of them also consulted the "Report on: ICN Chief/Senior Economists Workshop" (https://www.internationalcompetitionnetwork.org/wp-

and the "Online Vertical Restraints Special Project Report" (https://centrocedec.files.wordpress.com/2015/07/special-project-online-vertical-restraints-2015.pdf), which were not mentioned by ICN members.

¹²⁸ Of those ICN members finding further guidance useful, all but one provided further information regarding the topics on which they would that guidance to focus.

¹²⁹ Barbados, Georgia, Mongolia, Slovak Republic and Slovenia.

¹³⁰ Bulgaria, Lithuania, Luxemburg, Mauritius, Norway, Seychelles, Switzerland and United Kingdom.

¹³¹ Australia, Brazil, Chile, Greece, Hungary and the Netherlands.

A few also mention market definition and the relevance of market shares (e.g. the metrics, calculation and estimation) as topics for further guidance. 132

How to deal with zero pricing¹³³ and ecosystems¹³⁴ in digitals, also attracts particular interest.

A number of responding agencies request guidance on barriers to entry, such as network effects and economies of scale and scope, recalling, for example, that such barriers to entry have a special prevalence in digital markets. ¹³⁵

Some specify that it would be very helpful if the guidance consist of a collection of the experience gained by the various agencies. 136

At the same time, certain topics were pointed out only by a single agency: single and multi-homing, ¹³⁷ assessing the risk of market tipping ¹³⁸ and international cooperation ¹³⁹ in digitals.

Finally, a number of agencies request guidance on digital issues going beyond the current topic, such as guidance on theories of harm and conduct, ¹⁴⁰ effects analysis ¹⁴¹ and remedies ¹⁴² or advocacy ¹⁴³ in digital cases.

The responding NGAs broadly identified the same above topics as being potentially relevant ones for future guidance.

When it comes to the form of that guidance, a little less than one third of the responding agencies favour updating existing guidance, arguing notably that existing notions and concepts remain applicable to digital markets. ¹⁴⁴ The largest chunk, almost 60% of responding agencies, ¹⁴⁵ confirm that the guidance should be in a separate and focused document due to e.g. the special characteristics and issues of digital markets distinguishing them from other markets. Finally, approximately 8% ¹⁴⁶ suggest that the guidance should yet take another form, e.g. as the topic may not yet be mature enough for a guidance document.

Amongst NGAs as well, the majority do not favour updating existing guidance. Only six NGAs prefer updating existing guidance, while approximately two thirds of all responding NGAs favor

¹³² Ireland, Kenya, Portugal, Taiwan and Zambia. Kenya is also interested in guidance on how to best collect the evidence.

¹³³ Chile, Greece, Hungary and Turkey.

¹³⁴ Germany, Greece, Italy and Spain.

¹³⁵ Canada, the EU, Italy, Peru, Portugal and Spain.

¹³⁶ Australia, the EU, Israel, Japan, Mexico and Sweden.

¹³⁷ Chile.

¹³⁸ Germany.

¹³⁹ The UK.

¹⁴⁰ Egypt, Mauritius, Poland and Switzerland.

¹⁴¹ Australia.

¹⁴² Brazil and Mauritius.

¹⁴³ Mexico.

¹⁴⁴ Australia, Brazil, Bulgaria, Hungary, Kenya, Lithuania, Poland, Portugal, Slovak Republic, Sweden, Turkey and the US FTC

¹⁴⁵ Barbados, Canada, Chile, Egypt, Georgia, Germany, Greece, Ireland, Japan, Luxemburg, Mauritius, Mongolia, Norway, Peru, Seychelles, Slovenia, Spain, Switzerland, Taiwan, the Netherlands, United Kingdom and Zambia.
¹⁴⁶ The EU, Italy and Mexico.

a separate guidance document. ¹⁴⁷ In general, NGAs used the same or similar arguments to the ones of the responding agencies to explain their preferences for guidance.

¹⁴⁷ Only one NGA indicated to prefer guidance in another form, however, specifying to have no preference as to whether existing guidance would be updated or separate guidance specifically drawn up.

