THE ITALIAN BIG DATA INQUIRY: A QUESTION OF METHOD

BY RENATO NAZZINI [1]

I. INTRODUCTION

On May 30, 2017, the Italian Competition Authority ("ICA"), together with the Telecoms Authority ("AGCOM") and the Data Protection Authority ("DPR") (together, the "Authorities") launched an inquiry into "big data." This is the first time an inquiry has been carried out by the three Authorities and, while this clearly presents some challenges, it is also a significant opportunity to bring clarity in this field.

In 2016, the French Competition Authority and the German Competition Authority issued a joint paper on "Competition Law and Data." This was a useful attempt at understanding the problem but was rather abstract and focused on perceived problems associated with data without much factual evidence. A much more significant contribution to the debate was the 2015 UK Competition and Markets Authority's ("CMA") report on its findings in a call for information on the commercial use of consumer data. This was a much broader fact-finding exercise in which the CMA concluded that the commercial use of consumer data has significant benefits to consumers and businesses and that competition concerns would have to be assessed on a case-by-case basis using existing enforcement tools. The CMA attempted a general categorization of the circumstances in which competition concerns may be more likely to arise. It also identified areas of concern beyond competition law, particularly around consumers' lack of awareness and understanding of how and why their data is collected and concerns about sharing data. In addition to these, and several other initiatives by competition authorities,[2] there is now a vast literature on big data even if some of it is superficial and often points to problems or issues without a sound evidential basis or, conversely, quite apodictically states that there are no competition concerns associated with the commercial use of consumer data.

The Authorities have a real opportunity to do something different – to understand how data is actually used in industry (across sectors and by companies large and small) and provide a useful framework for the understanding of the benefits of data usage as well as the potential problems that may arise. The report to be issued by the Authorities has the potential to become a reference point and a source of balanced thought leadership not only in the European Union but also globally.

1 Renato Nazzini, Professor of Law, King's College London.

2 For example, the Report of the Study Group on Data and Competition Policy by the Japan Fair Trade Commission of June 6, 2017.

In order to achieve such an ambitious objective, I would suggest that the Authorities should seek to clarify three methodological issues which, among others, deserve particular attention: the benefits of data usage, data usage and multi-sided markets and data usage and algorithms. In this short article, after setting out the background of the inquiry in Italy, I discuss these issues in turn.

II. BACKGROUND OF THE ITALIAN INQUIRY

There is little case law and enforcement experience in Italy on commercial data usage and competition or other regulatory concerns. The authority that appears to have done most work in this area is AGCOM. It carried out a sector inquiry on internet services and online advertising, which was concluded in 2014.[3] The inquiry also dealt with big data, highlighting that the economic power of internet firms is linked to the quantity of data and information that they have rather than the number of users[4] and that data are "strategic assets," "barriers to entry," and "competitive levers that are difficult to replicate."[5] Online advertising is more and more dependent on user profiling. Competition on these markets will be more and more conditioned by the availability of data.[6]

AGCOM is also conducting an inquiry on the development of online platforms and electronic communication services, launched in 2015.[7] In 2016, AGCOM published a report on consumer communication services or social communication apps: In that report, AGCOM acknowledges that regulation may slow down innovation in this sector but then goes on to recommend that consideration should be given to broadening the definition of electronic communication services ("ECS") so as to include some or all social communication apps within the regulatory framework applicable to ECS and level the playing field among market players.[8] The remainder of the inquiry is ongoing.

There is a third AGCOM inquiry on digital platforms and media, which was launched in 2016 and is ongoing.[9] From the limited published material, it appears that this inquiry includes consideration of the role of data in the economic relationships among publishers, internet platforms, and end-users. AGCOM might be taking the view that data is a factor relevant to market power which can affect media pluralism. AGCOM also appears to be studying the app market and the correlation between the number of privacy permissions with user demand for apps. There is some indication that AGCOM believes there may be a market failure because users are not aware, or fully aware, that they are providing valuable data to platforms and developers and that there is a market for such data.

The DPR has recently highlighted potential problems associated with big data. In a number of speeches and interviews, the president of the authority stated, for example, that there is lack of transparency on the collection and use of big data, that there is asymmetry between the user and those who exploit the data, that there is a risk of discrimination through the use of big data and that a small number of firms have enormous power through the availability of big data.[10] However, it does not appear that the DPR has ever adopted any substantial decision or issued any substantial opinion on big data. The inquiry may well be the first opportunity for the DPR to come to an informed view on the issues that it has previously raised.

