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HOW GOVERNMENTS SHOULD REGULATE BIG-TECHNOLOGY COMPANIES

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LIST OF ABBREVIATIONS

GAF A	Google, Amazon, Facebook, Apple
SNS	Social Networking Service
FTC	Federal Trade Commission
DOJ	U. S. Department of Justice
METI	Ministry of Economy, Trade and Industry, Japan

Introduction

Monopoly of the market by huge IT companies, called Big-Tech, has increased dangerously through past decades. It is no exaggeration to say that tech giants such as Google, Apple, Facebook, and Amazon (called also “GAFA” as a collective term) are the most influential companies on the planet. As of May 2020, the four companies were top-ranked in market capital of the U.S. stock market.¹ GAFA’s total has reached over \$6 trillion and they have attained dominance with over 20 percent of the S&P500 (Figure 1).² Their growth is accelerating even during the COVID-19 crisis. Amazon founder Jeff Bezos’s personal wealth has increased more than \$72 billion, his overall net worth climbing to \$187 billion in 2020 amid the pandemic-led boost in online shopping. Facebook founder Mark Zuckerberg’s net worth has jumped more than \$26 billion to \$105 billion in 2020.³

The services they offer, such as Google’s search engine, Apple’s smartphone, Facebook’s SNS (Social Networking Service), and Amazon’s online commerce, have penetrated into people’s lives. They are expected to play a crucial role as innovators and trail-blazers in the fields of artificial intelligence, automated driving systems, bio-medical, etc. Facebook is planning to issue a digital currency called Diem (formally had been known as Libra) as early as 2021.⁴ Diem, which is speculated to be used by three billion people, equivalent to about 40

¹ Statista <https://www.statista.com/statistics/263264/top-companies-in-the-world-by-market-value/#:~:text=With%20a%20market%20value%20of,rounding%20out%20the%20top%20five.>, Accessed January 13, 2021

² yahoo! finance [Yahoo Finance - Stock Market Live, Quotes, Business & Finance News; YCHARTS S&P 500 Market Cap \(ycharts.com\)](https://finance.yahoo.com/quotes/S&P500), Accessed January 13, 2021

³ CNBC make it, December 21, 2020, “These 5 billionaires added the most to their net worths in 2020” <https://www.cnbc.com/2020/12/21/billionaires-who-added-the-most-to-their-net-worths-in-2020.html>

⁴ Financial Times, November 27, 2020, Facebook’s Libra currency to launch next year in limited format <https://www.ft.com/content/cfe4ca11-139a-4d4e-8a65-b3be3a0166be>

percent of the world's population, has the potential to replace legal national currencies. It could threaten the sovereignty of economic policy, as well as national monetary systems.⁵

As GAFA's power and influence have grown, many people have started questioning the current monopolistic situation.

In general, it can be said that the existence of monopoly hinders healthy competition between companies, having negative effects on consumer welfare. Big-Tech is specifically accused of stifling fair competition. Regulatory authorities in the EU, U.S., and Japan have started to respond to this problem. A symbolic case is the European Commission's imposition of a €2.42 billion fine on Google in June 2017 for violating EU competition law.⁶ In October 2020, the U.S. Department of Justice filed a complaint against Google to restore competition in search and search advertising markets.⁷ It is pointed out that the case could take years to resolve, and the responsibility for managing the suit have been falling to President Joe Biden.⁸ Other governments have started to regulate Big-Tech with new competition policies, including Japan, which established "The Act on Enhancing Transparency and Fairness of Certain Digital Platforms" in May 2020.⁹

With the spread of misinformation, it is believed that Russia used Facebook and Google to interfere with the U.S. presidential election in the fall of 2016. In March 2018, it was revealed that Facebook was abused by UK company Cambridge Analytica, which collected personal,

⁵ Kiuchi Takahide, *The definitive edition of libra*, Toyo Keizai Shinposha, p.186-89, 2019

⁶ European Commission, June 27, 2017 "Antitrust: Commission fines Google €2.42 billion for abusing dominance as search engine by giving illegal advantage to own comparison shopping service – Factsheet"
https://ec.europa.eu/commission/presscorner/detail/en/MEMO_17_1785

⁷ DOJ, October 20, 2020 "Justice Department Sues Monopolist Google For Violating Antitrust Laws"
<https://www.justice.gov/opa/pr/justice-department-sues-monopolist-google-violating-antitrust-laws>

⁸ WSJ, October 20, "Justice Department Hits Google With Antitrust Lawsuit"

<https://www.wsj.com/articles/justice-department-to-file-long-awaited-antitrust-suit-against-google-11603195203>

⁹ Asahi-Shimbun, May 27, 2020, "Giant IT Regulation Law Passed: Will it Increase Fairness in Online Shopping?"
<https://www.asahi.com/articles/ASN5W5RCXN5WULFA01C.html>

identifiable information of up to 87 million people.¹⁰ The data collected by the company was used to distribute advertising on Facebook that favored Trump’s campaign. As Rana Foroohar, Global Business Columnist and an Associate Editor at the Financial Times, points out, “[t]he Cambridge Analytica scandal, whereby it was revealed that the Facebook platform had been exploited by foreign actors to influence the outcome of the 2016 presidential election— precipitated a huge rise in public awareness of how social media and its advertising-driven revenue model could pose a threat to liberal democracy.”¹¹ In addition, Francis Fukuyama, Barak Richman, Ashish Goel, Marietje Schaake, Roberta R. Katz, Douglas Melamed, who are engaged in the Program on Democracy and the Internet at Stanford University, have determined that:

The pervasiveness of the digital platforms can distort the flow of information and perhaps encourage the spread of misinformation. The dominance of individual platforms and their business model that encourages clicks mean that some social media platforms encourage virality without commensurate regard for the quality of content, foreign interference, or effects on democratic political outcomes. There is a widespread sense that the ability to spread misinformation and shape civic discourse threatens the mechanisms that underlie democracy. This might be a natural consequence of having so many citizens rely on the same algorithms to get their real-time news updates.¹²

Given these changing dynamics; this paper explores how governments should regulate Big-Tech as a fundamental research question.

Source of strength and where they are now

Let’s take a look at how each GAF A company dominates its market. Google, the search giant, aims to “organize the world’s information and make it accessible and usable by people all

¹⁰ Facebook News Room, April 4, 2018 “An Update on Our Plans to Restrict Data Access on Facebook” <https://about.fb.com/news/2018/04/restricting-data-access/>

¹¹ Rana Foroohar, *Don’t Be Evil*, Crown Publishing Group, p.56, 2019

¹² Francis Fukuyama, Barak Richman, Ashish Goel, Marietje Schaake, Roberta R. Katz, Douglas Melamed, *Report of the Working Group on Platform Scale* [Microsoft Word - Platform Scale Whitepaper -tw-layoutv3-eb.docx \(stanford.edu\)](#), p.18, 2020

over the world.” The company was created in 1998, and now holds over 92 percent of the world’s market share in search engines,¹³ from which it generates huge advertising revenues. Since 2015, the Indian-born Sundar Pichai, 47 years old, has served as CEO. The company acquired Android, which developed a free operating system (basic software) for smartphones in 2005, and the video-sharing site YouTube in 2006, expanding the sites where it can run ads. For parent company Alphabet, Google’s advertising accounts for nearly 90 percent of its revenue, and in fiscal year 2019, it generated about \$98 billion through advertising revenue.¹⁴ The number of users continues to grow exponentially, and now there are a total of eight Google services with more than one billion monthly users worldwide, including not only search, but also YouTube, Gmail, Google Maps, Chrome, Android, etc.¹⁵

Apple launched the iPod in 2001, using post-sale services to generate revenue. The iPhone, introduced in 2007, triggered Apple’s explosive growth by expanding the revenue generated by post-sale offerings. Even after the death of Steve Jobs, co-founder and CEO, in 2011 at the age of 56, the company’s power has not waned. His successor, CEO Tim Cook, 59, has expanded the iPhone lineup, and, since fiscal year 2003, iPhone sales have exceeded 200 million units per year. Apple’s profit share in the global smartphone market is about 80 percent.¹⁶ The company has been trying to expand its post-sales services, through app stores and music distribution.

¹³ Stat Counter, “Search Engine Market Share Worldwide July 2019 - July 2020” <https://gs.statcounter.com/search-engine-market-share>

¹⁴ Alphabets Investor Relations, February 3, 2020, Alphabet Announces Fourth Quarter and Fiscal Year 2019 Results https://abc.xyz/investor/static/pdf/2019Q4_alphabet_earnings_release.pdf?cache=79552b8

¹⁵ TechCrunch, July 25, 2018, “Google Drive will hit a billion users this week” <https://techcrunch.com/2018/07/25/google-drive-will-hit-a-billion-users-this-week/>

¹⁶ MacRumors, March 7, 2017, “Apple Captured 79% of Global Smartphone Profits in 2016”, <https://www.macrumors.com/2017/03/07/apple-global-smartphone-profit-2016-79/>

Facebook is the world's dominant social-networking site for connecting people online. With more than 2.7 billion monthly users¹⁷ and its photo- and video-sharing app Instagram, Facebook is the giant in social networking, accounting for more than 75 percent of the market.¹⁸ Like Google, FB relies on advertising as its source of revenue and, because it requires users to register with their real names, the quality of the data it collects is seen to be particularly high. The company was founded in 2004, a short time ago, but the sum of FB's and Google's share of the global digital-advertising market increased from 51 percent in 2007 to 55 percent in 2010, making them almost an oligopoly.¹⁹ Founder and CEO Mark Zuckerberg, 35, is the youngest of GAFA's top executives.