ANNEX I Non-governmental advisors (NGAs)

Name of the NGA	Organisation	ICN member the NGA advises
Paolo Benedetti	Agon	COFECE Mexico
Jorge Padilla	Jorge Padilla	UK CMA
Eleanor Fox	New York University School of Law	US FTC and DOJ
Sahin Ardiyok	BASEAK Attorney Partnership	Turkish Competition Authority
Yves Botteman	Dentons Europe LLP	European Commission, DG
		Competition
Dr Liza Lovdahl Gormsen	British Institute of International and	UK CMA
	Comparative Law	
Koren W. Wong-Ervin	Director of Antitrust Policy & Litigation	US FTC and DOJ
Marios Iacovides	Assistant Professor in European Law at	European Commission, DG
	Stockholm University School of Law	Competition
Assoc. Prof. Kerem Cem	İstanbul Bilgi University Competition Law	Turkish Competition Authority
Sanlı	and Policy Research Centre	
Urska Petrovcic	Criterion Economics	European Commission, DG
		Competition
Enrico Adriano Raffaelli	Enrico Adriano Raffaelli / Rucellai &	Italian Antitrust Authority (AGCM)
	Raffaelli – Law Firm	·
Samir R. Gandhi	AZB & Partners	Competition Commission of India
		(CCI)
Sylvann Aquilina Zahra	GANADO Advocates	European Commission, DG
		Competition
Laura Cerny	Laura Cerny - Accor Group	French Competition Authority
Dr Anca Chirita	Durham University Law School	European Commission, DG COMP
Miguel Odriozola	Clifford Chance	European Commission, DG
		Competition
Joyce Midori Honda	Joyce Midori Honda / Cescon, Barrieu,	Administrative Council for Economic
	Flesch & Barreto Advogados	Defense (Brazil) – CADE
Priscila Brolio Gonçalves	Priscila Brolio Gonçalves/BGA	Administrative Council for Economic
		Defense (Brazil) – CADE
Assimakis Komninos	Assimakis Komninos / White & Case LLP	European Commission, DG
		Competition
Antonio Di Domenico	Antonio Di Domenico	Canadian Competition Bureau
Cristoforo Osti	Università del Salento and Chiomenti	European Commission, DG
		Competition
Rafael Allendesalazar	MARTÍNEZ LAGE, ALLENDESALAZAR	Spanish Comisión Nacional de los
	& BROKELMANN, SLP (MLAB	Mercados y la Competencia (CNMC)
	ABOGADOS)	
Robert Mahini	Senior Competition Counsel at Google Inc	US FTC and DOJ
Tadashi Shiraishi	University of Tokyo, Graduate Schools for	Japan Fair Trade Commission
	Law and Politics	

Annex II

Studies Commissioned or Carried out by the Responding Jurisdictions

Australia:

"Digital Platforms Inquiry", Australian Competition and Consumer Commission (June 2019)
 https://www.accc.gov.au/system/files/Digital%20platforms%20inquiry%20-%20final%20report.pdf

Brazil:

- BRICS in the Digital Economy: Competition policy in Practice (2019) http://www.cade.gov.br/acesso-a-informacao/publicacoes-institucionais/brics_report.pdf
- CADE's Working Paper on the competition effects of the sharing economy in Brazil: Has Uber entry affected the taxi-riding app market between 2014 and 2016? (2018). http://en.cade.gov.br/topics/about-us/dee/working-paper-uber_01-2018.pdf
- CADE's Working Paper on Rivalry post-entry: the immediate impact of Uber on taxi rides
 (2015)
 http://www.cade.gov.br/cade_english/topics/about-us/dee/working-paper-003-2015.pdf

Canada:

- "Technology-Led Innovation in the Canadian Financial Services Sector", Competition Bureau Canada, https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04322.html#wb-tphp
- "Big Data and Innovation: Implications for Competition Policy in Canada", Competition Bureau Canada, https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/vwapj/Big-Data-e.pdf
- "Big data and innovation: key themes for competition policy in Canada", Competition Bureau Canada, https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04342.html

European Union

 "Competition Policy for the Digital Era", Jacques Crémer Yves-Alexandre de Montjoye Heike Schweitzer (2019) (https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf

Germany

- "BKartA, B6-113/15, Working Paper The Market Power of Platforms and Networks", Bundeskartellamt (June 2016)
- https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Berichte/Think-Tank-Bericht-Zusammenfassung.pdf?