The ICA has only marginally dealt with the issue of big data in its cases. In the *WhatsApp* case, for example, the ICA decided that WhatsApp had breached consumer protection legislation by inducing users to consent to the sharing of their data

3 Decision no. 19/14/CONS, Annex A.

4 Id. para 206.

5 Id. para 632.

6 Id. para 633.

7 Decision no. 357/15/CONS.

8 Decision no. 165/16/CONS, Annex A.

9 It was launched by Decision no. 309/16/CONS.

10 See, e.g. speech by the president of the DPR Antonello Soro on January 30, 2017.

with Facebook. The ICA took the view that data are a form of economic consideration, paid by users, for services such as those provided by WhatsApp.[11] Over the past few years, the ICA has organized events on data and digital platforms but there does not appear to be a clear policy steer as yet on the approach that the ICA is likely to take.

III. THE BENEFITS OF DATA USAGE

It is by now well understood that data mining and analytics are unlocking enormous growth potential for the economy to the benefit of consumers. The analysis of these innovation opportunities and consumer benefits must logically precede any assessment of potential harms. To do otherwise would be a bit like studying the monopoly problem in railways before having understood how the steam engine worked and what its pro-competitive uses were. Much of the literature on big data, especially in the antitrust field, and certain recent political rhetoric does suffer from this methodological error.

Thus, the inquiry should focus on the benefits that data usage brings – in terms of competitiveness, profitability, promptness and increase in decision making effectiveness, as well as on the opportunities for growth that are still unexploited. The value of data usage for business depends on the benefits carried both internally, in terms – for instance – of process optimization, and externally, by improving business' relationships, ultimately to the benefit of consumers.

This approach is particularly important in Italy, a country with great industrial potential and entrepreneurship but still struggling to achieve reasonable, let alone optimal, levels of productivity and innovation. Data usage and analytics represent a significant opportunity for Italian companies and it is important that the regulatory environment does not become hostile to data mining, analytics and usage, thus stifling innovation and productivity growth.

IV. DATA USAGE BEYOND MULTI-SIDED MARKETS

Some of the literature, especially in the field of antitrust economics and policy, focuses on big data in multi-sided markets, or, even more narrowly, on multi-sided online platforms. This approach could, of course, simply reflect the focus that particular authors have chosen to give their research but is not, in my view, well-founded in policy or in law. Therefore, it would be a mistake to limit a study of data usage to industries involving multi-sided markets.

The only conceivable reason why a study of big data should be limited to multi-sided markets could be that multi-sided markets exhibit indirect network effects and, somehow – the argument would go – conceivable problems relating to big data can only ever arise when there are indirect network effects. I do not consider this argument convincing.

First of all, experience has shown that competition issues related to big data have not been limited to industries involving multi-sided markets or indirect network effects.

For example, in *Thomson Corporation/Reuters Group*, the European Commission ("Commission") accepted the divestiture of financial databases and other assets to resolve its concern about the combination of the two parties' financial data. According to the Commission, the merger was, among other things, likely to have a negative impact on providers of desktop products that obtained and integrated the content provided by Thomson and Reuters into their own competing offerings to customers. The merged entity would have had the ability and the incentive to foreclose such competitors, thereby adversely affecting competition. In order to address these concerns, the merging parties committed to divesting copies of their databases to a third party so that a credible competitive force would remain in the marketplace post-merger. Nothing in the decision had anything to do with multi-sided markets or direct or indirect network effects.

This approach is confirmed by the practice of agencies around the world. The U.S. Federal Trade Commission ("FTC") has required remedies in numerous "big data mergers" that did not involve concerns about multi-sided markets or network

11 PS10601 - *WhatsApp - Trasferimento di dati a Facebook*, decision no. 26597 of May 11, 2017, paras 54-56.

effects. For example, in the *CoreLogic/DataQuick*[12] transaction, which like the *Thomson/Reuters* case discussed above, involved companies that collected and sold databases to outside parties, the FTC required licensing of housing data to a new entrant, even though there was no allegation the service at issue involves network effects.

