

Notes

ANTITRUST REMEDIES: A COMPARISON BETWEEN THE CASES AGAINST ALIBABA AND FACEBOOK

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INTRODUCTION

Competition policy is the lingua franca of market economy. Surveying the global antitrust regulatory landscape, antitrust regulators around the globe face a common struggle for reining in online platforms, which drive them to move toward a new regulatory paradigm. Over the last decade, big techs across the world grew and thrived during years of laissez-faire market regulation. In China, conglomerates like Alibaba emerged and insulate their ecosystems with similar growth strategies: sustain losses to cultivate customer reliance, solidify customer base with aggressive expansion, and integrate across market to insulate its ecosystem with high switching costs. Taking a similar path, big tech companies in the U.S. rose to their dominance as online platforms.¹ These tech giants have concentrated a huge amount of capital for them to innovate and serve the changing needs of customers with unmatched efficiency. However, this transformative power bears a potent risk of monopolization, exacerbated by their control over data which is an essential infrastructure on which their rivals depend. In face of this antitrust concern, regulators in the U.S. and China share the same goal of restoring competition in online platform industry.

Without a robust system of remedies, consumers would remain subject to market power that has been unlawfully acquired or maintained, despite findings of liability.² In light of tech giants' controls of significant shares of market activities in their respective sectors, it became much easier for antitrust authorities to establish their dominance in relevant markets. As antitrust cases against big techs grow more complex, antitrust remedies for big techs become more complex and require more attention. Given the intersections between data privacy and consumer welfare, remedies for big techs invite more creative solutions and more delicate treatments.

This Note takes a comparative study on the antitrust remedies for Alibaba and Facebook to examine the functional goals and applicable framework in the two jurisdictions—China and the U.S. It

¹ Lina Khan, *Amazon's Antitrust Paradox*, 126 YALE L. J. 746-47 (2017) (“Amazon has established dominance as an online platform thanks to two elements of its business strategy: a willingness to sustain losses and invest aggressively at the expense of profits, and integration across multiple business lines.”).

² See Renata B. Hese, *Section 2 Remedies and U.S. v. Microsoft: What Is to Be Learned*, 75 ANTITRUST L.J. 847 (2009); Michal S. Gal & Nicolas Petit, *Radical Restorative Remedies for Digital Markets*, 37(1) BERKELEY TECH. L.J. 2 (2021). “In *U.S. v. Microsoft*, for example, the design of appropriate remedies was one of the most contentious and problematic issues. The disclosure and licensing requirements eventually imposed by antitrust agencies failed to open up operating system markets to competition.”

then compares the different regimes of remedies to address the anticompetitive conducts of online platforms and to restore competition in China and the U.S. This cross-jurisdictional study enables us to explore the available antitrust remedies for big tech, address the applicability of borrowing the remedies from each other, and make sense of the regimes chosen by the two jurisdictions. It purports to argue that (1) both China and the U.S. could widely adopt interoperability and open access to encourage competition among major online platforms; (2) divestiture is unlikely to become a viable remedy to restore competition in China due to its potential perverse effects on competition; and (3) regulators should consider data and related infrastructure as assets subject to divestiture.

A comparison study of the two cases is fruitful in two ways. First, the inconsistency in policies under different antitrust regimes is a challenge faced by global companies; thus, the knowledge of antitrust remedies would better inform these companies of the risks when conducting businesses across different jurisdictions.³ During the turmoil of the U.S.-China relations, for example, the extraterritorial nature with which antitrust can be exercised, potentially as a sanctioning power, should put transnational companies on notice.⁴ Potentially, more understanding and coordination on solutions would help de-escalate geopolitical frictions. Second, analyzing how China and the U.S. apply different remedies to address online platform monopoly would enrich the knowledge about available approaches to restrain anticompetitive behaviors and overcome challenges in implementing different remedies. This would allow a more informed assessment of the applicability and efficiency of different solutions.

The Note begins by juxtaposing antitrust regimes in the U.S. and China in regulating online platform economies. Part I gives an overview of the similarities of online platform economies in the U.S.

³ For example, in 2018, U.S. company Qualcomm, the world's biggest smartphone-chip maker, abandoned a proposed \$44 billion acquisition of Dutch chipmaker NXP Semiconductors after struggling to secure SAMR approval for the deal.

See Liana B. Baker & Greg Roumeliotis, *Qualcomm Says China Comment Will Not Revive NXP Deal*, REUTERS (Dec. 3, 2018), <https://www.reuters.com/article/us-nxp-semicondtrs-m-a-qualcomm/qualcomm-says-china-comment-will-not-revive-nxp-deal-idUSKBN1O20BG>.

⁴ ANGELA ZHANG, CHINESE ANTITRUST EXCEPTIONALISM 203-05 (2021). "In March 2017, the US Department of Commerce levied a USD 1.9 billion fine on ZTE, a Chinese technology company specializing in telecommunication, for violating US trade sanctions after exporting US-made technology to Iran and North Korea... With the US exertion of extraterritorial jurisdiction over Huawei and ZTE generating heated discussions in China, the AML [Anti-Monopoly Law] has emerged as a powerful weapon that can be used in China's regulatory response" that is a handy tool for tit-for-tat during the trade war."

and China. Part II documents the two antitrust cases, the Alibaba one and the Facebook one, and explores the evils that the regulators try to address. Part III considers the lessons to be learned from the two cases in terms of designing effective remedies and argues that (1) interoperability and open access should be widely adopted in antitrust enforcements against major online platforms in the U.S., and (2) divestiture, despite its strong deterrence effects, does not fit within the forms of competitions of online platforms in China. It also proposes a “data as an asset” approach to effectively restore competition in online platform economies.

I. ONLINE PLATFORM ECONOMIES IN THE U.S. AND CHINA

This part will give an overview of the similarities of online platform economies in the U.S. and China. Section I.A. will analyze the major characteristics of online platforms in the U.S., and Section I.B. will analyze the major characteristics of online platforms in China. Section I.C will summarize the common aspects between the two markets. These salient aspects of online platforms in the two jurisdictions shed light on the similar focus on breaking the walls between platforms and the different approaches toward divestiture in each jurisdiction. The similarities between the two markets indicate why the two jurisdictions are comparable, and the differences explain how a comparison study can shed light on designing remedies in each jurisdiction.

A. *The Characteristics of Online Platforms in the U.S.*

Silicon Valley giants have grown and thrived around the same period as their counterparts in China; however, the structure of the market is very different. The U.S. online platform market is winner-take-all, and the digital economy is highly concentrated.⁵ A number of key markets online—such as social media, general online search, and online advertising—are dominated by just one or two firms.⁶ The big tech firms have long been organized in silos: Amazon specializes in online retail market,⁷ Google in online search and search advertising,

⁵ Data and Privacy Hearing at 1 (statement of Jason Furman, Prof. of the Practice of Econ. Pol’y, Harvard Kennedy Sch.).

⁶ *Id.* at 2; Innovation and Entrepreneurship Hearing at 3 (statement of Tim Wu, Julius Silver Prof. of Law, Columbia Univ. Sch. of Law).

⁷ U.S. HOUS. JUDICIARY SUBCOMM. ON ANTITRUST, COMMERCIAL & ADMIN. LAW, INVESTIGATION OF COMPETITION IN DIGITAL MARKETS 15 (Oct. 6, 2020) https://judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf.

“Although Amazon is frequently described as controlling about 40% of U.S. online retail sales, this market share is likely understated, and estimates of about 50% or higher are more credible.”

Facebook in social networking, Apple in mobile operating system.⁸ Even though, in recent years, the rise of cloud computing and big data technologies have driven them to expand their territories,⁹ there is still a clear demarcation between their business territories. Part of this concentration is because of certain features of online platform markets—such as network effects, switching costs, the self-reinforcing advantages of data, and increasing returns to scale.¹⁰ Another part of this concentration is because the U.S. antitrust authorities restrained regulation and did not block a high volume of acquisitions by the dominant online platforms.¹¹

Also, the focus on exits of innovative startups, particularly exit by acquisition, leads to concentration in the tech industry, reinforcing the power of dominant firms.¹² Most companies that succeed, instead of going for an initial public offering, exit the market by merging with an existing firm.¹³ This short-circuits the development of truly disruptive new technologies that have historically displaced incumbents in innovative industries.¹⁴ This need for speed is attributable to the venture capital which dominates the tech industry: The reward to scale encourages exits through acquisition to gain access to larger user networks and data resources.¹⁵ The opportunity to increase the incumbent's market power and share in the resulting rents favor exit through incumbent acquisition rather than public offerings.¹⁶ Incumbents may understand a startup's market opportunity better than public traders and be willing to pay the firm's full value.¹⁷

⁸ *Id.* at 16.

⁹ Facebook has been promoting online shopping services by inserting store links on Instagram, and Amazon has been engaging in social commerce—like live-streaming product promotion.

¹⁰ U.S. HOUS. JUDICIARY SUBCOMM. ON ANTITRUST, COMMERCIAL & ADMIN. LAW, *supra* note 7, at 37.

¹¹ Chris Alcantara et al, *How Big Tech Got So Big: Hundreds of Acquisitions*, WASH. POST, (Apr. 21, 2021), <https://www.washingtonpost.com/technology/interactive/2021/amazon-apple-facebook-google-acquisitions/>.

On January 30, 2017, President Trump issued Executive Order 13771, titled “Reducing Regulations and Controlling Regulatory Costs.” Continuing the regulatory oversight process of previous administrations, the executive order places primary emphasis on cost reduction and a reduction in the overall level of regulation.

¹² Mark Lemley & Andrew McCreary, *Exit Strategy* at 1 (STANFORD LAW & ECONS. Olin Working Paper No. 542, 2020), <https://ssrn.com/abstract=3506919>.

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.* at 26.

¹⁶ *Id.* at 32.

¹⁷ *Id.* at 35.

However, this highly siloed structure may change in face of disruptive technology and soaring demand in new markets. Recently, tech giants have tended to expand their business across the market dividing lines. The pandemic has accelerated consumer demand for the ability to buy online. WhatsApp's privacy update in January 2021 noted that users would be able to connect their Facebook Pay account "to pay for things on WhatsApp" by sharing their WhatsApp info with Facebook's family of apps, paving the road for Facebook's e-commerce push.¹⁸ Also accelerated by the pandemic, competition in the booming cloud services market is in its early stage, with Microsoft and Amazon taking the lion share of the market and Google staying a solid third place.¹⁹ The ballooning valuation in the market and the \$10 billion Pentagon JEDI contract have set the stage for more competitions to come in the near future.²⁰

B. *The Characteristics of Online Platforms in China*

The online platform market in China has more fierce competition than the one in the U.S. While the major platforms, like Alibaba and Tencent, have established their ecosystems, they compete with each other and emerging small platforms in sub-divided markets. In the past few years, new competitors have come of age with flourishing business models. Seven-year-old Little Red Book has gained approximately 85 million users and become one of China's most popular apps for cross-border commerce. Pinduoduo, founded in 2015, has grown to be the largest agriculture-focused online platform in China, which connects farmers and distributors with consumers directly through group bargaining. ByteDance, the parent company of Douyin and Tiktok was founded in 2012 and is now worth \$250 billion, according to Bloomberg,²¹ operates a range of content platforms that inform and entertain people. One sign of fierce competition is that

¹⁸ Andrew Hutchinson, *WhatsApp Updates Privacy Policy, Paving the Way for the Integration of Facebook's Messaging Apps*, SOCIAL MEDIA TODAY (Jan. 6, 2021), <https://www.socialmediatoday.com/news/whatsapp-updates-privacy-policy-paving-the-way-for-the-integration-of-face/592932/>.

