

## **CNMC's CONTRIBUTION ON THE "IMPLICATIONS OF DIGITISATION FOR COMPETITION POLICY" FOR THE CONFERENCE ON "SHAPING COMPETITION POLICY IN THE ERA OF DIGITISATION"**

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The European Commission (EC) is hosting a conference on 17 January 2019, with a keynote speech by Nobel laureate Professor Jean Tirole on "Shaping competition policy in the era of digitization" and three panels: i) competition, data, privacy and artificial intelligence, ii) digital platforms' market power and iii) preserving digital innovation through competition policy. This conference is included in a wider stream of work, which is the preparation of a report on the "future challenges of digitisation for competition policy". Against this backdrop, the EC is seeking contributions from stakeholders that are involved in or affected by the digitisation of the economy. These contributions can inform both the conference discussions and the report, being a valuable input for the EC.

Therefore, the Spanish National Commission on Markets and Competition (CNMC) is in a good position to feed this debate, given its interest and expertise in digital markets and competition policy. In particular, the CNMC's work dealing with digital platforms, both from the advocacy (section 2) and the enforcement perspective (section 3), will be highlighted in this contribution.

But before providing the CNMC's view on the topics to be covered in the conference hosted by the EC, it is worthwhile to say a word about what should be understood by digitisation. In the framework of this contribution, digitisation is the application of information and communication technologies to economic activities, resulting not merely in incremental innovations (e.g. increased efficiency) but also in the disruptive transformation of business models (e.g. adoption of platform schemes).

### ***1. Competition, data, privacy and artificial intelligence***

Even if general debates outline the role of "big data", competition policy practitioners must focus on "data" as such, since "big" is not *per se* "bad". **Data** is an economic asset which, like any other, can prompt anticompetitive behaviour when used as an **input** or as an **output**.

Most debates which relate big data to competition policy are referred to the dimension of **data as an input**. Big data is normally defined in terms of 3 Vs: volume, variety and velocity (some authors add value as the 4<sup>th</sup> V, since value is inherently attached to the

previous 3 Vs). And these 3 Vs (which are not necessarily present at the same time or to the same extent) are relevant because they have underlying economic factors.

Volume means that datasets are more valuable, *caeteris paribus*, the bigger they are. In other words, there are economies of scale, which can act as a barrier to entry, since small players and new entrants will find it difficult to attain the needed size to take advantage of cost savings and cover overheads. But at the same time, apart from the abovementioned fact that “big” is not necessarily “bad”, economies of scale (especially when combined with learning and network economies) can help some undertakings to grow and compete with incumbents. And big players in data markets, relying on cost savings driven by economies of scale, can exert competitive pressures on other (traditionally concentrated) markets (such as telecommunications, audiovisual services, banking or retail), especially when combined with scope economies.

Variety actually implies that there are economies of scope. This might favour big players and incumbents, which are already incurring overheads, to expand their dominance to other connected markets. But it could also be the case that this is positive for new competitors, since they can adopt niche and differentiation strategies to gather new sources of data.

Velocity means that there are economies of speed, a potential advantage for first movers, which may lock-in their position especially if there are learning economies (dynamic economies of scale given the combination of volume and velocity, exacerbated by artificial intelligence). But velocity also implies that comparative advantages may swing suddenly, since competition is a blink/click/swipe away.

The combination of the 3 Vs means that there are (direct and chiefly indirect) network effects and hence data markets are multi-sided and managed by platforms. The impact of these on competition is one of the most appealing theoretical and empirical debates in antitrust. On the one hand, new or small competitors face the challenge of overcoming chicken-and-egg and winner-takes-it-all dynamics. On the other hand, feedback loops in multi-sided markets can play in the opposite direction and contribute to quickly erode an apparently strong competitive advantage. The advantage of competition policy is that it does not need to solve the debate: it is flexible enough to discern the circumstances case by case.

So, “big data” might be (or not) a problem in some cases. But “data” as such (without being “big” in terms of volume, variety or velocity) can also raise anticompetitive concerns and create bottlenecks where a firm owns exclusively (e.g. due to regulatory

or technological barriers) a dataset which cannot be easily replicated and which is critical to compete in a given market (e.g. energy, banking or insurance).

And there are also competition policy debates regarding the role of **data as an output**. For consumers, many goods and services are free in the “data economy”, since platforms tend to subsidize services for the more elastic side of the market through zero or even negative prices. But consumers do pay somehow for these services with their data, which is the input fuelling these business models (underlining the double dimension of data, as an input and as an output).

