Analyzing Chinese Platform Power

Infrastructure, Finance, and Geopolitics

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In late 2019, against the background of a US-China trade war and an emerging global pandemic, US politicians, pundits, and journalists debated the supposed threat of China. The titles of Judiciary Committee hearings chaired by US Senator Josh Hawley (R-MO) are telling: "How Corporations and Big Tech Leave Our Data Exposed to Criminals, China, and Other Bad Actors" and "Dangerous Partners: Big Tech & Beijing."[1] The rise of TikTok, the video-sharing app developed by the China-based tech company ByteDance, particularly worried critics. The app's "happy-go-lucky rise," journalists for the *Washington Post* reported, "was largely shaped by its Beijing-based parent company, which imposed strict rules on what could appear on the app in keeping with China's restrictive view of acceptable speech."[2] This set Senator Hawley up to introduce bill S.3455, or the "No TikTok on Government Devices Act," in March 2020.[3] Running through these articles and public hearings is the idea that China-based tech companies, including apps such as TikTok, have become a serious threat to US hegemony, if not the very future of the internet.

Depending on one's political leanings and nationality, these dire warnings are either long overdue or the hallmark of hypocrisy. Spurred by China's inability to stem the spread of COVID-19 beyond its borders, those who are instinctively wary of China's global ascendance will undoubtedly feel validated by the Trump

administration's nativist tendencies. Then again, the vilification of China by US conservatives and pundits purely on economic grounds is duplicitous at best. After all, US-based platform companies are dominant on an economic, financial, and infrastructural level and have benefited from decades of both direct and indirect state support, such as direct access to finance capital and favorable intellectual property regimes.[4] Moreover, while divergent, the values, norms, and infrastructural ambitions espoused by US platform executives, such as Jack Dorsey and Mark Zuckerberg, are said to run counter to non-US societal norms.[5]

In this chapter we consider the political economy of China-based platforms in a moment of multipolar innovation. Our main focus is on the BAT platforms Baidu, Alibaba, and Tencent, from their pre-initial public offering (IPO) stages up until to 2019. Rather than considering Chinese platform companies as "bad actors" or "dangerous partners," we provide an empirical account of their economic, financial, and infrastructural ascendance, both in their domestic and international markets. Do China-based platforms threaten US hegemony? Closer inspection of key metrics suggests otherwise. For example, while the widely popular app WeChat has over 1.2 billion active users, this pales in comparison to Facebook's global user base of 2.89 billion, or WhatsApp's 2 billion users. ByteDance's Douyin (the domestic version of TikTok) has seen rapid uptake in and outside of China, but in 2019, its domestic success (442 million users) was far greater than TikTok's, which sported 37 million users in the United States.[6] A similar argument can be made when considering revenue and market valuations. Shenzhen-based Tencent and Hangzhou-based Alibaba rank high in the list of public corporations by market capitalization, yet they trail the trillion-dollar valuations of Microsoft, Apple, and Amazon. To account for the emerging yet still diffuse power of China-based platforms, this chapter asks: How is power operationalized by China-based platforms? We ground our analysis in a multilevel conceptualization of platform power outlined below, which allows us to situate platform companies in broader ecosystems and political economies.[7] What emerges from our analysis is a more complex picture of the integration of markets and infrastructures. While companies such as ByteDance, Tencent, and Alibaba are distinctively Chinese—in the sense that they cater primarily to a significant domestic market and are fully integrated with state-sanctioned policy frameworks—this qualifier becomes more muddled considering flows of finance capital and corporate ownership.

Locating Platform Power

Leading platforms in China started out as web companies focusing on one or a few key industry segments. Alibaba was founded in 1999 as an e-commerce company, while Baidu (est. 2000) was founded as a search company. Tencent's (est. 1998) historical roots lie in its online chat program QQ. As market leaders in their distinctive market segments, these companies heavily diversified by expanding into and integrating with "sectoral platforms" that include transportation, health, and education.[8] Because of their expansion and integration with other platforms, it becomes increasingly difficult to untangle their reach. Exacerbating this analytical challenge is the process of "interplatformization"; China-based platforms are much more integrated on both an economic and infrastructural level, allowing users to freely share content across platforms, and therefore have fostered a more profitable environment compared to Amazon, Facebook, and Google.[9] Therefore, rather than analyzing how each of these platforms constitute all-powerful monolithic entities, we follow van Dijck, Nieborg, and Poell, who call for greater specificity in analyzing platform power.[10] To untangle the different institutional dimensions of platform power, we discuss how platform power is operationalized on the infrastructural, financial, and geopolitical levels.

First, *infrastructural* power entails platforms' role as societal infrastructures, both domestically and across different geographical areas where they provide data, internet, and surveillance infrastructures, payments, and logistics. This section draws from recent work on the "platformization" of infrastructure and the "infrastructuralization" of platforms.[11] By broadening the analytical scope, this perspective allows for platform power to be considered holistically as it requires us to look beyond each company and beyond measures of market share and ownership. This includes examining how platforms accrue unfair advantages by controlling specific nodes in integrated platform ecosystems, through gatekeeping, lock-in, cross-subsidizing, or combining crucial data flows. These nodes are understood as "infrastructural platform services," which include social networking services, search engines, app stores, advertising systems, cloud services, and payment systems.[12] Platform companies, on their part, consist of a large number of such services, each of which functions as a market that brings together end-users (consumers) and complementors, such as business actors, advertisers, and government agencies.[13]

Second, platform power has a distinctive financial dimension.[14] Not only do China-based platforms constitute typical "winner-take-all" markets but also Chinese platforms leverage financialization by wiping out competition and consolidating market dominance through mergers and acquisitions. To this end they established investment arms and have embarked on equity investment as means for growth. This makes them not only market participants, but also financiers, investors, and key stakeholders in the global platform economy. The second level of analysis goes beyond the level of infrastructural platform services and takes the platform *ecosystem* as the unit of analysis. At this level it is not only the accumulation of data, but the strategic deployment of investment capital that allows platform companies to extend beyond their boundaries.