¹⁹ Sergei Klebnikov, *Microsoft is Winning the 'Cloud War' Against Amazon: Report*, FORBES (Jan. 7, 2020), <https://www.forbes.com/sites/sergeiklebnikov/2020/01/07/microsoft-is-winning-the-cloud-war-against-amazon-report/?sh=1f9249273bec>.

²⁰ Aaron Tilley, *Battle for the Cloud, Once Amazon vs. Microsoft, Now Has Many Fronts*, WALL ST. J. (July. 25, 2021), <https://www.wsj.com/articles/battle-for-the-cloud-once-amazon-vs-microsoft-now-has-many-fronts-11627221600>.

²¹ Taylor Nicole Rogers & Tyler Sonnemaker, *Meet Zhang Yiming, the Secretive Chinese Billionaire Behind TikTok Worth \$44 Billion Who Just Stepped Down as ByteDance CEO*, BUSINESS INSIDER (May 19, 2021), <https://www.businessinsider.com/tiktok-billionaire-zhang-yiming-net-worth-lifestyle-2019-11>.

Alibaba's share of the market capitalization of the Chinese e-commerce industry has dropped from 81% in 2014 to 55% today.²²

Competition has led online platforms to demolish the boundaries between different types of services.²³ Online platforms in China are all-encompassing entities. Its market is far bigger than the one in the U.S. with tech firms blending e-commerce, social media, digital payments, group deals, gaming, instant messaging, short-form videos, and live-streaming celebrities.²⁴ While customers can access almost all the online services they want through omnichannel, multiple online platforms coexist in one sector. Take the example of the supermarket sector: Alibaba's Freshippo and JD.com's 7Fresh are the main grocery chains.

C. Common Characteristics

Despite the above-mentioned differences between the online platform markets in China and the U.S., many cornerstone features of online platforms shape the markets in similar ways. These similarities paint the background for a meaningful comparison of antitrust remedies sought in the Alibaba case and the pending Facebook lawsuit.

1. The Importance of Data and Lock-in Effect

Users pay for the platform's services by handing over their data. Algorithm and big data are the driving forces of productivity since most services provided on the platforms have increasing returns to scale coming from a learning curve: More user data results in better predictions of what a user wants, and thus, higher user stickiness. Moreover, a better database enables better-performing algorithms, and top-performing algorithms create competitive advantages in online platform economies. For example, Tiktok led users to spiral down video rabbit holes and watch extreme content through its algorithm that personalizes an endless stream of short videos for users.²⁵ Similarly, Facebook established its dominance in social networking by employing its database which includes "the world's largest pool of

²² *Why Retailers Everywhere Should Look to China*, ECONOMIST (Jan. 2, 2021), <https://www.economist.com/leaders/2021/01/02/why-retailers-everywhere-should-look-to-china>.

²³ *Id.*

²⁴ *Id.*

²⁵ Hannah Towey, *The Secret Factors that Influence Your TikTok Algorithm and "For You" Page Were Just Revealed. The App is Tracking How Long You Watch or Hover Over Video*, BUSINESS INSIDER (Jul. 21, 2021), <https://www.businessinsider.com/how-tiktok-algorithm-for-you-page-works-watch-time-report-2021-7>.

personal data and its biggest ‘social graph’—the list of its members and how they are connected”.²⁶

Related to the self-reinforcing power of data is the “lock-in” effect of platforms. A market exhibits “lock-in” effect when switching costs are sufficiently high that users stay with an incumbent firm rather than switch to a firm whose product or service which they would prefer.²⁷ High switching costs present antitrust concerns as it would reduce competition, deter market entry, and worsen data privacy.²⁸ To lock in users and insulate itself from competition, Google, for example, tied Google search app and browser app, conditioned payments on exclusive pre-installation of Google Search, and obstructed development and distribution of competing Android operating system.²⁹ Similarly in China, tech giants like Alibaba and Tencent tried to prevent users from switching to other platforms by blocking access to outside links.³⁰

2. Maintaining Dominance Through Killer/Nascent Mergers

Besides the growing power of data which leads to higher market concentrations, China and the U.S. share another aspect of competition in online platform economies: the practice of tech giants buying up nascent competitors to neutralize potential competitions. Given the fast-changing nature of online platform economies, the urge for capturing the first mover’s advantage and compounding effects of data is big. While incumbent platforms may not be able to become the pioneer in every market, they have the capital and market power already established to identify and buy up potential competitors. Serving as gatekeepers, they could identify potential competitors by leveraging their access to users’ data on platforms to gauge users’ preferences to different new apps. Moreover, with the strong support from their investors, they can scare off potential investors to their

²⁶ *How to Tame the Tech Titans*, ECONOMIST (Jan. 20, 2018), <https://www.economist.com/leaders/2018/01/18/how-to-tame-the-tech-titans>.

²⁷ MAURICE E. STUCKE & ALLEN P. GRUNES, *BIG DATA AND COMPETITION POLICY* 159 (2016).

²⁸ *Id.*

²⁹ *Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google's search engine*, EUROPEAN COMMISSION (Jul. 18, 2018), https://ec.europa.eu/commission/presscorner/detail/en/IP_18_4581. n

³⁰ Gongxinbu Huiying Jiechu Pingbi Wangzhi Lianjie: Dui Zhenggai Bu Chedi Qiye Yifa Caiqu Cuoshi (工信部回应解除屏蔽网址链接：对整改不彻底企业依法采取措施) [The Ministry of Industry and Information Technology Responded to Anti-Blockage Requirement: Will Bring Actions According to Laws Against Companies Failed to Revise Thoroughly], Pengpai Guangdong (澎湃广东) (Sept. 13, 2021), https://m.thepaper.cn/baijiahao_14483792.

competitors, limit the growth of their competitors, and acquire their competitors at low prices.³¹ This process allows them to insulate themselves from potential competition and maintaining their dominance.

In the U.S., Facebook's acquisitions of Instagram and WhatsApp are examples of killer/nascent merger. Facebook carefully scanned the horizon for nascent threats that might replace it; it identified Instagram and WhatsApp as its biggest competitive threats and acted to neutralize the competitive threats.³² In China, the practice of killer/nascent merger is not unprecedented. For example, in 2021, Tencent Music pursued exclusive streaming rights with China Music Gorup (Kuwo and Kugou apps).³³ SAMR ordered Tencent to end its exclusive music licensing deals with global record labels.³⁴ The competition concern is due to a high combined market share (70% in revenues and higher on other metrics), following the China Music Group acquisition, in the Internet music broadcast platform market.³⁵ Moreover, the regulators stated that they will scrutinize closely on potential killer/nascent merger.³⁶

3. Shift of Regulatory Focus from Efficiency to Fairness

Recently, antitrust authorities in the U.S. and China—legislative initiatives and investigations on digital platforms—have set

³¹ Khan, *supra* note 1, at 769.

³² C.S. Hemphill & Tim Wu, *Nascent Competitors*, 168 U. PA. L. REV. 1879 (2020), https://scholarship.law.upenn.edu/penn_law_review/vol168/iss7/1.

³³ Pei Li, *China to Order Tencent Music to Give Up Music Label Exclusivity-Sources*, REUTERS, Jul. 12, 2021, <https://www.reuters.com/world/china/exclusive-china-order-tencent-music-give-up-music-label-exclusivity-sources-2021-07-12/>.

³⁴ Adrian Emch, *Huya/Douyu and Tencent/China Music Group – a “new normal” for Chinese merger control?*, KLUWER COMPETITION LAW BLOG, Aug. 22, 2021, <http://competitionlawblog.kluwercompetitionlaw.com/2021/08/22/huya-douyu-and-tencent-china-music-group-a-new-normal-for-chinese-merger-control/>.

³⁵ *Id.*

³⁶ Guowuyuan Fanlongduanweiyuanhui Guanyu Pingtaijingji Lingyu de Fanlongduan Zhinan (国务院反垄断委员会关于平台经济领域的反垄断指南) [Guidelines of the Anti-monopoly Commission of the State Council for Anti-monopoly in the Field of Platform Economy] (promulgated by the Anti-Monopoly Committee of the State Council, Feb. 7, 2021, effective Feb. 7, 2021), CLI.4.352590(EN) (Lawinfochina) (“The anti-monopoly law enforcement institution under the State Council shall pay great attention to concentration of undertakings in the field of platform economy in which one operator participating in the concentration is a newly-formed firm or an emerging platform, the turnover of an operator participating in the concentration is relatively low as a free or low-price mode is adopted, the relevant markets are relatively highly concentrated, and the number of participating competitors is small, and shall investigate and handle it in accordance with the law where the concentration fails to meet the standards for declaration but has or is likely to have the effect of eliminating or restricting competition.”).

their eyes on the anticompetitive issues in online platform industry. The U.S. House Committee on Judiciary published a bipartisan investigation report on the state of competition online, examining the dominance of Amazon, Apple, Facebook, and Google.³⁷ On the other side of the globe, Beijing bulked up the State Administration for Market Regulation (“SAMR”) this spring: It unveiled antitrust guidelines on platform economy³⁸ and revamped its competition law with proposed amendments including expanded criteria for determining market dominance.³⁹

Behind this activism by antitrust authorities is a common shift from price theory towards “loss of potential competition” as a theory of harm. In the U.S., the movement, sometimes called the New Brandeis movement—to prioritize competition and move away from consumer welfare standards is growing.⁴⁰ Divestiture—a structural remedy that requires spinning off assets—is a drastic remedy that has rested dormant for decades. Recently, it has gained increasing considerations as a practical mean to address big techs’ power.⁴¹ In the recent FTC case against Facebook, accusing it of buying up competitors, the FTC aimed to liquidate competition in the social media industry by forcing Facebook to unwind its two major acquisitions of WhatsApp and Instagram.⁴² If the FTC’s legal action is

³⁷ U.S. HOUS. JUDICIARY SUBCOMM. ON ANTITRUST, COMMERCIAL & ADMIN. LAW, *supra* note 7.

³⁸ *China Unveils Antitrust Guidelines on Platform Economy*, XINHUA (Feb. 7, 2021), http://english.www.gov.cn/policies/latestreleases/202102/07/content_WS601ffe31c6d0f72576945498.html.

³⁹ *Exclusive: China’s Antitrust Regulator Bulking Up as Crackdown on Behemoths Widens*, REUTERS (Apr. 11, 2021), <https://www.reuters.com/world/china/exclusive-chinas-antitrust-regulator-bulking-up-crackdown-behemoths-widens-2021-04-11/>.

Also, the sheer number of antitrust cases has increased from an average of 17 cases per year between 2013 and 2020 to 118 cases in 2021. *See* Fanlongduan Zhi Nian: 118Ge Xingzheng Chufa Anjian Daodi Fan le Shenme? (“反垄断”之年：118个行政处罚案件到底“反”了什么?) [Year of Antitrust: What Were Anti-ed in the 118 Administrative Punishment Cases], Pengpai Xinwen (澎湃新闻新闻) (Jan. 4, 2022), <https://baijiahao.baidu.com/s?id=1721025369419195484&wfr=spider&for=pc>.

⁴⁰ Lina Khan, *The New Brandeis Movement: America’s Antimonopoly Debate*, 9 J. EUR. COMPET. LAW PRACT. 131–132 (2018), <https://doi.org/10.1093/jeclap/lpy020>.

⁴¹ *See, e.g.*, Elizabeth Warren, *Here’s How We Can Break Up Big Tech*, MEDIUM (Mar. 8, 2019), <https://medium.com/@teamwarren/heres-how-we-can-break-up-big-tech-9ad9e0da324c>; Tim Wu, *Facebook Cannot Buy Its Way Out of Competition*, N.Y. TIMES (12 December 2020), <https://www.nytimes.com/2020/12/12/opinion/facebook-antitrust.html>.