Finally, there's the e-commerce giant Amazon. Under the direction of founder and CEO Jeff Bezos, 55, the company has a flexible logistics network, with its direct-selling retail business at its core and a presence in mall-based e-commerce, similar to Japan-based Rakuten. Mall-based e-commerce allows sellers to outsource inventory storage and delivery to Amazon's distribution centers, which are believed to be located in about 200 places around the world. The number of units sold through mall-based businesses accounts for half of Amazon's total e-commerce sales. The company's own membership program, Amazon Prime, has attracted users. For an annual membership fee of about \$100, users can take advantage of unlimited benefits, such as shorter delivery times and access to videos and music. There are more than 100 million Prime members worldwide. Amazon has nearly 40 percent of the U.S. e-commerce market,²⁰ driven largely by

¹⁷ Facebook Investors Relations, July 30, 2020, Facebook Q2 2020 Results, p.3

https://s21.q4cdn.com/399680738/files/doc_financials/2020/q2/Q2-2020-FB-Earnings-Presentation.pdf

¹⁸ Stat Counter, "Social Media Stats Worldwide July 2019 - July 2020" <https://gs.statcounter.com/social-media-stats>

¹⁹ eMarketer, "Facebook-Google Duopoly Won't Crack This Year" <https://www.emarketer.com/content/facebook-google-duopoly-won-t-crack-this-year?ecid=NL1001>

²⁰ eMarketer, March 11, 2020, "Amazon Remains the Undisputed No. 1" <https://www.emarketer.com/content/amazon-remains-the-undisputed-no-1>

the use of Prime. It wildly outpaces Walmart, which is in second place with 5 percent, and Amazon 's share is expected to increase by another percentage point this year.

GAFA has steadily increased their influence on politics. A look at the rise in lobbyist spending shows that the combined total of the four companies in the most recent year, through June 2020, was \$54.5 million, on par with the top-ranking U.S. Chamber of Commerce and the National Association of Realtors. In ten years, that amount has grown about six-fold.^{21, 22} To add human talent related to politics, Facebook hired a former British deputy prime minister, who is now head of public affairs and international strategy, in October 2018.²³ In 2019, Google invited a former Department of Homeland Security official in the Trump administration; he is now reportedly supporting Joe Biden.²⁴

Scott Galloway, professor of marketing at NYU Stern, has this to say about potential weaknesses of the four companies that do not seem to have weaknesses anywhere else:

There's safety in hatred. Specifically, the Four hate each other. They are now competing directly, as their respective sectors are running out of easy prey. Google signaled the end of the brand era as consumers, armed with search, no longer need to defer to the brand, hurting Apple, who also finds itself competing with Amazon in music and film. Amazon is Google's largest customer, but it's also threatening Google in search—55 percent of people searching for a product start on Amazon (vs. 28 percent on search engines such as Google).²⁵

The push-pull relationship, as both competitors and partners, helps the GAFA companies maintain their dominant positions, preventing smaller competitors from gaining a foothold.

²¹ Statista, July 29, 2020, "Tech Giants Ramp Up Lobbying In Face of Antitrust

Scrutiny" <https://www.statista.com/chart/18792/annual-lobbying-expenditures-of-major-tech-companies-in-the-us/>

²² OpenSecrets.org, October 23, 2020, "Top Spenders" <https://www.opensecrets.org/federal-lobbying/top-spenders>

²³ Sheryl Sundberg, October 19, 2018, Facebook post herself

<https://www.facebook.com/sheryl/posts/10160864762595177>

²⁴ CNBC, August 18, 2020, "Former Trump staffer who joined Google is now on leave to support Biden"

<https://www.cnbc.com/2020/08/18/miles-taylor-former-trump-staffer-who-backed-biden-takes-leave-from-google.html>

²⁵ Scott Galloway, *The Four: The Hidden DNA of Amazon, Apple, Facebook, and Google*, Penguin Publishing Group, p.8, 2018

Collusion between titans is further evident from court documents. A lawsuit by the Department of Justice argues,

For instance, Google has contracted with Apple for many years to preset Google’s search engine as the default for Apple’s Safari browser and, more recently, other search access points on Apple’s mobile devices. When a consumer takes a new iPhone or iPad out of its box, all the significant access points default to Google as their general search provider. Indeed, Google has preset default status for an overwhelming share of search-access points on mobile devices sold in the United States.²⁶

In response, Google argues, “[t]oday, you can easily download your choice of apps or change your default settings in a matter of seconds—faster than you can walk to another aisle in the grocery store.”²⁷ In 2007, the 2011 class action lawsuit revealed, Apple founder Steve Jobs (then the company’s chief executive) called Google to complain that a recruiter was trying to hire one of his software engineers. Eric Schmidt (Google CEO at the time) then e-mailed his company’s human resources department saying, “I believe we have a policy of no recruiting from Apple... Can you get this stopped and let me know why this is happening? I will need to send a response back to Apple quickly.” Mr. Schmidt added that he would respond “verbally, since I don’t want to create a paper trail over which we can be sued later.” It turned out that a group of large tech companies had put in place “no call” agreements to avoid having their top talent poached by one other.²⁸

²⁶ DOJ, October 20, 2020 “Justice Department Sues Monopolist Google For Violating Antitrust Laws” <https://www.justice.gov/opa/pr/justice-department-sues-monopolist-google-violating-antitrust-laws>, p.16

²⁷ Google blog, October 20, 2020, “A deeply flawed lawsuit that would do nothing to help consumers” <https://blog.google/outreach-initiatives/public-policy/response-doj/>

²⁸ Financial Times Opinion Big Tech, October 25, 2020, Big Tech collaborates to conquer <https://www.ft.com/content/eacb3e89-59fa-4251-bc5c-8137774022c2>

Growing regulatory movements

New competitive policy in the digital age

Antitrust laws are intended to promote fair and free competition. It can be said that the values that competition policy aims to achieve are “fairness” and “freedom.” The idea is to ensure that economic agents, whether individuals or firms, are free to act on their own judgment, under the rules of fair competition, to provide goods and services to consumers. If economic agents act fairly and freely with sufficient information, appropriate market choices and decisions can be made, thus more efficient allocation of resources can be achieved. This will benefit everyone, leading to a heightened sense of well-being; in other words, to a higher level of satisfaction in society as a whole. Looking at the differences by country, antitrust policy in the United States has historically been more pro-competition than in Germany or Japan, and this has shaped the industrial structure by limiting coordination among firms. American antitrust policy would not permit many of the types of industry coordination common in Japan, such as R&D consortia, recession cartels, general trading companies, and certain forms of exclusive dealership arrangements or industrial groups.²⁹

In order to understand the current trend of increasing regulatory momentum for Big-Tech, it is necessary to understand the evolution of competition rules in the United States. In the 1950s and 1960s, the Harvard School dominated the field of competition policy and rules, emphasizing structural regulation through corporate divestiture in order to regulate monopolies and oligopolies. However, since the mid-1970s, the influence of the Chicago School, which relies on economic analysis and places supreme importance on the market mechanism and economic efficiency, has rapidly increased. The Chicago School’s position, which argues that it is not easy

²⁹ Steven K. Vogel, *Marketcraft American Style*, Oxford University Press, p.48, 2018

for companies to adopt cooperative behavior, was welcomed by oligopolistic industries and, from the 1980s onward, as European market integration progressed, EU competition law adopted the Chicago School's thinking.³⁰ This transition in policy allowed a gradual consolidation of market power in many sectors by the first decade of the 2000s, with some particularly dominant players in information technology characterized by strong network effects (which means a phenomenon whereby increased numbers of people or participants improve the value of a good or service).³¹ However, Lina Khan, Associate Professor of Law at Columbia University, has sounded the alarm about the Chicago School's approach: "[t]he Chicago School claims that 'predatory pricing, vertical integration, and tying arrangements never or almost never reduce consumer welfare.' Both predatory pricing and vertical integration are highly relevant to analyzing Amazon's path to dominance and the source of its power." In the context of why competitive process and structure matter, she points out,

Notably, the present approach fails even if one believes that antitrust should promote only consumer interests. Critically, consumer interests include not only cost but also product quality, variety, and innovation. Protecting these long-term interests requires a much thicker conception of "consumer welfare" than what guides the current approach. But more importantly, the undue focus on consumer welfare is misguided. It betrays legislative history, which reveals that Congress passed antitrust laws to promote a host of political economic ends—including our interests as workers, producers, entrepreneurs, and citizens.

Moreover, she connects the defect of the Chicago School's thinking with the market dominance of Amazon: "[b]oth predatory pricing and vertical integration are highly relevant to analyzing Amazon's path to dominance and the source of its power."³²

³⁰ Masahiro Murakami, *Antitrust Law, New Edition: Towards an International Standard of Competition Law*, Iwanami Shinsho, p.30-35, 2017

³¹ Steven K. Vogel, *Marketcraft American Style*, Oxford University Press, p.57, 2018

³² Lina Khan, January 2017, THE YALE LAW JOURNAL "Amazon's Antitrust Paradox", p.722, p.737 <https://www.yalelawjournal.org/article/amazons-antitrust-paradox>

The Chicago School advanced a policy that condemned conduct even by monopolists only if it reduced economic efficiency, measured by the effect of the practice on total social wealth. The Chicago School's influence shifted the focus of antitrust liability from the protection of small business to the protection of consumers. Aggressive practices such as price cutting may well harm rivals, but Chicago scholars argued, they should usually be lawful because they normally benefit consumers.³³ Roger McNamee, co-founder of Silver Lake Partners, says, “[t]hree internet platforms—Amazon, Google, and Facebook—have benefited enormously from the Chicago School’s antitrust philosophy. The products of Google and Facebook are free to consumers, and Amazon has transformed the economics of distribution while keeping consumer prices low, which has allowed all three to argue successfully for freedom to dominate, as well as to consolidate.” According to McNamee, the Chicago school became official policy with the Ronald Reagan administration and has prevailed ever since. But the years since 1981 have seen a massive decline in new-company formation, as well as income inequality not seen since the era of Standard Oil.³⁴ The deregulation movement by the Reagan administration resonated with the Japanese government of Yasuhiro Nakasone, who led the privatization of three public corporations, Japan National Railways, Nippon Telegraph and Telephone Public Corporation, and Japan Tobacco & Salt Public Corporation, and with the British government of Margaret Thatcher, who pushed forward privatization of government-owned corporations as well. It was around this time that the forerunner of so-called Neoliberalism began to take shape.

