

ECONOMICS COMMITTEE NEWSLETTER

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Welcome

It is my pleasure to welcome you to the Winter 2021 edition of the Economics Committee Newsletter. The newsletter aims to provide a forum where members of the Antitrust Law Section and the Section's Economics Committee can share their views on topics related to the relationship of antitrust law and economics worldwide.

In this edition of the newsletter, Luca Lin shares his latest contribution to the field of common ownership and antitrust, investigating empirically whether diversified institutional shareholders have stood up against M&A with bad outcomes. We also have Daniela Cravo who approaches the prominent issue of data portability, its impacts on competition, and the developments in regulation in the field around the world. Additionally, Stuart Gurra and Stephanie Mirrow dive deep into *Epic v. Apple* to bring us detailed critical thinking into how survey data were applied in this case. Finally, Sandhya Teneja recaps the great Two-Sided Platform fundamentals webinar the Economics Committee held on November 12th.

The newsletter is intended to provoke discussion. As a result, the opinions expressed are only those of the authors and not necessarily those of the American Bar Association, the Antitrust Law Section, the Economics Committee or its subcommittees, or any other individuals or entities.

I hope that you enjoy the newsletter! Kind Regards,

Jéssica Dutra (Secretariat Economists), Editor

To contribute an article for a future newsletter, or if you have corrections or comments, please contact Jéssica Dutra at dutra.j@secretariat-intl.com

Do Diversified Institutional Shareholders Have the Incentive to Stand Up Against Bad Acquisitions?

Luca X. Lin*

1. Introduction

In the United States, mergers between two public firms often yield negative abnormal stock returns to the acquiring firm shareholders. It is a well-known empirical fact that shareholders of U.S. firms have lost billions of dollars in acquisitions upon deal announcement.¹ This is often interpreted as the market perceiving these deals as being value-destroying to the acquirer shareholders. Prior empirical studies have associated such “bad deals” with the CEOs being overconfident or empire-building, thus overpaying for targets that do not necessarily create synergies with their existing business.² Yet, from a shareholder perspective, if these deals are destroying value why do we see shareholders of the acquirer firms remain largely inactive in taking action against them? One reason could be that not all acquisitions need shareholder approval in the United States.³ Managers can structure the deal payment in a way that bypasses shareholder voting. Evidence from U.K. acquisitions, on which acquirer shareholders have a binding say if the target is large relative to the acquirer, regardless of the payment method, suggests that shareholder voting can indeed prevent bad acquisitions.⁴ Nevertheless, in U.S. deals that do not require shareholder voting, large acquirer shareholders can still exert their influence using other means such as

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¹ Moeller, Schlingemann, and Stulz, “Firm size and the gains from acquisitions,” 73(2) *Journal of Financial Economics* 201-228 (2004); Moeller, Schlingemann, and Stulz, “Wealth destruction on a massive scale? A study of acquiring-firm returns in the recent merger wave,” 60(2) *The Journal of Finance* 757-782 (2005)

² See, for example, Jensen, “Agency costs of free cash flow, corporate finance, and takeovers,” 76(2) *The American Economic Review* 323-329 (1986); Malmendier & Tate, “Who makes acquisitions? CEO overconfidence and the market's reaction,” 89(1) *Journal of Financial Economics* 20-43 (2008).

³ Only when an acquirer intends to issue more than 20% of new shares to finance a deal will it require shareholder voting. For more detailed discussion, see Li, Liu, & Wu, “Vote avoidance and shareholder voting in mergers and acquisitions,” 31(8) *Review of Financial Studies* 3176-3211 (2018).

⁴ Becht, Polo, & Rossi, “Does mandatory shareholder voting prevent bad acquisitions?” 29(11) *Review of Financial Studies* 3035-3067 (2016).

the threat of exit⁵ or behind-the-scenes interventions.⁶ However, even if shareholders are capable *ex-ante* of preventing and *ex-post* of opposing bad acquisitions, do they always have the incentive to do so?

2. Portfolio Diversification and Acquirer Shareholder Incentive

In an earlier study, Matvos and Ostrovsky (2008)⁷ argue that since some acquirer shareholders also hold shares in the target firms, which mostly gain value due to the takeover premiums, these shareholders on average do not lose money following public merger announcements. However, this has been contested with empirical evidence by a follow-up study from Harford, Jenter, and Li (2011),⁸ which shows that target ownership is often too small to matter for most acquirer shareholders.

In a recent empirical research project, coauthored with Miguel Anton, Jose Azar, and Mireia Gine,⁹ we extend on this line of work and propose an alternative perspective of looking at acquirer shareholders' incentive to react to bad acquisitions. We first document that most large acquirer shareholders in U.S. acquisitions also hold significant shares across a substantial number of non-merging industry rivals. Why should we care about their rival ownership? Prior studies in the M&A literature have documented robust and consistent empirical evidence that non-merging industry rivals on average gain upon the announcement of an M&A deal in their industry. This can be due to a change in industry structure, gaining at the expense of a now less efficient rival, signaling of some industrywide information, or takeover threats inducing an improvement in corporate policies.¹⁰ Overall, these diversified acquirer shareholders are able to gain from their rival ownership on average.

It is costly to monitor managerial actions, while shareholders have limited attention and resources. Therefore, diversified acquirer shareholders can often take a portfolio approach when deciding whether to devote effort to monitoring certain firm-level decisions. An individual firm's decisions can

⁵ Chen, Harford, & Li, "Monitoring: Which institutions matter?" 86(2) *Journal of Financial Economics* 279-305 (2007).

⁶ McCahery, Sautner, & Starks, "Behind the scenes: The corporate governance preferences of institutional investors," 71(6) *Journal of Finance* 2905-2932 (2016).

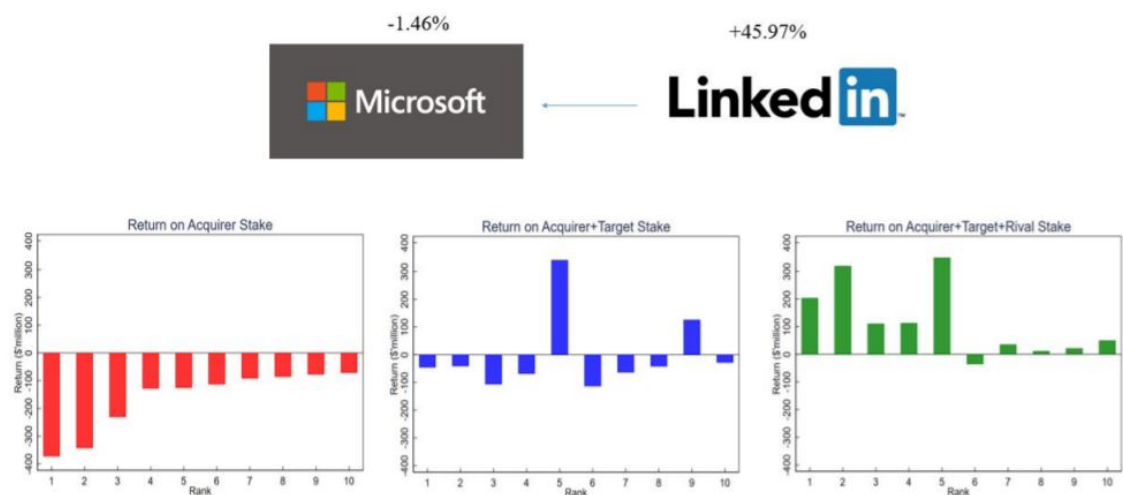
⁷ Matvos & Ostrovsky, "Cross-ownership, returns, and voting in mergers," 89(3) *Journal of Financial Economics* 391-403 (2008).