Third, we will situate Chinese instances of platform power within the broader *geopolitical* platform ecosystem. Combining the first and second perspectives, here we consider the various partnerships and cross-appointments on boards of directors between leading Chinese platforms with US-based behemoths such as Google and Amazon. These partnerships have the potential to crowd out competition outside of China, particularly in emerging e-commerce markets such as Southeast Asia. Despite the US-China trade war waged during the Trump administration, we demonstrate that US and Chinese platforms share mutual interests as evidenced by their collaboration in establishing markets and the ability to control global data streams. As such, rather than a radical break, this geopolitical convergence of corporate interests suggests that multipolar innovation in the age of platforms is predicated on, and further deepens, capitalist power structures.

Before we discuss these three institutional dimensions, we first canvass the extant literature on the globalization of Chinese digital platforms and provide an overview of Chinese platforms in the context of China's cyber-power construction and globalization projects, highlighting key state policies, initiatives, and the roles of platforms therein. To conduct our multilevel analysis of Chinese platform power, we rely on annual reports, financial reporting, press releases, as well as reporting in the financial press. Our analysis aims to investigate the "threat of Chinese platforms" narrative through an empirically informed critical political-economic analysis. Similar to their US-based counterparts, Chinese instances of platform power manifest themselves differently across multiple institutional levels, and dispersed through different geographic regions and spheres of influence.

Building the Digital Silk Road

The global diffusion and uptake of China-based platforms is both the outgrowth of the country's long-standing "Media Go Global" policy and the result of the economic imperatives driving the growth of platform markets. The Media Go Global policy is a media-focused framework that involves both state and commercial actors to tackle China's global soft-power deficit.[15] As we discuss more in depth below, platform companies are considered important drivers for innovation in China's domestic market. "The platform economy" in China, Julie Chen contends, "is often associated with the ideas of openness, harmony, or green consumption and by extension a more responsible and sustainable metropolitan lifestyle."[16] CEOs of platform companies, on their part, act as "prophets of mass innovation in China," extolling the virtues of their company's services while hewing closely to state-defined understanding of indigenous innovation policies.[17] For example, next to food delivery, ride-hailing platforms such as DiDi have become both digital utilities for urban transport and a means to employ hundreds of thousands of ex–factory workers.[18] Similarly, popular apps such as Alibaba,[19] WeChat,[20] Kuaishou,[21] and Douyin[22] are deeply integrated into everyday practices of hundreds of millions of Chinese citizens. These examples go to show that Chinese platform companies not only benefit from a significant domestic market but also contribute to a decidedly positive collective framing of its economic and societal impact.

Next to domestic development, research has focused on the converging interests between China's state-led globalization project and those of Chinese digital platforms. The most recent state-led project is the Digital Silk Road, a subset of the Belt and Road Initiative (BRI) formalized in 2013, which aims to build a trade and infrastructure network connecting Asia with Europe and Africa. The Digital Silk Road is considered a "growing and complex alliance" formed between the Chinese state and its homegrown internet companies positioned to advance a broad set of economic and political goals.[23] One of the most visible and active companies in this broader project is China's e-commerce giant Alibaba. China's Belt and Road Initiative has offered a major boost to the company's global expansion, particularly its cloud computing business.[24] Similarly, Alibaba's global trade project—called the Electronic World Trade Platform (eWTP)—runs parallel to the BRI and marks a bold initiative to shape global trade that challenges US hegemony.[25] In other words, the grand project of expanding a Chinese digital

TABLE 1. BAT Revenue Generated outside of China

YEAR	2011	2012	2013	2014	2015	2016	2017	2018
BAIDU	0.4%	0.5%	0.2%	0.5%	N/A	N/A	N/A	N/A
ALIBABA	N/A	18.8%	12%	9.2%	8.5%	7.5%	9%	8%
TENCENT	5.2%	5.2%	8%	8.9%	6.4%	4.9%	3.4%	2.9%

Source: Figures reported in company annual reports.

empire is expedited with the participation of the country's digital giants, who have the capacity and expertise to conduct infrastructural and logistical operations on a regional and global level.[26]

Moving beyond business decisions undertaken by individual platforms and their executives, scholars have sought to measure the degree of internationalization of Chinese internet companies. Yin and Li demonstrate that state ownership or a government affiliation increases the international footprint of state-owned Chinese internet companies.[27] The tradeoff, however, is that they have to forego the short-term goal of making profits. In practice, political clout, visibility, and foreign investments do not necessarily translate into profitability. Chaperoned by the state, platform companies expand globally via highly symbolic launches of services during high-profile diplomatic visits, especially after China allowed private actors to conduct its cyber diplomacy. Then again, in very few instances does the display of political backing match market competitiveness. For example, during President Xi's 2014 visit to Brazil, search-engine giant Baidu launched its Brazilian subsidiary, Busca. Baidu's Latin American strategies also included investments in Peixe Urbano and other regional expansions into Argentina, Chile, and Mexico.[28] Unable to break the monopoly of Google, Baidu shuttered its Brazilian operations in 2018.[29] Similarly, in 2011 Baidu launched the Arabic question-and-answer service Hao 123 in Egypt, only to close it six years later.[30] The company's ventures into Japan, Thailand, and Vietnam have not been successful either, raising questions of whether Chinese tech companies' international ambitions live up to the portrayal of a tech juggernaut.[31]