Secondly, many industries that use data extensively do not involve multi-sided markets or network effects:

- Artificial intelligence ("AI") - AI often uses extensive data to look for patterns or other insights. There is a wide range of applications for AI, some of which involve network effects (e.g. enhancing functionality of social networks), some of which do not (e.g. identifying fraudulent transactions);

- Retail - Retail industries use data extensively to help with promotions, product selection and pricing. Retailers, including online retailers, generally do not operate in a multi-sided market and usually are not characterized by network effects. An exception would apply if the retailer acted as a platform for other merchants, in which case there would be indirect network effects. But there is no logical reason, and no evidence, that big data used by a non-platform retailer can never be a problem and should not be considered by competition authorities whereas big data used by retail platforms somehow deserve a different treatment;

- Insurance - Insurance companies have used big data extensively for decades to assess risk, detect fraud, enhance marketing and offer personalized product recommendations. Insurance is not a multi-sided market and is not characterized by network effects;

- Financial services - The financial services industry makes significant use of big data to enhance fraud detection, recognize abnormal trading patterns, develop personalized marketing and enhance risk management. The extent of network effects varies significantly within the financial services industry, depending on the particular service (e.g. more significant network effects for charge cards but limited, or no, effects for brokerage services or loans).

Thirdly, network effects in general, and indirect network effects in particular, are by no means synonymous with competition concerns. They are a normal market phenomenon observable in many sectors which, as any other market characteristic, should be taken into consideration by firms when setting their business strategy. This has been recognized by the Commission. Thus, in *Facebook/Whatsapp*, the Commission stated that:

> [t]he existence of network effects as such does not a priori indicate a competition problem in the market affected by a merger. Such effects may however raise competition concerns in particular if they allow the merged entity to foreclose competitors and make more difficult for competing providers to expand their customer base. Network effects have to be assessed on a case-by-case basis.[13]

In addition, the Commission considered that network effects are not problematic in fast moving sectors, where barriers to entry are low, consumers use multi-home and the parties do not control any essential element of the network.

V. BIG DATA AND ALGORITHMS

A final methodological question is whether an inquiry into the commercial use of consumer data should also consider the use of algorithms and the competitive concerns arising therefrom. While use of data and use of algorithms are sometimes discussed together, in my view an inquiry into the use of big data should keep the competition concerns potentially arising from data usage distinct from issues relating to the use of algorithms.

In the debate to date, algorithms and big data have been associated with distinct competition concerns. Big data competition concerns typically relate to the possibility that data possessed by incumbents may give them a competitive

12 https://www.ftc.gov/enforcement/cases-proceedings/131-0199/corelogic-inc-matter.

13 M.7217 – *Facebook/Whatsapp*, OJ C417 of 21.11.2014, p. 4, para 130.

advantage against new entrants. In contrast, competition concerns related to algorithms typically relate to whether their use may enhance the potential for coordination on pricing or, in exceptional circumstances, whether a dominant firm may use algorithms to engage in abusive conduct, for example to exclude rivals or price discriminate so that downstream undertakings are placed at a competitive disadvantage. In both cases, the problems associated with big data and those associated with algorithms are conceptually different (although they may be linked, of course).

Data are, essentially, information and, often, an input into a process. Not having access to certain data may act as a barrier to entry or, even more exceptionally, but, essentially, as a more intense manifestation of the same problem, access to certain data may be an "essential facility." But, generally speaking, information as such is not market conduct but an enabler of conduct. A study of big data should focus on whether data truly is "essential" (taking into account that the commercial value derived from data may be more due to skill and expertise than the data itself) and how firms' conduct may be influenced by the possession of data or lack thereof. It would be particularly interesting to test the hypothesis that a certain amount of data is necessary or essential to enter certain markets or to compete effectively in them, given that often firms enter markets without having first obtained any significant amount of data and then, when they succeed thanks to their innovative products or business model, acquire data that allows them to grow further by improving their commercial offer or reducing their costs, which is a fairly normal occurrence in many markets. Algorithms, on the other hand, are a set of rules. They are relevant only insofar as they are reflected in market conduct *vis-à-vis* other market players or consumers. Their analysis is no different to the analysis of any form of market conduct that is relevant for antitrust purposes: whether it be collusive or unilateral. Furthermore , many algorithms can be used to make business decisions without any historical data. An algorithm could determine pricing based on the seller's costs, inventory levels and competitors' current pricing. Uber's surge pricing, for example, is based on real-time supply and demand.[14]

In policy terms, issues relating to data and algorithms have often been kept separate. For example, the OECD issued separate reports on big data[15] and algorithms.[16] The EU Commissioner for competition Margrethe Vestager has spoken separately about big data[17] and algorithms.[18] Acting FTC Chair Maureen K. Ohlhausen has commented separately about big data[19] and algorithms.[20]

This approach appears to be consistent with the (so far still limited) experience in merger control, where the Commission has analyzed potential competition concerns relating to big data independently of any analysis or consideration of algorithms.