⁸ Harford, Jenter & Li, "Institutional cross-holdings and their effect on acquisition decisions," 99(1) *Journal of Financial Economics* 27-39 (2011).

⁹ Anton, Azar, Gine & Lin. "Beyond the target: M&A decisions and rival ownership," *Journal of Financial Economics*, Forthcoming 2022.

¹⁰ See, for example, Song & Walkling, "Abnormal returns to rivals of acquisition targets: A test of the acquisition probability hypothesis," 55(2) *Journal of Financial Economics* 143-171 (2000); Shahrur, "Industry structure and horizontal takeovers: Analysis of wealth effects on rivals, suppliers, and corporate customers," 76(1) *Journal of Financial Economics* 61-98 (2005); Servaes & Tamayo, "How do industry peers respond to control threats?" 60(2) *Management Science* 380-399 (2013).

have external impacts on its industry peers. For example, non-merging industry rival firms can gain at the expense of their peer's reduced efficiency due to value-destroying acquisitions. Diversified shareholders internalize the externalities of an individual firm's decisions at the industry portfolio level. Accounting for gains from rival ownership, we find that the average acquirer shareholder is no longer losing from deal announcements. In our sample of all horizontal mergers between U.S. public firms from 1988 to 2016, close to a third of large acquirer shareholders in the seemingly "bad deals" end up with a net gain at the industry portfolio level. Microsoft's 2016 acquisition of LinkedIn is a good example.



Upon the announcement of the deal, the Microsoft stock dropped 1.46%, resulting in substantial value losses for its ten largest institutional shareholders, ranging from \$72 million to \$373 million. Nine of these ten shareholders also owned shares in the target, LinkedIn. Although LinkedIn did have a large gain of 45.97%, only two of the shareholders were able to reverse their loss position with their target stakes. However, out of Microsoft's top twenty industry rivals, defined using the 3-digit SIC code, fifteen gained during the announcement window of the deal. When accounting for stakes in the non-merging industry rivals, nine of the top ten shareholders ended up with a net gain at the portfolio level, particularly the five largest ones. Therefore, these shareholders appear to lack the incentives to take action against this seemingly value-destroying deals even if they have the power to do so.

3. Acquirer Shareholder Rival Ownership and Deal Quality

With this perspective of acquirer shareholder incentives, we find that acquisition deals are more likely to be bad deals when the acquirer shareholders have more at stake in industry competitors, as proxied by announcement returns.¹¹ At the same time, unobserved firm characteristics may attract more diversified shareholders and be correlated with persistent acquisition performance.¹² Our result remains consistent after accounting for potential unobserved time-invariant firm characteristics. In addition, the result is still robust when controlling for time-varying industry-specific cycles, which can correlate with both M&A deal quality and shareholder rival ownership. We further show that this result is not driven by dilution from having a large and diversified portfolio, as ownership in other non-rival firms does not have the same effect on deal quality.

This evidence suggests that when more large shareholders hold a diversified industry portfolio, the firm managers can become less disciplined. They tend to account for their shareholders' often lack incentive to oppose bad deals and decide to pursue value-destroying acquisitions. Monitoring by large shareholders is less likely to create a deterrence effect against managers exploiting their discretion in such a case.

4. Acquirer Shareholder Rival Ownership and Deal Completion

If shareholder monitoring fails to deter firm managers from pursuing bad deals *ex-ante*, shareholders can still take actions *ex-post* after a bad deal is announced. We find that a bad deal is more likely to be completed if the acquirer shareholders have more ownership in non-merging industry rivals. A bad deal is also more likely to consummate if more top ten shareholders of the acquirer firm end up with a net gain at the industry portfolio level. When a seemingly bad deal has more than half of its top ten acquirer shareholders gaining at the portfolio level, its completion probability increases by an average of 5.6%.

More interestingly, we find that in supposedly good deals, if more large acquirer shareholders suffer a loss at the industry portfolio level, the deals are less likely to be completed. When a good deal has more than half of its top ten acquirer shareholders losing at the portfolio level, its completion probability decreases by an average of 7.1%. This suggests that the diversified acquirer shareholders do not simply remain passive all the time. They do react and take actions when they suffer a portfolio-level loss from the deal.

Finally, we focus on a sample of deals that do require formal shareholder approval. By examining voting data by institutional investors, we find that those with more ownership in non-merging industry

¹¹ The announcement return is the market's best estimate of the value of the deal. The cumulative abnormal return during the (-1,+1) window around deal announcement is the standard proxy used in the M&A literature for deal quality.

¹² Golubov, Yawson, & Zhang, "Extraordinary acquirers," 116(2) *Journal of Financial Economics* 314-330 (2015).

rivals are less likely to vote against the deal. Moreover, institutional investors with a significant gain at the portfolio level are also less likely to vote against the deal, even in a seemingly bad deal. On the other hand, if the investors suffer a significant loss at the portfolio level, they are more likely to vote against the deal, even when the deal has a positive announcement return or when the Institutional Shareholder Services (ISS) recommends voting for it. Overall, our evidence indicates that diversified shareholders are likely to only react and become engaged monitors when a firm-level decision generates externalities serious enough to incur them a portfolio-level loss.

5. Conclusion

There is a growing number of large shareholders of U.S. public corporations holding a diversified portfolio of peer firms across the same industry. Since these investors internalize the externalities of corporate decisions of individual firms at the portfolio level, they are more likely to take a portfolio-value-maximization approach when evaluating firm-level decisions. Because monitoring resources are scarce and costly, these diversified shareholders often lack the incentive to monitor and scrutinize poor firm-level decisions, such as a bad acquisition deal, if they are not losing much or even see gains at the industry portfolio level. This may create a conflict of interest affecting concentrated and minority shareholders, who focus more on value maximization at the firm level.

Data Portability: Potential Effects on Competition

Daniela Copetti Cravo *

1. Introduction

Data portability is a global trend that embraces many different initiatives. These initiatives center around the following perspectives: *i*) data portability as an individual right, provided by legislation such as the General Data Protection Regulation - GDPR¹⁻²; *ii*) debate about regulation of large platforms, and *iii*) regulations of different data transfer sectors³⁻⁴. Also, data portability may be considered an antitrust remedy in cases of abuse or merger.⁵

These initiatives constantly appear as an alternative to address barriers to entry related to network effects and switching costs in digital markets. However, could data portability properly address these issues, making the market more contestable and encourage innovation?

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¹ In the United States of America, California Consumer Privacy Act (CCPA) provides that consumer must receive their data in a portable and readily usable format that allows the transmission of this data to third parties. The CCPA provides that this must be done only when technically feasible.

² Data portability was introduced in Brazil in the General Data Protection Law (Lei 13.709/2018 - LGPD), article 18, item V.

³ In the United Kingdom, based on the successful experiences of Open Banking in the financial sector, Smart Data is being developed, which seeks to expand the data sharing policy to other sectors. DEPARTMENT FOR BUSINESS, ENERGY & INDUSTRIAL STRATEGY. Smart Data Working Group. Available at <https://www.gov.uk/government/publications/smart-data-working-group-spring-2021-report>.

⁴ SWIRE, Peter. *The Portability and Other Required Transfers Impact Assessment: Assessing Competition, Privacy, Cybersecurity, and Other Considerations*, 2020.

⁵ OECD. Data portability, interoperability and digital platform competition, OECD Competition Committee Discussion Paper, 2021. Available at <http://oe.cd/dpic>.