Nonetheless, Chinese platform executives are explicit about their domestic and global ambitions.[32] In a meeting with former Chinese propaganda chief Li Changchun, Baidu's founder Robin Li stated that the company's goal is to become a universally recognized brand in over half the world's countries.[33] As illustrated in Table 1, the BAT trio derives most of its revenue domestically, and in relative terms, global revenues have seen much slower growth. As noted in our introduction, even the revenue and userbase of the first truly "global" Chinese mobile app, TikTok, trail

far behind Facebook and Google's app offerings. For the time being, while Chinese platforms expand into different geographic regions, their global footprint still is relatively limited. Next, we will discuss the three dimensions of Chinese platform power, starting with infrastructural power.

The Platformization of Chinese Infrastructure

Chinese platforms' infrastructural power is as much the result of a capitalistic logic of encapsulating and controlling markets as it is the outcome of the state's techno-nationalism projects and policies, both domestic and abroad. Under the aegis of becoming a cyber superpower, the Chinese government launched several national technological development projects, such as the Social Credit System, the National Artificial Intelligence Development Plan, and the Internet Plus Plan.[34] Leading digital platforms are handpicked by the state to participate in national technology plans as they are well-positioned to support the technological infrastructure for the country's informatization and datafication processes. Meanwhile, abiding by the principle of "cyber sovereignty," the Chinese government is pursuing a proactive role in governing cyberspace through refurbishing state control over online activities and transforming, streamlining, and digitizing the delivery of government services and social control.[35] Leading digital platforms, leveraging their market dominance, are key stakeholders in the design and operation of the platformization of digital infrastructures.[36] Two infrastructural projects stand out: the platformization of payment systems and building data infrastructures that support both a national surveillance infrastructure and a broad range of commercial services.

Two of the most transformative instances of the platformization of Chinese infrastructures are the payment systems provided by Tencent and Alibaba's spinoff Ant Group. In China, their services have been able to proliferate because of the historically low utilization rate of credit cards, the annual tradition of sending so-called red packets during Spring Festival, and the government's support for the "fintech" sector and the promotion of "inclusive finance"—which is the belief that digital financial services and online lending address the issue of financial inclusion into broader Chinese society.[37] In practice, platform-based payment services are predominantly accessed via mobile apps, such as the Alipay app or WeChat Pay (integrated in the WeChat app). When buying physical goods, rather than swiping or tapping a credit card at the point of payment, both apps allow users to scan

a vendor-generated QR code for seamless payment. Both apps are prototypical "infrastructural platform services": they are integrated within the broader data infrastructures and platform ecosystems of their parent companies and function as the infrastructural tissue integrating users, vendors, and banks, and also other platform services and stakeholders (i.e., the state).[38] By measures of transaction volume and user penetration, mobile payment is nearly ubiquitous. Payment apps reach 92.4 percent of mobile internet users, and both apps constitute a tight domestic duopoly, with 55.1 percent and 38.9 percent market share respectively as of 2019.[39]

Next to domestic dominance, the Alipay/WeChat duopoly has expanded globally as well, spurred by Chinese tourists and diasporas who are increasingly using payment apps to complete transactions overseas. In an effort to tap into global markets, Alibaba and Tencent have relied on a combination of taking ownership stakes or setting up joint ventures with foreign fintech companies. In 2018, Alipay's parent company, Ant Financial, accounted for a whopping 35 percent of global venture-capital investment in fintech firms.[40] Ant Financial has made a particularly strong push into the Southeast Asia region, one of the geographical foci of China's Belt and Road Initiative, through investments in Thai e-payment services Ascend Money, Philippines-based fintech venture Mynt, the Singapore-based firm M-Daq, Indian mobile-payment provider Paytm, Korean's KakaoPay, and by setting up a joint venture with Indonesia-based Emtek. Beyond Asia, Alipay joined a partnership with payment-processing company First Data and Verifone to expand payment systems to North America.[41] Tencent, on the other hand, has invested in Indonesian Go-Jek—a ride-hailing, logistic, and digital payment company—and launched WeChat Pay in Malaysia, Thailand, and twenty-one other countries. As transactions routed through mobile payment systems often escape taxation, WeChat and Alipay pose problems for national financial regulators. As a result, Nepal banned both apps as their use among tourists and the Chinese diaspora resulted in a loss of the nation's foreign-exchange income and tax avoidance.[42] Later in 2020, Nepal did grant both companies a license after they complied with Nepali central Rastra Bank.[43] In short, the global integration of Chinese payment infrastructures are highly uneven and inherently subject to local regulations and institutional contexts.