 __blob=publicationFile&v=4
- "Competition Law and Data", Bundeskartellamt and French Competition Authority https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Berichte/Big%20Data%20

- Papier.pdf;jsessionid=7A13AA403C74F4FBE97DE5D21F9C84F9.2_cid387?__blob=publicationFile&v=2
- "Algorithms and Competition", Bundeskartellamt and French Competition Authority https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Berichte/Algorithms_and_Competition_Working-Paper.pdf?__blob=publicationFile&v=5

<u>Italy</u>

- Big Data Sector Inquiry (December 2019):
 https://www.ICA.it/dotcmsdoc/bollettini/2020/9-20_all.pdf; Press release (in English):
 https://en.agcm.it/en/media/press-releases/2020/3/Big-Data-Agcom-Agcm-and-Data-Protection-Authority-survey-published;
- "Big Data Guidelines and Policy Recommendations" (July 2019):
 https://en.agcm.it/dotcmsdoc/pressrelease/Big%20Data_Guidelines%20and%20policy%2_Orecommendations.pdf

Japan:

- Report regarding trade practices on digital platforms (Business-to-Business transactions on online retail platform and app store), 2019 https://www.jftc.go.jp/en/pressreleases/yearly-2019/October/191031.html
- Survey Report Regarding Transactions in B2C E-Commerce, 2019 https://www.jftc.go.jp/en/pressreleases/yearly-2019/April/190409_1.html
- Report of Study Group on Data and Competition Policy, 2017 https://www.jftc.go.jp/en/pressreleases/yearly-2017/June/170606_files/170606-4.pdf
- Substitutability of Demand for Online and Offline Services, 2015 https://www.jftc.go.jp/en/cprc/reports_files/cr-0315abstract_english.pdf
- Economic Analysis of Two-sided Market, 2010 https://www.jftc.go.jp/en/cprc/reports_files/cr-0210abstract_english.pdf
- Platform Competitions and Vertical Restraints -Base on an Analysis of the Sony Computer Entertainment Case-, 2009 https://www.jftc.go.jp/en/cprc/reports_files/cr-0508Summary.pdf

Kenya

• "Revised Guidelines on Relevant Market Definition", Competition Authority of Kenya https://www.cak.go.ke/sites/default/files/Guidelines%20on%20Relevant%20Market%20
Definition%20(1).pdf

Mexico

"Rethinking competition in a digital economy", COFECE (February 2018)
 https://www.cofece.mx/wp-content/uploads/2018/03/EC-EconomiaDigital_web_ENG_letter.pdf

The Netherlands

• "A closer look at online video platforms", Authority for Consumers and Markets (August 2017) https://www.acm.nl/en/publications/closer-look-online-video-platforms

Portugal:

"Issues Paper on Digital ecosystems, Big Data and Algorithms", Autoridade de Concorrencia
 (July 2019)
 http://www.concorrencia.pt/vPT/Estudos e Publicacoes/Estudos Economicos/Outros/Documents/Digital%20Ecosystems,%20Big%20Data%20and%20Algorithms%20-%20Issues%20Paper.pdf

Spain

- "Market study on the impact on competition of innovation in the financial industry (fintech)", Advocacy Directorate of the Spanish Competition Authority (2018) https://www.cnmc.es/sites/default/files/2218346_1.pdf
- "Market study into mobile app stores", Authority for Consumers and Markets (April 2019)
 https://www.acm.nl/sites/default/files/documents/market-study-into-mobile-app-stores.pdf

Sweden

- "Blockchain technology from a competition law perspective", Pontus Lindblom 2019:4 http://www.konkurrensverket.se/globalassets/publikationer/uppdragsforskning/forsk-rapport_2019-4.pdf
- "Price dispersion on e-commerce markets with low search costs", Niklas Rudholm 2019:1 http://www.konkurrensverket.se/en/Competition/--ovrigt--/market-study-of-digital-platforms/
- "Disruptive digitalisation in markets for legal services. Fast evolution or technological revolution?" 2017:4, Christian Sandström
- http://www.konkurrensverket.se/globalassets/publikationer/uppdragsforskning/forsk_rapp http://www.konkurrensverket.se/globalassets/publikationer/uppdragsforsk_rapp http://www.konkurrensverket.se/globalassets/publikationer/uppdragsforsk_rapp http://www.konkurrensverket.se/globalassets/publikationer/uppdragsforsk_rapp http://www.konkurrensverket.se/globalassets/publikationer/uppdragsforsk_rapp <a href="http://www.konkurrensverket.se/global