⁴² Kelley Anne Smith, *What’s Going On With the Facebook Antitrust Lawsuit?*, FORBES (May 17, 2021), <https://www.forbes.com/advisor/investing/update-facebook-antitrust-lawsuit/>.

successful, Facebook would effectively lose its “data-opoly” status.⁴³ From a policy standpoint, the increasing attention on divestiture is consistent with the recent shift of focus from economic efficiency—mainly emphasized by the Chicago School—to fair competition—strongly advocated by the new chair of FTC, Lina Khan.

Chinese regulators have signaled a similar shift: Many antitrust scholars suggested that the antitrust enforcement in the past decade in China has overemphasized efficiency,⁴⁴ and the recent Central Committee Meeting for Comprehensively Deepening Reform (中央全面深化改革委员会会议) held by Chairman Xi has put fairness ahead of efficiency.⁴⁵ Meanwhile, Chinese regulators embraced a different philosophy in terms of antitrust remedies: They raised the idea of “preventing system isolation and ensuring open ecosystem,”⁴⁶ which focused on breaking down the entry barriers by forcing interconnections.

Network effects and data gravity have created great first-mover advantages; lock-in effect increases the entry barrier for insurgent platforms; and killer acquisitions further stifle competition. After decades of development, the markets for online platforms in both China and the U.S. consolidate. The role of critical intermediaries and the capital accumulated by the dominant platforms empowered them to wage preventive wars against potential competitors. Regulators in

⁴³ Maurice E. Stucke, *Should We Be Concerned About Data-opolies?*, 2 *GEO. L. TECH. REV.* 275 (2018). “data-opolies—companies that control a key platform, which, like a coral reef, attracts users, sellers, advertisers, software developers, apps, and accessory makers to its ecosystem.”

⁴⁴ Buduan Manzu Renmin Riye Zengzhang de Meihao Shenghuo Xuyao (不断满足人民日益增长的美好生活需要) [Continue to Fulfill People’s Growing Need for Good Lives], *Yanguangwang* (央广网) (Nov. 14, 2017), <https://baijiahao.baidu.com/s?id=1584013038932235322&wfr=spider&for=pc>.

“Uneven and insufficient development is part of the feature of monopolistic economy: the concentration of market power and monopolization of dominant companies would drive the market to the profit maximization point of the monopoly company rather than the market’s inefficient point.”

⁴⁵ Xijiangping Zhuchi Zhaokai Zhongyang Quanmian Shenhua Gaige Weiyuanhui Huiyi: Jiaqiang Fanlongduan Buzhengdang Jingzheng Jianguan Lidu, Wanshan Wuzi Chubei Jizhi, Shenru Dahao Wuran Fangzhi Gongjianzhan (习近平主持召开中央全面深化改革委员会会议: 加强反垄断反不正当竞争监管力度, 完善物资储备体制机制, 深入打好污染防治攻坚战) [Xi Jinping Hold Central Committee Meeting for Comprehensively Deepening Reform], *Xinhua* (新华社) (Aug. 30, 2021), http://www.gov.cn/xinwen/2021-08/30/content_5634220.htm.

⁴⁶ San Bumen Lianhe Zhaokai Hulianwang Pingtai Qiye Xingzheng Zhidahui (三部门联合召开互联网平台企业行政指导会) [Three Departments Hold Administrative Guidance Meeting Together re Online Platform Companies], *Xinhua* (新华社) (Apr. 14, 2021), <http://www.chinatax.gov.cn/chinatax/n810219/n810780/c5163402/content.html>.

both jurisdictions have recognized these situations, and the next part will analyze how the recent cases reflect the regulatory approaches in both jurisdictions.

II. EVILS TO BE REMEDIED

The bigness of online platforms, by itself, is not the target of regulatory authorities. As Judge Learned Hand once cautioned: “The successful competitor, having been urged to compete, must not be turned upon when he wins.”⁴⁷ However, the dominance of some online platforms has posed serious threats to the society. The U.S. regulators observed that the dominance of online platforms has materially weakened innovation and entrepreneurship, forced poor privacy safeguards upon consumers, and undermined both political and economic liberties.⁴⁸ Chinese authorities echoed the concerns: The head of SAMR noticed that some monopolization behavior of online platforms threatens data privacy, innovation, and public interests.⁴⁹

The common goal of antitrust authorities across the Pacific is fair and healthy competition that generates innovation and protects data privacy. The national-security rhetoric employed by big techs to defend their dominance against antitrust probe has suffered disillusion as Chinese regulators bulked up their power to rein the behemoths.⁵⁰ Meanwhile, the coinciding efforts of regulators in both China and the U.S. to tame the tech giants signal a trend of shifting focus from efficiency to fairness. The efficiency from economies of scale is no longer persuasive enough to exempt the tech giants from antitrust

⁴⁷ *United States v. Aluminum Company of America*, 148 F.2d 416, 430 (2d Cir. 1945).

⁴⁸ U.S. HOUS. JUDICIARY SUBCOMM. ON ANTITRUST, COMMERCIAL & ADMIN. LAW, *supra* note 7, at 17-18.

⁴⁹ Jiang Huizi (姜慧梓), Shichang Jiandu Guanli Zongju Juzhang Tan Pingtai Fanlongduan: Youde Shenzhi Gei Shuju Anquan Dailai Fengxian (市场监管总局局长谈平台反垄断: 有的甚至给数据安全带来风险) [The Head of the SAMR Discussed Antitrust re Platforms: Some Could Even Bring Risks to Data Safety], *Xinjingbao* (新 京 报) (Sept. 6, 2021), <https://baijiahao.baidu.com/s?id=1710144785275982773&wfr=spider&for=pc>.

⁵⁰ Tom Wheeler, *China's New Regulation of Platforms: A Message for American Policymakers*, BROOKINGS (Sept. 14, 2021), <https://www.brookings.edu/blog/techtank/2021/09/14/chinas-new-regulation-of-platforms-a-message-for-american-policymakers/>.

Sheryl Sandberg, Facebook's chief operating officer, played the “competition with China” card when she told CNBC, “[w]hile people are concerned with the size and power of tech companies, there’s also a concern in the United States with the size and power of Chinese companies, and the realization that these companies are not going to be broken up.” However, there have been over 50 regulatory actions against Chinese firms for a dizzying array of alleged offenses, from antitrust abuses to data violations, reported by *The Economist*.

scrutiny, and the effects of market power on innovation, entrepreneurship, and data privacy attract increasing regulatory attention. Chinese regulators launched an anti-monopoly investigation of Alibaba on its practice of forcing merchants to choose one of two platforms and fined Alibaba of \$2.75 billion for the alleged exclusionary behavior.⁵¹ In a pending lawsuit, FTC alleged Facebook for an illegal buy-or-bury scheme to maintain its dominance after a string of failed attempts to innovate,⁵² and FTC sought divestitures of assets, including Instagram and WhatsApp.⁵³

Regulators—in both China and the U.S.— have already signaled that they have noticed the dominant position of the major tech companies and may target their anticompetitive practices with serious charges and remedies.⁵⁴ The guideline issued by Chinese regulators and the judiciary report published by FTC has proposed new regulatory approaches to reinstate competition and protect innovation in online platform economies.

Part II.A will discuss the Alibaba case brought by SAMR, and Part II.B will discuss the Facebook case brought by the FTC. Part III.C examines the regulatory responses to the antitrust issues exemplified in these two cases in both jurisdictions. Part III.C.1 examines the

⁵¹ Christine Zhang, *China Slaps Alibaba with \$2.8 Billion Fine in Anti-Monopoly Probe*, CNBC (Apr. 9, 2021), <https://www.cnbc.com/2021/04/09/china-fines-alibaba-in-anti-monopoly-probe.html>.

⁵² Press Release, FTC, *FTC Alleges Facebook Resorted to Illegal Buy-or-Bury Scheme to Crush Competition After String of Failed Attempts to Innovate* (Aug. 19, 2021), <https://www.ftc.gov/news-events/press-releases/2021/08/ftc-alleges-facebook-resorted-illegal-buy-or-bury-scheme-crush>.

⁵³ Press Release, FTC, *FTC Sues Facebook for Illegal Monopolization* (Dec. 9, 2020), <https://www.ftc.gov/news-events/press-releases/2020/12/ftc-sues-facebook-illegal-monopolization>.

⁵⁴ The Subcommittee on antitrust, commercial and administrative law of the committee on the judiciary has published a majority staff report and recommendations reflecting their recent investigation of the online platform market. It claims that the major tech companies—Facebook, Apple, Google, Amazon—have acquired and maintained dominant power by anticompetitive practices, and proposes recommendations on restoring competition in the digital economy. United States House Judiciary Subcommittee on Antitrust, Commercial and Administrative Law, *Investigation of Competition in Digital Markets* (6 October 2020), https://judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf. Also, SAMR has published an antitrust guideline on online platform economies. It's part of the efforts to revise antitrust investigation mechanisms and strengthen enforcement approaches. Guówùyuàn fǎn lǒngduàn wēiyuánhùi guānyú píngtái jīngjì lǐngyù de fǎn lǒngduàn zhǐnán (国务院反垄断委员会关于平台经济领域的反垄断指南) [Antimonopoly Guidelines of the Anti-Monopoly Committee of the State Council on the Platform Economy] (promulgated by the Anti-Monopoly Committee of the State Council on February 7, 2021, effective on February 7, 2021), http://www.gov.cn/xinwen/2021-02/07/content_5585758.htm.

judicial report issued by the subcommittee on antitrust, commercial, and administrative law and how the FTC has begun to restore competition through remedies sought in the Facebook case. Part III.C.2 examines the guidelines published by SAMR and how SAMR has begun to address anticompetitive practices through remedies granted in the Alibaba case.

A. *The Alibaba Case*

Section A.1 will explore the “pick-one-from-the-two” practice of Alibaba, and section A.2 will discuss another practice of Alibaba, blocking outside links and access. SAMR accused both practices of being anticompetitive and imposed remedies on Alibaba to correct its violations and restore competition.

1. The Exclusive Dealing Involved in the “Pick-One-From-the-Two”⁵⁵ Practice

In December 2020, SAMR has launched an investigation on Alibaba and found that Alibaba has prevented merchants from selling their products on other platforms.⁵⁶ SAMR claimed that Alibaba is dominant in the e-commerce market, since its market shares by platform service income and sales revenue are both around 70%-80%.⁵⁷ Also, the HHI index for the Chinese domestic e-commerce platform service market is above 5000 from 2015 to 2019.⁵⁸

The illegal anti-competitive behavior identified by SAMR is the practice of prohibiting merchants on its platform to open stores or join promotion events on its competitor’s platforms.⁵⁹ Alibaba has ranked merchants based on their contributions to the e-commerce platform’s competitiveness.⁶⁰ Some merchants that ranked high have entered written agreements with Alibaba that expressively prohibit them to open stores or join promotional events on competitor platforms.⁶¹ Other merchants that ranked high have entered oral

⁵⁵ Depending on the translation of Chinese to English, the practice of pick-one-from-the-two has other translations like choosing-one-from-two.

⁵⁶ Christine Zhang, *China Slaps Alibaba with \$2.8 Billion Fine in Anti-Monopoly Probe*, CNBC (Apr. 9, 2021), <https://www.cnbc.com/2021/04/09/china-fines-alibaba-in-anti-monopoly-probe.html>.

⁵⁷ Shichang Jianguan Zongju Yaoqiu Alibaba Quanmian Zhenggai (市场监管总局要求阿里巴巴全面整改) [SAMR Requires Alibaba to Change and Revise Thoroughly], *Xinjingbao* (新 京 报) (Apr. 10, 2021), <https://baijiahao.baidu.com/s?id=1696616703718464551&wfr=spider&for=pc>.