2. Factors that restrain digital market contestability

Data is the main propelling force of the digital market, which is guided by a feedback cycle: the more data a company has, the more data it will tend to collect in new activities with the intent of providing better services. In the digital market, data play diverse roles, be it as an input for social media, content-sharing platforms and algorithms, or as a product to be directly sold to third parties.⁶

Although data is generally “free”, non-exclusive and non-rival, access to it is still difficult. “The reason is that the infrastructure for collecting, storing and distributing data is normally embedded behind technology barriers; moreover, there are legal and behavioral barriers to access”.⁷

Thus, data can also contribute to market power. Companies that have suffered significant turnovers in the market have as a business model the use of data, generally personal data, which are obtained through the large number of users in the sector of their activities. The biggest examples of this are Google Search and Facebook.⁸

Indeed, in the environment of digital markets, the increase and the maintenance of market power are accompanied by a massive volume of data collected from users of online services, without respect or care for privacy and data protection. The exceptions to this rule are services related to medical treatment, finance and banking, security and luxury tourism, which are businesses that compete in terms of privacy or data protection, since any failure on the matter can damage the reputation of companies and affect their market power.⁹

In addition to the nonexistence of competition between quality services in terms of data protection, consumers are not inclined to choose services that adopt more zealous privacy policies, situation that generates a race to the bottom in terms of data protection.¹⁰

Besides, it's recognized that firms incur significant investments to collect and store more data and seek to preclude third parties from getting access to it,¹¹ which may create difficulties for the

⁶ *Id.*

⁷ LUNDQVIST, Bjorn. *Portability in Datasets under Intellectual Property, Competition Law, and Blockchain*. Stockholm University Research Paper No. 62, 2018.

⁸ AUTORITÉ DE LA CONCURRENCE; BUNDESKARTELLAMT. *Competition Law and Data*. <Big Data Papier.pdf;jsessionid=61452102E44C6128222FBB7F65A5DCC9.1_cid390 (bundeskartellamt.de) >.

⁹ EDPS. *Privacy and Competitiveness in the Age of Big Data*, available at https://edps.europa.eu/data-protection/our-work/publications/opinions/privacy-and-competitiveness-age-big-data_en .

¹⁰ *Id.*

¹¹ STUCKE, Maurice E.; GRUNES, Allen P. *Big Data and Competition Policy*. Oxford: Oxford University Press, 2016.

development¹² of horizontal or complementary services. The creation of difficulties in accessing data could be related to a conduct of refusal to deal and, thus, represent an abuse of a dominant position¹³. Nonetheless, it is not clear if a refusal to provide data to one's competitors would constitute a refusal to deal in the context of competition law, particular by the need to demonstrate the requirement of indispensability¹⁴⁻¹⁵.

The occurrence of data-driven mergers has also been verified. These operations may have helped acquirers to have more personal data for the development of products and services aimed at the targeted online advertising market or with the purpose of entering other markets.¹⁶ Such situations are worrisome because of the network effects, which make it difficult to contest the dominant position of agents who have access to large-scale data. When a company is successful in the market, the attraction of new customers ends up being automatic, which contributes to the "winner takes all" phenomenon.¹⁷

The network effects are commonly related to *i*) compatibility¹⁸ between users, so that they can interact, trade with each other or use the same add-ons, which creates an economy of scope between

¹² As an example, see the FCT investigation involving Google AdWords. FTC. Google Agrees to Change Its Business Practices to Resolve FTC Competition Concerns In the Markets for Devices Like Smart Phones, Games and Tablets, and in Online Search. <https://www.ftc.gov/news-events/press-releases/2013/01/google-agrees-change-its-business-practices-resolve-ftc>.

¹³ Such behaviors can also be related to limitations of interoperability through the creation of difficulties in the transfer of data between platforms and restrictions on the use of APIs.

¹⁴ OECD. Abuse of dominance in digital markets. Available at www.oecd.org/daf/competition/abuse-of-dominance-in-digital-markets-2020.pdf

¹⁵ In Brazil, the competition authority (CADE) decided to launch administrative proceedings to investigate a possible abuse of dominant position by Bradesco in the financial market (GuiaBolso/Bradesco Case). The authority understood that, despite the foreclosure was not characterized by an explicit refusal but by a requirement of a double factor authentication to access bank information, there were indications of a possible abuse of a dominant position. "In the course of the investigation, in 2020, Bradesco signed a Cease and Desist Agreement (TCC), ratified by CADE's Tribunal, in which the bank agreed to cease the conduct and implement an interoperability mechanism to allow GuiaBolso to access its internet banking system, until the open banking regulation of the Central Bank of Brazil comes into force". OECD. *Data Portability, Interoperability and Competition – Note by Brazil*. Available at

[https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/WD\(2021\)30&docLanguage=En](https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/WD(2021)30&docLanguage=En)

¹⁶ MOTTA, Lucas Griebeler da. *Análise Multijurisdicional de Aquisições Centradas em Dados: diagnóstico atual e propostas de política pública para o Brasil*. São Paulo: Associação Data Privacy Brasil de Pesquisa, 2021.

¹⁷ CADE. *Mercados de Plataformas Digitais*. Available at <https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/estudos-economicos/cadernos-do-cade/plataformas-digitais.pdf>

¹⁸ It is the case of an e-mail service, where the user not only needs it to be easy to use or free of charge but also depends on other people having e-mail and that the e-mails are compatible with each other. See AFUAH, Allan. Are network effects really all about size? The role of structure and conduct. *Strategic Management Journal*, 34, 201.

different users¹⁹ or *ii*) the situation in which the consumption of a product or service generates an increase in its value, which attracts new and future users, who will feel more attracted to the business.²⁰ In this case where there are gains when more consumers use that product it is possible to notice the self-perpetuating “feedback loops”: when a user joins a platform and provides their data, the value could increase directly (with more content available on a content-sharing platform, for example) or indirectly (the increased number of users improves the quality of the algorithm or the ad-targeting).²¹

In addition, it is noticed that consumers want to be where everybody else is, especially because of the necessity of compatibility. This, besides the network effects, creates the lock-in effect.²²

The lock-in effect is the situation in which the consumer becomes dependent on a product and service supplier and cannot migrate to another without substantial transaction costs or inconveniences (like the need to be on the same network as friends/family). In these cases, the consumer defaults to staying with the original supplier even when there is a desire for change, which may be due to price increases, failures, defects in the supply of the product or service, data leakage, or lack of privacy.²³ However, when this consumer calculates the cost-benefit of a potential switch, such a consumer realizes that it would be more costlier, either monetarily, emotionally, or in terms of comfort, to switch to an alternative supplier.²⁴

It is reported that the lock-in effect is the norm when it comes to online platforms. There are incentives for companies to keep their system closed, which creates access problems for others who need user data to compete or to offer complementary services and products.²⁵

In the search service, switching costs between engines are high. It is noteworthy that lock-in is desired by these companies since the more users a particular search service has, the more attractive it is

¹⁹ FARRELL, Joseph; KLEMPERER, Paul. Coordination and lock-in: competition with switching costs and network effects. In ARMSTRONG, Mark; PORTER, Robert. *Handbook of Industrial Organization, Volume 3*. North-Holland: Elsevier, p. 1971, 2007.

²⁰ CHEN, Pei-yu; HITT, Lorin. *Information Technology and Switching Costs*.

²¹ *Id.* 5.

²² CENTRE ON REGULATION IN EUROPE (CERRE). *Making data portability more effective for the digital economy*. Available at [cerre_making_data_portability_more_effective_for_the_digital_economy_june2020.pdf](https://cerre.eu/making-data-portability-more-effective-for-the-digital-economy-june2020.pdf)

²³ EURICH, Markus; BURTSCHER, Michael. *The Business-to-Consumer Lock-in Effect*. University of Cambridge: Cambridge, 2014.

