UNRAVELING ARIADNE'S THREAD: ANTITRUST AND THE BIG DATA REVOLUTION IN HEALTHCARE

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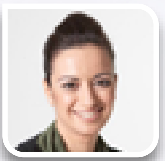

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UNRAVELING ARIADNE'S THREAD: ANTITRUST AND THE BIG DATA REVOLUTION IN HEALTHCARE

By Theodosia Stavroulaki

Healthcare markets are forming in Europe. Indeed, some European countries, such as the Netherlands, have adopted the choice and competition model for healthcare delivery. The goal of competition among providers, however, may in certain cases conflict with essential goals of EU health systems including access and health equity. Competition authorities will be unable to address the main competition concerns that may emerge in light of these conflicts if they do not first address the core question of how to define and assess healthcare quality. There are three different models under which competition authorities around the globe may define and assess quality: *The Market Approach*, the *Holistic Approach*, and the *Regulatory Approach*. Competition authorities may benefit especially from the application of the *Regulatory Approach* and the *Holistic Approach* when they examine the newly emerged transactions and the new competition problems that they have to address in the age of big data revolution in healthcare. Taking as an example the Google/Fitbit deal, this piece takes the stance that if the Commission had examined this deal under the *Regulatory* and/or the *Holistic Approach* it might have been better able to detect the less visible harms such data-driven deals may cause to vulnerable populations and high-risk consumers. Hence, their analysis would be more in line with the vital goals and values of EU health systems, including access to care and health equity.

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I. INTRODUCTION

Healthcare markets are forming in Europe. Indeed, some European countries, such as the Netherlands, have adopted the choice and competition model for healthcare delivery. This choice and competition model is mainly based on the quasi-market system where patients can exercise choice and the money follows the patients.[2] This model creates incentives for patients, physicians as well as health insurers to choose providers based on quality information that is publicly available. The choice and competition model is one of the four core models for providing public services. The other available models are models that (a) rely on trust, when professionals and others who are involved in public service delivery are simply trusted to provide high-quality services, with no government intervention (b) use command and control or else hierarchy, where either the state or a state agency is involved in the provision of public services through managerial hierarchy in which senior officers monitor their subordinates with regards to public service delivery; and (c) rely upon voice, where users wish to receive a high-quality service, by sharing their views with providers.[3]

Why do health systems in Europe move towards market- driven healthcare delivery? EU health systems strive to meet various goals, among which the following are considered essential: (a) equitable access to good care, (b) cost-effectiveness in service organization and delivery, and (c) accountability and transparency. These systems, however, also share common concerns, notably increasing costs that are due mainly to three factors: rising life spans, increasing expectations and technological developments.[4] Undoubtedly, while these factors significantly contribute to the quality of life of EU citizens and lead to health improvements, they also constrain national health budgets. In this light, some countries in Europe have started to introduce the choice and competition model in healthcare to cut unnecessary costs.

The role of competition in healthcare has sparked heated debate. Critiques of the choice and competition model in healthcare point to "the lack of genuine competition in the real world," the challenge of providing trustworthy information to patients to help them choose providers, and the fact that patients do not necessarily have the ability and the knowledge to make good and rational choices that will improve their welfare. Critiques also warn that the risk of cream skimming is a serious one and that introducing the choice and competition model as a means to improve efficiency may inevitably harm equity. In brief, the argument goes, the introduction of the choice and competition model for delivering public services may undermine a health system's quality, defined from a health policy perspective as a multidimensional concept encompassing, among others, the notions of safety, access, equity, continuity, and effectiveness.[5] Is this risk real?

The answer to this question is a positive one. For instance, when competition among hospitals is introduced, governments often publish some quality indicators that offer patients, physicians and health insurers more detailed information on hospitals' performance and the quality of the services they provide. In the U.S., for instance, the Agency for Healthcare Research and Quality publishes the Inpatient Quality Indicators that provide important information on the quality of care inside hospitals, including inpatient mortality rates for surgical procedures. However, quality indicators evaluating hospitals' performance based on health outcomes, such as mortality rates, may in certain cases be misleading and thus fail to adequately inform the public on the true quality of the services hospitals offer to patients. This is because differences in outcome measures, such as mortality rates, may not necessarily relate to differences in quality of care among providers. Indeed, in certain cases, differences in outcome measures may relate to differences in the type of patients that different providers treat.