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ *Id.*

agreements to downgrade their stores on competitor platforms by limiting storage, limiting the number of stores, refusing to deliver, etc.⁶²

In light of Alibaba's dominant market position and merchants' strong reliance on the e-commerce platform, these agreements have strong binding forces.⁶³ In addition, Alibaba pulled its muscles to enforce the agreements.⁶⁴ Its internet surveillance power allowed it to monitor the merchants' activities on competitor platforms.⁶⁵ Meanwhile, it manipulated its market power to punish the merchants who violate the agreements, including reducing supports on their promotions, excluding them from promotional events, degrading them in search results, and so on.⁶⁶ Even though Alibaba contended that the agreements were signed by merchants voluntarily, the court rejected it and reasoned that these merchants usually intend to open stores and promote their products on multiple platforms.⁶⁷

Even though this kind of exclusive contract reflect a business decision and is generally lawful, its harm stems from the fact that the enforcer of the practice has a dominant position in the market: When Alibaba has an over 70% of market share in e-commerce, merchants would choose the platform with higher market share in the existence of a "pick-one-from-the-two" agreement, which would effectively drive out those platforms with lower market shares.

As for remedies, SAMR enjoined Alibaba from this practice, fined it for \$2.75 billion (4% of its domestic sales revenue in 2019), required it to submit a ratification plan in response to the ruling, and subjected it to a three-year compliance reporting requirement.⁶⁸ This case signals the start of a tightened antitrust review of anticompetitive practices of online platforms, targeting especially those that affect competitions between major platforms, like a "pick-one-from-the-two" agreement.⁶⁹

⁶² *Id.*

⁶³ *Id.*

⁶⁴ *Id.*

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ *Id.*

⁶⁹ Raymond Zhong, *China's Tech Antitrust Campaign Snares Meituan, a Food-Delivery Giant*, N.Y. TIMES (Oct. 7, 2021), <https://www.nytimes.com/2021/10/08/technology/china-meituan-antitrust-fine.html>. In October 2021, SAMR fined Meituan, an online and mobile prepared food ordering and delivery platform, for approximately \$527 million. The anticompetitive practice targeted is its "pick-one-from-the-two" approach which

This case is the first time that SAMR recognized the anticompetitive effect of “pick-one-from-the-two” agreements and its violation of the Anti-Monopoly Law.

2. Anti-Blockage Rule: Breaking Down Barriers of Access Between Different Platform Ecosystems

In September 2021, the Ministry of Industry and Information Technology (“MIIT”) announced that online platforms, including Alibaba, Tencent, ByteDance, etc., need to lift blockage of outside links avoid facing legal punishment.⁷⁰ Alibaba, Tencent, and ByteDance all announced their intention to comply.⁷¹ The blockage of content from other platforms has been a widespread practice to prevent users leaving the platform ecosystem and fend off competitions.⁷² For example, in February 2021, Douyin sued Tencent for blocking users on WeChat and QQ—two of the biggest social networking apps in China, with a combined monthly active users of 1.8 billion—to share content from Douyin.⁷³ The CEO of ByteDance also, on his social network account, accused Tencent of blocking access to Lark, an enterprise collaboration platform developed by ByteDance, on WeChat.⁷⁴

The harm of blocking outside links and accesses is twofold. For users, it raises the cost to switch between different platforms and increases the incentives for users to stay within one platform’s

imposes higher service fees on restaurants that didn’t sign an exclusive-arrangement agreement with Meituan.

⁷⁰ *Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google’s search engine*, see *supra* note 30.

⁷¹ Lu Xiye (卢思叶), *Tengxun: Weixin Wailian Guanli Cuoshi Zi 9yue 17ri Qi Fenjieduan Fenbuzhou Shishi* (腾讯: 微信外链管理措施自9月17日起分阶段分步骤实施) [Tencent: Measures to Manage Outside Links in WeChat Will be Implemented in Stages and Steps Since September 17th], *Guanchazhewang* (观察者网) (Sept. 17, 2021), <https://baijiahao.baidu.com/s?id=1711142099078184925&wfr=spider&for=pc>.

⁷² Because of the blockage, people cannot access links of Alipay or Taobao directly through WeChat. However, the contents and links of most other apps can be shared on WeChat.

⁷³ *Douyin Qisu Tengxun: Yaoqiu Weixin QQ Tingzhi Xianzhi Yonghu Fenxiang Laizi Douyin Neirong* (抖音起诉腾讯: 要求微信QQ停止限制用户分享来自抖音内容) [Douyin sued Tencent: Asking WeChat and QQ to Stop Restricting Users from Sharing Contents from Douyin], *Pengpai Xinwen* (澎湃新闻) (Feb. 2, 2021), <https://baijiahao.baidu.com/s?id=1690579043040577982&wfr=spider&for=pc>.

⁷⁴ *Zhongbang! Douyin Qisu Tengxun Longduan* (重磅! 抖音起诉腾讯垄断) [Douyin Sued Tencents for Monopoly], *Yunzhidui* (云之队) (Feb. 2, 2021), https://www.sohu.com/a/448344160_718349.

ecosystem. For potential competitors, it increases the entry barrier for insurgent platforms by locking the network effect within the platform's ecosystem. It's harder for insurgent platforms to get access to a bigger user base, and merchants would prefer dominant platforms over the insurgent ones, especially if "pick-one-of-the-two" is also in place.

Therefore, breaking down the barrier would allow users to have more choices and bring competition one step closer to "one click away." Although, theoretically, interconnection requirement can break the power of network effects,⁷⁵ the extent to which insurgent platforms could take advantage of it in practice is questionable. Before this requirement was in place, major online platforms like WeChat did not block access of links and contents from less dominant apps like Little Red Book. Meanwhile, as users can share products on Taobao through WeChat, incumbent platforms, like Alibaba, would also benefit from the anti-blockage policy, furthering its competitive advantage over insurgent platforms like Little Red Book. Consequently, this requirement would trigger more competition among incumbent platforms rather than competition between incumbent and insurgent ones.

Moreover, the implementation of this interconnection requirement is not a clear cut as it seems. Security is the bottom line of consumers in online platform economies. This interconnection policy raises concern about the rising risk of being exposed to computer viruses and phishing links. While this is a legitimate defense for platforms to restrict openness, the new requirement recognizes the anticompetitive harm of blocking outside links and puts the risk of facing legal remedies on platforms that do not have a valid reason for noncompliance. This would, in return, push platforms to refrain from blocking outside links for anticompetitive reasons. Thus, this requirement, at least, has a deterrence effect on platforms that block outside links and insulate themselves from competitions.

In the Alibaba case, the Chinese regulators prohibited the "pick-one-from-the-two" practice and enforced interconnection requirements to ensure that the platform cannot discriminate among merchants who use the platform or disrupt the interconnection among platforms. Though the data privacy and security issue are left to be finalized, the hefty fines imposed in this case and the interconnection

⁷⁵ Michael Kades & Fiona Scott Morton, *Interoperability as a Competition Remedy for Digital Networks* 14 (WASH. CTR. FOR EQUITABLE GROWTH, Working Paper Sept. 2020), <https://equitablegrowth.org/wp-content/uploads/2020/09/092320-WP-Interoperability-as-a-competition-remedy-for-digital-networks-Kades-and-Scott-Morton.pdf>.

requirements demonstrate Chinese regulators' choice of remedies to restore competition.

B. *The Facebook Case*

The antitrust lawsuit brought by FTC against Facebook in December 2020 sought the most serious penalty that online platforms have ever faced.⁷⁶ This lawsuit is, to some extent, an effort to undo Facebook's acquisitions of Instagram and WhatsApp and to restore competition in the social networking market. Facebook purchased Instagram, a photo-sharing app, for \$1 billion in 2012.⁷⁷ Later, it acquired WhatsApp, a global messaging app, for \$19 billion in 2019.⁷⁸ FTC, in its complaint, depicts these acquisitions as part of a "bury-and-buy" scheme, which is not unique in the online platform industry.⁷⁹ After the acquisitions, Facebook became the owner of three of the world's largest messaging networks: WhatsApp, Instagram, and Facebook Messenger. Though the services continued to operate as stand-alone apps, Facebook unified their underlying technical infrastructure and pushed to integrate the three apps since 2019.⁸⁰ The goal of this ongoing integration effort is to increase Facebook's competitive advantage in messaging services compared to Apple and Google, by "increase[ing] Facebook's utility and keep[ing] users highly engaged inside the company's ecosystem."⁸¹ The incentives behind all this are the advertising business and other revenue-

⁷⁶ The only antitrust lawsuit that FTC brought against tech giants in the past decade is *United States v. Google Inc. and ITA Software, Inc.*, where the Department of Justice required Google "to develop and license travel software, to establish internal firewall procedures and to continue software research and development" but allowed Google to proceed with its acquisition of ITA Software Inc. pursuant to the requirements. Press Release, U.S. Dep't of Justice, Justice Department Requires Google Inc. to Develop and License Travel Software in Order to Proceed with Its Acquisition of ITA Software Inc. (Apr. 8, 2011), <https://www.justice.gov/opa/pr/justice-department-requires-google-inc-develop-and-license-travel-software-order-proceed-its>.

⁷⁷ Kurt Wagner, *Here's Why Facebook's \$1 Billion Instagram Acquisition Was Such a Great Deal*, THE VOX (Apr. 9, 2017), <https://www.vox.com/2017/4/9/15235940/facebook-instagram-acquisition-anniversary>.

⁷⁸ Adrian Covert, *Facebook Buys WhatsApp for \$19 Billion*, CNN TECH (Feb. 19, 2014), <https://money.cnn.com/2014/02/19/technology/social/facebook-whatsapp/>.

⁷⁹ Tim Wu & Stuart A. Thompson, *The Roots of Big Tech Run Disturbingly Deep*, N.Y. TIMES (June 7, 2019), <https://www.nytimes.com/interactive/2019/06/07/opinion/google-facebook-mergers-acquisitions-antitrust.html>.

⁸⁰ Mike Isaac, *Zuckerberg Plans to Integrate WhatsApp, Instagram and Facebook Messenger*, N.Y. TIMES (Jan. 25, 2019), <https://www.nytimes.com/2019/01/25/technology/facebook-instagram-whatsapp-messenger.html>.

⁸¹ *Id.*

generating services that Facebook runs, whose profitability correlates positively with the time people spend on the platform. For example, Facebook Marketplace benefited from this integration by allowing and encouraging buyers and sellers to communicate more easily within the Facebook ecosystem.⁸²

Because of this unification, Facebook users can communicate across the platforms with one account, without having to download an app or switching between multiple apps. However, in exchange for the cross-app communication function, users are forced to compromise data privacy: user information on WhatsApp—including phone number, transaction data, social networking behavior, IP address, and more—can be shared across Facebook’s apps, according to WhatsApp’s recent privacy policy update.⁸³ Besides the effort to lock in users within its network, this integration combines the customer bases and limits technical distinctions of the three apps. Thus, it erodes product differentiation and consumer choices.

Because of these ongoing efforts to unify the underlying infrastructures of Facebook Messenger, Instagram, and WhatsApp, the complexity and cost of the divestiture increases.⁸⁴ Meanwhile, if the government prevails in this suit, undoing the acquisitions of Instagram and Facebook would likely generate deterrence effects on future harmful mergers that would likely face the same remedy. In return, this would improve the efficiency of antitrust enforcement by reducing the cost of government oversight and future break-ups.

Though this case has not come to a final judgement by the time of this Note, it signals the tightening of antitrust regulations against the big tech giants and indicates the types of conduct which regulators will punish under the current legal regime. Furthermore, the remedies sought in this case present the kind of remedies afforded by the

⁸² *Id.*

⁸³ Hutchinson, *supra* note 18. “The new terms and privacy policy update builds upon a similar change WhatsApp announced in July last year, however in the previous update, WhatsApp gave users the option to “not have your WhatsApp account information shared with Facebook. With the latest update, WhatsApp has done away with this option...[T]he new update is mandatory for WhatsApp use, with a deadline of February 8th before the new terms come into effect.”