Harnessing access to finance capital, both platform companies are transforming financial infrastructures by integrating with platform data infrastructures. Former Alibaba CEO Jack Ma proposed the idea of "TechFin," which is meant to signal a full rebuilding of the financial system with a technology-first approach, as opposed

to the more common label "FinTech," where technology's role is to improve the incumbent financial infrastructures.[44] For TechFin-focused platforms, data analytics are considered a key competitive advantage. This involves the collection of financial data as well as developing in-house algorithms, machine learning, and AI technology.[45] In this context, digital platforms are well positioned to accumulate consumer data through integration with other infrastructural platform services—e.g., search, e-commerce, and live-streaming—all of which generate data to be used for automated credit assessments. As such, consumer-facing apps transform financial services in platform-dependent practices.

In addition to processing payments, TechFin platforms have broadened their portfolio of financial services, including loans, investment funds, and crowd-funding. Alipay's offerings include payment, clearance, settlement, and investment.[46] For example, its investment app YuEBao invited users to move money from their debit accounts into its investment fund by offering higher interest rates compared to traditional banks.[47] In 2019, out of Alipay's 700 million users, 588 million invested in YuEBao's fund, which equaled approximately one third of the Chinese population.[48] At that point, YuEBao held the world's third largest market funds, totaling $157 billion.

As China seeks to establish a national database for credit information, the aggregation of financial and transactional data in the hands of just two digital platforms has become an important tool to fill blind spots in its centralized credit-scoring system: The People's Bank of China's (PBOC) Credit Reference Center. According to the PBOC, only about 300 million citizens have enough information on file to generate a credit score. Therefore, in 2015 the PBOC licensed eight platforms, including Tencent Credit and Ant Financial's Sesame Credit services, to form Baihang Zhengxin, a unified national credit platform for online lending. Yet without mandated data sharing, Ant Financial and Tencent have so far resisted sharing personal information and credit data with Baihang Zhengxin, creating hurdles in the implementation of the credit reporting database.[49] The power that rests in Chinese platform companies, as they become proprietors of valuable user data, complicates the ongoing convergence process that aligns technology and business leaders with the Party, with President Xi at the core.[50] The sudden halt of Ant Group's initial public offering in late 2020, and a subsequent anti-monopoly campaign aimed at domestic platform companies marked a dramatic turn of events where the Party exerted direct regulatory control over the digital financial industry.

Societal Data Infrastructures

The platformization of payment infrastructures is part of a broader push towards the construction of a centralized, sovereign, indigenous data infrastructure that includes the active participation of domestic market actors who offer infrastructural platform services that afford data collection. Gruin has pointed to the decidedly authoritarian nature of China's financial system, which comprises an array of big data technologies, financial firms, and financial practices such as digital credit scoring.[51] Arguably one of the more evocative examples of this authoritarian approach has been the construction of the Social Credit System (SCS), a national project that sets a comprehensive outline to establish a data infrastructure for social scoring.[52] Started in 2015, the infrastructural backbone of the SCS is the National Credit Information Sharing Platform (NCISP), which connects 42 central agencies, 32 local governments, and 50 market actors.[53] Leading platforms, such as Alibaba and Baidu, also share data with the NCISP.[54]

As with any infrastructural effort of this scale, these investments have a decidedly material dimension. Chinese platform companies have built a sizable physical computing network that includes data centers and cloud services. Unsurprisingly given their position at the heart of the Chinese platform economy, BAT are the three largest players in the domain of cloud computing, owning 8.8 percent, 46 percent, and 18 percent market share, respectively.[55] Tencent and Alibaba's infrastructure is increasingly integrated with legacy service providers, particularly the nation's telecommunication operator China Telecom.[56] Similar to the global ambitions of its financial services, Tencent and Alibaba openly challenge the market dominance of Google, Microsoft, and Amazon in the Southeast Asian region. So far, Tencent has ten overseas data centers and Alibaba eleven.[57] In 2020, Alibaba announced a $28 billion investment in cloud computing services.[58]

Outside of finance and cloud computing there are ample examples of Alibaba and Tencent engaging in the platformization of social and political practices. One of the more dystopian examples is the assistance provided to local police in a number of state-led "smart city" projects. Platform companies have a second job by assisting city officials to build state surveillance networks and use cloud-based data systems and facial-recognition programs to identify and arrest criminals, and to track and even forecast crowd movements.[59] Alibaba's City Brain, an AI-driven system to decrease traffic congestion and improve the detection of accidents, was implemented in 23 cities across Asia, including Shanghai, Guangzhou, and Hangzhou.[60] With

WeChat's widespread adoption among the Chinese internet population, the CCP started a 26-city trial to replace traditional state-issued social security cards with digital versions tied to WeChat user accounts.[61] To spur wide-scale adoption, the service can be used to register at hotels, purchase train tickets and board flights, apply for government services, and open bank accounts. Combined with China's existing real name registration policy, it is nearly impossible to use utility apps such as WeChat anonymously. Thus, WeChat's identification functionality ensured the app's elevation to the status of a vital digital utility for nearly all Chinese citizens.[62]

Next to identification and financial services, digital platforms have made inroads into digitizing China's legal processes. In 2015, the Supreme People's Court of the People's Republic of China recognized the use of WeChat messages as evidence for civil cases, and the admission of WeChat records without the need for notarization.[63] Twelve provincial courts have tried out "mobile courts," operated through the WeChat Mini Program, which includes technologies such as facial recognition, video conferencing, and digital signatures.[64] In 2017, the City of Hangzhou—where Alibaba is headquartered—launched the first "Internet Court" with Alibaba playing a key design, engineering, and operational role. The court handles cases such as online purchases and disputes, online defamation, domain names, and copyright issues. The Alipay app serves as identity verification, and its e-commerce services—Taobao and T-Mall—provide transaction records as evidence. Alibaba Cloud services, then, provide data encryption, storage, and monitoring. In this case, the government not only benefits from the platform's infrastructural affordances, but also draws on the company's experience in adjudicating online disputes as Taobao has built in dispute resolution mechanisms. As of 2019, there are three "Internet Courts" located in Hangzhou, Beijing, and Guangzhou, collectively processing over 120,000 cases.[65]

