

ACROSS THE GREAT (FIRE) WALL: CHINA AND THE GLOBAL INTERNET

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DISSERTATION

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ABSTRACT

This dissertation examines the multifaceted interactions between China and the global Internet in the past three decades, especially China's outward cyber expansion, or the "going out" program that has gained momentum since the mid-2000s, and explores the changing social class relations that accompany and shape this evolution. It offers a political economic analysis of how units of Internet capital and state agencies in China are impinging on the international Internet system. It also investigates both the structure and agency of Chinese Internet capital by examining the rise of an Internet capitalist class fraction in China and its intricate relationships with both the state and other transnational capitalists.

Based on intensive research into both primary and secondary data sources, this dissertation shows that instead of being confined to a repressive inward-looking national "intranet," China in fact has actively engaged with the political economy of the global Internet since the 1980s – and is now increasingly projecting power outward in this sphere. Conceptualizing the Chinese Internet industry as an expansive sector that encompasses hardware and equipment vendors, network operators, web services and applications providers, as well as major government and corporate network users, this dissertation unpacks the complex and dynamic state-capital interactions that characterize these different industrial subsectors. It argues that, although the state has retained some critical maneuvering room over its internet capital in the construction of an International Internet "with Chinese characteristics," the complex and often contradictory interplay between the territorial logic of the state and the expansive logic of capitalist accumulation, and between the structure and agency of Chinese Internet capital, continue to create tensions and conflicts.

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LIST OF ABBREVIATIONS

3G	third generation telecommunications network
ACFIC	All-China Federation of Industry and Commerce
CAC	Cyberspace Administration of China
CAS	Chinese Academy of Sciences
CCF	China-China-Foreign joint venture
CCIA	China Cultural Industry Association
ccTLD	country code top-level domain
CDB	China Development Bank
CDMA	Code Division Multiple Access
CEC	China Electronics Corporation
CERNET	China Education and Research Network
CETC	China Electronic Technology Corporation
CNNIC	China Internet Network Information Center
CPC	Chinese Communist Party
CPPCC	Chinese People's Political Consultative Conference
DNS	domain name system
Exim	China Export-Import Bank
FDI	foreign direct investment
OFDI	outward foreign direct investment
gTLD	generic top-level domain

IANA	Internet Assigned Numbers Authority
ICANN	Internet Corporation for Assigned Names and Numbers
IETF	Internet Engineering Task Force
IGF	Internet Governance Forum
IPv6	Internet Protocol version 6
ISO	International Standardization Organization
ISOC	Internet Society
ITU	International Telecommunication Union
MEI	Ministry of Electronic Industry
MFA	Ministry of Foreign Affairs
MII	Ministry of Information Industry
MIIT	Ministry of Industry and Information Technology
MOFCOM	Ministry of Commerce
MOF	Ministry of Finance
MPT	Ministry of Post and Telecommunications
NDRC	National Development and Reform Commission
NPC	National People's Congress
OFDI	outward foreign direct investment
PC	People's Congress
PLA	People's Liberation Army
PPCC	People's Political Consultative Conference
PRC	People's Republic of China

R&D	research and development
RFC	Request for Comments
RMB	renminbi
SAFE	State Administration for Foreign Exchange
SAIC	State Administration of Industry and Commerce
SASAC	State-Owned Assets Supervision and Administration Commission
SCIO	State Council Information Office
SIIO	State Internet Information Office
SLGI	State Leading Group for Informatization
SOE	state-owned enterprise
TD-SCDMA	Time Division Synchronous Code Division Multiple Access
UNCTAD	United Nations Conference on Trade and Development
VIE	Variable Interest Entity
WSIS	World Summit on the Information Society
WTO	World Trade Organization

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INTRODUCTION

With the world's largest online population, some 710 million,¹ and a thriving information and communication industry, China has progressively become a vital player in the global Internet landscape. It stands to become an even more important actor going forward. In mid-2010, China's new leadership, the Xi Jinping-Li Keqiang administration, announced that the country has adopted two landmark policies – “Internet Plus” and “One Belt One Road” – which not only plan to deepen links between the Internet and almost all the sectors of the Chinese economy, but also commit the Government to active support for Chinese Internet companies as they expand their reach in global cyberspace – in the name of building a “Digital/Information Silk Road”.² China's engagement with the international Internet indeed now captures the attention of the country's topmost leadership – much like it also does in the United States.