Data and prices are the two intricate dimensions of output provision. If consumers are unwilling to provide personal data, they may move to premium services for which they have to pay a (positive) price with the advantage of higher quality (e.g. privacy). If they prefer not to pay, then they have to give away data and privacy to some extent.

Some argue that dominant platforms can abuse of this trade-off by imposing an excessive loss in privacy, which is a deterioration in quality that would be equivalent to exploitative prices. This is virtually uncharted territory. Exploitative price cases have been rare in antitrust, so proving this abuse with non-price characteristics is a more daunting task. And multi-sided effects may prevent platforms from abusing of their power, given that charging excessive prices or deteriorating quality/privacy may lead some users to abandon the platform, creating negative feedback loops by which other agents (on the same side or on the other side) leave the platform because of direct/indirect network effects. But some authorities and experts are exploring this idea of data as a quality dimension of output which may lead to abuses of dominance.

Another relevant application of data on the output side is price discrimination. By gathering data from users, platforms can try to charge each consumer a price which is equal to his/her willingness to pay. This is in principle harmful for consumers although customization may not only affect prices but also other characteristics of products and services which may lead to wider variety and personalized services, improving welfare (apart from the positive impact on innovation).

These advanced techniques to exploit data are linked, if partially, to the rise of **artificial intelligence**. Algorithms can make use of big data to maximize the producer surplus. Sometimes this is compatible with the optimization of total welfare. For instance, platforms incentives are usually to maximize quantities because, through network effects, this leads to revenue maximization and, given low variable costs, this implies profit maximization. But in other cases the use of artificial intelligence can reduce total

welfare if algorithms reach autonomously a degree of collusion to raise prices and reduce output. The success of this strategy would lastly depend on market contestability but it is evident that artificial intelligence raises new challenges for cartel policing, from detection to liability. Although, at the same time, artificial intelligence and data analytics are a tool for competition authorities to find cartels.

Other new tools for anticompetitive conducts are **data sharing** agreements through innovative technologies, like closed blockchain networks. That is why it is so important that regulators and competition agencies (through remedies, if needed) praise open and decentralized blockchain networks.

## ***2. Digital platforms' market power (leveraging and lock-in concerns)***

Digital platforms have flourished rapidly in the digital world, thereby raising important questions over their competitive performance. They are typically multi-sided platforms, that is to say, they cater for two or more groups of customers whose demand is interdependent in various ways owing to the presence of indirect network externalities. More specifically, digital platforms are, at least, three-sided platforms that connect users, content providers and advertisers, thereby creating value for (at least) these three groups of users. Therefore, like any multi-sided platform, digital platforms constitute an example of a private sector attempt to solve market failures, in this case, a coordination –and transaction cost- problem between these groups of customers. Unfortunately, it is not a perfect solution, and in developing their business activities, multi-sided platforms can create new competitive problems of their own.

To identify the competitive implications of digital platforms, it is essential to first understand the economic rationale driving multi-sided platforms. The theoretical analysis of multi-sided platforms has greatly improved in recent years, but there is still a long way to go. Indeed, since the pioneering attempts a flourishing literature has deepened our knowledge about the economic fundamentals of multi-sided platforms. Moreover, a “multi-sided approach” can enrich the analysis of all kind of markets beyond the digital, cutting-edge sectors, as many traditional economic operators may act in some ways as “platforms” connecting different groups of clients (such as supermarkets or newspapers). However, the fact that these theoretical developments are in their infancy, as they usually deal with a burgeoning industry, helps to explain why this economic analysis remains a fertile ground for an unsettled debate.

Traditional approaches have revealed increasingly inapt for addressing the specificities of multi-sided markets in general and digital platforms in particular, let

alone their dynamic considerations. From the perspective of competition authorities, the state-of-the-art theoretical analysis has helped to refine the identification of different types of multi-sided markets, distinguishing between transaction and non-transaction markets, and between matching or serviced-based vs audience-providing or subsidy-based markets. In this respect, digital platforms are simultaneously transaction, matching platforms (digital contents) and non-transaction, non-matching markets (advertising). As a result, this mixed nature exacerbates the complexities of any competitive assessment.

Given the intricacy of this analysis, it is worth noting that competition authorities' approach to digital platforms must necessarily vary with the type of activity. In this respect, economic assessments of digital platforms should adapt to the type of antitrust or compliance activity, whether it deals with prohibited agreements, abuse of dominant position or merger control. And within each category, given the heterogeneity of economic sectors and the wide range of business strategies, competition authorities are bound to adopt an ad hoc approach, relying on a broad toolkit to assess every case.