²⁴ MURRAY, Kyle; HÄUBL, Gerald. Explaining Cognitive Lock-In: The Role of Skill-Based Habits of Use in Consumer Choice. *Journal of Consumer Research*, Vol. 34., June 2007.

²⁵ ENGELS, Bárbara. Data portability among online platforms. *Internet Policy Review*, 5(2), 2016.

for advertising. There is occurrence of exclusivity contracts for search services with those who advertise on their services, situation that may constitute an anti-competitive conduct.²⁶

Likewise, in online marketplaces, which are the platforms where consumers buy, sell, and share products and services, there are switching costs, especially on the seller side of the commerce platform. In this regard, the reputation and comments on sales can be considered as a specific investment in the platform, depending on the number of transactions already carried out. Furthermore, familiarization with the platform's rules and how to use them can generate the lock-in effect.

Regarding social networks, which have users and advertising as main sides, the switching costs are high. Although it is possible to obtain a copy of certain data, transferring a profile to a competing service requires time and effort. Furthermore, the lack of interoperability reinforces the lock-in, as users cannot communicate across different platforms (interplatforms).²⁷ Such concerns could, however, be mitigated with mechanisms that facilitate the export of data,²⁸ as is the case of data portability.

In the cloud services market (Cloud Computing), switching costs are markedly high, requiring interoperability and portability so that users can use other cloud services.²⁹ In this and other markets where costs are high, if a user wants to change platforms or services, they will need to make additional and high investments to re-supply the data, which can be considered as sunk costs.³⁰

Faced with this scenario, a possible solution that emerges to make the market more contestable is data portability. However, does it have the power to reduce entry barriers and encourage the entry of new agents? More specifically, can data portability reduce network effects and decrease the lock-in effect?

3. Data portability as a potential solution

Data portability can mean a lot of initiatives. Data portability as an individual right can be understood as a tool of empowerment that possibilities the data subject to transfer its data between different data controllers or to obtain a copy of the data. With data portability, the data subjects feel more encouraged to migrate freely between different services, enabling data reuse and the choice of services with friendlier policies.

²⁶ *Id.*

²⁷ *Id.*

²⁸ YOO, Christopher. When Antitrust Met Facebook. *George Mason Law Review*. Vol 19:5, 2012.

²⁹ *Id.* 22.

³⁰ DZHAIN, Nikita. *Impact of Switching Costs and Network Effects on Adoption of Mobile Platforms*. 2014. p. 98. Master Thesis (Master of Science in Information Systems). Aalto University School of Business, Helsinki, Finland, 2014.

Thus, this individual right³¹ enables data subject agency in the data ecosystem. Because of these objectives, data portability can also be understood as a new-generation right.³²

While not designed with this only propose, the right of data portability seeks to promote competition, and have been characterized as a potential solution (or part of a solution) to competition problems in digital markets.³³

Data portability can play a necessary role to allow data access for the development of artificial intelligence. Also, the data transfer among businesses and sectors is indispensable for the function of the Internet of Things.³⁴ Thus, these necessary data access and sharing could be stimulated through the right of data portability since, for example, “a consumer may wish to port the food supply service that was bundled with her new refrigerator from Amazon to an entrant”.³⁵

As well, data portability could address information asymmetries in markets with opaque or complex fee structures. With portability, the comparison with services could be facilitated and more personalized with the consumer’s characteristics or history.³⁶ Thus, there would also be a reduction in search costs.

Without data portability right, new entrants may find it difficult to enter the market. That’s because users cannot migrate between platforms unless they incur at the high cost of losing all data.

On the other hand, with data portability the new entrants will find it easier to attract new consumers since the data of the previous service can be ported. In addition, consumers will not be afraid to invest in new entrants as data invested in an incumbent service will not be lost and can as well be ported.³⁷

Data portability can also generate mutually positive effects for agents operating in distinct but complementary markets.³⁸ Furthermore, data portability may allow the development of interoperability by complementary services, which could reduce the network effects resulting from the incompatibility between the services.

³¹ ARTICLE 29 DATA PROTECTION WORKING PARTY. *Guidelines on the right to data portability*. Brussels: European Commission, 2016.

³² MONTELEONE, Andrea Giulia. Il Diritto Alla Portabilità Dei Dati. Tra Diritti Della Persona e Diritti Del Mercato. *LUISS Law Review*, 2/2017,

³³ *Id.* 5.

³⁴ GRAEF, Inge; HUSOVEC, Martin; VAN DEN BOOM, Jasper. *Spill-Overs in Data Governance: The Relationship Between the GDPR’s Right to Data Portability and EU Sector-Specific Data Access Regimes*, TILEC Discussion Paper No. DP 2019-005, 2019.

³⁵ STIGLER COMMITTEE. *Stigler Committee on Digital Platforms: Final Report*.

³⁶ *Id.* 5.

³⁷ *Id.* 22.

³⁸ *Id.* 22.

In addition to being an individual right, data portability can also be applied as an antitrust remedy in abuse or merger cases.³⁹ Regarding the matter of data portability in a merger analysis, in the Facebook/WhatsApp case,⁴⁰ the Commission “has not found any evidence suggesting that data portability issues would constitute a significant barrier to consumers switching in the case of consumer communications apps”. Given that communication via apps tends to consist to a significant extent of short, spontaneous chats, which do not necessarily carry long-term value for consumers, that the contact list can be ported, and the messaging history remains accessible on a user’s smartphone, the Commission stated that even if the merged entity would control and limit the portability of data (such as message history), this is unlikely to result in a lock-in of users.

On the other hand, in the Ticketmaster/Live Nation it was established that “if any client of Defendants’ primary ticketing services chooses not to renew a contract for Primary Ticketing Services with Defendants for some or all of its venues, upon the expiration of that contract and the written request of the client, Defendants shall within forty-five (45) days provide the client with a complete copy of all Client Ticketing Data and all Ticket Buyer Data historically maintained by Defendants for such venue(s) in the ordinary course of business, in a form that is reasonably usable by the client”. This provision designed to promote competition was extended to December 31st, 2025 in the amended final judgment.⁴¹

It should be noted, however, that the supervision and implementation of data portability as an antitrust remedy can be challenging.⁴² In the Ticketmaster/Live Nation case, the amend introduced in 2020 also sought to ensure a more effective compliance of the remedies imposed, establishing for instance the appointment of an independent monitoring trustee.⁴³

In addition, there are risks associated with collusion due to market transparency, and risks associated with intellectual property that will need to be evaluated.⁴⁴ Also, issues of data protection cannot be despised when data portability is applied as a remedy.

One way to balance data protection and competition interests would be, where possible, to prioritize the voluntary portability by data subjects, which can be facilitated through intermediaries such

³⁹ *Id.* 5.

⁴⁰ EUROPEAN COMMISSION. *C(2014) 7239 final*. Available at https://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf

⁴¹ UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA. Amended Final Judgment Case 1:10-cv-00139-RMC, 2020.

⁴² *Id.* 5.

⁴³ *Id.* 38.

⁴⁴ *Id.* 5.

as PIMS - Personal Information Management Services.⁴⁵ Another way would be through the principle of necessity and minimization, so the sharing is limited only to the data strictly necessary for the purpose sought,⁴⁶ and, whenever possible, anonymization.