For instance, due to the social determinants of health, hospitals that operate in disadvantaged areas may treat more high -risk patients. People living in rural areas are more likely to experience poverty or suffer from chronic conditions. For this reason, hospitals operating in rural areas may have higher mortality rates than hospitals operating in urban areas not because they provide inferior care but because of the lower socio- economic status of the patients they treat. Because they may have higher mortality rates, hospitals operating in rural areas may experience lower patient volumes. Hence, they may be more financially vulnerable and face an increased risk of closure than hospitals in metropolitan areas. Should competition authorities allow a hospital merger, although it may further increase market power in the relevant market on the basis that it may ensure the financial stability of the merging parties in rural and disadvantaged areas and therefore guarantee access to health services for all citizens irrespective of their socioeconomic status?

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2 S. Nuti, F. Vola, A. Bonini & M. Vainieri, "Making governance work in the health care sector: evidence from a 'natural experiment' in Italy" (2016) 11, *Health Economics, Policy and Law*, 18.

3 G. Le Grand, *The Other Invisible hand, Delivering Public Services through Choice and Competition* (Princeton University Press, 2007), 14.

4 W. Sauter, "The Impact of EU Competition Law on National Healthcare Systems" (2013) 38(4) *European Law Review* 457, 458.

5 Theodosia Stavroulaki, Healthcare, Quality Concerns and Competition law: A systematic Approach (Hart Publishing, 2022), IX.

Competition authorities around the globe would be unable to adequately examine this and analogous competition concerns that may arise due to conflicts between the goal of competition and the pursuit of health equity if they did not address a fundamental question first: how should we define and take into account the notion of healthcare quality when we apply antitrust in healthcare?[6]

This question, albeit crucial, is far from easy to address mainly because the notion of quality from an antitrust perspective and the notion of quality from a health policy perspective do not necessarily align.

While from an antitrust perspective quality is mainly defined as choice, variety, and innovation, from a health policy perspective quality is a multidimensional concept that encompasses also the notions of safety, access, equity, continuity, efficiency and acceptability or else the notion of trust in the doctor-patient relationship.

More than that, the antitrust scholarship claims that the pursuit of public policy goals and objectives, such as equity, is not and should not become part of the antitrust agenda. Should competition authorities transform the notion of quality when they apply competition law in healthcare so that their competition assessment is in line with the social objectives their health systems strive to attain, such as equity and access?

By examining the notion of quality from antitrust, health policy and medicine perspectives, and by analyzing and assessing numerous U.S., UK, and EU antitrust and merger cases mainly in hospital and medical markets, my research identifies the three different models and approaches under which antitrust enforcers around the globe can actually assess how a specific merger or agreement among providers may impact on healthcare quality. These are: (a) the U.S. "Market Approach" under which competition authorities may define quality in healthcare as they define it also in other sectors, namely as choice, variety, and innovation; (b) the "Holistic Approach" under which competition authorities may extend the notion of quality and consumer welfare in healthcare so that it encompasses not only the notions of choice, innovation and variety, but also the wider objectives and values health systems, generally pursue, pursue, such as access, equity and safety; and (c) the "Regulatory Approach" under which competition authorities may cooperate with health authorities when they assess the impact of a specific transaction (merger or agreement) on healthcare quality so that their competition assessment is in line with the social objectives their health systems try to attain.[7]

Competition authorities around the globe may benefit from the application of these models especially in light of the complex transactions that they increasingly examine in the age of big data revolution in healthcare. How? By focusing on the Google/Fitbit merger case, the section that follows delves into this question.

II. ANTITRUST IN THE AGE OF BIG DATA REVOLUTION IN HEALTHCARE: THE GOOGLE/FITBIT MERGER CASE

In December 2020, the European Commission approved the acquisition of Google by Fitbit.[8] The approval, however, was conditional on full compliance with certain commitments offered by Google. How can this merger harm competition and consumers?[9]

After a thorough examination of the proposed deal, the Commission raised the concern that the transaction at stake may restrict competition in several markets. In particular, the Commission explained that the Google/Fitbit deal had the potential of eliminating competition in: a) advertising; b) digital healthcare; and c) creation of wrist-worn wearable devices.[10] How?

A merger between Google and Fitbit would enable Google to gain access to numerous users' health and fitness data; it would also allow the tech giant to acquire access to technology necessary for the development of a data-base similar to that of Fitbit. Because the deal would allow Google to expand the already vast amount of data that can be used for the creation of personalized ads, Google's rivals would be unable to compete in the online search advertising market, online display advertising market, and the entire "ad tech" ecosystem. Ultimately, the

6 *Ibid.* X.

7 *Ibid.* XI.

8 European Commission, "Mergers: Commission Clears Acquisition of Fitbit by Google, Subject , to Conditions" (Press release, December 17, 2020), available at https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2484.

9 For a thorough discussion on the application of antitrust in the age of big data revolution in healthcare see: Theodosia Stavroulaki, *supra* n. 5, 245.