Situations in which the interest of digital platforms is not necessarily aligned with those of their users are the manifestation of market power. Digital platforms' market power may induce a strategy of leveraging their power to other markets. One potential case that the CNMC has recently analysed in a market study is Fintech. Indeed, one of the business strategies to enter disruptively in the financial sector via new information and communication technologies (ICT) is being a Techfin. A Techfin is an incumbent of the ICT sector (in a broad sense), such as a digital platform, that, relying on its expertise on the collection and analysis of big data about their clients and users, can deliver financial products and services more efficiently than traditional financial institutions. In this case, well-known digital platforms could extend their market power to the financial sector, as they would have a competitive advantage in exploiting information, the key input of the financial industry. In this new landscape, competition authorities should be attentive to deter and fight anticompetitive and exclusionary practices and the cooperation between competition authorities and sectoral regulators, such as financial and telecommunications regulators, should be enhanced.

Digital platforms can raise relevant lock-in concerns, since the magnitude and mechanisms (feedback loops) of cross-platform network effects may prompt the "tipping" in some markets. The cross-platform or indirect network externalities have an ambiguous effect from the standpoint of a competitive assessment of market power. They can amplify competitive pressure but also raise barriers to entry. On the one

hand, digital platforms may be constrained to raise prices (or even charge a positive price) to users as this strategy would reduce their user base and hence their attractiveness for advertisers, thereby lowering their advertising revenues. On the other hand, cross-platform network externalities may give rise to relevant economies of scale, which may tempt incumbent platforms to exclude potential entrants. Regarding entry barriers, cross-platform network externalities may diminish supply-side substitutability, which coupled with the necessity of a critical mass of clients to ensure business success, may foster the erection of entry barriers to shoo new competing multi-sided platforms. In this regard, it has to be acknowledged that as the user base of a digital platform grows, the quality of the service in the matching business (digital contents) may increase thanks to the availability of more and better-quality data. Nonetheless, lock-in situations should be closely examined by competition authorities in order to identify whether the conducts that originate them are pro-competitive or they can be deemed as exclusionary practices.

Nevertheless, this identification poses a great challenge for competition agencies, since the complex interplay of incentives and effects between the different sides of the platform (and their reflection on price structures) makes it difficult to reach general principles. Therefore, competition analyses should be conducted on a case-by-case basis, subject to a continuous update of competition authorities' toolkit as new research offers new economic insights to assess business strategies and market outcomes.

### ***3. Preserving digital innovation through competition policy***

Dynamic competition plays a pivotal role in ensuring the health of the digital economy. Thus, in order to guarantee this dynamic competition, preserving innovation is vital.

However, if competition policy wants to foster digital innovation, the specific characteristics of the digital environment need to be taken into account. For instance, dynamic competition leads to frequent firm entry and exit in digital markets, which should be considered a sign of vibrancy. Moreover, non-physical capital is particularly important in digital industries, which translates into negligible marginal costs.

As a result, market structures in digital industries will feature a natural tendency towards market power concentration. Nevertheless, this tendency should not shy competition authorities away from preventing anticompetitive practices and mergers that stifle innovation, which would in turn enhance the 'natural' market power of big players.

In the field of **mergers**, there is a growing concern among competition authorities that the acquisition of a new entrant by a leading undertaking, whether in the same relevant market or a related one, may hamper innovation by foreclosing the development of emerging rivals that might ultimately unseat it.<sup>1</sup> Thus, competition authorities are paying more attention to the competitive significance of the acquired firm in such cases, not only at the moment of the transaction, but also in the future. According to this exercise, competition authorities need to look at whether the merger would eliminate the incentives of the merged firms to continue to compete across all relevant variables. However, this prospective analysis should not come at the expense of a solid evidentiary and economic footing of decisions, free of any speculative judgement.

Closely associated with the previous topic is how competition authorities can take into account (and whenever possible quantify) the importance of innovation for competition in a given market and how mergers may affect this innovation, a difficult task that competition authorities worldwide are trying to cope with. The EC's experience in the Dow/DuPont merger case<sup>2</sup> shows that inroads in this task can be made, despite the fact that this concrete case did not deal with digital aspects. The EC cleared this merger subject to DuPont selling its global research and development unit for pesticides, on the grounds that otherwise the deal threatened competition for innovation. In particular, the EC relied on internal documents indicating that the companies planned to reduce their R&D spending after the merger.