It is also noteworthy that there are many novelties and proposes of changes in the laws of different countries to try to deal with the issues of digital market⁴⁷. In Germany, the range of prohibited practices under the novel provision of the German Competition Act includes impeding competition by hampering interoperability or data portability, which may be imposed by the Bundeskartellamt on companies recognized as "paramount cross-market significance".⁴⁸

The UK government is also looking for solutions to address the digital market challenges and a dedicated Digital Markets Unit will be set up to introduce and enforce a new code to govern the behavior of platforms that currently dominate the market.⁴⁹ In the European Union, the Proposal for a Regulation on contestable and fair markets in the digital sector (Digital Markets Act) determines as an obligation that a gatekeeper shall "provide effective portability of data generated through the activity of a business user or end-user".⁵⁰

Despite these movements involving data portability, there is a need to highlight that the data portability may not be sufficient to promote or protect competition in the market⁵¹. This remedy may be in some cases only effective if combined with other measures.⁵²

4. Data Portability Limitations

⁴⁵ COMPETITION AND MARKETS AUTHORITY. *Online platforms and digital advertising: Market study final report*. Available at https://assets.publishing.service.gov.uk/media/5efc57ed3a6f4023d242ed56/Final_report_1_July_2020_.pdf.

⁴⁶ *Id.* 9.

⁴⁷ In the USA, "it is likely that the Biden administration will continue with antitrust cases against the large tech platforms, which include allegations of preventing interoperability and data portability. The Biden administration may also attempt to impose direct regulation on interoperability and data portability." LANGENFELD, James; RING, Chris; CLARK, Samuel. *Regulating digital platforms: Interoperability and data portability. Concurrences*, n° 1-2021.

⁴⁸ BUNDESKARTELLAMT. *Abuse of Dominance in Digital Markets: Contribution from Germany*. Available at [https://one.oecd.org/document/DAF/COMP/GF/WD\(2020\)32/en/pdf](https://one.oecd.org/document/DAF/COMP/GF/WD(2020)32/en/pdf).

⁴⁹ UK GOVERNMENT. *Press release: New competition regime for tech giants to give consumers more choice and control over their data, and ensure businesses are fairly treated* Available at <https://www.gov.uk/government/news/new-competition-regime-for-tech-giants-to-give-consumers-more-choice-and-control-over-their-data-and-ensure-businesses-are-fairly-treated>

⁵⁰ EUROPEAN COMMISSION. *Proposal for a Regulation of the European Parliament and the Council on contestable and fair markets in the digital sector (Digital Markets Act)*.

⁵¹ The lesson learned at the FTC Workshop in 2020 was that "data portability is not a cure-all for addressing anticompetitive behavior". LANGENFELD, James; RING, Chris; CLARK, Samuel. *Regulating digital platforms: Interoperability and data portability. Concurrences*, n° 1-2021.

⁵² *Id.* 5.

Data portability could lower consumer switching costs, but despite that, they may still be high enough that demand is not sufficiently contestable to induce entry. Also, other entry barriers may remain,⁵³ especially because of the network effects, which could be more properly addressed if portability is implemented together with interoperability.⁵⁴

It has been understood that without interoperability is very probable that data portability will not generate all its potential effects. The pro-competition effects of data portability end up being more pronounced in markets with common data processing systems than others with no interoperable patterns.⁵⁵

Without interoperability, the data portability will produce only minimal effects, the reason why standardized APIs (Application Programming Interfaces) that enable continuous data portability are required.⁵⁶ Besides, without interoperability, complimentary service providers may use “screen scraping”,⁵⁷ which is not recommended as a good practice in terms of data protection.

Also, the use of standards plays an important role to foment continuous data access independently of the location of the data.⁵⁸ These standards can work effectively for Smart Cities, facilitating the replication of technological models in many different cities and communities.⁵⁹

Yet, close standards, set by a unique firm, may give rise to concerns regarding abusive conduct. A dominant firm could, for example, give its downstream products exclusive or preferential access to the close standard.⁶⁰

Another factor that signalizes the limitations of data portability to make the market more contestable is that data portability will have a limited impact in concentrated digital platform markets in the short term, since users will not have a competing service to migrate⁶¹. However, data portability could play an important role in complementary markets to digital platform markets.⁶²

⁵³ *Id.* 32.

⁵⁴ *Id.* 5.

⁵⁵ BORGHI, Maurizio. *Data Portability and Regulation of Digital Markets*. CIPPM / Jean Monnet Working Papers, Bournemouth University, 2019.

⁵⁶ *Id.* 22.

⁵⁷ *Id.* 5.

⁵⁸ EDPS. *Opinion on the European Commission's White Paper on Artificial Intelligence – A European approach to excellence and trust*. https://edps.europa.eu/sites/edp/files/publication/20-0619_opinion_ai_white_paper_en.pdf

⁵⁹ SYNCHRONICITY. *SynchroniCity Guidebook*. <https://synchronicity-iot.eu/wp-content/uploads/2020/01/SynchroniCity-guidebook.pdf>

⁶⁰ *Id.* 5.

⁶¹ ACCC. Digital Platforms Inquiry: Final Report.

⁶² *Id.* 5.

On the other hand, data portability can be relevant and useful when users want to use only one provider. One example is when the user wants to change the streaming service and port their song preferences and playlist to the new service.⁶³

5. Final Remarks

Digital reality brings a lot of concerns for market contestability. There is not a single solution, and data portability is only one tool that could reduce network effects and decrease the lock-in effect if conjugated to other policies and strategies, especially interoperability.

Data portability can be relevant and useful when users want to use only one provider. Furthermore, data portability can play an important role for firms operating in complementary markets and may allow the development of interoperability by these services, which could reduce the network effects resulting from the incompatibility between the systems.

Portability and interoperability could be a less interventional solution than other measures such as subsidies to new entrants or divestitures, like required by FTC in the Facebook case sued in 2020. Although data portability is not a “one-size-fits-all solution”, it is possible to affirm that this, when associated with interoperability, could reduce entry barriers and the lock-in effect, especially in the long term and in complementary markets.

For these reasons, data portability must be stimulated and related to other regulatory policies. However, when applied as an antitrust remedy, it will require attention and efforts by competition authorities to ensure compliance and the observance of good practices in terms of the protection of personal data.

⁶³ *Id.* 5.

The Assessment of Survey Evidence in the Epic v. Apple Litigation

By Stuart D. Gurrea* and Stephanie M. Mirrow†

1. Introduction

In the *Epic v. Apple* litigation, Epic Games, Inc. (“Epic”) sued Apple, Inc. (“Apple”) for anticompetitive behavior.¹ In her decision, Judge Gonzalez Rogers of the Northern District of California (“Court”) disagreed with both parties’ definition of the relevant market and concluded that Epic did not prove its alleged relevant markets.² In support of her conclusion, the Court considered market specific facts, evidence on consumer purchasing and switching patterns, and survey evidence developed in the normal course of business. The Court also considered survey evidence developed by Epic’s and Apple’s respective expert witnesses.

Parties to a dispute concerning unfair competition or antitrust law often proffer survey evidence to support their arguments. For example, in Lanham Act cases in which a suit is brought based on a claim that false advertising confused or deceived consumers, survey evidence can provide information on consumers’ perception of the alleged false advertising.³ In antitrust cases, product market definition often is a central question, and survey evidence may help identify consumers’ preferences for alternative products and the degree of substitution among these products.

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¹ Complaint for Injunctive Relief, *Epic Games, Inc. v. Apple Inc.*, August 13, 2020.

² Rule 52 Order After Trial on the Merits, *Epic Games, Inc. v. Apple Inc.*, September 10, 2021.

³ For example, in *Christian Louboutin S.A. v. Yves Saint Laurent America, Inc.*, No. 11-3303, 778 F. Supp. 2d (S.D.N.Y. 2011), a survey was implemented to determine the likelihood of post-sale confusion. The U.S. Court of Appeals for the Second Circuit referenced the survey evidence in support of its decision. (*Christian Louboutin S.A. v. Yves Saint Laurent America Inc.*, No. 11-3303 (2d Cir. 2012).)