All these instances of platformization are indicative of a sustained effort to seamlessly integrate platform infrastructures with legacy systems and social and civil practices. In their reflection on the emergence of a North American and European "Platform Society," van Dijck et al. raise concerns about the blurring of the public and the private, and the integration of platform services in sectors such as news, education, urban transportation, and health care.[66] Already, the level of integration of Chinese platform infrastructures with civil institutions and utilities has reached a level far beyond the legal and normative abilities of Facebook, Google, and Amazon. The Chinese Platform Society is a fait accompli—at least considering the roadmaps provided by the state. In 2017, the State Council issued the Next

Generation Artificial Intelligence Development Plan, in which the government handpicked four domestic tech companies to co-develop artificial intelligence open innovation platforms: Baidu for self-driving cars, Alibaba for smart cities, Tencent for medical imaging, and iFlyTek for voice recognition. The four-company national AI team was later upgraded to fifteen, to further advance and integrate the development of AI in finance, education, health care, and "smart homes."[67]

The Financialization of the Platform Economy

Next to infrastructural power, China-based platform companies leverage access to finance capital to shape market conditions, such as market entry, pricing, and above all, corporate ownership. Since their launch, the BAT platforms benefited from access to foreign investment capital: Baidu received investments from Draper Fisher Jurvetson ePlanet Ventures, Peninsula Capital, Integrity Partners, and Google; Tencent received investment from IDG Capital and Pacific Century Cyberworks, as well as the South African media giant Naspers; Alibaba turned to financing by Yahoo! and SoftBank.[68] The decision to raise funds through public offerings further planted these digital platforms tightly into global circuits of capital and subjected them to the regulatory frameworks of foreign stock exchanges. Meanwhile, bearing much resemblance to their Silicon Valley counterparts, the BAT platforms feature centralized ownership control by its founders. Baidu's CEO Yanhong Li is the company's largest shareholder, owning 16.4 percent of shares through his Handsome Reward Limited company based in the British Virgin Islands. Ma Huateng is the largest shareholder of Tencent, owning 8.58 percent of its shares. Lastly, Alibaba has taken more of a partnership approach, where the 38-member Alibaba Partnership, administered by a five-member partnership committee, retains the exclusive right to nominate and appoint a simple majority of their board of directors.[69]

Financialization strategies shift the role of companies from direct market participants to financiers, owners, and stakeholders in the platform economy. Similar to their infrastructural ambitions, growth and expansion strategies have both a domestic and global dimension, and share the same goal: to establish market dominance. This is most visible in the domestic setting, where the BAT companies acquired 75 percent of all successful start-up companies.[70] Mergers and acquisitions are at a historical high, benefiting from debt financing and resulting in increasingly concentrated markets.[71] Waves of consolidation have created conglomerates of an

unprecedented scale and scope; the market capitalization of the BAT trio takes up nearly 97 percent of the market capitalization of all publicly listed Chinese internet companies. Despite their size, there is a jarring disparity between profitability and market capitalization.[72] As of 2019, Alibaba had a market capitalization of $567 billion, approximately 48 times its net income of $11.95 billion, whereas Tencent's market capitalization ($509 billion) was roughly 38 times its net income ($13.42 billion).[73] Comparatively, for Amazon this was 83 times, Alphabet 27 times, and Facebook 32 times.[74]

Because of their deep financial pockets, platform companies have become financiers, investors, and stakeholders in the domestic economy. In 2017, under the Internet Plus initiative and in an effort to revitalize the state-owned telecommunication operator China Unicom, BAT injected $11.7 billion in capital.[75] In 2019, Alibaba poured $8.7 billion of investments into the state-owned mobile communication infrastructure company China Tower Corp.[76] These investments mark unprecedented steps by the CCP as it permits private platforms to finance state-owned enterprises in a push to reform legacy ownership structures.

The financial strategies and business models of leading platform companies have steered towards traditional capitalist market imperatives, such as maintaining stock valuations and maximizing shareholder value.[77] To spur financial growth, BAT have all set up venture capital (VC) units to fund technology start-ups.[78] VCs help Chinese internet companies to stay afloat in turbulent markets, fend off competition through acquisition, and serve as lucrative revenue streams whenever any portfolio company goes public. In 2017, Baidu established Baidu Venture, which focuses on artificial intelligence, one of the core technologies the platform is pursuing. In 2018, its venture fund was one of the world's most active investors in AI when counting the number of deals. Arguably, Tencent has been the most aggressive investor, where the platform devises investment as one of the key strategies for growth. In 2018, Tencent initiated an organizational shakeup and stepped up its investments in the media industries and information and communication technologies.[79] After decades of having no presence in the game industry, Tencent has become the number one game publisher in the world in a matter of years, predominantly through strategic investments and acquisitions.[80]