The Chicago School's principles do not align with the digital age in practice, especially in developed countries facing demographic changes, such as population declines, low birthrates,

³³ William H. Page and John E. Lopatka, *The Microsoft Case: Antitrust, High Technology, and Consumer Welfare*, Chicago Scholarship Online, 2013(Print publication date: 2007)

³⁴ Roger McNamee, *Zucked*, Penguin Random House, p.137, 2019

and aging populations. The key to economic development, employment, and consumer benefits is to use innovation to create new products, services, and businesses to increase demand. Therefore, competition policy in the new era is about eliminating barriers to free and fair competition, creating an environment that fosters innovation.³⁵ Previous chairman of the Japan Fair Trade Commission, Kazuyuki Sugimoto, emphasized “no competition, no growth.”³⁶ In retrospect, the representative cases of monopoly would be those of Standard Oil, AT&T, and Microsoft. On each occasion, authorities created a healthy competitive environment by imposing regulations. Now the necessity of regulating GAFAM has been rising, and with the rise of digital-surveillance state capitalism in China, which aims to gather individual information by the government, how other governments control the technology marketplace has become an important topic for international security considerations as well.

However, it should be noted that legislation in the digital age has become much more difficult than in the past. The services provided by digital platform providers in a multi-sided market with multiple user groups are likely to expand and become monopolies or oligopolies through network effects, low marginal costs, economies of scale, and other characteristics. In addition, the concentration of data through network effects and economies of scale will only increase the utility of users, and when data are accumulated and utilized by digital platform providers and business models based on data are built, the accumulation and utilization of data will increase further. The lock-in effect, which discourages users from adapting alternative services, leads to a cycle that maintains and strengthens the competitive advantage, particularly further development of data accumulation and utilization. If you join Facebook, your friends will be more likely to join as well, such network effects spread further, and far more quickly than

³⁵ Japan Fair Trade Commission <https://www.jftc.go.jp/houdou/kouenkai/nentouh2020.html>

³⁶ Kazuyuki Sugimoto, *Competition policy in the digital age*, Nihon-Keizai Shimbun Shuppansha, p.17-18, 2019

non-internet networks. It is such a powerful force that the biggest problem faced by Facebook today is that it is running out of humans to connect.³⁷

To widen the circle, a business model in which goods and services are provided free of charge in exchange for personal information has been adopted, and there are concerns about digital platform providers acquiring and using consumers' personal information when they provide services. When a digital platform operator uses personal information, obtained by unfair means, to the detriment of consumers or fair competition, the possibility of prohibiting monopoly to ensure fair trade will eventually arise. Therefore, from the perspective of improving transparency in the operation of anti-monopoly laws and the predictability of digital platform operators, it is necessary to sort out what acts in the acquisition and use of personal information by digital platform operators would be problematic as an abuse of a dominant position.³⁸ Regulators are required to undertake such precautionary analyses.

Timeline of regulation of Big-Tech in the U.S.

In the U.S., the home of GAFA, political wariness has been rising steeply as their enormous power grows (refer to Table 1 for the sequence of events). Perhaps the most powerful impact was the advocacy by Senator Elizabeth Warren, who ran in the 2020 presidential election, for breaking up Big-Tech in March 2019, as shown.

In the 1990s, Microsoft—the tech giant of its time—was trying to parlay its dominance in computer operating systems into dominance in the new area of web browsing.... Today's big tech companies have too much power—too much power over our economy, our society, and our democracy. They've bulldozed competition, used our private information for profit, and tilted the playing field against everyone else. And in the process, they have hurt small businesses and stifled innovation.... That's why my administration will make big, structural

³⁷ Jamie Bartlett, *The People vs Tech*, Ebury Digital, p.133, 2018

³⁸ Japan Fair Trade Commission, December 17, 2020 "The Anti-Monopoly Law's Approach to Abuse of Superior Bargaining Position in Transactions between Digital Platform Operators and Consumers Who Provide Personal Information" https://www.jftc.go.jp/houdou/pressrelease/2019/dec/191217_dpfgl_11.pdf

changes to the tech sector to promote more competition—including breaking up Amazon, Facebook, and Google.³⁹

While Warren withdrew from the nomination fight in March of 2020, politicians’ dissatisfaction with the IT giants persists. In a similar argument, Chris Hughes, co-founder of Facebook, says about Zuckerberg, “Mark may never have a boss, but he needs to have some check on his power. The American government needs to do two things: break up Facebook’s monopoly and regulate the company to make it more accountable to the American people.”⁴⁰

In fact, the authorities have actually begun to take action in the U.S. In July 2019, Facebook agreed to pay a record-breaking \$5 billion penalty, and submit to new restrictions and a modified corporate structure that will hold the company accountable for the decisions it makes about its users’ privacy. This settled charges that the company violated a 2012 FTC order by deceiving users about their ability to control the privacy of their personal information.⁴¹ The \$5 billion penalty against Facebook is the largest ever imposed on any company for violating consumers’ privacy, almost 20 times greater than the largest privacy or data security penalty imposed worldwide. It is one of the largest penalties ever assessed by the U.S. government for any violation. In February 2020, the FTC launched an antitrust investigation into GAFA and Microsoft, requesting detailed information about acquisitions made between 2010 and 2019, including the details of the contracts.⁴² “Digital technology companies are a big part of the economy and our daily lives,” said FTC Chairman Joe Simons. “This initiative will enable the

³⁹ Medium – Team Warren, March 8, 2020 “Here’s how we can break up Big Tech”
<https://medium.com/@teamwarren/heres-how-we-can-break-up-big-tech-9ad9e0da324c>

⁴⁰ The New York Times, May 2019, “It’s Time to Break Up Facebook”
<https://www.nytimes.com/2019/05/09/opinion/sunday/chris-hughes-facebook-zuckerberg.html>

⁴¹ FTC, July 24, 2019, “FTC Imposes \$5 Billion Penalty and Sweeping New Privacy Restrictions on Facebook”
<https://www.ftc.gov/news-events/press-releases/2019/07/ftc-imposes-5-billion-penalty-sweeping-new-privacy-restrictions>

⁴² FTC, February 11, 2020, “FTC to Examine Past Acquisitions by Large Technology Companies”
<https://www.ftc.gov/news-events/press-releases/2020/02/ftc-examine-past-acquisitions-large-technology-companies>

Commission to take a closer look at acquisitions in this important sector, and also to evaluate whether the federal agencies are getting adequate notice of transactions that might harm competition. This will help us continue to keep tech markets open and competitive, for the benefit of consumers.”

The U.S. DOJ has been also active. In October 2020, the DOJ, along with eleven state attorneys general, filed a civil antitrust lawsuit in the U.S. District Court for the District of Columbia to stop Google from unlawfully maintaining monopolies through anticompetitive and exclusionary practices in the search and search-advertising markets and to remedy the competitive harms.⁴³ “Today, millions of Americans rely on the Internet and online platforms for their daily lives. Competition in this industry is vitally important, which is why today’s challenge against Google—the gatekeeper of the Internet—for violating antitrust laws is a monumental case both for the Department of Justice and for the American people,” said Attorney General William Barr. “Since my confirmation, I have prioritized the Department’s review of online market-leading platforms to ensure that our technology industries remain competitive. This lawsuit strikes at the heart of Google’s grip over the internet for millions of American consumers, advertisers, small businesses and entrepreneurs beholden to an unlawful monopolist.” Further, “[a]s with its historic antitrust actions against AT&T in 1974 and Microsoft in 1998, the Department is again enforcing the Sherman Act to restore the role of competition and open the door to the next wave of innovation—this time in vital digital markets,” said Deputy Attorney General Jeffrey A. Rosen.

⁴³ DOJ, October 20, 2020, “Justice Department Sues Monopolist Google For Violating Antitrust Laws” [Justice Department Sues Monopolist Google For Violating Antitrust Laws | OPA | Department of Justice](#)

This massive lawsuit, said to be the first against Microsoft since the 1990s, is likely to go a long way. Tim Wu, a law professor at Columbia University, explains that

[T]he basic case against Microsoft was that they were shutting down the channels for Netscape. They made it impossible to compete with them. And Google is accused of doing basically the same thing.... I think that case had a big effect because it kept Microsoft away from trying to pick favorites on the browser.... So there's a lot of ways in which I think it slowed down Microsoft's domination of the early Web, and I guess now things are coming full circle.⁴⁴

In July 2020, the House of Representatives held a hearing over allegations of antitrust violations. As the CEOs of the four GAF A companies lined up via videoconference, Antitrust Subcommittee Chair David Cicillini (D-Rhode Island) said,

This hearing has made one fact clear to me. These companies, as exist today, have monopoly power. Some need to be broken up; all need to be properly regulated and held accountable. We need to ensure the antitrust laws first written more than a century ago work in the digital age. When these laws were written, the monopolists were men named Rockefeller and Carnegie. Their control of the marketplace allowed them to do whatever it took to crush independent businesses and expand their own power.⁴⁵

The hearing pointed out various instances of GAF A's alleged anticompetitive behavior. For example, Amazon is allegedly misusing data from stores that open on its platform to secretly develop private-label products that compete with those stores and others. CEO Jeff Bezos responded to this by saying, "I can't answer that question yes or no. What I can tell you is we have a policy against using seller specific data to aid our private label business, but I can't guarantee you that that policy has never been violated."⁴⁶ Prior to that, in April 2020, a Republican senator called for investigation under antitrust laws over the unauthorized use of

⁴⁴ NPR, October 20, 2020, "Antitrust Lawsuits: Google 2020 Vs. Microsoft 1998"

<https://www.npr.org/2020/10/20/925895717/antitrust-lawsuits-google-2020-vs-microsoft-1998>

⁴⁵ Official website of David N. Cicillini, July 29, "Closing Remarks at U.S. House Antitrust Subcommittee"

<https://cicillini.house.gov/press-release/cicillini-closing-remarks>

⁴⁶ Rev, July 29, 2020, "Big Tech Antitrust Hearing Full Transcript" <https://www.rev.com/blog/transcripts/big-tech-antitrust-hearing-full-transcript-july-29>

outside seller's data to develop private-label products. The *Wall Street Journal* (WSJ) reported that Amazon employees have used data about independent sellers on the company's platform to develop competing products, a practice at odds with the company's stated policies. The online retailing giant has long asserted, including to Congress, that when it makes and sells its own products, it doesn't use information it collects from the site's individual third-party sellers, data those sellers view as proprietary.⁴⁷ As for Apple, the manner in which the app store was operated was called into question. Although CEO Tim Cook said that "we treat all developers equally," he was prodded by lawmakers about the 30 percent commission that Apple charges on its App Store. In August, Epic Games, the developer of the popular game *Fortnite*, was removed from the app store after offering its own billing system outside of Apple's system. This led Epic to sue Apple in federal district court.⁴⁸ After the first lawsuit, Epic filed a second when Apple informed the company that it would be blocking development tools for third parties. In the complaint, Epic claimed, "Apple said at the hearing, '[w]e don't retaliate or bully developers, it's strongly contrary to our corporate culture,' and we were retaliated against ferociously."⁴⁹