⁸⁴ Jeff Horwitz & Deepa Seetharaman, *Breaking Up Facebook? It’s Complicated, Tech Experts Say*, WALL ST. J. (Dec. 10, 2018), <https://www.wsj.com/articles/break-up-facebook-its-complicated-tech-experts-say-11607640537>. “If the government prevails, the technical challenges of unwinding Facebook properties would be difficult but surmountable.” Facebook algorithms link Instagram users’ identities and preferences with their Facebook accounts. “On the back end, employees regularly hop between the two platforms, which share data centers, some engineering tools and overlapping content-moderation system.... A WhatsApp separation would be easier on the front end, but arguably harder on the back.”

antitrust law and invite a rethinking of how antitrust remedies should work to restore competition in online platform economies.

The Alibaba case and the Facebook case marked the trend of increasingly close regulatory scrutiny on major online platforms in both China and the U.S. Regulators in China first set their eyes on discriminatory and exclusionary practices of online platforms, while regulators in the U.S. focused on revoking anticompetitive mergers. Regulators in both jurisdictions focused on restoring competitions and restricting corporate power. Meanwhile, their approaches are different: regulators in China mainly relied on hefty fines and interconnection requirements, and regulators in the U.S. leaned towards radical remedies like divestiture.

C. Regulatory Responses

Over the last two years, both Chinese and American regulators have recognized the dominant position of major tech companies in online platform economies. They have revised enforcement approaches to address features that are unique to online platform economies, like network effect, high switching cost, and compounding data advantages. This section explores the recommendations and legislative revisions proposed by the regulators in China and the U.S. and how the recent cases reflect these recommendations.

1. The Judiciary Report and the Facebook Case

In 2019, the Committee on the Judiciary initiated a bipartisan investigation to assess whether dominant firms are engaging in anticompetitive conduct and whether existing antitrust laws and enforcement levels are adequate to address market power and anticompetitive conduct in digital markets.⁸⁵ The Judiciary Report recognizes that Facebook has monopoly power in the market for social networking⁸⁶ and duopoly power, alongside Google, in online advertising⁸⁷. Also, it reveals Facebook's practice of acquiring competitive threats like Instagram and WhatsApp.⁸⁸ The current regulatory regime would combat this kind of practice, which is referred to by the FTC as "buy or bury," through existing remedies, like divestiture which is sought in the Facebook case. However, other features that contribute greatly to the maintenance of Facebook's

⁸⁵ U.S. Hous. JUDICIARY SUBCOMM. ON ANTITRUST, COMMERCIAL & ADMIN. LAW, *supra* note 7.

⁸⁶ *Id.* at 133.

⁸⁷ *Id.* at 170.

⁸⁸ *Id.* at 143.

monopoly position, like compounding data advantages, do not neatly fit into the existing remedial regime or even the FTC's jurisdiction.

The Report made four recommendations under the antitrust regime to restore competition in the digital economy: (1) reduce conflicts of interest through structural separations and line of business restrictions; (2) implement rules to prevent discrimination, favoritism, and self-preferencing; (3) promote innovation through interoperability and open access; and (4) reduce market power through merger presumptions.⁸⁹ The first three can be incorporated into the design of remedies, while the fourth one is a preventive measure. The first three address three evils in antitrust law—monopoly leveraging, high entry barrier, and high switching cost.

(1) Structural Separation and Line of Business Restrictions

Structural separations and line of business restrictions are structural remedies that would resolve the conflict of interest when the major online platforms, acting as dominant intermediaries, compete with dependents of the platforms. For example, Facebook, as the gatekeeper of its application programming interfaces (APIs), cannot compete with developers by delivering certain apps and features directly.⁹⁰ Facebook, also as a distribution channel, cannot compete with online publishers in selling ad placement as a major advertiser.⁹¹ Moreover, collecting user data to weaponize itself against competitors using the platform is not functionally necessary for the platform to work, while leveraging its role as a major intermediary creates an unfair competitive advantage to platforms like Facebook. Especially when third parties, like publishers, don't have a choice among business partners, rules and conditions set by the intermediaries, like Facebook, even though unfair, become practically binding.⁹² Before the restoration of competition which allows third parties to freely negotiate the access of their user data, antitrust regulators should be responsible for preventing this conflict of interest and fostering vigorous competition.

⁸⁹ *Id.* at 4.

⁹⁰ Lina M. Khan, *The Separation of Platforms and Commerce*, 119 COLUM. L. REV. 973, 1001 (2019).

⁹¹ *Id.* at 1005. "Facebook's appropriation of publishers' business information is not a feature of Facebook being vertically integrated... [C]ollecting publishers' business information is not a functional necessity of allowing publishers to use Facebook; it is instead the condition Facebook has set."

⁹² U.S. HOUS. JUDICIARY SUBCOMM. ON ANTITRUST, COMMERCIAL & ADMIN. LAW, *supra* note 7, at 378.

A major challenge raised in the Committee Report is the dynamic nature of digital economies,⁹³ since it is the lack of substitute platforms that is harmful and not a conflict of interest per se.⁹⁴ The Committee Report recognizes that Facebook is dominant in social networking services and is a gatekeeper intermediary in app development and ad placement⁹⁵; however, structural separation is only appropriate if the dominance is persistent.⁹⁶ According to the claim by Sheryl Sandberg that the “industry consolidates as it matures”⁹⁷ and Facebook’s acquisition strategy,⁹⁸ the dominance of Facebook is likely to be durable such that the concern about the dynamic market is inapt.

Despite the persistence of Facebook’s dominance, structural separation is not among the relieves sought by the FTC against Facebook.⁹⁹ Though the FTC asked for the divestiture of Instagram and WhatsApp from Facebook, this is not a structural separation since Facebook preserves its role as an intermediary and app developer. Given the network effect in two-sided platforms, regulators need to strike a balance between the incentive for intermediaries to provide better platform services and the costs to consumers due to lack of competition. Thus, questions such as how to draw the fault lines invite deeper study.

(2) Preventing Discrimination, Favoritism, and Self-Preferencing

Online platforms, acting as critical gatekeepers, are essential distribution channels for merchants using the platforms. Thus, like telecommunication and other traditionally regulated industries, online platforms should be subject to nondiscrimination requirements to allow merchants using the platforms to have an equal chance of success.¹⁰⁰ This remedy applies in two scenarios: when a platform

⁹³ *Id.* at 381.

⁹⁴ Khan, *supra* note 90, at 1077.

⁹⁵ U.S. HOUS. JUDICIARY SUBCOMM. ON ANTITRUST, COMMERCIAL & ADMIN. LAW, *supra* note 7, at 148.

⁹⁶ Otherwise, if the market is dynamic, regulatory intervention is pointless since the harm to be addressed by separation could be corrected by competition in the dynamic market.

⁹⁷ U.S. HOUS. JUDICIARY SUBCOMM. ON ANTITRUST, COMMERCIAL & ADMIN. LAW, *supra* note 7, at 138.

⁹⁸ As the FTC complaint in *FTC v. Facebook* notes, Facebook is well insulated from competitive threats under its strategy, which says “it is better to buy than compete”. *FTC v. Facebook*, Dkt. 75-1 at 1-2.

⁹⁹ *FTC v. Facebook*, Dkt. 75-1 at 51-2.

¹⁰⁰ Within the penumbra of fairness principle, the concept of “network neutrality”, also called net neutrality, embraces common carriage rules, and carries it to the digital space. This trend has received wide political and academic supports. The

competes with platform users and when a platform competes with other platforms. In the first case, self-preferencing conduct would leverage the platform's ability, when acting as an intermediary, to misappropriate information and prioritize the platform's own products or services. Amazon, for example, may misappropriate the business information of best sellers using its platform to design and sell its own products. It may also charge customers less for buying groceries on Amazon Fresh instead of Whole Foods, assuming Amazon Fresh is competing with Whole Foods. In the second case, to gain competitive advantage over other platforms, a platform's exclusive practice would discriminate unfavorably against platform users who also use the competitor's platform. For instance, if Walmart is in meaningful competition with Amazon, Amazon may charge sellers who also sell their goods on Walmart's website with higher service fee than sellers who sell on Amazon only.

The FTC revealed Facebook's discriminatory practices as part of its "buy or bury" strategy.¹⁰¹ Facebook discriminate in both ways described above: requiring developers to "agree that their apps would not compete with Facebook (including, at relevant times, by "replicating core functionality" offered by a Facebook product) and would not promote competitors."¹⁰² These practices enable Facebook to kill potential competitive threats and maintain monopoly.¹⁰³ Thus, to protect the prospects for competition in social networking, this kind of conditional access restrictions tailored to harm competition should be banned. The FTC has sought a similar remedy in its complaint against Facebook.¹⁰⁴

(3) Interoperability and Open Access¹⁰⁵

Obama Administration promoted net neutrality as part of the plan for free and open internet. See *Net Neutrality: A Free and Open Internet*, THE WHITE HOUSE (Feb. 26, 2015), <https://obamawhitehouse.archives.gov/net-neutrality>. Scholars, like Tim Wu, also argue that the internet should be free of control from the government or companies that provide it, and competition is important to drive carriers to design neutral networks. See Tim Wu, *Network Neutrality, Broadband Discrimination*, 2 J. TELECOMM. & HIGH TECH. L. 141, 148 (2003); Tim Wu, *Network Neutrality FAQ*. TIMWU.ORG. http://www.timwu.org/network_neutrality.html [Accessed Jan. 3, 2022].

¹⁰¹ FTC v. Facebook, Dkt. 75-1 at 26.

¹⁰² *Id.* at 43.

¹⁰³ *Id.*

¹⁰⁴ *Id.* at 79. "...that Facebook is permanently enjoined from reaching anticompetitive agreements governing, or imposing anticompetitive conditions on, developers' access to APIs and data."

¹⁰⁵ Open access is providing third-party apps with the access to application programming interfaces ("APIs"), and interoperability is the ability for systems to communicate with each other and transport information. This is how I define the two

For markets where the dominance of a company is inherent,¹⁰⁶ divestiture would not preserve vigorous competition in the long term, and interoperability and open access could bring more sustainable outcomes.¹⁰⁷ The Committee Report lists the benefits of interoperability and open access as remedies: breaking the network effects, reducing switching costs, and low implementation costs.¹⁰⁸ However, when structuring and enforcing these remedies, these benefits should be balanced against the potential costs of investment in innovation and market efficiency.

The long-term impact on technology innovation is another aspect that is worth noticing of antitrust regulators. A famous example of administering interoperability and open access requirements is the 1956 consent decree between the DOJ and AT&T—in which AT&T promised to get out of the general electronics business and to share its patents and technical documentation with existing and new competitors.¹⁰⁹ This consent decree later drove AT&T to license Unix

words (“open access” and “interoperability”) used in this note. *See e.g.*, Suber P. *What is Open Access?*, OPEN ACCESS (2019), <https://openaccessseks.mitpress.mit.edu/pub/6y6fc8k5/release/2>; OECD (2021); *Data portability, interoperability and digital platform competition*, OECD COMPETITION COMMITTEE, Discussion Paper, <http://oe.cd/dpic>.

¹⁰⁶ Kwoka, John E. and Valletti, Tommaso M., *Scrambled Eggs and Paralyzed Policy: Breaking Up Consummated Mergers and Dominant Firms*, INDUS. & CORP. CHANGE (November 24, 2020), <https://ssrn.com/abstract=3736613>.

“The alternative scenario is one in which the competitive problem with a dominant company is inherent in the characteristic that give rise to its dominance... To the extent that is the case, breaking up the core platform of a firm like Facebook into multiple smaller versions of the current Facebook would probably not result in long-term viability of multiple competing social media platforms.”