10 *Ibid.*

Commission explained, the envisaged transaction could harm advertisers who would run the risk of facing increased prices, reduced choice, and less innovation.[11]

The deal, the Commission also alleged, could also reduce competition in the digital healthcare space. Currently, several players have access to fitness, and health data provided by Fitbit through a web application programming interface ("Web API"), in order to offer services to Fitbit users and use their data in return. The Commission was concerned that following the transaction, Google would be encouraged to reduce competitors' access to the Fitbit Web API. If Google implemented this strategy, the Commission also said, start-ups' ability to compete in the emerging European digital healthcare space would be undermined.[12]

Finally, the Commission also raised the concern that following the transaction, Google may have strong incentives to put rival producers of wrist-worn wearable devices at a competitive disadvantage. Google, the Commission contended, could successfully attain this goal by undermining their interoperability with Android smartphones. But are these the only ways through which the transaction may hurt competition and consumers?

As several antitrust experts indicated, the answer to this question should be a negative one. Indeed, the proposed deal may also harm consumers and competition across markets, most crucially the health insurance/healthcare markets.[13] By acquiring control of Fitbit's sensitive and individualized health data and by combining this data with data from its current services in the online search and advertising markets, Google would be able to use its advanced health analytics to classify consumers into broader health-related categories: the ones who are expected to remain fit and healthy and the ones who might soon get sick; those who religiously adhere to a healthy diet and those who cannot resist junk food and sugar; the consumers that go for a run when they are stressed and the ones that drink more beers when they feel overwhelmed.[14] Moreover, Google could also use its sophisticated health analytics to predict people's future health status. For instance, Google would be able to identify "the diabetic-concerned," "the depression-concerned," and "cancer-concerned" consumer groups.

Google could make enormous profits out of these predictions. For instance, to the extent Google offers services in the health insurance services market, Google could use these analytics to identify the types of high- risk consumers that it is likely to attract. Then, it could design its health plans to be attractive to "profitable" consumers and less attractive to the high-risk "unprofitable" ones. For instance, if Google can predict that it is likely to increasingly attract the "diabetic-concerned" consumer groups, it could avoid cooperating with specific healthcare providers that have a strong reputation for treating patients with diabetes. At the same time, Google would try to attract the low-risk, healthier consumers by offering them a health insurance product at more advantageous terms.

But even if Google chooses not to enter the health insurance services market, it may still make enormous profits by taking advantage of its advanced health analytics. Specifically, it could sell these analytics to health insurers or to providers. By using these analytics in a discriminatory fashion, they could restrict access to healthcare and health insurance services to high-risk consumers that need access to their services. Such discriminatory strategies may cause harm not only to high-risk consumers but the society as a whole. This is because to the extent high-risk consumers face barriers to accessing health insurance, low-risk consumers also suffer. First, because such discriminatory policies may further increase health disparities and undermine society's social fabric. Second, because of the negative externalities pervading healthcare markets. As COVID-19 clearly demonstrated, if citizens lack access to adequate health insurance and healthcare services, a pandemic cannot be combatted and all people – rich and poor, healthy and sick – suffer.

Did the Commission consider these risks? The answer should be "not necessarily." Although antitrust experts expressed the worry that by further strengthening its ability to gain access to consumers' health data, and by undermining its competitors' ability to do so, Google may be able to increase its market power across markets, such as the health insurance or even the housing market, the Commission did not examine these less visible harms. Raising the concern that privacy concerns do not necessarily amount to competition concerns, as well as that any harms to privacy emerging from the deal would be addressed by the fact that Google is bound by the principles of the General Data Protection Regulation ("GDPR"), which provides that "the processing of personal data concerning health shall be prohibited, unless the person has given explicit consent," the Commission refused to allow any privacy concerns to enter the equation. By not integrating, however, such concerns into

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11 *Ibid.*

12 *Ibid.*

13 See for instance M Bourreau, et al, "Google/Fitbit Will Monetise Health Data and Harm Consumers" (Centre for Economic Policy Research, September 2020) 8, available at https://cepr.org/voxeu/columns/googlefitbit-will-monetise-health-data-and-harm-consumers.

14 T. Stavroulaki, "Mergers that Harm Our Health" 19 (2022) *Berkeley Business Law Journal*, 89.

its merger analysis, and by not examining how Google's access to health data may harm competition and consumers in less visible ways, the Commission omitted to consider how the proposed deal may undermine the quality of the health insurance services and contribute to the existing health disparities in Europe. This however may not necessarily be the case if the Commission had grasped the opportunity to assess this deal in a manner analogous to the Holistic and the *Regulatory* Approach as described in the section above.