Google was accused of stealing restaurant ratings from local-information posting site Yelp and threatening to exclude Yelp from the search result if it rebelled, among other things. Facebook revealed that the founder of Instagram, which it acquired in 2012, felt the threat of its own destruction if the company was not sold to Facebook at the time, and CEO Mark Zuckerberg admitted that he regarded Instagram as a competitor at the time. Joseph J. Simons, who is chairman of the Federal Trade Commission, said, "[m]any of the major technology

⁴⁷ WSJ, "Amazon Scooped Up Data From Its Own Sellers to Launch Competing Products" <https://www.wsj.com/articles/amazon-scooped-up-data-from-its-own-sellers-to-launch-competing-products-11587650015>

⁴⁸ "UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF CALIFORNIA", August 13, 2020 <https://cdn2.unrealengine.com/apple-complaint-734589783.pdf>

⁴⁹ "UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF CALIFORNIA OAKLAND DIVISION", August 21, 2020 <http://docs.dpaq.de/16709-37-main.pdf>

companies that we rely on to search for answers to our questions, find goods, connect us to friends, and carry out other fundamental tasks dominate their respective domains. Policymakers, academics, and other stakeholders are engaged in a lively and thoughtful debate over how we can properly ensure that these large firms do not inappropriately dominate our daily lives.”⁵⁰ In developed countries facing population decline, low birthrate and aging population, the key to economic development, employment and consumer benefits is innovation, which will create new products, services and businesses, which will in turn increase demand. Therefore, competition policy in the new era is about eliminating barriers to free and fair competition and creating an environment that fosters innovation.

Additionally, in December 2020, the FTC and more than 40 states sued Facebook for illegally crushing competitors and demanded the company undo its acquisitions of Instagram and WhatsApp. “Personal social networking is central to the lives of millions of Americans,” said Ian Conner, Director of the FTC’s Bureau of Competition. “Facebook’s actions to entrench and maintain its monopoly deny consumers the benefits of competition. Our aim is to roll back Facebook’s anticompetitive conduct and restore competition so that innovation and free competition can thrive.”⁵¹ In response to this, Facebook has made the following arguments:

We face competition in every aspect of our business. That was true before the acquisitions of Instagram and WhatsApp and remains true today. With so many rivals, our customers can at any time choose to move to another product or service—and sometimes they do. The lawsuits ignore this reality...And just as people choose to use Facebook, so too do millions of businesses large and small choose to use our free tools and advertising products. We compete for advertising dollars with other digital platforms, from Google to TikTok, and with other channels such as television, radio and print. Businesses choose us because our apps and services deliver real value. Unfortunately, these lawsuits misunderstand the

⁵⁰ FTC, September 14, 2020, “Prepared Digital Showcase Introductory Remarks of Chairman Joseph Simons at the 2020 ICN Annual Conference” <https://www.ftc.gov/public-statements/2020/09/prepared-digital-showcase-introductory-remarks-chairman-joseph-simons-2020>

⁵¹ FTC, December 9, 2020, “FTC Sues Facebook for Illegal Monopolization” <https://www.ftc.gov/news-events/press-releases/2020/12/ftc-sues-facebook-illegal-monopolization>

advertising landscape and offer instead a distorted view of how advertisers spend to reach their target audiences.⁵²

Congress held another public hearing in July 2019 with regard to Facebook’s proposed issuance of a digital currency. Federal Reserve Chairman Jerome Powell fielded multiple questions about Facebook’s ambitions from members of the House Financial Services Committee as part of a semiannual report to Congress, which was supposed to focus on monetary policy. He presented a list of red flags ahead of the launch of Facebook’s global cryptocurrency and said that he had formed a working group to examine it. “Libra raises serious concerns regarding privacy, money laundering, consumer protection, financial stability,” Powell said in front of a Congressional committee. “These are concerns that should be thoroughly and publicly addressed.”⁵³ Senator Mike Crapo (R-Idaho), then Chairman of the Senate Committee on Banking, Housing and Urban Affairs, delivered the following remarks at a hearing: “[c]oncerns include, but are in no way limited to: how the payment system will work, how it will be managed, and how Libra, the Libra Association, Calibra and Facebook will all interact; what consumer protections will apply... Despite the uncertainties, Facebook’s stated goals for the payments systems are commendable.”⁵⁴

⁵² Facebook, December 9, 2020, “Lawsuits Filed by the FTC and the State Attorneys General Are Revisionist History” <https://about.fb.com/news/2020/12/lawsuits-filed-by-the-ftc-and-state-attorneys-general-are-revisionist-history/>

⁵³ CNBC, July 10, 2019, “The Fed is looking into Facebook’s Libra cryptocurrency as Powell flags ‘serious concerns’” <https://www.cnbc.com/2019/07/10/powell-says-facebooks-libra-cryptocurrency-raises-serious-concerns-such-as-money-laundering.html>

⁵⁴ THE COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS, July 16, 2019, “Crapo Statement at Facebook Hearing” <https://www.banking.senate.gov/imo/media/doc/Crapo%20Statement%207-16-19.pdf>

The timeline of regulation of Big-Tech outside the U.S.

Europe enacted the General Data Protection Regulation (GDPR) in May 2018.⁵⁵ The GDPR sets out strict rules and penalties for handling the personal data of EU citizens. The data covered includes personal identification numbers such as name and official IDs, geographic information about a person's location, credit card numbers, email addresses, and physical information such as mugshots and voiceprints, etc. The GDPR does not in general allow any processing of these data or taking them outside the European Economic Area (EEA) and sets out in detail the conditions and procedures to be followed. Sanctions for violations are also heavy. The fines are 4 percent of the sanctioned company's annual global turnover or 20 million euros (about 2.5 billion yen), whichever is higher. The reason behind the strict regulation is a strong antipathy toward the GAFAs and other U.S. technology companies. In Europe, especially in France, the sense that personal data should be protected is very strong, so much so that the EU Charter of Fundamental Rights lists the protection of personal data one of the fundamental human rights. IT Gulliver, which uses personal data to provide a variety of conveniences, has attracted a large number of users in Europe, but this has also led to a strong sense of unease and aversion. In addition, competing local companies are becoming increasingly hostile to Gulliver's oligopoly of the market.

The EU is targeting Google in particular, as shown in the European Commission's order that Google pay a fine of €2.42 billion for violating EU competition law.⁵⁶ This is the largest fine ever imposed by the European Commission on a single company for violating antitrust laws. The EU found that Google abused its dominant position in the European online search market, in

⁵⁵ "Complete guide to GDPR compliance" <https://gdpr.eu/>

⁵⁶ European Commission, June 27, 2017, "Antitrust: Commission fines Google €2.42 billion for abusing dominance as search engine by giving illegal advantage to own comparison shopping service" https://ec.europa.eu/commission/presscorner/detail/en/IP_17_1784

which it holds a 90 percent share, and favored its shopping-search function over other price-comparison sites. There are two points to the decision. First, by placing the Google Shopping tabs (items) very close to the search window, it made them more clickable than other price comparison sites. Second, Google changed its algorithms to lower the search-result rankings of competing price-comparison sites. This pushed competing sites down the search-result rankings to page four and beyond, on average, the European Commission explains. According to the Commission's research, 95 percent of Google's search results on PCs were clicked on by content that appeared on the first page of the site. Furthermore, the first place in the search results gets 35 percent of all clicks, and when it falls to third place, the number of clicks decreases by 50 percent.

In March 2019, the EU imposed a third round of fines over the market dominance of online advertising. Commissioner Margrethe Vestager, in charge of competition policy, said,

Today the Commission has fined Google €1.49 billion for illegal misuse of its dominant position in the market for the brokering of online search adverts. Google has cemented its dominance in online search adverts and shielded itself from competitive pressure by imposing anti-competitive contractual restrictions on third-party websites. This is illegal under EU antitrust rules. The misconduct lasted over 10 years and denied other companies the possibility to compete on the merits and to innovate - and consumers the benefits of competition.⁵⁷

The broader and stronger measures are the Digital Services Act and the Digital Markets Act. In December 2020, the Commission has proposed an ambitious reform of the digital space, a comprehensive set of new rules for all digital services, including social media, online market places, and other online platforms that operate in the EU. The new rules will better protect consumers and their fundamental rights online, and will lead to fairer and more open digital markets for everyone. A modern rulebook across the single market will foster innovation,

⁵⁷ European Commission, March 20, 2019, "Antitrust: Commission fines Google €1.49 billion for abusive practices in online advertising" https://ec.europa.eu/commission/presscorner/detail/en/IP_19_1770

growth, and competitiveness and will provide users with new, better, more reliable online services. It will also support the scaling up of smaller platforms, small and medium-sized enterprises, and start-ups, providing them with easy access to customers across the whole single market while lowering compliance costs. Furthermore, the new rules will prohibit unfair conditions imposed by online platforms that have become or are expected to become gatekeepers to the single market. The two proposals are at the core of the Commission's ambition to make this Europe's Digital Decade. Concretely, the Digital Services Act will introduce a series of new, harmonized EU-wide obligations for digital services, carefully graduated on the basis of those services' size and impact, such as rules for the removal of illegal goods, services or content online, etc. Meanwhile, the Digital Markets Act will apply only to major providers of the core platform services most prone to unfair practices, such as search engines, social networks and online intermediation services, which meet the objective legislative criteria to be designated as gatekeepers. If it violates these standards, the company will be sanctioned for non-compliance, which could include fines of up to 10 percent of the gatekeeper's worldwide turnover, to ensure the effectiveness of the new rules. For recurrent infringers, these sanctions may also involve the obligation to take structural measures, potentially extending to divestiture of certain businesses, where no other equally effective alternative measure is available to ensure compliance.⁵⁸

With respect to Japan, in order to improve the competitive environment in the digital field, the Japan Fair-Trade Commission has an initiative to conduct a large-scale, comprehensive, and thorough investigation to understand the actual condition of transactions as a starting point to realize transparency and fairness. First, in January 2019, they started "Survey on Trade Practices of Digital Platformers," and conducted a survey on transactions among businesses in online

⁵⁸ European Commission, December 15, 2020, "Europe fit for the Digital Age: Commission proposes new rules for digital platforms https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2347

malls and app store operators, and released an interim report in April 2019 and a final report in October 2019. In this investigation report, they have identified the acts that give unjust disadvantage to the customers, acts that exclude competitors, and acts that restrict the business activities of customers, and evaluated them from the viewpoint of enforcement of anti-monopoly law and competition policy. In addition, they will continue to investigate other digital platforms such as digital advertising to understand the actual situation and sort out thinking on the Anti-Monopoly Law and competition policy. Furthermore, in December 2019, Japan has announced “The Anti-Monopoly Law’s Approach to Abuse of Superior Bargaining Position in Transactions between Digital Platform Operators and Consumers Who Provide Personal Information,” “Operational Guidelines of the Anti-Monopoly Law on Business Combination Review,” and “Policy on Countermeasures for Business Combination Review Procedures,” after taking actions for public comments.