Table 2 indicates the rise of investment income in Tencent's and Alibaba's total revenue. Notably, in 2016, Alibaba's interest and investment income rose to RMB 52,254 million, and this was due to the deconsolidation of two entities: Alibaba Pictures and Alibaba Health. Tencent, on the other hand, has profited from the

TABLE 2. Income from Investment for Tencent and Alibaba

	TENCENT		ALIBABA	
YEAR	OTHER GAINS, NET (RMB, MILLIONS)	OPERATING PROFIT (RMB, MILLIONS)	INTEREST AND INVESTMENT INCOME, NET (RMB, MILLIONS)	INCOME FROM OPERATIONS (RMB, MILLIONS)
2007	69	1,635		
2008	6.9	3,246		
2009	–58.2	6,020.5		
2010	38.1	9,838.2		
2011	420.8	12,253.6		
2012	–284	15,479.4	258	5,015
2013	904	19,194	39	10,751
2014	2,759	30,542	1,648	24,920
2015	1,886	40,627	9,455	23,135
2016	3,594	5,117	52,254	29,102
2017	20,140	90,302	8,559	48,055
2018	16,714	97,648	30,495	69,314
2019	19,689	118,694	44,106	57,084

Source: Author's compilation of companies' annual reports. Tencent is listed on Hong Kong Stock Exchange in 2004 and Alibaba is primarily listed on New York Stock Exchange since 2012; therefore there is a difference in financial accounting standard as regulated by each stock exchange. "Other Gains" denotes "changes in fair values of financial assets held for trading" and includes gains on financial instruments and financial assets, interest income, and government subsidies. For example, Tencent's value gain from the IPO of Meituan Dianping was reported under this category. The spike in 2017 was a result of the IPO of companies Tencent invested in, such as Yixin, Netmarble, Sea, ZhongAn Insurance, and Sogou. Compared to operating profit, which increases steadily over the years, other gains fluctuate and feature more significantly as a revenue stream. Alibaba's net Interest and Investment income consisted of interest income, gain or loss on deemed disposals, disposals and revaluation of long-term equity investments, and impairment of equity investments. Alibaba's gains from the Cainiao Network, Koubei, and Alibaba Pictures are also recognized in this category.

initial public offering (IPO) of two of its subsidiaries: China Literature in 2017 and Tencent Music in 2018. After a decade of receiving foreign investments, Chinese platform companies reached a level of capitalization that allows them to deploy financialization as a growth strategy.

Overall, the financialization of Chinese platforms simultaneously bears similarities and historical specificities. On the one hand, financialization, as a historical transformation of capitalism, is marked by an increase in profit making constituting the spheres of circulation and finance.[81] Chinese digital platforms, being deeply plugged into global circuits and networks of finance through fundraising, investment, and corporate management, are leveraging financialization to sustain profitability, stock valuation, and market capitalization. The financial power wielded by the BAT platforms far surpasses other smaller and middle-sized

platform companies in China. This amounts to not only higher barriers to market entry and increased competition, but also decidedly different abilities to generate continuous profit and manage risks. On the other hand, as scholars have shown, financialization proceeds in China in a pragmatic manner: undergirded with datafication processes to advance authoritarian social governance, the Chinese state manages financialization to achieve its developmental goals.[82] For digital platforms in particular, the financialization process is driven both by capitalist imperatives and neoliberal state policies, namely, the promotion of the "share economy," which masks issues of equal participation and revenue distribution under rosy ideas of openness, harmony, and green consumption.[83] Moreover, the call to advance "inclusive finance," which led to the siphoning off of individual savings into private platform companies, further looped non-financial actors and household savings into the financialization process. In this regard, the financialization of Chinese digital platforms is indeed the co-creation of the state and capitalist digital platforms.

Platform innovation in China echoes the dyadic tension between disruption and structure: On the one hand, financial innovation serves to reinforce platform owners' market dominance and helps maintain social stability and enhances the Party's legitimacy. On the other hand, innovation led by private platform companies is disruptive to the socialist principles upheld by the Party, as rampant pursuit of profit has resulted in labor precarity, degradation of consumer welfare, monopolistic competition, and the hollowing out of corporate social responsibilities.[84] These negative externalities alerted the Chinese state to improve its attitude and approach to platform expansion and competition.[85] For example, the *People's Daily* publicly called out and reprimanded platform executives for "excessive" commercialization of online services, and called upon them to aim higher, i.e., focusing on technological innovation instead of short-term profits.[86] In these instances, the Chinese state not only views innovation as a solution to social ills and a means to nation building, but explicitly signals which types of innovation are permissible and desirable.

Geopolitical Platform Ecosystems

In late 2019, Alibaba filed for a secondary listing on the Hong Kong Stock Exchange (HKSE). This listing is meant to help reduce Alibaba's reliance on the US stock