A reliable survey can provide evidence for assessing the perceptions of a population of interest. Unlike anecdotal evidence, a survey can provide statistically reliable information about the entire population based on the responses of a subset of the population. For a survey to be valid, however, it must conform to certain statistical principles.

The Court's decision in *Epic v. Apple* highlights how Courts may assess survey evidence. The Court was more receptive to survey evidence generated in the normal course of business. In contrast, the Court rejected much of the survey evidence developed for the litigation by the parties' expert witnesses. Below we describe some of the principles for sound development and use of sample survey evidence and how the Court's rejection of survey evidence in *Apple v. Epic* relates to these principles.⁴

2. Principles of Survey Analysis

An initial step in the survey process is identifying the correct population of interest to sample, such as the consumers of a product of interest. Sampling involves selecting a subset of individuals from this population of interest. One common error in the development of survey-based evidence is population misspecification; this occurs when a sample is drawn from the wrong population.⁵ For example, the relevant consumers are iOS users, but the sample is drawn from a population of Android users. This type of error may result from a failure to understand the question at issue, or when the question is well understood, from targeting the wrong group of individuals.

Population misspecification is of particular concern when the population of interest cannot be surveyed directly, or the perception of interest is defined based on a legal or economic construct, such as relevant markets. For example, the United States Department of Justice and Federal Trade Commission *Horizontal Merger Guidelines* use a hypothetical monopolist test to evaluate relevant product markets.⁶ This test asks whether a hypothetical monopolist could impose a small but significant, non-transitory increase in price (or "SSNIP"), or would enough consumers switch to alternative product offerings.⁷ To address

⁴ The commentary below does not provide our assessment of the survey evidence submitted in the case, but rather our view about how the Court's stated opinion relates to the principles that guide sound survey analysis.

⁵ "A survey that provides information about a wholly irrelevant population is itself irrelevant." Shari Seidman Diamond, "Reference Guide on Survey Research," in *Reference Manual on Scientific Evidence*, Third Edition, 2011 ("Diamond"), p. 377.

⁶ See U.S. Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines*, August 19, 2010, Section 4.1.

⁷ Another example are cases brought under the Fair Debt Collection Practices Act, which may claim communications between a lender and borrowers are misleading. The legal standard in these cases is the potential to deceive the "least sophisticated consumer" – a figurative individual who has some basic context, information, and understanding. In these cases, a random sample of consumers is unlikely to match the profile defined by the least sophisticated consumer.

population misspecification, survey respondents may be given background information or instructed to make certain factual assumptions. However, the provision of background information or factual assumptions still may be insufficient to generate reliable survey data. The effectiveness of this approach is dependent on the accuracy and completeness of the information provided to respondents as well as the survey's ability to educate the respondents.

Additionally, there may be selection error when those surveyed are not representative of the entire population. The goal of sampling is to select a subset of the population of interest that approximates the entire population of interest. If only individuals with a specific profile respond to the survey, any analyses based on the survey may have biased results, as responses will be not representative of the entire population of interest.

A next step in the survey process is designing and implementing a questionnaire aimed at collecting the information of interest (for example, whether enough iOS users would switch to Android to make a small, but significant non-transitory price increase unprofitable). To ensure the validity of survey responses, the questionnaire may include questions aimed at assessing response quality. For example, questions may be introduced to assess respondents' level of understanding of factual assumptions and to determine whether it is reasonable to assume that respondents have a basic understanding of the relevant context. If the factual assumptions are too lengthy, too complex, or incomplete, the survey design may fail to put the survey respondent in the relevant situation (either as a consumer in the population of interest or as a consumer facing the legal or economic construct at issue).

The reliability of survey responses also is directly dependent on the design of both open- and close-ended survey questions. Open-ended questions may be broad or interpreted broadly, increase response time, and/or result in a wide range of views and opinions. Typically, verbatim responses can be processed and coded into data that can be analyzed. The reliability of coded data, however, may be compromised if processing verbatim responses requires a subjective evaluation by an analyst. Close-ended questions, on the other hand, restrict responses to a limited number of options, which narrows the responses to the alternatives offered in the questionnaire. This helps avoid the bias associated with a subjective evaluation of survey responses by an analyst. Bias, however, may be introduced in the choice of the response options. Further, if response options are not exhaustive, survey respondents that are forced to choose among limited alternatives may choose an option that does not reflect their perceptions.

Once the survey data are collected, statistics based on the sample survey responses can be developed to draw conclusions about the population of interest. By construction, a sample is a subset of the population of interest, and therefore subject to sampling error. Sampling error is the difference between the value of

the parameter of interest in the population (for example, the true mean) and the sample analog we calculate using data from the sample (for example, the sample mean). The size of this error can be quantified if probability sampling methods are employed, such as simple random sampling, stratified sampling, and clustered sampling.

Further, even rigorous design, implementation and analysis of survey data is not sufficient to conclude that the reported results derived from surveys are reliable. Tractability and quality of the survey design define the boundaries of the information collected by the survey. These boundaries also constrain the breadth of the conclusions that can be drawn from the survey analysis. In some instances, a technically valid and sound survey simply may not provide the empirical basis to support a proposition.

3. The Epic v. Apple Decision

Epic alleged that Apple, through its control of the App Store, has monopoly power over the distribution of apps on iOS devices and over the payment processing for iOS apps. In response, Apple argued that the relevant market is all digital video games.

Epic defined two “aftermarkets,” one for the distribution of iOS apps and one for payment processing for iOS apps.⁸ In analyzing Epic’s alleged “aftermarket” relevant markets, the Court considered Epic’s evidence concerning switching costs, alleged lock-in, and substitution. Epic presented emails on the use of iTunes discounts to attract and maintain users and the benefits of Apple’s text messaging service, iMessage, as evidence of “lock-in.” The Court, however, found that these emails “...suggest that Apple sought to compete by distinguishing their product,” and that “[e]very business seeks to decrease switching away from its products.”⁹

In this case, the Court found that the features that create lock-in also make Apple’s products more attractive, and Epic did not provide sufficient evidence on whether consumers’ switching decisions are motivated by product loyalty and satisfaction or by switching costs. In particular, the Court noted that Epic’s expert did not conduct any original surveys, attempt to measure switching costs, analyze any

⁸ The Court first noted that Epic’s alleged “aftermarket” relevant markets depend on whether Apple’s operating system should be viewed as a “foremarket.” A ‘foremarket’ is “a market in which there is competition for a long-lasting product” from which “demand for a second product” derives. An ‘aftermarket’ is the “market for the second product.” The Court rejected Epic’s proposed “foremarket” of Apple’s own operating system in light of the reality that operating systems are part of a bundle of product characteristics offered in the market for smartphones. Order, pp. 44 and 45.

⁹ Order, p. 48.

literature on the magnitude of switching costs, consider additional evidence, or conduct any original analyses.

The Court contrasted Epic's lack of data analysis with evidence presented by Apple concerning customer satisfaction. Apple presented consumer surveys that indicated the lack of switching is due to consumer satisfaction with iOS – including a Google survey showing that sixty-four percent of iOS users would not switch to Android because they prefer iOS. The Court found this survey evidence significant, because it was created in the ordinary course of business and because Epic did not provide its own consumer surveys to show that users fail to switch even when they are dissatisfied with app price, quality, or availability.¹⁰

The Court also considered evidence concerning substitution. Apple argued that all other game transaction platforms are substitute platforms for the App Store, including those accessed through all mobile, tablet, console, and PC devices. Epic argued, among other things, that economic and survey evidence show little substitution among game transaction platforms.