In addition to the Fair-Trade Commission, as many other ministries and agencies are involved in the development of the competitive environment in the digital field, the Digital Market Competition Headquarters was established in the Cabinet Secretariat in September 2019, led by Secretary Yoshihide Suga (now Prime Minister) as chairman. Thus, the entire government is working on these issues. As the Digital Market Competition Headquarters takes the issues surrounding the digital market all countries into consideration, it pursues leadership for Japan in international discussions. In detail, the first action of this commission is to accelerate consideration of the legislation to ensure transparency and fairness of transactions by digital platforms and the amendment of the Personal Information Protection Act, to create a new framework for digital society in a way that does not inhibit innovation, and to take concrete steps to ensure this. Second, in relation to antitrust laws, it will carry on a review of the guidelines for

business combination screening in the light of the valuation of data and the formulation of guidelines for the abuse of a dominant bargaining position against consumers, as an initiative to lead the international discussion. Third, it will begin to evaluate the competitive situation in the digital advertising market, where there is widespread concern about the acquisition and use of personal information and oligopoly.⁵⁹

The Japanese government is also trying to take the lead in efforts to create rules other than formal regulations. In January 2019, at the World Economic Forum Annual Meeting at Davos, Prime Minister Shinzo Abe declared a New Era of “Hope-Driven Economy.” Abe said,

The regime we must build is one for D.F.F.T., Data Free Flow with Trust—non-personal data, needless to say. It is not the big, capital intensive industries, but rather we individuals who will benefit from both the fourth industrial revolution and what we call “Society 5.0,” which this fourth industrial revolution will bring about. In Society 5.0, it is no longer capital but data that connects and drives everything, helping to fill the gap between the rich and the less privileged. Services of medicine and education, from elementary to tertiary, will reach small villages in the Sub-Saharan region. Girls who have given up going to school will see, beyond their own village, a wider horizon where the sky is the limit.

At the same time, he named the G20 held in Osaka in June of the same year as “Osaka-Track,” with an emphasis on making the World Trade Organization more relevant in the age of the data-driven economy.⁶⁰

Also, in June 2019, the G7 competition authorities agreed on a common understanding on “Competition and the Digital Economy” as a case study of international efforts in the digital field. They have been actively exchanging views and sharing information on the competition challenges arising from the digital economy.

⁵⁹ First Digital Market Competition Conference, October 4, 2019
<https://www.kantei.go.jp/jp/singi/digitalmarket/kyosokaigi/dai1/gijiroku.pdf>

⁶⁰ WORLD ECONOMIC FORUM, January 23, 2019, “‘Defeatism about Japan is now defeated’: Read Abe’s Davos speech in full” <https://www.weforum.org/agenda/2019/01/abe-speech-transcript/>

One more thing to keep an eye on is the regulatory trend toward technology companies in China. One of the focal points is the conflict between the Xi Jinping administration and Jack Ma, the founder of Alibaba Group. Rather than encouraging healthy competition in the private sector, China appears to be driven by a sense of urgency that the growth of tech companies threatens the hegemony of the state. On December 24, 2020, China's market regulator announced it was launching an antitrust probe into Alibaba and sent investigators to its headquarters in the eastern Chinese city of Hangzhou, Mr. Ma's hometown. The announcement came just two weeks after the party's politburo said it would target monopoly businesses to prevent the "disorderly expansion of capital." The move on Alibaba also came two months after financial regulators dramatically cancelled Ant Group's planned \$37 billion initial public offering, which would have been the world's largest. Taken together, the measures amount to an unprecedented squeeze on a business empire whose ubiquitous services are central to the functioning of China's pioneering online economy. Alibaba's shares have fallen by almost 30 percent since the regulatory showdown began in late October, putting a big dent in the net worth of Mr. Ma, who has not been seen in public since then. Over the same period, his fortune has declined from \$62 to \$49 billion, according to Bloomberg data, the result of the showdown will say a lot about the sort of economy that China is developing.⁶¹ It has been revealed that, as he was trying to salvage the relationship with Beijing in early November 2020, Mr. Ma offered to hand over parts of his financial-technology giant, Ant Group, to the Chinese government, according to people with knowledge of the matter. "You can take any of the platforms Ant has, as long as the country needs it," Mr. Ma proposed at an unusual sit-down with regulators, the people said.⁶² Once

⁶¹ Financial Times, January 12, 2021, "Jack Ma vs Xi Jinping: the future of private business in China" <https://www.ft.com/content/751c2500-f50d-47c9-8f04-a28ad62285fd>

⁶² WSJ, December 21, 2020, "Jack Ma Makes Ant Offer to Placate Chinese Regulators" <https://jp.wsj.com/articles/SB11236499840805234501604587171801250317364>

hailed as drivers of economic prosperity and symbols of the country's technological prowess, the empires built by Ma, Tencent Holdings Ltd.'s chairman, Pony Ma Huateng, and other tycoons are now suspect, having amassed hundreds of millions of users and gaining influence over almost every aspect of daily life in China. "The [Communist] Party is trying to make it clear that Ma is not bigger than the party," says Rana Mitter, a professor specializing in Chinese politics at Oxford University. "But they also want to show that China is a good place to do business, and that means that the party needs to show that entrepreneurs can succeed."⁶³

In the wake of COVID-19, the Chinese government is turning to what is being called Digital Autocracy, which is said to be paying off in curbing the number of infected people. China's move to seize control of its own Big-Tech is an extension of this trend. The widespread use of AI and Big-Data-driven smartphone apps called "health codes" has enabled early detection, early reporting, early isolation, and early treatment, with PCR testing capacity of up to five million cases per day. The health code will compare and analyze various data held by the government and companies with the information that individuals initially declare (real name, ID number, cell phone number, facial recognition, health-related questions) and behavioral history collected by the app. The risk of infection is displayed in three levels. Red is high risk and requires 14 days of intensive observation such as quarantine, yellow is medium risk and requires seven days of home confinement (which can greatly reduce the risk of infecting others), and green is low risk and indicates no abnormalities (go-ahead for commuting and economic activities). The linked data include: (1) personal information database (including facial recognition) controlled by the Ministry of Public Security; (2) location information from smartphones (telecommunication companies); (3) payment systems such as Alipay (支付宝) and

⁶³ Bloomberg Businessweek, December 22, 2020, "How China Lost Patience With Jack Ma, Its Loudest Billionaire" <https://www.bloomberg.com/news/features/2020-12-22/jack-ma-s-empire-in-crisis-after-china-halts-ant-group-ipo>

WeChat Pay (微信支付), as well as payment data from banks and other financial institutions; and (4) data related to public transportation. Since QR codes need to be read in every aspect of life, the Chinese Communist Party will be able to collect almost any information belonging to an individual. There is a possibility that the CCP will find a new tool of governance here, which is called the “Digital Autocracy.”⁶⁴

Aspects other than competitive policy

Spreading misinformation

It is important to look at aspects other than the inhibition of competition by market monopolies. A symbolic case is the Cambridge Analytica case due, in which Facebook information was misused. This scandal, which is said to have influenced the outcome of the U.S. presidential election, led to IT platformers being severely questioned about their responsibility for the operation of their services. Originally, however, Section 230 played a role in leaving platformers unaccountable for their operations. Section 230 is part of the Communications Decency Act, a 1996 law (and itself part of the Telecommunications Act of the same year) that regulated online pornography. Specifically, Section 230 provides legal immunity from liability for internet services and users for content posted on the internet. The regulation states,

No provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider. What that means in practice is that internet companies—everything from social media platforms to online retailers to news sites—are generally not liable if a user posts something illegal. Backers of Section 230 credit [it] in part for the success of companies like Facebook, Twitter and YouTube, which depend on vast amounts of user-generated content.⁶⁵

⁶⁴ Naoto Saito, Chief Researcher at Daiwa Institute of Research, December 13, 2020, *After/With Corona's Chinese Economy and The Future of Digital Despotism*

https://www.dir.co.jp/report/research/economics/china/20201021_30068.pdf, p.7

⁶⁵ CBS NEWS, December 16, 2020, “What is “Section 230,” and why do many lawmakers want to repeal it?” <https://www.cbsnews.com/news/what-is-section-230-and-why-do-so-many-lawmakers-want-to-repeal-it/>

But there is a growing concern in the U.S., especially for Republicans, about the censorship of content by Big-Tech. Rep. Jim Jordan (R-Ohio) said at a congressional hearing in July 2020 that,

[B]ig tech's out to get conservatives. That's not a suspicion. That's not a hunch. That's a fact.... The leader of Iran, the Islamic Republic of Iran, this is from the largest state sponsor of terrorism. Twitter allows this tweet.... You can threaten the citizens of this great country, the leader of the largest state sponsor of terrorism. That's just fine. But all the president says, he's not going to allow some autonomous zone in DC, and he gets censored. All kinds of examples, most of them from this year, and that's what's, I think, critical for us all to understand. Most of them from this year, an election year, and that's what concerns me and so many Americans, because we saw what Google did in 2016.