As regards Spain's experience with mergers and digital innovation, it is worth noting that the CNMC has analysed several concentrations concerning digital platforms.<sup>3</sup> Despite the fact that these mergers lead to a significant increase in the market share of the notifying party (since they often tied the two biggest platforms in a given market), these were eventually cleared under commitments which guaranteed the ease of entry of new firms, thus preserving the dynamic nature and innovation that epitomises these markets. In particular, the Spanish Competition Authority sought to forbid exclusivity clauses that could lock customers in the leading platform. In other words, the CNMC

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<sup>1</sup> For instance, this has been recently voiced by Bruce Hoffman, Director of the Bureau of Competition at the US Federal Trade Commission (Competition Policy and the Tech Industry – What's at stake?, remarks at the Computer and Communications Industry Association, April 12, 2018, available at [https://www.ftc.gov/system/files/documents/public\\_statements/1375444/ccia\\_speech\\_final\\_april30.pdf](https://www.ftc.gov/system/files/documents/public_statements/1375444/ccia_speech_final_april30.pdf)

<sup>2</sup> M.7932 Dow/DuPont.

<sup>3</sup> These mergers have been C/0573/14 SCHIBSTED/MILANUNCIOS (platforms of classified ads), C/0730/16 JUST EAT/LA NEVERA ROJA (platforms for food delivery) and C/0802/16 DAIMLER/HAILO/MYTAXI/NEGOCIO HAILO (taxi hailing apps).

deemed it essential to preserve the multihoming that is commonly observed in many markets where these platforms operate.

It is also worth mentioning that the CNMC has been able to analyse the above-mentioned mergers, even in a context of low company turnover, thanks to the market share notification threshold stipulated by Spanish law. Despite the drawbacks these market thresholds entail in terms of uncertainty for the notifying parties (which can be mitigated with appropriate communication channels with the competition authority), they have proved to be particularly useful with the advent of the digital economy, since they have allowed the Spanish competition authority (i) to review potentially worrisome mergers that would have escaped scrutiny otherwise, and (ii) even refer to the EC those same potentially worrisome mergers when they had an international outreach but lacked a Community dimension under the EC Merger Regulation.<sup>4</sup>

Regarding **anticompetitive practices**, the CNMC considers crucial, in order to keep digital innovation alive, that significant players do not foreclose access to their data when firms in other related markets need them in order to develop new products (or improve the quality of existing ones). Given that business models evolve quite rapidly in the digital world and embrace new related activities, firms with significant market power may be tempted to carve out new activities for themselves through the denial to provide data that may be necessary in order to develop these new products. As a result, the appraisal of an abusive denial to supply may need an update in order to provide flexible solutions to data access problems that may arise in the digital sphere. In some instances, regulation could provide the most efficient answer to this potential problem, as the new Payment Services Directive (PSD2)<sup>5</sup> shows: this Directive has made mandatory that banks grant access to financial data of their customers when customers give their consent and some security requirements are fulfilled.

Thus, the CNMC deems that interoperability concerns will play an increasing role in order to reduce the risk of abusive conduct and to keep the digital ecosystem vibrant. In this regard, for instance, past antitrust enforcement against Microsoft may provide useful guidance in order to tackle the anticompetitive practices of digital behemoths.

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<sup>4</sup> In particular, the CNMC referred to the EC two mergers which led to phase II investigations: M.7217 FACEBOOK/WHATSAPP and M.8788 APPLE/SHAZAM.

<sup>5</sup> Directive 2015/2366/EU of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC.

Finally, the CNMC considers that competition authorities will need to pursue more often interim measures in the digital sphere, in order to prevent that anticompetitive conduct pays off by altering irreversibly the competitive landscape (given the network effects and data advantages that the infringing firm may obtain from the suspected practice), conducting a similar prospective analysis to that carried out under a merger. For this same reason, structural remedies in digital antitrust cases (going beyond a mere cease and desist order) should also play a more prominent role if they allow the restoration of competition as if the anticompetitive conduct had not happened.

#### **4. Concluding remarks**

The CNMC believes that existing antitrust laws are robust, forward-looking, and demonstrably capable of evolving with the times and thus able to cope with the challenges posed by the digitisation of the economy.

The CNMC's contribution has sought to highlight these challenges. However, as it is common practice in competition law, the final analysis has to be tailored to the particular circumstances of the case being investigated. In this regard, competition enforcement and advocacy will need to pay close attention to the latest academic research casting light on the welfare implications of the new issues mentioned in this contribution.

Finally, it is worth noting one positive practical aspect of the digitisation of the economy for competition authorities, that is, it will allow a more detailed quantitative analysis in its work, given the availability of data. For this reason, competition authorities must equip themselves with the adequate digital expertise and mindset to fully grasp the opportunities and challenges posed by the digitisation of the economy.