TABLE 3. Common Institutional Investors in Chinese Platforms vs. GAFAM

INSTITUTIONAL INVESTOR	INVESTMENT IN CHINESE PLATFORMS	INVESTMENT IN GAFAM
SoftBank (Japan)	Alibaba	
Orbis Investment (South Africa)	NetEase, Sohu	
Baillie Gifford (UK)	Baidu, Tencent, Alibaba	Facebook, Microsoft, Alphabet, Amazon
T. Rowe Price (US)	Baidu, Sina	Facebook, Microsoft, Alphabet, Amazon
Schroder Investment Management (UK)	Sina	Facebook, Microsoft
BlackRock (US)	Sina, Alibaba, Tencent, Baidu	Facebook, Microsoft, Alphabet, Apple, Amazon
Macquaire Group (Australia)	Sohu	Facebook
Renaissance Technology (US)	Sohu	Facebook
JPMorgan Chase (US)	Tencent	Facebook, Microsoft, Alphabet
Hillhouse Capital (China)	iQiyi, Alibaba, JD, Sohu	Facebook, Apple, Amazon
Sequoia Funds (US)	Pinduoduo, JD, Sina, iQiyi, Alibaba	Alphabet, Facebook, Amazon
Lazard Asset Management (US)	Baidu	Facebook, Microsoft, Alphabet, Amazon, Apple
Vanguard Group (US)	Alibaba, Baidu	Apple, Microsoft, Alphabet, Amazon, Facebook
State Street (US)	Baidu	Apple, Microsoft, Amazon, Alphabet

market to access capital, as well as to ensure continuity in trading its stock in lieu of the worsening of US-China trade relationships. This decision proved to be prescient. In May 2020, the US Senate, with rare bipartisan support, approved legislation that forces Chinese companies to be more transparent in their financial reporting or face delisting from US stock exchanges.[87] Shortly after, China-based online gaming company NetEase and e-commerce platform JD pursued secondary listings on the HKSE.

The financial fallout of foreign laws specifically targeting Chinese platform companies could be significant as it would constrain their ability to raise capital. That said, on a financial level, the political economy of Chinese digital platforms is deeply integrated with global networks of investors, management, and capital.[88] Table 3 shows the degree to which both US-based and China-based platform companies are financed by similar groups of institutional investors. Not only are

Chinese and US platform companies owned by similar institutional investors, as Lee notes, these institutional investors, in turn, also own each other.[89] For example, T. Rowe Price is owned by Vanguard, BlackRock, and State Street, whereas BlackRock is owned by Vanguard and State Street. These complex and deeply interlocking relationships not only reinforce financial hegemony by institutionalizing power through ownership and reinforcing an elite managerial class,[90] they also showcase the interconnectedness of Chinese platform companies with global finance networks. Such political economy arrangements challenge the multipolarity of platform innovation, because they deepen and expand US–China alliances as well as the reach of capitalism and financialization.

The capitalist characteristics of Chinese platform companies position them as both collaborators and competitors with their US counterparts. Next to financial alliances there is infrastructural integration across platform ecosystems: WeChat and TikTok can be downloaded in global app stores, and citizens across North America and Europe are keen to order goods straight from Alibaba's e-commerce platform in China. The level of state control over the BAT platforms may be unchallenged and virtually unmatched, which sets China-based companies apart from the majority of their counterparts. At the same time, the integration of financial markets and "interplatform" infrastructures complicates the national identities of China-based tech companies.[91] It becomes increasingly difficult to pinpoint a clear association between their domestic origins and corporate behaviors.[92]

"If We Don't, China Will"

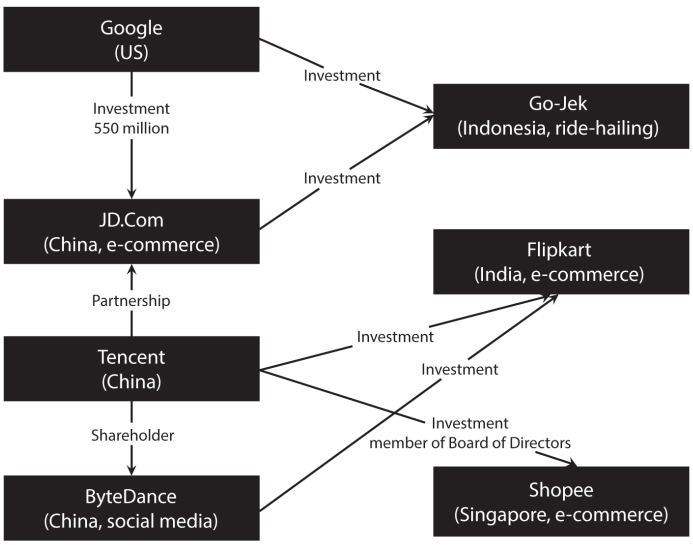
The pursuit of profit has increased competition and consolidation among Chinese and US digital markets. Fueled by two diametrically opposed political systems, shared concerns about national data sovereignty, and a competitive playing field, a geopolitical clash between both platform ecosystems seems all but inevitable. In September 2020, citing threats to national security, the US Department of Commerce banned WeChat and TikTok and ordered TikTok to delete all user data generated in the United States and further divestiture of its US operation.

With the world's largest internet economies, US and Chinese internet companies share the goal of devouring competition and expanding their global dominance. While as of yet, China-based internet companies lag behind in depth and breadth of their global offerings compared to their US counterparts, they are increasingly

active as investors in both start-ups and incumbent enterprises.[93] Acquisition of start-up companies has always been Google's central strategy to increase market share beyond its primary business divisions (i.e., search and advertising), as evidenced by acquisitions of Keyhole (which later became Google Earth) in 2004, Android (2005), YouTube (2006), DoubleClick (2007), and many others.[94] As Google restructured to become a subsidiary of Alphabet, its financialization strategies became even more apparent by way of the establishment of three investing funds: GV (formerly Google Ventures), CapitalG, and Gradient Ventures. In 2017, these funds closed 103 deals, making Alphabet the most prolific corporate investor of the year. Then again, in the same year Tencent Holdings trailed Alphabet's shopping spree only slightly with 72 deals.[95]