For instance, Donald Trump tweeted in May 2020,

There is NO WAY (ZERO!) that Mail-In Ballots will be anything less than substantially fraudulent. Mail boxes will be robbed, ballots will be forged & even illegally printed out & fraudulently signed. The Governor of California is sending Ballots to millions of people, anyone...living in the state, no matter who they are or how they got there, will get one. That will be followed up with professionals telling all of these people, many of whom have never even thought of voting before, how, and for whom, to vote. This will be a Rigged Election. No way!⁶⁶

These messages led to Twitter's first warning that it needed to check the facts. Angered by Twitter's response, Trump immediately signed an executive order that included a review of Section 230 of the Communications Decency Act, which also allows social-networking site operators to remove posts and restrict viewing. The order points out that

As a Nation, we must foster and protect diverse viewpoints in today's digital communications environment where all Americans can and should have a voice. We must seek transparency and accountability from online platforms, and encourage standards and tools to protect and preserve the integrity and openness of American discourse and freedom of expression.... Online platforms are engaging in selective censorship that is harming our national discourse. Tens of thousands of Americans have

⁶⁶ Twitter, Donald J. Trump, May 26, 2020 (no longer valid) https://twitter.com/realDonaldTrump/status/1265255835124539392?ref_src=twsrc%5Etfw%7Ctwcamp%5Etwete_mbed%7Ctwtterm%5E1265255835124539392%7Ctwgr%5E%7Ctwcon%5Es1_&ref_url=https%3A%2F%2Fwww.npr.org%2F2020%2F05%2F26%2F862797418%2Ftwitter-points-users-to-fact-checks-of-trump-tweets-for-the-first-time

reported, among other troubling behaviors, online platforms “flagging” content as inappropriate, even though it does not violate any stated terms of service.⁶⁷

However, soon after, Trump tweeted in response to the protests that occurred in the killing of a black man by police, “...These THUGS are dishonoring the memory of George Floyd, and I won’t let that happen. Just spoke to Governor Tim Walz and told him that the Military is with him all the way. Any difficulty and we will assume control but, when the looting starts, the shooting starts. Thank you!”⁶⁸ The two sides continued to tussle, with Twitter warning again about the glorification of violence. Finally, on January 8, 2021, Twitter banned Trump’s personal account, citing the risk of further incitement of violence in the wake of the riot that left five people dead in Washington, D.C., and fueled pressure on the platforms to do more to prevent additional violence. Facebook and YouTube have removed or suspended content posts by Trump. Dipayan Ghosh, who is author of *Terms of Disservice* and leads the Digital Platforms and Democracy Project at the Harvard Kennedy School, sheds light on the business model of platformers.

The core issue driving the problems of hate and misinformation online is not a matter of lax content moderation but rather the business model of social media itself—a business model consistently focused on uninhibited data collection to the end of behavioral profiling, and the use of algorithms to manipulate the user’s media experience. These are the features of social media that Russian disinformation operators, domestic extremists and even the president himself have exploited to foist hatred, violence and conspiracy on American voters in recent years.... Ultimately, we must have better protections in place, protections that counteract the opacity of social media algorithms with radical transparency and the uninhibited collection and use of personal data with consumer privacy rights. Meanwhile, we must rethink the legal mechanisms—namely, Section 230 of the Communications Decency Act—the industry has employed to shield itself from the content moderation debate.⁶⁹

⁶⁷ WhiteHouse.gov, May 28, “2020 Executive Order on Preventing Online Censorship”

<https://www.whitehouse.gov/presidential-actions/executive-order-preventing-online-censorship/>

⁶⁸ Twitter, Donald J. Trump, May 29, 2020 (no longer valid)

<https://twitter.com/realDonaldTrump/status/1266231100780744704>

⁶⁹ The Washington Post, January 7, 2021, “Blame Facebook, Twitter and YouTube for the mob at the Capitol”

https://www.washingtonpost.com/outlook/2021/01/07/social-media-facebook-capitol-mob/?fbclid=IwAR3Sl0DoH3EjXVW0_pALxSwUVUUb1RV4yMyPAQ-b3IBfmVOAww0g8Fb4z4Q

The business model by which Big-Tech operates is the darker side of Silicon Valley's much celebrated metric of "user engagement." By focusing so heavily on greater engagement, social media tends to parasitize our brain's adaptive mechanisms. As it happens, the most engaging content on social media is often horrible or enraging. According to evolutionary psychologists, in order to survive in premodern times, humans developed a disproportionate attentiveness toward potential threats. We evolved to pay keen attention to potential threats.⁷⁰

Income disparities, work environment

There has been much recent discussion of whether the declining labor share reflects falling worker power. Declining union power would be one potential mechanism contributing to the decline in the labor share, although the broad decline of labor share in non-manufacturing sectors (where unions have had little presence), and in countries where union power has not fallen so steeply as in the United States, somewhat mitigate against this hypothesis. Alternatively, the growth of superstar firms could confer more monopsony power to employers, negatively impacting both wages and employment. In addition to GAFA, superstar firms here include Airbnb and Uber. The rise of superstar firms and decline in the labor share also appear to be related to changes in the boundaries of large dominant employers, with such firms increasingly using domestic outsourcing to contract a wider range of activities previously done in-house to third-party firms and independent workers. Such activities may include janitorial work, food services, logistics, and clerical work.⁷¹

⁷⁰Christopher Wylie, *Mindf*ck: Cambridge Analytica and the Plot to Break America*, Random House, p.120, 2019

⁷¹ David Autor, MIT and NBER David Dorn, University of Zurich and CEPR Lawrence F. Katz, Harvard University and NBER Christina Patterson, October 2019, Chicago Booth and NBER John Van Reenen, MIT and NBER, *The Fall of the Labor Share and the Rise of Superstar Firms*, <https://economics.mit.edu/files/12979>, p.36-38

As a result of this outsourcing, the environment of the workers under contract to Big-Tech has become problematic. In March 2020, Amazon's working conditions in its distribution warehouses came under intense scrutiny after Amazon fired some warehouse employees who went on strike for inadequate measures to combat Covid infections. Amazon says that they fired the employees for violating social distancing guidelines and putting the safety of others at risk. But the employees disputed that it was never made clear to him when the quarantine order was supposed to have started.⁷² New York Attorney General Letitia James condemned Amazon, saying that

It is disgraceful that Amazon would terminate an employee who bravely stood up to protect himself and his colleagues. At the height of a global pandemic, Chris Smalls and his colleagues publicly protested the lack of precautions that Amazon was taking to protect them from COVID-19. Today, Chris Smalls was fired. In New York, the right to organize is codified into law, and any retaliatory action by management related thereto is strictly prohibited. At a time when so many New Yorkers are struggling and are deeply concerned about their safety, this action was also immoral and inhumane. The Office of the Attorney General is considering all legal options, and I am calling on the National Labor Relations Board to investigate this incident.⁷³

The future of judicial decisions regarding the digital age is attracting attention. The center of argument is California's "Proposition 22," which considers app-based drivers to be independent contractors and not employees or agents, protecting Uber, Lyft, and the delivery service DoorDash. These app-based services designed the measure to exempt the companies from a state labor law that would have forced them to employ drivers and pay for health care, unemployment insurance, and other benefits. As a concession to labor advocates, the initiative offered a wage floor and limited benefits to drivers. In November 2020, California voters carried

⁷² VICE, March 31, 2020, "Amazon Fired the Warehouse Worker Who Organized a Walkout Over Coronavirus" <https://www.vice.com/en/article/5dmea3/amazon-fired-the-warehouse-worker-who-organized-a-walkout-over-coronavirus>

⁷³ The New York Times, November 4, 2020, "Uber and Lyft Drivers in California Will Remain Contractors" <https://www.nytimes.com/2020/11/04/technology/california-uber-lyft-prop-22.html>

gig-economy companies to victory, approving Proposition 22. But in January 2021, a major labor union and several gig workers sued to overturn a newly passed ballot measure classifying the workers as independent contractors in California. The suit, filed by Service Employees International Union and a group of ride-hailing drivers, asks the state supreme court to invalidate Prop 22, which cemented gig drivers' status as independent contractors after more than 58 percent of voters supported it in November. They argue the measure limits state legislators' ability to implement a system of worker compensation, in defiance of their constitutional authority to do so. It also argues that the proposition unconstitutionally defines what comprises an amendment to the measure, as well as violating a rule limiting ballot measures to a single subject to prevent voter confusion.⁷⁴ Amazon employees' concerns under Covid-19 have since grown. Workers at an Alabama warehouse voted by mail in February and March on whether to form a union, a closely watched referendum on the relationship between the largest online retailer and the employees who pack and ship its products. A group of about 6,000 frontline employees at the fulfillment center in Bessemer, Alabama, will decide whether to join the Retail, Wholesale and Department Store Union, the NLRB has said. Typically, such votes are held in person or at a location close to the workplace. Elections since the start of the Covid-19 pandemic have been conducted by mail.⁷⁵ As of this writing, the result of this vote is not yet known.