¹⁰⁷ U.S. HOUS. JUDICIARY SUBCOMM. ON ANTITRUST, COMMERCIAL & ADMIN. LAW, *supra* note 7, at 385. “An interoperability requirement would allow competing social network platforms to interconnect with dominant firms to ensure that users can communicate across services.” (Internal citation omitted).

¹⁰⁸ U.S. HOUS. JUDICIARY SUBCOMM. ON ANTITRUST, COMMERCIAL & ADMIN. LAW, *supra* note 7, at 385. “Foremost, interoperability breaks the power of network effects by allowing new entrants to take advantage of existing network effects at the level of the market, not the level of the company. It would also lower switching costs for users by ensuring that they do not lose access to their network as a result of switching. The implementation cost of requiring interoperability by dominant firms would be relatively low.” (internal quotations omitted) (internal citations omitted).

¹⁰⁹ Cory Doctorow, *Unix and Adversarial Interoperability: The ‘One Weird Antitrust Trick’ That Defined Computing*, ELEC. FRONTIER FOUND. (May 6, 2020), <https://www.eff.org/deeplinks/2020/05/unix-and-adversarial-interoperability-one-weird-antitrust-trick-defined-computing>. During the negotiation of the consent decree, the DOJ forced AT&T to license Bell Systems patents to competitors on request, foreclosing it from going into the computer business. In return, AT&T got to keep Western Electric, Bell System’s manufacturing arm, and thus its telephone business.

patents,¹¹⁰ which stirred a culture of knowledge sharing and collective effort. The Unix operating systems were quickly distributed to government and academic researchers at reasonable or nominal costs, which, in turn, attracted users to adapt it for wide usage and to make improvements.¹¹¹

This history of AT&T and Unix sheds light on how interoperability can better promote innovation with the tools from patent law. The goal of patent law to protect innovations coincides with the overarching goal of antitrust law to encourage competition and promote innovations. Interoperability and open access leave open the problem of who owns the data and who is responsible for protecting and maintaining the data. Borrowing the mechanism of patents could solve this problem: Regulators could require parties using data to pay licensing fees to parties protecting and maintaining the data. Thus, parties would have incentives to ensure data safety, while other parties could access the data at reasonable costs and use it in innovative ways to benefit consumers.

In the Facebook case, FTC has sought interoperability and open access as part of the remedies in the complaint.¹¹² The key to implementing interoperability and open access, in this case, is assuring data portability. U.S. law does not require online platforms to make data portable.¹¹³ The complaint traced the development of Facebook's open access policy: at the stage of establishing network effects, Facebook encouraged software developers to build apps that appealed to users and thus increase its user engagement.¹¹⁴ Open access not only brought more users to Facebook but also spurred a thriving community of developers who were invested in improving user experiences.¹¹⁵ However, despite the open access to developers, Facebook's policies hinder data portability for its consumers, reaping the profits of the established network effects by locking in its users.¹¹⁶ Developers may

¹¹⁰ Matthew Lasar, *The Unix Revolution—Thank You, Uncle Sam*, ARS TECHNICA, (Jul. 19, 2011), <https://arstechnica.com/tech-policy/2011/07/should-we-thank-for-feds-for-the-success-of-unix/>.

¹¹¹ *Id.*

¹¹² FTC v. Facebook, Dkt. 75-1 at 79.

¹¹³ U.S. HOUS. JUDICIARY SUBCOMM. ON ANTITRUST, COMMERCIAL & ADMIN. LAW, *supra* note 7, at 42 n.138.

¹¹⁴ FTC v. Facebook, Dkt. 75-1 at 9.

¹¹⁵ *Id.* at 13.

¹¹⁶ U.S. HOUS. JUDICIARY SUBCOMM. ON ANTITRUST, COMMERCIAL & ADMIN. LAW, *supra* note 7, at 145. "Facebook offers a tool called 'Download Your Information,' which provides users with a limited ability to download their data and upload it elsewhere. But in practice, this tool is unusable for switching purposes since it allows users to do little other than move their photos from Facebook to Google Photos." Also, its users can't easily leave Facebook due to the challenge of migrating their data, given that they can only download their data in PDF or .zip formats.

add new features to Facebook through open access, but the benefits from this are captured by Facebook since users can't migrate easily to other platforms. Thus, open access must be coupled with interoperability to allow users to move easily among different platforms, and data portability is essential to enable that easy transfer.

Take the remedies sought by FTC in the Facebook case as an example. For WhatsApp, Instagram, and other firms to have a fair chance to compete with Messenger, interoperability coupled with open access should be the focus of post-divestiture intervention. Facebook needs to allow its users to migrate their data to other platforms without having to rebuild their social graph. Moreover, to prevent data privacy scandals like the one with Cambridge Analytica from happening again, the problem of data privacy and security in connection with data portability remedy requires further studies.¹¹⁷

Among the three recommendations, the FTC adopted the latter two in the Facebook case as complements to divestiture. However, the conflict of interest arising from the double role played by Facebook—both as a gatekeeper and as an app developer—is not resolved through structural separation. Instead, the FTC prohibited Facebook from “reaching anticompetitive agreements governing, or imposing anticompetitive conditions on, developers’ access to APIs and data”.¹¹⁸ As discussed below in Section III.C, without including data and relevant infrastructure as assets subject to divestiture, these reliefs will not be sufficient to restore the competition that would exist absent the predatory merger of Instagram and WhatsApp.

2. The SAMR Guidelines and the Alibaba Case

As online platforms in China are subject to increasing regulatory scrutiny, China's State Administration for Market Regulation (SAMR) issued the Anti-Monopoly Guidelines for the Platform Economy (Guidelines), providing tailored guidance on compliance with China's Anti-Monopoly Law (AML).¹¹⁹ The

¹¹⁷ Since the FTC has been the chief federal agency on privacy policy and enforcement since the 1970s, the FTC has the authority and capability to design the interoperability and open access remedy to fit with its data privacy and security policies. See FTC, PROTECTING CONSUMER PRIVACY AND SECURITY, <https://www.ftc.gov/news-events/media-resources/protecting-consumer-privacy-security>.

¹¹⁸ U.S. HOUS. JUDICIARY SUBCOMM. ON ANTITRUST, COMMERCIAL AND ADMIN. LAW, INVESTIGATION OF COMPETITION IN DIGITAL MARKETS, *supra* 7, at 79.

¹¹⁹ St. Council Fanlongduan Weiyuanhui (国务院反垄断委员会), St. Council Fanlongduan Weiyuanhui Guanyu Pingtai Jingji Lingyu de Fanlongduan Zhinan (国

Guidelines made changes in three salient aspects: (1) defining relevant market and identifying dominant position, (2) recognizing “pick-one-from-the-two” and price discrimination via big data as abuses of dominance, and (3) recognizing data collusion.¹²⁰

Though the Guidelines did not give specific, direct recommendations on remedies, the major platforms face concurrent enforcements based on laws in other related areas besides the AML, which makes a variety of remedies under different laws available to target antitrust issues. Since its enactment in 2008, remedies under the AML are mainly in the form of damages,¹²¹ and concurrent enforcement would make injunctions available as remedies. Besides the AML, other relevant laws that regulate anti-competitive practices of online platforms include the Anti-Unfair Competition Law, the Electronic Commerce Law, and the Measures for Supervision and Administration of Online Transactions. Among these laws, the AML is the most frequently invoked and affords the highest fines. Meanwhile, these laws would allow regulators to cover a broader scope of anticompetitive practices, especially those involving online platforms.

In the Alibaba case, SAMR punished Alibaba since its “pick-one-from-the-two” practices violated the AML for abuses of

务院反垄断委员会关于平台经济领域的反垄断指南 [State Council Committee on Antitrust's guideline for platform economy field] (Feb. 7, 2021) http://www.gov.cn/xinwen/2021-02/07/content_5585758.htm.

¹²⁰ Guojia Shichang Jiandu Guanli Zongju(国家市场监督管理总局)[State Administration for Market Regulation] , Guojia Fanlongduan Weiyuanhui Bangongshi Fuze Tongzhi Jiu 《Guowuyuan Fanlongduan Weiyuanhui Guanyu Pingtai Jingji Lingyu de Fanlongduan Zhina》 Da Jizhi Wen (国务院反垄断委员会关于平台经济领域的反垄断指南) (国家反垄断委员会办公室负责同志就《国务院反垄断委员会关于平台经济领域的反垄断指南》答记者问) (Feb. 7, 2021) http://www.cac.gov.cn/2021-02/08/c_1614358492110420.htm, accessed Jan. 4, 2022. For (1), new factors like the number of active users, click volume, use time, etc. are considered when determining market share. Given the dynamic nature of competition in online platform economies, the persistence of market share is a factor when determining dominance. Also, financial status and technology capacity are factors to be considered. As a caveat to (2), “without good cause” is an important condition for abusing market dominance, and the Guidelines specify what counts a good cause. For example, protecting consumer welfare and data security could constitute a good cause for refusal to deal. Though the SAMR made an effort to clarify the phrase, the broad possibilities of good cause still could, in practice, paralyze the section on abuse of dominance.

¹²¹ Cheng Shuwen (程姝雯), Fan Longduan Zhifa Shi Da Dianxing Anli Xiangjie: Zuigao Fadan Chao 3 Yi, Ali Tengxun Shang Bang (反垄断执法十大典型案例详解: 最高罚单超 3 亿, 阿里腾讯上榜), Nanfang Dushi Bao (南方都市报) [SOUTHERN METROPOLIS DAILY], Sept. 4, 2021, available at https://www.sohu.com/a/487740940_161795

dominance. The practice is also covered by the Anti-Unfair Competition Law, the Electronic Commerce Law, and the Measures for Supervision and Administration of Online Transactions.¹²² The remedies under all of these laws are stipulated by the Law of the People's Republic of China on Administrative Penalties (Administrative Penalties Law). Different from the treble damages in the U.S., the damages for antitrust violations in China are calculated based on "the sales achieved in the previous year"¹²³; damages for the abuse of dominance are 1%-10% of the last annual sales revenue.¹²⁴

¹²² Article 12 of the *Anti-Unfair Competition Law* stipulates that "operators shall not use technical means to obstruct or destroy the normal operation of network products or services legally provided by other operators by influencing users' choices or other means: ... (2) misleading, deceiving, forcing users to modify/revise/amend, closing or unloading network products or services legally provided by other operators ...". Article 12 of the *Anti-Unfair Competition Law* can also be applied to regulate the "choosing one from two" requirement. See Fan Bu Zhengdang Jingzheng Fa (反不正当竞争法) [Anti-Unfair Competition Law] (promulgated by the Standing Comm. Nat'l People's Cong., Nov. 4, 2017, effective Jan. 1, 2018), available at http://www.gov.cn/xinwen/2017-11/05/content_5237325.htm.

Also, Article 35 of the *Electronic Commerce Law* claims that "operators of electronic commerce platforms shall not use service agreements, transaction rules and technologies to unreasonably restrict or attach unreasonable conditions to the transactions, transaction prices and transactions with other operators within the platform, or charge unreasonable fees to operators within the platform." See Dianzi Shangwu Fa (电子商务法) [Electronic Commerce Law] (promulgated by the Standing Comm. Nat'l People's Cong., Aug. 31, 2018, effective Jan. 01, 2019), available at http://www.mofcom.gov.cn/article/zt_dzswf/deptReport/201811/20181102808398.shtml.

Moreover, Article 32 of the *Measures for Supervision and Administration of Online Transactions* prohibits cases where platforms interfere with other businesses' independent operations. It states that "restricting operators within the platforms from choosing to operate on multiple platforms by means of lowering search rights, removing goods from shelves, restricting operations, blocking shops, increasing service charges, or using improper means to restrict them from operating only on specific platforms" are all manifestations of the "pick-one-from-the-two" requirement. See Wangluo Jiaoyi Jiandu Guanli Banfa (网络交易监督管理办法) [Measures for Supervision and Administration of Online Transactions] (promulgated by State Admin. For Market Regulation, Mar. 15, 2021, effective May 01, 2021), available at http://www.gov.cn/zhengce/zhengceku/2021-03/16/content_5593226.htm.