Epic's expert argued that the removal of Fortnite (Epic's most popular game) from the App Store provided a natural experiment from which to study user substitution in response to a change in quality – in this case, a decrease in quality for the App Store and iOS devices. Epic's expert evaluated iOS-only users and argued that the amount of switching was not sufficient for developers to abandon the iOS platform. However, evidence presented by Apple's expert showed that a substantial percentage of all Fortnite users use multiple platforms. Further, Apple presented evidence that suggested users who access Fortnite on iOS spend the majority of their Fortnite time and spending on non-iOS platforms. Thus, the Court concluded that Epic's expert likely underestimated the substitution among different platforms.

Both Epic's and Apple's experts also undertook their own surveys to address substitution. Epic's expert conducted a survey to address whether iPhone and iPad users would change their spending if iOS in-app purchases were slightly more expensive. Apple's experts also conducted a survey to assess consumer access to non-iOS devices. The Court evaluated these surveys and found several methodological flaws.

4. The Court's Assessment of Survey Analyses Undertaken by the Parties' Expert Witnesses

The Court assessed the surveys undertaken by the expert witnesses for both Epic and Apple in its analysis of the proposed relevant product markets. Although the Court rejected survey evidence developed by the experts on both sides of the case, the Court, as discussed above, recognized the value of survey evidence

¹⁰ Order, p. 51.

over anecdotal evidence, relied on survey evidence created in the normal course of business, and highlighted the lack of survey evidence when not produced.¹¹

Expert witnesses for both Epic and Apple undertook surveys to use in their analyses of relevant product market. Epic's experts conducted a survey to show lack of substitution away from the iOS ecosystem. Apple's experts conducted a survey to assess consumer access to non-iOS devices.

5. Epic's Survey

Epic's experts conducted a survey to address whether iPhone and iPad users would change their spending if iOS in-app purchases were slightly more expensive.¹² Epic's experts' survey asked respondents to think about their in-app purchases from the App Store over the past thirty days and imagine if their spending for these purchases was five percent higher.¹³ Based on this question, Epic's experts found that 81 percent of respondents indicated they would not have changed their purchases.

The Court concluded that Epic's survey suffered "from several methodological flaws, including the language and timing of the survey."¹⁴ The hypothetical underlying the definition of a relevant product market is whether a hypothetical monopolist could impose a small but significant, non-transitory increase in price (or "SSNIP"), or would enough consumers switch to alternative product offerings.¹⁵ However, the Court found that the survey question did not appropriately convey that the five percent price increase was intended to be in the future and non-transient (permanent). Instead, Epic's survey was backward-looking and thus could not determine whether lack of alternatives, instead of customer satisfaction, was the reason for most respondents indicating they would not have changed their purchases. The Court also highlighted that the retrospective nature of the question, focused on the last 30 days, also introduced other

¹¹ For example, in relation to Epic's claim that consumers were not aware that they were buying into a "walled garden," the Court noted that "[w]ithout a consumer survey, there is no evidence that consumers are *unaware* of walled garden before purchasing the smartphone." The Court also noted the absence of survey evidence about consumer's knowledge at the time of purchase of Apple's restrictions on the iOS devices. (Order, p. 50.) Finally, the Court also reported the lack of survey evidence when assessing Epic's challenge of the levy of *any* commission by Apple on developers. The Court explained that Epic only cited anecdotal evidence to show that developers agreed with its position and did not offer any supporting survey evidence. (Order, p. 35.)

¹² Order, p. 54.

¹³ Order, p. 54. Moreover, the Court called into question the validity of the SSNIP in two-sided markets. In addition, the Court expressed concern over Epic's expert using these survey results in his SSNIP test, since the survey did not indicate that the price increase was intended to be permanent, and Epic's expert agreed that consumer responses to long-term price changes may be substantially different than responses to short-term price changes.

¹⁴ Order, p. 54.

¹⁵ U.S. Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines*, August 19, 2010, Section 4.1.

confounding factors, namely seasonal purchases over the holidays that undermined the usefulness of the responses.¹⁶

The Court’s assessment of Epic’s survey relates to population misspecification – in particular, the provision of incorrect and incomplete information to respondents given the purpose of the survey. When the perception of interest is an economic construct (in this case “relevant product market”), survey respondents may be given background information or instructed to make certain factual assumptions to inform their responses. In some instances, this information may be incorporated into the wording of the survey question itself. However, the Court highlights that the hypothetical described to survey respondents was both incorrect and incomplete. First, it was incorrect because the question as formulated concerned past and not future purchases. Second, it was incomplete as it did not specify that the hypothetical price increase was non-transitory. The provision of incorrect or incomplete information likely will undermine the reliability of the survey responses. Further, when a hypothetical is posed to survey respondents, it is possible to assess respondents’ understanding of the hypothetical through a survey questionnaire and thereby address any potential concerns about confusion. The Court highlighted that Epic’s survey failed to assess respondent’s understanding of the non-transitory nature of the hypothetical price increase.¹⁷

The Court also highlighted that Epic’s survey was methodologically flawed, because it did not include minors, a key demographic group. The Court indicated that Epic’s survey “did not ultimately assist in determining how a key demographic would make substitution decisions in the relevant market.”¹⁸ The Court further determined that it would be uninformative to assess this key demographic’s decision-making based on their parents’ views.¹⁹ The Court’s concern here relates to population misspecification and selection error – or simply, the failure by Epic’s experts to select a sample that is representative of all the relevant customers of the alleged product markets.

Additionally, the Court highlighted the boundaries associated with the use of survey evidence. As noted above, even if a survey is methodologically sound, a survey only provides an empirical basis for statements that can be tied to the information collected by the survey. Epic’s survey only addressed in-app purchases and did not address other transactions, like initial downloads and updates. However, in-

¹⁶ Order, p. 55.

¹⁷ Order, p. 56.

¹⁸ Order, pp. 55-56.

¹⁹ The Court also noted that the “survey was limited to the United States, not the global market” posited by Epic’s expert. (Order, p. 58.)

app purchases were not included in Epic’s economic expert’s proposed relevant product markets.²⁰ Hence, the Court concluded that the survey “provides no insight into substitution in any alleged iOS app distribution market.”²¹

6. Apple’s Survey

Apple also proffered survey evidence to counter Epic’s arguments and show that consumers frequently own multiple devices and can substitute across them for game transactions. However, the Court characterized the Apple surveys as “severely flawed and ultimately unreliable.”²²

Apple’s expert conducted two surveys, one of iOS App Store users and one of Fortnite players. Apple’s expert found that 99 percent of iOS App Store consumers use or could use at least one other non-iOS device and that 99 percent of iOS Fortnite players use or could use non-iOS devices. However, the Court noted that 30-43 percent of respondents to Apple’s survey regularly “use a Microsoft Windows phone even though Microsoft had 0% market share in smartphones in 2018 and no longer sells phones.”²³ The Court’s concern relates to selection error - the failure to have a representative sample. The Court’s opinion indicates that respondents from the sample disproportionately used Microsoft phones given the overall share of Microsoft among the entire population.²⁴

Apple’s expert responded by removing the respondents who reported using a Microsoft Windows phone. The Court did not view this as an acceptable solution, because it removed 30-43 percent of what it viewed as an already small survey pool.²⁵ Here, the Court’s concern relates to the importance of sample size to mitigate sampling error. By construction, a sample provides information about a subset of a population.