There is also a movement among Big-Tech employees to form their own labor unions. In early January 2021, more than 400 Google engineers and other workers have formed a union, the group revealed, capping years of growing activism at one of the world's largest companies and

⁷⁴ Letitia James New York Attorney General, March 30, 2020, "AG James' Statement on Firing of Amazon Worker Who Organized Walkout" <https://ag.ny.gov/press-release/2020/ag-james-statement-firing-amazon-worker-who-organized-walkout>

⁷⁵ Bloomberg, January 15, 2021, "Amazon Workers to Hold Mail Union Vote Starting in February" [Amazon Alabama Warehouse Workers to Hold Union Vote by Mail Starting in February - Bloomberg](#)

presenting a rare beachhead for labor organizers in staunchly anti-union Silicon Valley. The union's creation is highly unusual for the tech industry, which has long resisted efforts to organize its largely white-collar work force. It follows increasing demands by employees at Google for policy overhauls on pay, harassment, and ethics, and is likely to escalate tensions with top leadership. The new union, called the Alphabet Workers Union after Google's parent company was organized in secret for the better part of a year and elected its leadership last month. The group is affiliated with the Communications Workers of America, a union that represents workers in telecommunications and media in the United States and Canada.⁷⁶ In the statement, they said the following:

Google began as a small tech company with a “Don't Be Evil” mantra, but has quickly become one of the most influential companies in the world. Alphabet, Google's parent company, now has more than 120,000 workers. It's responsible for vast swaths of the internet, controlling tools used by billions of people across the world, with subsidiaries as varied as Waymo, Verily, Fitbit, and Wing. Yet half of Google workers at Alphabet companies are hired as TVCs—temps, vendors, or contractors—without the benefits afforded to full-time employees. Executives have been awarded tens of millions of dollars in exit packages after documented sexual harassment against fellow Googlers. And the company has taken on unethical government contracts, like drone targeting for the military, yet kept the nature of that technology secret even to the Googlers working on those projects. It has removed its past motto from its mission statement.⁷⁷

The formation of the union was in part triggered by the inexplicable firing of Dr. Timnit Gebru, a leading artificial intelligence researcher, in December 2020. At Google, Gebru was the co-lead of the company's Ethical Artificial Intelligence team, where she was able to parlay her passion for highlighting the societal effects of AI into academic papers that could shape Google's largest products, like search. Gebru co-founded Black in AI, a group formed to encourage people of

⁷⁶ The New York Times, January 4, 2021, Hundreds of Google Employees Unionize, Culminating Years of Activism <https://www.nytimes.com/2021/01/04/technology/google-employees-union.html>

⁷⁷ Alphabets Workers Union, January 4, 2021, “Google Workers, Demanding Change at Work, Are Launching a Union With the Communications Workers of America” <https://alphabetworkersunion.org/press/releases/2021-01-04-code-cwa-google-union/>

color to pursue careers in artificial intelligence research. For Google, bringing on Gebru lent credibility to the tech giant's efforts to examine how technology can exacerbate systemic bias and discrimination. Yet Dr. Gebru says Google's support for her only went so far. Before she left Google, the company abruptly asked her to retract a research paper critical of Google's technology. Gebru said, "[m]y theory is that they had wanted me out for a while because I spoke up a lot about issues related to black people, women, and marginalization.... They wanted to have my presence, but not me exactly. They wanted to have the idea of me being at Google, but not the reality of me being at Google."⁷⁸

Tax avoidance

The practice of multinational corporations using various mechanisms to shift profits to countries with lower tax rates (i.e., countries with less taxation) has been criticized in recent years as "tax dodging." GAFAM have been at the center of this controversy, largely bearing the brunt of the criticism. While the IT platform giants are profitable globally, they do not necessarily have Permanent Establishment (PE), such as stores or factories, which was the traditional basis for corporate taxation by country. However, in the digital age, even if you have a local subsidiary in the country where your products and services are consumed, you will only be doing ancillary work there. The core business, such as music distribution, online shopping, search, advertising, and social networking, is done on cloud servers, which is the equivalent of PE for huge IT companies like GAFAM. Each company places its servers in a lightly taxed country such as Ireland, and collects sales made in the consuming country in the lightly taxed country

⁷⁸ NPR, December 17, 2020, "Ousted Black Google Researcher: 'They Wanted To Have My Presence, But Not Me Exactly'" <https://www.npr.org/2020/12/17/947719354/ousted-black-google-researcher-they-wanted-to-have-my-presence-but-not-me-exact!>

and records them as taxable income there. On the other hand, in consuming countries such as Europe and Japan, the principle of “no taxation without PE” has made it impossible to levy corporate tax. In the EU, the effective tax rate of a typical multinational corporation is 23.2 percent, while that of a giant IT company such as GAFA is 9.5 percent, less than half the rate.⁷⁹

A symbolic example of the measures taken by the EU in frustration is the massive additional tax on Apple in August 2016. The European Commission has concluded that Ireland granted undue tax benefits of up to €13 billion to Apple. This is illegal under EU state aid rules, because it allowed Apple to pay substantially less tax than other businesses. Ireland must now recover the illegal aid. Commissioner (current Executive Vice-President) Margrethe Vestager, in charge of competition policy, said, “Member States cannot give tax benefits to selected companies—this is illegal under EU state aid rules. The Commission’s investigation concluded that Ireland granted illegal tax benefits to Apple, which enabled it to pay substantially less tax than other businesses over many years. In fact, this selective treatment allowed Apple to pay an effective corporate tax rate of 1 percent on its European profits in 2003 down to 0.005 percent in 2014.”⁸⁰ But the EU’s general court decided that the commission failed to prove that the Irish government had given the U.S. tech giant a tax advantage. Later, Vestager stated, “[t]he Commission has decided to appeal before the European Court of Justice the General Court’s judgment of July 2020 on the Apple State aid case in Ireland, which annulled the Commission’s decision of August 2016 finding that Ireland granted illegal State aid to Apple through selective tax breaks.”⁸¹ The future of digital taxation is not only a matter of difficulty within Europe, but

⁷⁹ Weekly Toyo Keizai, May 19, 2018, “Dismantling Facebook” p.48-50

⁸⁰ European Commission, August 30, 2016, “State aid: Ireland gave illegal tax benefits to Apple worth up to €13 billion” https://ec.europa.eu/commission/presscorner/detail/en/IP_16_2923

⁸¹ European Commission, September 25, 2020, “Statement by Executive Vice-President Margrethe Vestager on the Commission’s decision to appeal the General Court’s judgment on the Apple tax State aid case in Ireland” https://ec.europa.eu/commission/presscorner/detail/en/STATEMENT_20_1746

also of reconciling interests with other countries. There is bipartisan frustration in Washington with taxes targeting U.S. tech giants. Big U.S. tech companies have opposed the patchwork of one-time national taxes on digital services, which they contend are unfairly targeted against U.S.-headquartered businesses. The U.S. government's retaliatory tariffs against European countries have already begun. Although the Organization for Economic Co-operation and Development (OECD) has been actively working on international taxation rules in response to the digitalization of the economy for the past several years, just submitted a report in October 2020 outlining a blueprint for future action. The goal is to reach a global agreement by mid-2021, later than initially planned. The OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting (BEPS), which groups 137 countries and jurisdictions on an equal footing for multilateral negotiation of international tax rules, agreed during its October 2020 meeting that the two-pillar approach they have been developing since 2019 provides a solid foundation for a future agreement. Recognizing that the negotiations have been slowed by both the Covid-19 pandemic and political differences, Inclusive Framework members said that the blueprints of the two-pillar approach released reflect convergent views on key policy features, principles, and parameters for a future agreement. They identified remaining political and technical issues, where differences of views remain to be bridged, and next steps in the multilateral process.⁸²

The history of the BEPS informs the complexities faced by governments to deal with taxation of multinationals. In June 2012, the OECD launched a project to review the entire set of international taxation rules in order to combat international tax evasion by multinational companies, and on October 5, 2015, the final package containing, each of fifteen action plans,

⁸² OECD, December 10, 2020, "International community renews commitment to address tax challenges from digitalization of the economy" <https://www.oecd.org/tax/beps/international-community-renews-commitment-to-address-tax-challenges-from-digitalisation-of-the-economy.htm>

was released. After that, as a “post-BEPS” project, based on the recommendations of the final report, the OECD Transfer Pricing Guidelines were revised and the remaining issues were discussed. Necessary laws and regulations are being developed in countries around the world, including Japan, and domestic laws have been developed in light of the final report. The continuing discussions have been a long road, the end of which has not yet been approached.

Conclusion

As we have seen, we are entering an era that questions how laws and regulations against Big-Tech market monopolies should be implemented. But they still seem to be in breeze mode. In mid-2020, as the FTC’s investigation into the acquisition records continued, Facebook announced its acquisition of GIPHY, a GIF video service, intending to integrate it into its own apps, including Instagram in mid-May.⁸³ The value of the acquisition is estimated to be around \$400 million.⁸⁴ Soon after, the company launched an e-commerce support service that allows small businesses to open stores across Facebook and Instagram to expand its business domain further⁸⁵. Big-Tech companies are also not hiding rivalries with potential competitors. Take, for example, Zoom, a videoconferencing service that has seen a significant increase in users as telecommuting takes hold. Its operator, Zoom Video Communications, is much smaller than GAFA, but as soon as it saw the potential in the market, Google made its existing video

⁸³ Facebook Newsroom, May 15, 2020, “Facebook Welcomes GIPHY as Part of Instagram Team” <https://about.fb.com/news/2020/05/welcome-giphy/>

⁸⁴ Axios, May 15, 2020, “Scoop: Facebook to buy Giphy for \$400 million” <https://www.axios.com/scoop-facebook-to-buy-giphy-for-400-million-4a75a359-833b-484d-b15b-87e94d3de017.html>

⁸⁵ Facebook Newsroom, May 19, 2020, “Introducing Facebook Shops: Helping Small Businesses Sell Online” <https://about.fb.com/news/2020/05/introducing-facebook-shops/>

conferencing service free,⁸⁶ and Facebook announced a new feature that allows users to use its service without a time limit.⁸⁷

In this situation, dismantling the giants may seem the best quick approach, but that can be counterproductive. This is because their growth rate due to the network effect is so fast that the battle with regulators could be an endless tug-of-war. To resolve that problem, an approach that entails inviting a new group of competitive “middleware” companies to enable users to choose how information is presented to them has been suggested, which would likely be more effective than a quixotic effort to break up these companies. Middleware products can be offered in a variety of ways. One particularly effective approach would be for users to access the middleware via a technology platform such as Apple or Twitter. Consider news articles on users’ news feeds or popular tweets by political figures. In the background of Apple or Twitter, a middleware service could add labels such as “misleading,” “unverified,” and “lacks context.” When users log on to Apple and Twitter, they would see these labels on the news articles and tweets. A more interventionist middleware could also influence the rankings for certain feeds, such as Amazon product lists, Facebook advertisements, Google search results, and YouTube video recommendations. For example, consumers could select middleware providers that adjusted their Amazon search results to prioritize products made domestically, ecofriendly products, or lower-priced goods. Middleware could even prevent a user from viewing certain content or block specific information sources or manufacturers altogether.⁸⁸ Economists and lawyers will have to