For example, in *Facebook/WhatsApp*, the merged entity could collect data from WhatsApp in order to improve targeting of advertising on Facebook. However, incentives were mixed (WhatsApp users could have switched to other consumer communications apps) and the amount of data available to competitors remained considerable. The analysis focuses on data as such without any consideration of their potential use through algorithms.[21]

In *Publicis/Omnicom*, the Commission concluded that the combination of the merging parties' data would not provide them with a unique, non-replicable advantage, because competitors would be able to obtain large amounts of data or data analytics services in other ways, for instance, from data brokers or data analytics services providers, or by collecting and analyzing data themselves. Again, there is no analysis of algorithms.[22]

14 https://www.uber.com/info/how-surge-works/.

15 https://one.oecd.org/document/DAF/COMP(2016)14/en/pdf.

16 https://one.oecd.org/document/DAF/COMP(2017)4/en/pdf.

17 https://ec.europa.eu/commission/commissioners/2014-2019/vestager/announcements/big-data-and-competition_en.

18 https://ec.europa.eu/commission/commissioners/2014-2019/vestager/announcements/competition-big-data-world_en.

19 https://www.ftc.gov/system/files/documents/public_statements/686541/ohlhausenokuliaralj.pdf.

20 https://www.ftc.gov/system/files/documents/public_statements/1220893/ohlhausen_-_concurrences_5-23-17.pdf.

21 M.7217 – *Facebook/Whatsapp*, OJ C417 of 21.11.2014, p. 4 – paras 164 – 190.

22 M.7023 – *Publicis/Omnicom*, OJ C84 of 22.3.2014, p. 1 -para 617-630.

In *Telefónica/Vodafone/EverythingEverywhere/JV*, the Commission analyzed whether the collection of personal data through mobile wallet services offered by the three leading wireless operators in the UK would have raised competition concerns. During the review, concerns were raised that the JV would come to possess essential personal data generated by users of the mobile payment services and that this could be used to exclude rivals. The Commission assessed whether the JV would foreclose competing providers of data analytics or advertising services (by combining personal information, location data, response data, social behavior data and browsing data) and by creating a unique database that would become an essential input for targeted mobile advertising that no competing provider of mobile data analytics services or advertising customer would be able to replicate. The Commission concluded that the JV would indeed be able to collect a broad range of consumer information, which would be very valuable for its (mobile) data analytics services and advertising services. However, many other strong and established players are also able to offer comparable solutions to the JV. Therefore, other providers of advertising services competing with the JV would not be foreclosed from an essential input and the creation of the JV would not have a negative effect on competition on the market for (mobile) data analytics, as well as for market research services or marketing information services. The competition analysis was carried out without any reference to algorithms.[23]

V. CONCLUSION

The Italian big data inquiry has the potential to clarify a number of complex issues relating to the commercial use of data and provide an analytical framework for identifying potential concerns. In order to achieve this objective, it is suggested that three methodological issues are, among others, of fundamental importance:

- The analysis should start from a thorough understanding of how data are collected and used across sectors and the benefits of data usage. It is not possible to identify and adequately assess potential competition concerns if the benefits of data usage for businesses and consumers, and, ultimately, for the economy as a whole, are not properly understood first.

- The analysis of data usage should not be limited to multi-sided markets or online platforms. While data usage is important in these settings, it is equally important in markets that are not multi-sided or in "traditional" markets. Healthcare, insurance and retailing are obvious examples. Limiting the analysis to multi-sided markets or online platforms only would capture only part of the picture. Even if one were to accept, as a hypothesis to be tested, that concerns associated with data usage are more acute or more likely in multi-sided markets or online platforms, surely the only robust way of testing this hypothesis is to compare such sectors with one-sided or "traditional" markets.

- An inquiry into the commercial use of consumer data should keep the competition concerns potentially arising from data usage distinct from issues relating to the use of algorithms. Big data competition concerns typically relate to the possibility that data possessed by incumbents may give them a competitive advantage against new entrants. In contrast, competition concerns related to algorithms typically relate to whether their use may enhance the potential for coordination on pricing or, in exceptional circumstances, whether a dominant firm may use algorithms to engage in abusive conduct, for example to exclude rivals or price discriminate so that downstream undertakings are placed at a competitive disadvantage. In both cases, the problems associated with big data and those associated with algorithms are conceptually different.

23 M.6314 – *Telefónica UK/Vodafone UK/Everything Everywhere/JV*, OJ C66 of 7.3.2013, p. 5–23, para 538-558.