Despite geopolitical tensions, US and Chinese funds have co-invested in a number of e- businesses focusing particularly on emerging Southeast Asian markets. In 2016, Google launched a multiyear e-Conomy SEA project together with Singapore sovereignty fund Temasek. Its goals are to make inroads into the region's blooming internet economy by investing in online travel, (digital) media, ride hailing, and e-commerce.[96] Under the auspices of the CCP's policy of "going out," Chinese digital platforms and investors started to gradually match efforts similar to the e-Conomy project. As a result, two axes of platform power mixing US/Chinese

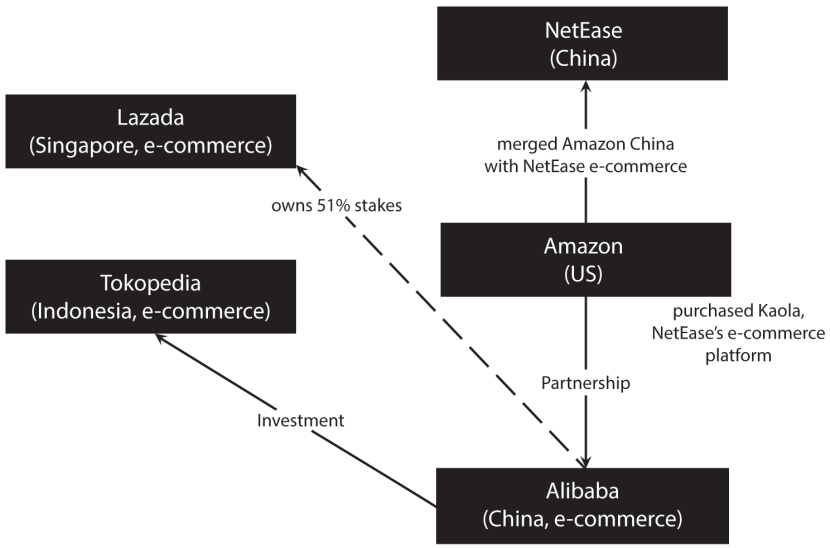
FIGURE 1. Chinese and US platforms in Southeast Asia



companies have emerged in the Southeast Asian market: Google-Tencent-JD.com and Amazon-Alibaba.

Through interlocking investments, shareholding agreements, and cross-appointments of board directors, Alphabet is partnered with JD.com, Tencent, and ByteDance to compete against Amazon. A Tencent board member is cross-appointed on the board of the Singaporean e-commerce company Shopee. These ties go beyond the financial level as they include deep infrastructural integrations. For example, Alibaba's Cloud services host Tokopedia and Lazada e-commerce services. Through investments in Chinese platform companies, Alphabet is able to take advantage of their cultural proximity to Southeast Asian markets and indirectly compete against its rival Amazon.

Just as Alphabet and Amazon both compete and cooperate, so do US platforms oscillate between institutional integration and clamoring for state support. The US-China fragmentation manifests itself through strategic and political mobilization of discourses around fundamental values, national sovereignty, and security.[97] US executives have a grab bag of discursive tools at their disposal to scare lawmakers into drafting "America First"–inspired legislation. There is the "we have to be big in order to beat China" trope to justify the growing market dominance of Amazon and Google. Pointing to China's ability to puncture holes in the United States' global data



and market hegemony, Google engineering director Hartmus Neven stated: "We are indeed most worried (about) an unknown competitor out of China to beat us in the race to (such a) machine because China as a society just has the ability to steer enormous resources in the directions that are deemed strategically important."[98] This rhetorical approach falls into the "if we don't, China will" frame. In an attempt to fence off domestic regulatory scrutiny, Facebook's expansion into fintech and its investments in cryptocurrency venture Libra used this frame to great effect. In a 2019 hearing before the US House of Representatives, Facebook executive David Marcus argued: "I believe that if America does not lead innovation in the digital currency and payments areas, others will. If we fail to act, we could soon see a digital currency controlled by others whose values are dramatically different."[99]

Together with peddling the "threat of China" frame, reviewing Chinese investments, and the ongoing delisting and homecoming of Chinese companies from US stock exchanges, China mania has turned into China phobia. However, our chapter recognizes the multifaceted operationalization of platform power, which involves taking stock of platform histories, geographies, interlocking relationships, networks, and a complex global political economy.[100] This perspective is an important first step to get out of the binary thinking when considering China's rise as a global digital power and how it competes globally, particularly with the United States.[101] Our analysis shows that even though Chinese platforms harness the world's largest domestic user base, its global reach is still relatively limited. Indigenous innovation does not seem to be as globally exportable as the platforms and apps coming out of Silicon Valley.[102] As we noted, fueled by the COVID 19 crisis, platform capitalism "with Chinese characteristics" has started to face serious US political headwinds. Meanwhile, although the Chinese state closely streamlines its policy and developmental goals with the business expansion of Chinese platforms, it does not mean that they are commercially viable, nor that the platforms are always inherently acting as state proxies. Conversely, apart from innovative technology and a sizable domestic market, it is the unprecedented financial and infrastructural power of Chinese platforms that propels their ecosystems forward. The ability to attract finance capital or subsidize loss-making, long-term infrastructural investments with profit-making businesses can crowd out market competition. Thus, capital transcends national boundaries and brings US and Chinese platforms together as strange bedfellows to collectively devour emerging markets outside their home bases.

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