For instance, in the context of "the Regulatory Approach" the Commission could examine this merger in cooperation with the European Data Protection Board, the body that advises the European Commission on the application of EU data protection law. Although there is not regulatory framework obliging the Commission to examine mergers in cooperation with the Board, there may be several reasons why this may be a good idea, especially in the case of data- driven mergers in the healthcare field. First, because of the special value European health systems attach to health and healthcare. Second, because to the extent big tech players continuously increase their access to consumers' health data, they can exercise their market power across markets, including health insurance, housing, and labor markets. Not surprisingly, the European Data Protection Board had issued a statement before the Commission's final word, noting that "the possible further combination and accumulation of sensitive personal data regarding people in Europe by a major tech company could entail a high level of risk to the fundamental rights to privacy and to the protection of personal data." [15] Had the Commission cooperated with the European Data Protection Board and received its advisory opinion in the context of its merger assessment, the Commission may not have applied merger law in a way that disregarded the merger's impact on access to health insurance and healthcare services. By doing so, however, it applied a merger assessment that risks undermining essential EU health policies and objectives.

In the context of the "Holistic Approach," the Commission may also successfully consider the merger's impact on access to health insurance and healthcare services. This is because if the Commission examined this merger in a manner similar to the *Holistic Approach*, the Commission would also assess how the proposed deal may affect the health systems' main objectives. Specifically, the Commission would examine how, by gaining increasing access to consumers' health data, core facets of the healthcare quality notion and core objectives of EU health systems may be undermined. Arguably, the goals of access and equity are vital goals of EU health systems. The reduction of health inequities and inequalities are also essential goals of EU Member States. Hence, by applying the *Holistic Approach*, the Commission may further expand its analysis, assess the merger's impact across markets, including healthcare and health insurance services markets and apply merger law in a way that conforms with Europe's health values.

Surely, the Commission could also combine the Regulatory and the Holistic Approach. Indeed, it could (a) explore in cooperation with the European Data Protection Board how the proposed deal may harm people's privacy and (b) also explore how potential harms to privacy may also harm people's access to health- care and health insurance services and contribute to the rising health inequalities.

Some could argue in accordance with the Commission's point of view that to the extent Google cannot use people's health data without their explicit consent on the basis of the GDPR, the above risks are not real. However, this point of view underestimates that if it is more profitable for any giant tech player to breach the GDPR and pay a fine than obey the GDPR and not use people's health data, the tech player will breach the GDPR. Google and any big tech player may take this risk, especially knowing that a violation of the GDPR may not necessarily be detected.

The *Facebook/WhatsApp* merger story illustrates this risk. That merger ended with an unconditional clearance after a Phase 1 review on the basis that no traditional competition concerns were raised. Facebook at the time also gave the empty promise not to exploit WhatsApp data following the proposed deal. Although Facebook was fined €110 million for having misled the European Commission, it still got to combine and exploit the data.[16] Crucially, Facebook successfully prevented another rival social network platform from entering the market and threatening its dominance.

III. CONCLUSION

More and more European countries have introduced competition in their healthcare sectors to cut costs and improve quality. The goal of competition in healthcare, however, may in certain cases conflict with essential goals of EU health systems including access to care and health equity. Such conflicts may create new competition concerns that competition authorities around the globe may not be well equipped to address unless

15 C. Caffarra & T. Valletti, "Google Gobbling Fitbit is a Major Privacy Risk, Warns EU Data Protection Advisor" (*Techcrunch*, February 20, 2020), available at: https://techcrunch.com/2020/02/20/google-gobbling-fitbit-is-a-major-privacy-risk-warns-eu-data-protection-advisor/?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAANv4xTcu1iznlLQ7QkgKUVO7TgqcnnBxfhFzqlmJ2978xmJZAgJSq-j4coE-gvBuQ5UG68olwRJJdFB3ElOawvwZESO5vyVlehnhyRljeqieGyjyWDoriKfTRvfD_x5uOQk89-KByYh2b18TTcPD16SO2JVmYFrulhYlQ_lK1aLL.

16 *Ibid.*

they ask the question of how to define healthcare quality. This article indicates that quality of care can be measured and assessed under three different models: the *Market Approach*, the *Holistic Approach*, and the *Regulatory Approach*. Competition authorities may benefit especially from the application of the *Regulatory Approach* and *the Holistic Approach* when they examine the complex transactions that increasingly emerge in the age of big data revolution in healthcare. Taking as an example the Google/Fitbit deal, this piece alleged that if the Commission had examined this deal under the *Regulatory* and the *Holistic Approach* it might have been better able to detect the less visible harms such data-driven deals may cause to vulnerable populations and high-risk consumers.

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