¹²³ See Fan Longduan Fa (反垄断法) [Anti-Monopoly Law] (promulgated by the Standing Comm. Nat'l People's Cong., Aug. 30, 2007, effective Aug. 1, 2008), art. 46-48, available at <http://english.mofcom.gov.cn/article/policyrelease/Businessregulations/201303/2013030045909.shtml>.

¹²⁴ Firms may be exempt from the damages if they cooperate with the regulatory authority. See Article 46 of the AML. "If the business manages, on its own initiative, reports to the authority for enforcement of the Anti-monopoly Law about the monopoly agreement reached, and provides material evidence, the said authority may, at its discretion, mitigate, or exempt the undertaking from, punishment."

The \$2.75 billion fine for Alibaba is 4% of its sales revenue in 2019.¹²⁵ The text of the AML does not provide a specific definition of “the sales achieved in the previous year”. However, in the Alibaba case, “the sales achieved in the previous year” is domestic sales.¹²⁶

Besides fines, SAMR, as clarified in the Guidelines, also enjoined Alibaba from the “pick-one-from-the-two” and other accused anticompetitive practices. Monetary relief as described above and injunction from anticompetitive practices are the two major remedies granted by SAMR. Radical remedies like divestiture have not been ordered yet. Outside of the AML, the regulators ordered online platforms to comply with the new interconnection and nondiscrimination requirements.¹²⁷ Specifically, these requirements would break down the walls between the ecosystems of different platforms and force them to share the benefits of network effects with others. For platforms, interconnection would bring more businesses from other platforms and allow them to collect more diverse data to improve their products and services. Especially, the nondiscrimination requirements are purported to enable small platforms to take advantage of the network effects of big platforms through interconnection,

¹²⁵ Shichang Jianguan Zongju Yaoqiu Alibaba Quanmian Zhenggai (市场监管总局要求阿里巴巴全面整改) [SAMR Requires Alibaba to Change and Revise Thoroughly], *supra* note 57.

¹²⁶ Shichang Jianguan Zongju Yaoqiu Alibaba Quanmian Zhenggai (市场监管总局要求阿里巴巴全面整改) [SAMR Requires Alibaba to Change and Revise Thoroughly], *Xinjingbao* (新京报) (Apr. 10, 2021), <https://baijiahao.baidu.com/s?id=1696616703718464551&wfr=spider&for=pc>.

¹²⁷ In July 2021, the Ministry of Industry and Information Technology has initiated a 6-month long special rectification action in the digital industry, targeting malicious blocking outside links, limiting access to outside links with no cause, and blocking facilities discriminatorily. In August 2021, SAMR has proposed to count malicious blocking links and malicious incompatibility as unfair competition practices. However, the proposed draft has yet to be enacted. *See* Jinzhi Wangluo Bu Zhengdang Jingzheng Xingwei Guiding (Gongkai Zhengqiu Yijian Gao) (禁止网络不正当竞争行为规定[公开征求意见稿]) [Provisions on Prohibition of Unfair Competition on the Internet (Draft for Public Comments)] (draft circulated Aug. 17, 2021), *available at* http://www.moj.gov.cn/pub/sfbgw/zlk/202108/t20210817_434868.html.

Furthermore, in September 2021, the Cyberspace Administration of China issued the *Opinions on Further Compacting the Main Responsibility of Managing the Content on Online Platforms*, which adds nondiscrimination requirements to post-interconnection operations. This requires that the interconnection requirements apply not only among big platforms but also between big platforms and small platforms. *See* Guanyu Jinyibu Yashi Wangzhan Pingtai Xixi Neirong Guanli Zhuti Zeren De Yijian (关于进一步压实网站平台信息内容管理主体责任的意见) [Opinions on Further Compacting the Main Responsibility of Managing the Content on Online Platforms] (promulgated by the Cyberspace Admin. of China, Sept. 15, 2021, effective Sept. 15, 2021), *available at* http://www.cac.gov.cn/2021-09/15/c_1633296790051342.htm.

fostering potential competitions with big platforms.¹²⁸ For merchants whose businesses rely on the platforms, interconnection would lower the entry barrier since they can easily gather more consumers from more sources, and the costs to operate across different platforms are lower. For consumers, interconnection would make it easier to enjoy different contents and services from different platforms.

However, one major obstacle to achieve interconnection is data privacy and security. The threats to data privacy and security in this context come from different sources: for example, outside links may contain viruses which could steal users' data, or the data incurred from cross-platform usages may be used illegally, etc. Problems that are left to be addressed by regulators include who owns the data, who is responsible for maintaining the data, whether the platform has rights to refuse outside links which they consider as dangerous (or containing virus), who can use the data incurred from cross-platform usages, whether consumers have rights to refuse platforms to share their data with other platforms, etc. Thus, to ensure a safe online environment and take full advantage of interconnections, regulators need to play an active role in fleshing out the details of legal liabilities to lower transaction costs and encourage healthy competition.¹²⁹

The Guidelines, clarifying the measure of market dominance and market definition, make antitrust enforcements more readily available to address anticompetitive practices of major online platforms. Moreover, the Alibaba case demonstrates that imposing fines is the main way that Chinese regulators address anticompetitive practices. Besides fines, regulators implement industry-wide rules to ban anti-blockage policies and promote interconnection to lower the entry barrier and switching costs in the market.

III. ADDRESSING ONLINE PLATFORM MONOPOLIES

The Facebook case and the Alibaba case reflect the new regulatory responses to online platform monopolies; moreover, they also reveal the challenges of addressing the anticompetitive practices through existing remedies in the two jurisdictions. The restorative remedies sought in the Facebook case and the Alibaba case range from

¹²⁸ Pingtai Hulian Hutong Shi Dashi Suoqu Danyao Bimian Yidaoqie (平台互联互通是大势所趋 但要避免一刀切) [Interconnection is the Future Trend, But Should Avoid "One-Size Fits All" Policy], *Fazhiribao* (法制日报) (Sept. 21, 2021), <https://baijiahao.baidu.com/s?id=1711477092382481586&wfr=spider&for=pc>.

¹²⁹ For platforms to enjoy the benefits of interconnection, they need to have access to the data of users from other platforms when viewing their content or using their services. Thus, regulators have to balance the conflict between consumers' interest in data privacy and the antitrust benefits from data sharing.

radical to moderate and could combat most anticompetitive acts that are unfair, exclusive, or abusive in online platform economies.

However, the self-reinforcing advantages of data could render these remedies void if they leave the data-opolies of the major tech companies unaddressed.¹³⁰ This Part outlines why, despite the broad range of remedies in place, existing antitrust remedies are likely to be inadequate for restoring competition in online platform economies. Section III.A compares the existing remedial approaches in the two jurisdictions and analyzes how they can or cannot restore competition in online platform economies. Section III.B proposes “data as an asset” as a sustainable solution to restore competition. Section III.B.1 explains why the current frameworks for remedies in the two jurisdictions do not tackle the source of the problem—data. Section III.B.2 proposes “data as an asset” to address the inadequacy. Section III.B.3 addresses potential challenges “data as an asset” may face and explain why concerns that “data as an asset” would violate data privacy are misplaced.

A. A Comparison Between the Two Jurisdictions

This section will address how can the two jurisdictions learn from each other in terms of designing remedies and analyze why certain remedies could further promote competition while others are inapplicable. Section A.1 recommends the U.S. regulators to focus on promoting competition among the existing major platforms. Section A.2 recommends the Chinese regulators to consider implementing interoperability requirements in addition to interconnection requirements. Section A.3 explains why divestiture is unlikely to become a viable remedy to restore competition in China due to its potential perverse effects on competition in Chinese market.

1. The U.S. Could Widely Adopt Interoperability and Open Access to Encourage Competition Among Major Online Platforms

Interoperability and open access have the potential to invite more competition among dominant platforms in the U.S, which is similar to the situation in China where big platforms compete with each other in different subdivided markets. Though the FAANG¹³¹ in the U.S. do not have meaningful competitors in their individual markets

¹³⁰ Erika Douglas, *Monopolization Remedies and Data Privacy*, 24 VA. J. L. & TECH. 1, 20 (2020). “Maurice E. Stucke and Allen P. Grunes argue that data itself is the source of monopoly power of digital giants, labeling the vast stores of data held by digital platforms ‘data-opolies’”.

¹³¹ FAANG is an acronym for Facebook (now known as Meta), Amazon, Apple, Netflix, and Google (also known as Alphabet).

now, with their current strength in data and computing power, interoperability provides a great chance for them to enter new markets and foster competition with the incumbents. Compared to the small platforms, the FAANG are more likely to benefit from interoperability and open access and become competitors with each other in the short run. Google, for example, may benefit from its users uploading their social graphs built on Facebook. Combining with their data from Google Map, Google can expand into the market of social networking by allowing users to interact with their friends (i.e. Facebook friends) and plan events on Google Map. Also, Facebook may gain a chance to enter a competition with Amazon, if Amazon users could upload their data to their Facebook profile, which allow Facebook to leverage its knowledge on users' social network to better recommend products to users. When the gap between small platforms and big platforms is so wide that scares investors away from investing in small platforms, encouraging competition among the incumbent platforms could partially restore competition in the short term.

This would not run against the structural separation recommendation by the Committee Report, since structural separation is not necessary or should be revoked once the dominance is not going to last long.

2. Chinese Regulators Should Consider Interoperability as the Next Step After Interconnection to Encourage More Direct Competitions Among Platforms

While interconnection allows users to access links from other platforms, interoperability will trigger more intense competition among platforms. Take the instance of WeChat Pay and AliPay, if Taobao users can pay for their purchases through WeChat Pay,¹³² WeChat Pay would be in more direct competition with Alipay. Meanwhile, Alipay will have less unfair advantages, coming from Alibaba's dominance in e-commerce business, in the market of digital payment against WeChat Pay. In return, WeChat users should be able to transfer money to their WeChat friends using Alipay. Similarly, WeChat Pay will have less unfair competitive advantages, coming from Tencent's dominance in social networking business, in the market of digital payment against Alipay. Thus, enforcing interoperability will create a fairer structural condition for competition between Alipay and WeChat pay and weaken the monopoly status of Alipay in the digital payment market. Similarly, interoperability would

¹³² Currently, users can only pay via Alipay for their purchases on Alibaba's e-commerce platforms like Taobao.

further level the playfield for dominant platforms to compete in different markets.

3. Divestiture Is Unlikely to Become a Viable Remedy to Restore Competition in China Due to Its Potential Perverse Effects on Competition

While the FTC sought divestiture as a remedy in the Facebook case, Chinese regulators have not imposed such strong remedies in antitrust cases yet. This difference reflects the different forms of competition in online platforms economies.

The implementation of divestiture in different markets with different forms of competition would lead to different results. In some cases, divestiture would restore a competitive equilibrium. In others, divestiture could increase market concentration and further harm consumer welfare. In China, the all-encompassing platforms face fiercer competitions than FAANGs do in the U.S. where they are in their specialized silos. The existing competitions among Chinese major platforms create potential perverse effect of divesting them: Divestiture of one dominant platform would tip the current competition and inevitably favor its competitors. The online platform market is winner-takes-all; thus, when the divested platform has close competitors, driven by the forces of network effect and data gravity, the competitors would quickly take over the market of the divested platform. For example, in the e-commerce market, Pinduoduo and JD are strong competitors to Alibaba's Taobao and Tianmao; thus, breaking up Alibaba into a series of smaller e-commerce platforms would practically drive them out of the market and merely add market force to Pinduoduo and JD. Meanwhile, divestiture of Facebook would unlikely to result in similar perverse effects, since Facebook does not have close competitors, besides Instagram and WhatsApp if they were to become independent after divestiture, who can capture its market power in social networking in the short run.¹³³ Divestiture should preserve competition, not protect competitors, since the goal is not to pick winners and losers. Thus, when divestiture leads to the latter result, it is not a viable remedy.