⁸⁶ Google Product updates, May 12, 2020, “Google Meet is here to host your video meetings, for free” https://blog.google/products/meet/google-meet-is-here-to-host-everyones-video-meetings-for-free/?_ga=2.99457310.125889459.1597345057-1441109120.1596175401

⁸⁷ Facebook News Room, April 24, 2020, “Introducing Messenger Rooms and More Ways to Connect When You’re Apart” <https://about.fb.com/news/2020/04/introducing-messenger-rooms/>

⁸⁸ FOREIGN AFFAIRS by Francis Fukuyama, Barak Richman, and Ashish Goel, January/February 2021, “How to Save Democracy From Technology - Ending Big Tech’s Information Monopoly” [Francis Fukuyama: How to Save Democracy From Technology | Foreign Affairs](#)

develop tools to explain to courts the role of behavioral biases in the creation of market power and in their effect on the quality of content. The existence of zero money prices means that measurement of quality will be critical. The law needs better analytical tools to take into account the impact of potential and nascent competitors and competition. Market definition will vary according to what consumers are substituting, whether there is competition on the platform between complements, or competition between platforms, or competition between a platform and potential or nascent competitors regarding possible future markets. The need to identify the specific anticompetitive exclusionary conduct and analyze it may raise enforcement costs, given all the possible variants of exclusionary conduct possible in digital markets.⁸⁹

In order to demonstrate internally and externally that they are making sound decisions, Big-Tech themselves is under pressure to change. Nevertheless, while there is a strong need to promote diversity by race and gender, only 3 percent of the employees of 75 major technology companies based in Silicon Valley are black. Men make up 70 percent of the workforce, further highlighting the predominance of white males. When looking at tech companies across the U.S., 83 percent of senior management positions are held by whites, while less than 2 percent are held by blacks.⁹⁰ In February 2020, Sunder Pichai CEO of Alphabet said, “[i]n March, we experienced a significant and sudden slowdown in ad revenues.”⁹¹ These companies’ revenues are skewed towards advertising, retail, and corporate business, so it is imperative that they diversify their revenue streams. In order for them to further increase their high stock prices, they will have to develop new sources of revenue, but the regulators will have to keep a close eye on

⁸⁹ CHICAGO BOOTH Stigler Center, September 16, 2019, “Stigler Committee on Digital Platforms: Final Report” [Stigler Committee on Digital Platforms: Final Report - Stigler Center | Chicago Booth](#)

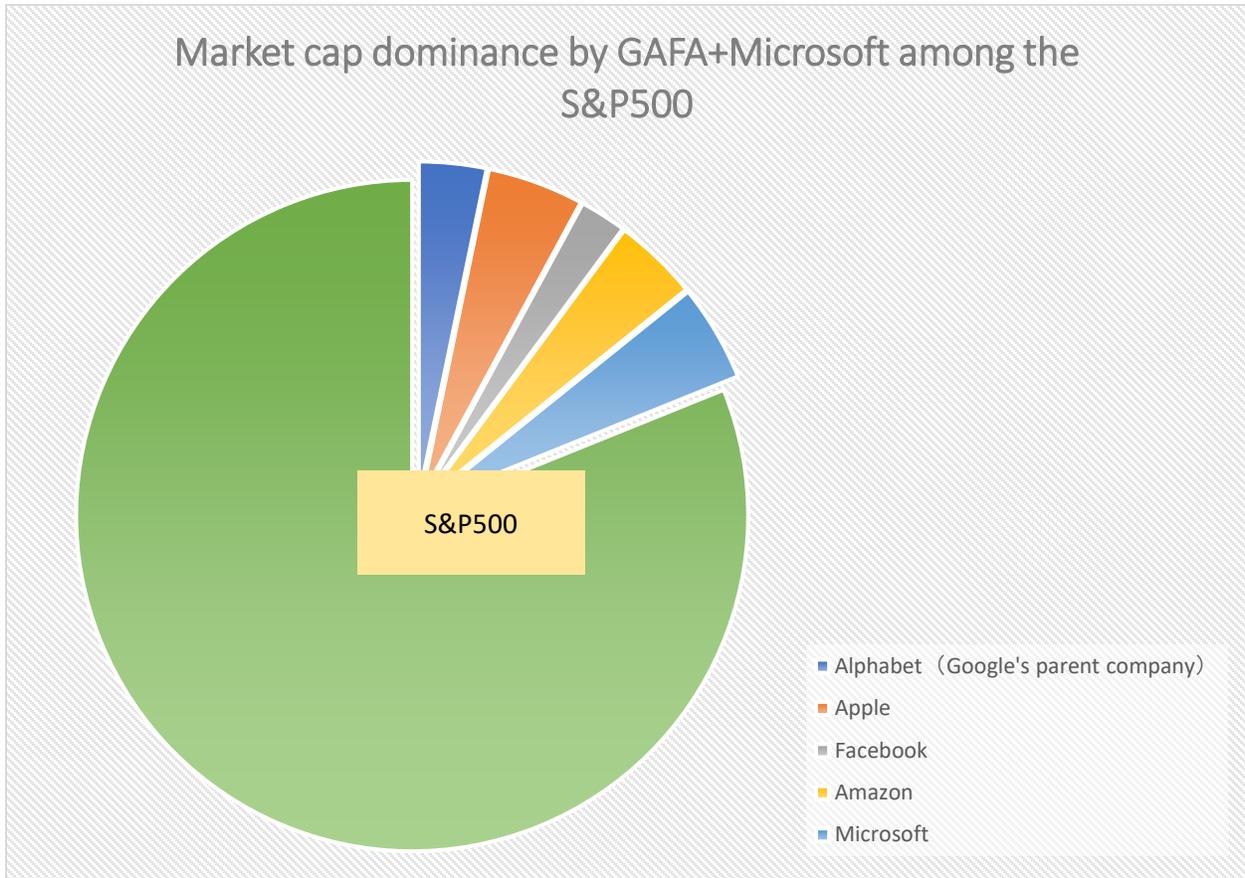
⁹⁰ U.S. Equal Employment Opportunity Commission, 2014, DIVERSITY IN HIGH TECH <https://www.eeoc.gov/special-report/diversity-high-tech>

⁹¹ Alphabet Investor Relation, April 28, 2020, Alphabet Q1 2020 Earnings Call, p.3 https://abc.xyz/investor/static/pdf/2020_Q1_Earnings_Transcript.pdf?cache=712d537

them to make sure that there are no factors that could further hinder competition. Otherwise, the democratic camp may be forced to adopt measures similar to China's near-nationalization of tech companies. Big-Tech is at a turning point that will help determine the industry will continue to operate largely unfettered or will be heavily constrained by governmental action. The ramifications for consumers and competitors hang in the balance.

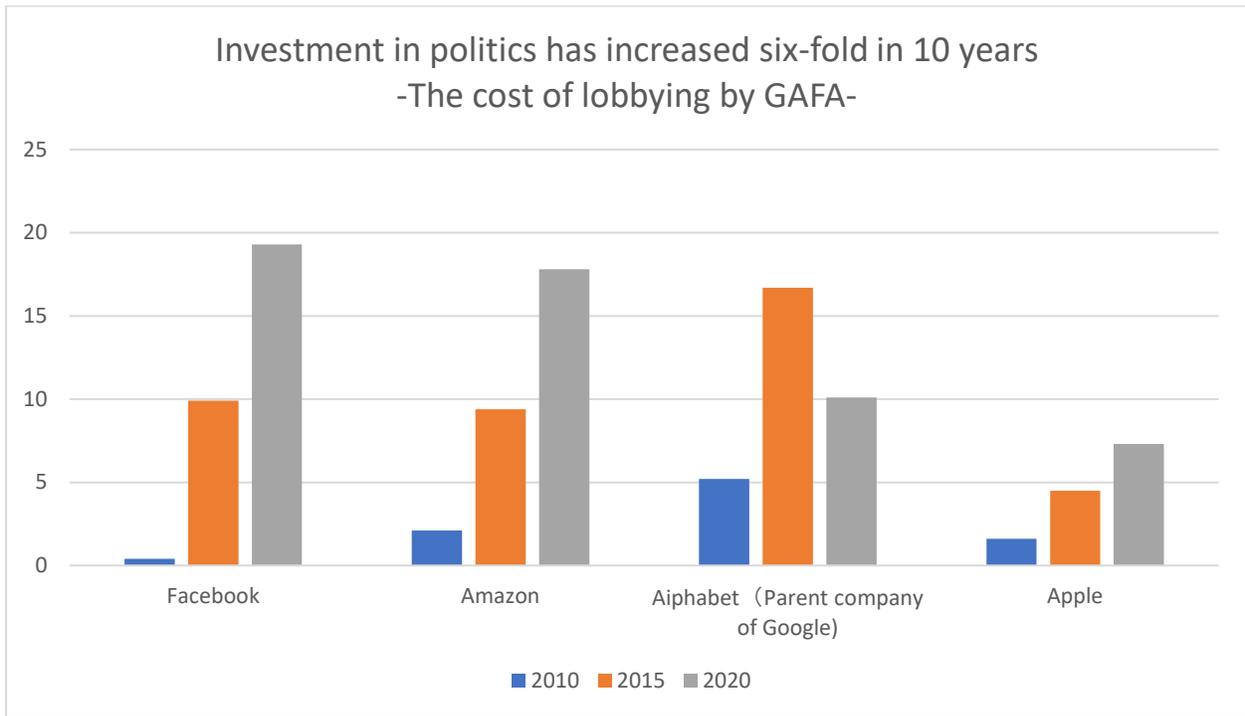
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Figure 1



Source: Yahoo! Finance, YCHARTS

Figure 2



Source: Statista

Table 1

Regulatory developments in the past year for Big-Tech	
2020.2	FTC begins investigation of acquisition records for five Big-Tech companies
2020.4	Federal Court Officially Approves Facebook’s Settlement with FTC to Pay \$5 Billion in Penalties Over Identity Theft
2020.7	Public hearings held for GAF A companies
2020.1	House Judiciary Committee Releases Report on Investigations from June 2019 / Senate Hearing on Section 230 Against Facebook, Twitter, and Google / DOJ and 11 State Attorneys General Sue Google
2020.12	FTC and 48 state AGs file lawsuit against Facebook

Source: Various public information by the government

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