To add to our knowledge of China's changing role within the transnational capitalist system, this dissertation offers a political economic analysis of how Chinese businesses and state entities are impinging on the global Internet. It takes an integrative perspective in studying the “global Internet,” which not only foregrounds policymaking and geopolitical conflicts between states, but also highlights the transnationalization of business and investment. It also adopts a comprehensive approach in investigating China's increasingly visible participation in this globalized system, which covers both the elements of class structure and the elements of class

¹ China Internet Network Information Center (CNNIC), “2016 Statistical Report on Internet Development in China,” 2016, <https://cnnic.com.cn/IDR/ReportDownloads/201611/P020161114573409551742.pdf>.

² Xinhua News Agency, “Internet Plus Set to Push China's Economy to Higher Level,” March 15, 2015, *Xinhua Net*, http://news.xinhuanet.com/english/2015-03/15/c_134067831.htm; National Development and Reform Commission, Ministry of Foreign Affairs and Ministry of Commerce, “Vision and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road,” March 2015, http://en.ndrc.gov.cn/newsrelease/201503/t20150330_669367.html.

agency as they evolve with the “going out” of China’s Internet industry. This dissertation strives to explicate, both historically and theoretically, the relationship between the state and capital in shaping and responding to the ongoing expansion of China’s role in global cyberspace, across the period from China’s first Internet interconnection in 1987 to the more recently minted “Internet Plus” and “One Belt One Road” initiatives in 2015. This stretch of time enables us to capture the major rhythms of China’s interaction with this dynamic infrastructure.

In connection with China’s rise as a global economic powerhouse, the relationship between China and the Internet has gained much scholarly and journalistic attention, most of which is preoccupied exclusively with China’s domestic network.³ It is striking, by contrast, how little attention has been paid to China’s role in the international Internet. This dissertation seeks to remedy this research deficit by clarifying the political economy of China’s growing involvement with the global Internet. As the Internet has become a multifunctional and pervasive communication system and as China has become an ever-more-important player in this system, to understand the interplay between China and the global Internet holds critical importance for the field of communications.

³ Randolph Kluver and Chen Yang, “The Internet in China: A Meta-Review of Research,” *The Information Society* 21, no. 4 (2005): 301–8; Jack Linchuan Qiu and Joseph Man Chan, “China Internet Studies: A Review of the Field,” in *The Academy & the Internet*, ed. Helen Fay Nissenbaum and Monroe E. Price (New York: Peter Lang, 2004), 275–307; David Kurt Herold and Gabriele de Seta, “Through the Looking Glass: Twenty Years of Chinese Internet Research,” *The Information Society* 31 (2015): 68–82.

China and the Global Internet: A Political-economic Study

The structure and policy of global communications continue to evolve and to mutate. This is not merely a technological change, but also a political economic change. China is increasingly central to it.

Much of China's rapid economic expansion has been predicated on foreign investment in the country – initially on the East Coast and then beyond. Starting from the late 1990s, however, China entered a new stage of incorporation into global capitalism, i.e., by expanding from “attracting-in,” or drawing inward foreign direct investment (FDI) ⁴ into its territory, to “going-out,” or promoting China's outward capital flow.⁵ During this transition, the Chinese state formulated a series of policies to encourage indigenous firms to engage in international investment. However, this policy shift should not be viewed purely as a natural byproduct of a growing Chinese economy. Rather, it is an indication of weakness as well as of strength. On the government level, recognizing the vulnerabilities of its export- and inward FDI-driven developmental path of the 1980s and 1990s, the Chinese leadership hoped that pushing domestic companies to go international would help China lift its low position as a point of assembly in the global production chain by bringing in advanced technologies and management skills. On the enterprise level, the state's strategies of introducing inward FDI to jumpstart domestic markets have also, to a certain extent, resulted in market saturation and foreign control in a few industries and thus “forced” some domestic companies to venture out. For example, by the end of 1990s,

⁴ There are two types of foreign direct investment (FDI): Inward foreign direct investment (IFDI), when other countries put capital into China; and outward foreign direct investment (OFDI), when China exports capital into other countries.

⁵ Lutao Ning, “China's Leadership in the World ICT Industry: A Successful Story of Its ‘attracting-in’ and ‘Walking-Out’ strategy for the Development of High-Tech Industries?” *Pacific Affairs* 82, no. 1 (2009): 67–91; David Shambaugh, *China Goes Global: The Partial Power* (Oxford: Oxford University Press, 2013).

the foreign domination in China's Global System for Mobile Communications (GSM) mobile market induced Huawei and ZTE to enter foreign markets – sometimes, to avoid direct confrontation with the giant and powerful transnational companies at home.⁶

With the “going-out” strategies taking off, the scale of China's outward FDI increased rapidly. According to the 2015 World Investment Report released by the United Nations Conference on Trade and Development (UNCTAD), from 2000 to 2014, total Chinese-based outward FDI stock surged from \$27 billion to \$729 billion.⁷ In 2014, China's outward FDI ranked 3rd in the world, after the US and Japan, while China outward FDI stock ranked 8th, after the US, UK, Germany, Japan, France, Switzerland and Netherlands. It is also estimated that in the next few years, China's outward FDI will surpass inward FDI, shifting the country's role from a net FDI recipient to a net FDI supplier.⁸