²⁰ The Court also expressed concern over Epic’s expert using these survey results in his SSNIP test, since the survey did not indicate that the price increase was intended to be permanent, and Epic’s expert agreed that consumer responses to long-term price changes may be substantially different than responses to short-term price changes. Order, p. 55. The Court further noted that there is not an economic consensus on how to undertake the hypothetical monopolist test in two-sided platforms and how to appropriately implement a SSNIP test for such two-sided markets. For example, Epic’s expert conducted his SSNIP test separately for the consumer-side and the developer-side. But this approach does not account for the responses of developers to changes in consumer behavior and vice versa. The Court thus found that Epic’s experts did not provide evidence and analyses sufficient and reliable to demonstrate the alleged high switching costs, lock-in, and a lack of substitution. (Order pp. 56-58.)

²¹ Order, p. 57.

²² Order, p. 59.

²³ Order, p. 59.

²⁴ If the sample is a probability sample, each unit has a known, positive probability of inclusion in the sample. Probability samples enable calculation of statistics that indicate the reliability of the sample estimate of the population value. (See, e.g., Shari Seidman Diamond, “Reference Guide on Survey Research” in *Reference Manual on Scientific Evidence*, Third Edition, 2011, p. 380.) The AAPOR’s [American Association for Public Opinion Research] Best Practices for Survey Research note that sampling errors should be included for all statistics presented, in addition to the statistics themselves. (<https://www.aapor.org/Standards-Ethics/Best-Practices.aspx#best10>.)

²⁵ In the Court’s opinion this rendered the survey unreliable. (Order, p. 60.)

If the sample size is too small, it undermines the reliability of the survey's findings, because the sample is too small to capture the variability in the population as a whole.²⁶

Importantly, the Court again highlighted the boundaries associated with the use of survey evidence. The Court noted that Apple's expert's surveys do not address substitution, because the surveys only measures access. Thus, the Court indicated that the value of Apple's expert's surveys is limited.²⁷

7. Conclusion

Sound survey design, implementation, and interpretation requires compliance with statistical standards. Failure to meet these standards can occur at each step of the survey process, including, among others, errors related to population misspecification, sampling, selection bias, and interpretation. The Court in *Epic v. Apple* identified several methodological flaws in the surveys proffered by the expert witnesses for both Epic and Apple and rejected both Epic's and Apple's alleged relevant markets. Instead, the Court used the market specific facts and evidence to define the relevant market as "digital mobile gaming transactions."

²⁶ Additionally, removing observations as opposed to fixing the sample methodology may introduce bias in the analysis.

²⁷ Specifically, the Court highlighted that "Dr. Hanssen acknowledges this: the surveys "did not address substitution at all" because doing so would require questions about willingness and ability to switch, as well as actual behavior in different circumstances." (Order, p. 60.)

Webinar Recap: Two-Sided Platforms: Fundamentals of Antitrust Economics Series

By Sandhya Taneja*

1. Introduction

On November 12, 2021, the ABA Section of Antitrust Law hosted a webinar titled *Two-Sided Platforms: Fundamentals of Antitrust Economics Series*. Dr. Juliette Caminade, vice president of Analysis Group, spoke about the economics of two-sided platforms and its antitrust implications. Wyatt Fore, an associate at Constantine Cannon, moderated the event.

Dr. Caminade discussed three main topics: the fundamentals of two-sided platforms, the differences between two-sided platforms and one-sided businesses, and the antitrust implications for two-sided platforms.

2. Fundamentals of Two-Sided Platforms

Dr. Caminade first detailed the fundamental features of two-sided platforms. Two-sided platforms are not new but have “exploded” in number during the past 10-15 years. While there are differing definitions of two-sided platforms,¹ all two-sided platforms facilitate and encourage interactions between two distinct user groups and have value in indirect network effects.

With two distinct user groups, there are usually two users/customers that need to exist for the platform to succeed. Common examples include ridesharing apps, restaurant reservation platforms, vacation rental websites, and farmers’ markets. Two-sided platforms facilitate and encourage interactions between the two groups by using technology and internal procedures and aim to reduce search and

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¹ See generally Marc Rysman, *The Economics of Two-Sided Markets*, JOURNAL OF ECONOMIC PERSPECTIVES, 23(3), p. 125 (2009) (defining a two-sided platform as platforms where two sets of agents interact through an intermediary, and through an externality, the decisions of each set of agents affect the outcomes of the other set of agents.)

transaction costs. Essentially, the two-sided platform serves as a “matchmaker” between the two set of user groups, as more users on one side of the platform directly benefits the users on the other side.

3. Differences between Two-Sided Platforms and One-Sided Businesses

As Marc Rysman noted,² “virtually all markets might be two-sided platforms to some extent.” However, indirect network effects fall on a continuum between pure platforms and pure resellers. Dr. Caminade emphasized the difference between two-sided platforms and one-sided businesses by comparing eBay and Costco across four categories: customers, core product, user interactions, and business models. eBay is a classic example of a two-sided platform with both buyers and sellers, whereas Costco is a one-sided business for Costco members. Many other industries have comparable examples, such as Airbnb vs. a hotel chain like Hilton, ClassPass vs. a traditional gym like Planet Fitness, and Expedia vs. a specific airline selling their own flights, like American Airlines.

4. Illustrated Example of Two-Sided Platforms: Restaurant Reservation

An illustrated example would be a restaurant reservation platform, such as Open Table. The two users of the platform are the customers who want to make a reservation and the restaurants that want customers to reserve tables to eat at their establishment. The costs for the platform include both search costs and transaction costs. The search costs are the ability for customers to see which restaurants are available based on their time, cuisine interest, and location. The transaction costs are the process of reserving a table at a restaurant without having to call the restaurant or going to the restaurant in person only to be turned away because of lack of space. The more people who make reservations on the platform, the more the restaurants benefit, and in turn, the platform itself benefits. That’s an example of network effect. Restaurant reservation platform is also a clear example of where market power may be a concern and where price asymmetry might be present. An attenuating circumstance is the fact that customers can concurrently use different restaurant reservation services. Often in this type of platform, restaurants are charged to use the platform, whereas customers do not have to pay a fee and may even reap additional benefits and rewards for using the platform.

² *Id.*

5. Implications of Two-Sided Platforms for Antitrust

Dr. Caminade concluded her presentation by speaking about the network effects and antitrust implications, the first being, barriers to entry. While the assumption is that there are strong barriers to entry, the reality is different.³ Dr. Caminade noted that determining a two-sided platform's market power⁴ is more difficult because of the two sets of users.⁵

With a digital market, the upfront costs are dramatically lowered, indirect network effects can rapidly increase and decline on these platforms, and users can in many cases use competing platforms concurrently. There is also often pricing asymmetry in two-sided platforms' pricing structure, where the platform has different operating costs for one user group than the other. These may create additional antitrust concerns⁶ including concerns for market share, pricing below marginal cost, and exclusivity clauses.⁷

³ See generally Catherine Tucker, *Network Effects and Market Power: What Have We Learned in the Last Decade?* ANTITRUST 32(2) (2018).

⁴ In *American Express v. Ohio*, the Supreme Court noted that both sides of a two-sided transaction platform must be considered, and only other two-sided transaction platforms are competitors. 138 S.Ct. 2274 (2018).

⁵ This is especially true when compared to traditional businesses with physical infrastructures and clearer markets.

⁶ Ultimately, these antitrust implications are ever-changing.

⁷ See generally Fair et al. *United States – E-Commerce Economics: Market Power and Enforcement in Vertical Markets*, E-COMMERCE COMPETITION ENFORCEMENT GUIDE, p. 127-8 (2019).

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We are always seeking articles for future issues of the Economics Committee Newsletter. If you have an article or an idea for an article regarding the current or potential future for economic analysis of antitrust law worldwide, please share it with us.

Please contact Jéssica Dutra at dutra.j@secretariat-intl.com for more information.

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