This difference may also be attributed to a technical issue. The Chinese antitrust authorities started to implement robust law

¹³³ U.S. Hous. Judiciary Subcomm. on Antitrust, Commercial & Admin. Law, *supra* note 7, at 384. "Facebook's internal documents and communications indicate that due to strong network effects and market tipping, the most significant competitive pressure to Facebook is from within its own family of products—Facebook, Instagram, Messenger, and WhatsApp—rather than from other social apps in the market, such as Snapchat or Twitter."

enforcement only in the past three years, and they started to recognize the monopoly positions of the major online platforms only in 2021. Meanwhile, Article 36 of the Administrative Penalties Law, which governs, in general, the remedies afforded by the AML, stipulates a two-year statute of limitations.¹³⁴ Thus, many of the mergers that may violate the AML were not sued, and divestiture, as a remedy to reverse anticompetitive mergers, is seldomly brought up. However, though the antitrust authorities have strengthened their scrutinize of mergers and enforcement efforts, for the reasons discussed above, the Chinese regulators are unlikely to employ divestiture as a remedy in the near future.

B. “Data as an Asset”: A Sustainable Approach to Restore Competition

Though regulators have recognized the crippling forces of data in the rise and maintenance of dominant platforms, the design of antitrust remedies has not targeted data directly. Instead, when structuring remedies, the focus of antitrust enforcers is still market share rather than data power. Section B.1 will explain why current remedies will not restore competition in online platform economies in the long run. Section B.2 will propose “data as an asset” as a solution to restore competition, since counting data and its relevant infrastructure as assets in divestiture is necessary for the divested platforms to be effective, long-term competitors. Section B.3 addresses potential challenges “data as an asset” may face and explain why concerns that “data as an asset” would violate data privacy are misplaced.

1. Traditional, Simple Solutions Do Not Tackle the Underlying Source of the Problem—Data

Over the past century of antitrust enforcement in the U.S., regulators have tackled monopolies in traditional industries—like telecommunications, electricity, oil— via divestiture and price control.¹³⁵ However, both approaches fail to target the underlying

¹³⁴ See Xingzheng Chufa Fa (行政处罚法) [Admin. Penalty Law of the People’s Republic of China] (promulgated by the Standing Comm. Nat’l People’s Cong., Jan. 22, 2021, effective July 15, 2021), available at <https://baijiahao.baidu.com/s?id=1689603503770539507&wfr=spider&for=pc>. “违法行为在二年内未被发现的，不再给予行政处罚；涉及公民生命健康安全、金融安全且有危害后果的，上述期限延长至五年。”

¹³⁵ E.g., *Standard Oil Co. of New Jersey v. United States*, 221 U.S. 1 (1911) and *United States v. AT&T*, 552 F.Supp. 131 (D. D.C. 1982).

source of the problems in online platform industry. Breaking up the tech giants would cripple their economies of scale and network effects, reduce the returns of innovation, and harm customer experiences. Thus, divestiture would harm what costumers gained in online platform economies—free and high-quality services. Remedies that based on price theory are also inadequate. The price that consumers pay for platform services is not money but data, as most products and services are free. Thus, price control—which is used in regulating public utilities—does not apply since it is pegged anticompetitive harms to high prices. Also, hefty fines do not change the structural conditions for competition. Some scholars have argued that fines have lost their deterrent effects on large corporations.¹³⁶

In online platform economies, scale economies and network effects reinforce each other to produce and sustain market dominance through the process of innovation.¹³⁷ Moreover, the primary force of competition in online platform economies is dynamic competition for a market. Once a tech giant is tackled down by regulatory forces, a new one would quickly assume the dominant position under the forces of scale economies and network effects, defeating the regulatory efforts of breaking up the old one.¹³⁸

Standard Oil violated antitrust law because of its pattern of acquiring oil refineries to achieve market dominance and its abusive practices toward rivals. The Supreme Court divided it into thirty-four separate companies based on Standard Oil's geographical structure. The case of AT&T in 1982 is another example of a radical remedy of breaking up AT&T vertically and dividing its local exchange operations into seven geographical companies. AT&T was punished for its misuse of its monopoly in local telephone service to insulate competition in communication technology.

¹³⁶ Scholars like Brandon Garrett a fine seems like something of a worthwhile risk if you don't always get caught. Thus, the effectiveness of fines positively correlates to the number of cases brought, which adds to the enforcement costs of imposing fines. Also, the large corporations are disgorging their profits, which is not much of a penalty but just giving up profits. In this aspect, the fines imposed in China, which are calculated based on revenue rather than profits, may be more effective. However, considering the low percentage of revenue been affected, 4% in the Alibaba case, fines in China also lack enough deterrence power. *See* BRANDON L. GARRETT, *TOO BIG TO JAIL: HOW PROSECUTORS COMPROMISE WITH CORPORATIONS* (Harvard University Press, 2014).

¹³⁷ W. KIP VISCUSI, *ECONOMICS OF REGULATION AND ANTITRUST* 377 (5th ed. 2018) “The total profit generated by the innovation can be expressed as $(av-c)Q-F$, where v is the economic surplus created by the innovation, a is the share of the surplus captured by the firm (in which av is the revenue earned for each unit sold), c is the marginal cost of each unit sold (which for intellectual property is typically quite small), Q is the number of units sold, and F is the fixed cost of the innovation. Investing in R&D is profitable if and only if $av - c > F/Q$. That condition is more likely to hold when the fixed cost can be spread out over more customers.”

¹³⁸ *How to Tame the Tech Titans*, *supra* note 26.

Given these properties of online platform economies, effective remedies require more creative measures. Since the traditional remedies on their own cannot provide a simple solution to restore competition in online platform economies, the following discussion would propose “data as an asset” as a sustainable solution to restore competition.

2. Regulators Should Consider Data as An Asset in Structuring Divestiture

“Data as an asset” is an approach to include online platform’s control of data and relevant data infrastructure, like algorithms, as part of the assets subject to divestiture. For example, if the FTC were to divest Instagram and WhatsApp from Facebook, Instagram’s and WhatsApp’s database of user information should be assets subject to divestiture. This measure targets the problem of data-opolies and goes beyond halting specific anticompetitive conduct, like horizontal mergers, by actively seeking to restore structural conditions favoring competition. It also fits within the general principle of structuring a divestiture. As the Antitrust Division of the DOJ argued, a divestiture must include all assets necessary for the purchaser to be an effective, long-term competitor.¹³⁹

Data and computing power are the main driving forces for growth and market power. Given the competitive advantage that data could bring to businesses, the purchaser wouldn’t be able to be an effective competitor without the same access to user data and algorithms. More importantly, they are one of the main sources of synergies from mergers and the motivation for mergers in digital economies. If the purchaser is able to keep the data and algorithms from the merged companies, divestiture would lose a major part of its restitutive and deterrent effects.

Besides data, relevant infrastructures, like algorithms, should be part of the assets subject to divestiture. Like R&D and “pipeline” products which are subject to divestiture,¹⁴⁰ algorithms are necessary

¹³⁹ U.S. DEP’T OF JUST., ANTITRUST DIVISION, MERGER REMEDIES MANUAL 6 (2020), <https://www.justice.gov/atr/page/file/1312416/download>.

¹⁴⁰ *Id.* at 7. See e.g., Competitive Impact Statement at 17, *United States v. Bayer AG*, No. 1:18-cv-01241 (D.D.C. 2018) (“[B]ecause Bayer and Monsanto compete to develop new products and services for farmers, the proposed Final Judgment requires the divestiture of associated intellectual property and research capabilities, including ‘pipeline’ projects, to enable BASF to replace Bayer as a leading innovator in the relevant markets.”). Also, “if, for example, a potential entrant or small incumbent would be constrained by the time or the incentive necessary to construct production facilities, then sufficient production facilities should be part of the divestiture

to ensure the future competitive significance of the divested assets—data. Like data, these infrastructures take a significant time to build. Without them, the divested companies cannot make use of data effectively and transform data into their competitive power. Thus, to ensure that the divested companies can compete effectively with the divested data, relevant infrastructures, like algorithms, should be part of the divested assets.

3. Application: Challenges and Unresolved Questions

The unification of back-end infrastructure creates a big challenge in divesting data and the relevant infrastructures. The goal of divestiture is to restore competition to the but-for scenario which would be the case in the absence of the alleged conduct. However, after the merger and before the antitrust law enforcement, the merged companies might try to weave their distinct data infrastructures together. Once this process starts, the difficulty presents to regulators increases as the divestiture process would become more complex. Facebook, for example, quickly after finishing its merger with Instagram and WhatsApp, initiated a program to integrate the back-end infrastructure of the two acquired apps with Messenger.¹⁴¹ This integration would make the three apps no longer three separate platforms, as the vast amount of personal data underpinning them would migrate to one shared database.¹⁴²

This kind of integration increases the implementation costs on courts and regulatory agencies significantly, since they have to overcome the technical difficulty of undoing the integration in order to divest the assets. While ordering mandatory licensing as relief is an alternative to selling the assets, the effects on restoring competitions would not be as good as selling the assets. Licensing the rights to use a shared database hinders meaningful product differentiation. Like patents, data and algorithms are not rivalrous such that the use of these assets by one party does not necessarily preclude the use of them by

package... In markets where an installed base of customers is required in order to operate at an effective scale, the divested assets should either convey an installed base of customers to the purchaser or quickly enable the purchaser to obtain an installed customer base.” By the same logic, data and algorithms constitute a serious entry barrier in online platform economies, and it takes significant time to acquire them.

¹⁴¹ Tama Leaver, *Facebook is Merging Messenger and Instagram Chat Features, It's for Zuckerberg's Benefit, Not Yours*, THE CONVERSATION, (Oct. 1, 2020), <https://theconversation.com/facebook-is-merging-messenger-and-instagram-chat-features-its-for-zuckerbergs-benefit-not-yours-147261>. Some view Facebook's plan as a defensive measure against a potential antitrust lawsuit that may force the company to sell Instagram and WhatsApp.

¹⁴² *Id.*

others. Though Instagram and WhatsApp may use the data differently, they would not be able to exclude each other from accessing the data, and it is much harder for them to provide distinct features and protect their innovations if they share the vast majority of their data. Also, allowing the merged firm, Facebook in this case, to continue to have access to Instagram and WhatsApp's data would defeat the restitution and deterrence purposes of this remedy.

Potential solutions to this challenge include: (1) allowing regulators to get a temporary injunction on any ongoing integration efforts, and (2) strengthening pre-merger scrutiny on efforts to integrate data infrastructure. Besides this challenge, this kind of integration presents issues on data privacy and security, which invite further research and study. If, for example, the three apps were to operate independently after divestiture, questions remain about who is responsible to maintain the shared database and whose data policy applies to the shared database.

CONCLUSION

If antitrust regulators aim to restore competition in online platform markets, designing effective remedies is a crucial step after courts recognize the anticompetitive practices of alleged platforms. A comparison between the approaches to antitrust remedies in China and the U.S. reveals that interoperability should be the new norm in both jurisdictions since it creates a structural condition to stir more direct competitions. Also, divestiture is suitable to restore competition in the U.S. where tech giants do not have close competitors in their specialized silos. However, divestiture is unlikely to become a viable remedy in China due to its potential of leading to higher market concentration. Moreover, when structuring a divestiture, both data and its relevant infrastructure, like algorithms, should be assets subject to divestiture, since they are necessary for the divested businesses to become effective, long-term competitors.