How are we to understand China's growing participation in the political economy of transnational capitalism? To address this fundamental question, many scholars have foregrounded China's outward expansion in traditional areas such as extractive industries and agriculture.⁹ Other scholars raise more comprehensive questions. In *Is China buying the world?* Peter Nolan develops an extensive account by examining the internationalization of China's “national champion” corporations in various industries such as banking, metals, mining, oil,

⁶ Yu Hong, Francois Bar, and Zheng An, “Chinese Telecommunications on the Threshold of Convergence: Contexts, Possibilities, and Limitations of Forging a Domestic Demand-Based Growth Model,” *Telecommunications Policy* 36 (2012): 914–28.

⁷ United Nations Conference on Trade and Development (UNCTAD), World Investment Report 2015, http://unctad.org/en/PublicationsLibrary/wir2015_en.pdf, A8.

⁸ United Nations Conference on Trade and Development (UNCTAD), World Investment Report 2014, http://unctad.org/en/PublicationsLibrary/wir2014_en.pdf, 47.

⁹ Deborah Brautigam, *The Dragon's Gift: The Real Story of China in Africa* (Oxford: Oxford University Press, 2009); Deborah Brautigam, *Will Africa Feed China?* (Oxford: Oxford University Press, 2015); Ching Kwan Lee, “The Spectre of Global China,” *New Left Review* 89, no. September-October (2014): 29–65.

power, construction and telecommunications. He argues that despite their rapid growth, those firms have a very limited presence in developed countries, while multinational giants from high-income countries have already achieved significant – if not dominant – influence in the Chinese market and in the world market more generally.¹⁰

This dissertation project intervenes in the ongoing debate by choosing to focus on the Internet industry, as a strategic industry that occupies a key area of profit making and a critically relevant part of China’s international engagement. The aim is two-fold: On the one hand, it moves beyond the well-documented extractive and agricultural industries to the high-tech industry in order to compile and assess new evidence about China’s growing participation in transnational capitalism. On the other hand, it assesses Peter Nolan’s proposition that transnational corporations of the developed world already dominate the global political economy across its range. Whether China is cultivating a significant role in this high-profit and strategic industry – rather than remaining a secondary player – will also test the conception of the structure of today’s transnational capitalism.

China’s growing interpenetration with the global Internet stands out at a time when China and Information and Communications Technology (ICT) have constituted two of today’s rare poles of economic growth.¹¹ Not only has China maintained an impressive growth rate even throughout a protracted global crisis, it has also turned the Internet industry into the “dragonhead” of its economy. A recent report released by the McKinsey Global Institute showed that China’s Internet economy amounted to 4.4% of its 2013 GDP – a higher proportion than in the United

¹⁰ Peter Nolan, *Is China Buying the World?* (Cambridge: Polity Press, 2012).

¹¹ Dan Schiller, *Digital Depression: Information Technology and Economic Crisis* (Urbana: University of Illinois Press, 2014).

States; and it forecast that, by 2025, this figure might increase to 22%.¹² Other scholars provide valuable insights into the political-economic transformation of Chinese domestic society in this context, especially the changing labor conditions and class relations in the ICT sector in China.¹³ This dissertation takes the discussion further by delving into what is happening as Chinese capital and the Chinese state contribute to and are shaped by digital capitalism on a global level.

It also provides a different benchmark for investigating the complex relationships between states in an increasingly fraught power struggle to help their domestic units of capital to capture more of the Internet's growth potential. For a long time, the global Internet was constructed and dominated by US-based entities. However, with the emergence of substantial capitalist players based in the Global South, a point I will elaborate more later, and the changing geopolitics of a post-Snowden cyberspace, an Internet that was mostly set out by US government and business actors for the wider world came into question. The rise of China as a potential state power and the emergence of Chinese Internet corporations as significant corporate forces on the international stage may be set in this context. For example, both the China Internet Network Information Center (CNNIC), a non-profit organization supervised by China's Ministry of Industry and Information Technology (MIIT), and Huawei, China's telecommunications giant, have started to play an increasingly vital role in the Internet standardization community. Is there evidence of growing conflict between the US and China over whose interests will structure the global Internet? Or is there a possibility of a shared global Internet policy vision between the US

¹² Jonathan Woetzel et al. "China's Digital Transformation: The Internet's Impact on Productivity and Growth," *McKinsey Global Institute (MGI)*, July 2014, http://www.mckinsey.com/insights/high_tech_telecoms_internet/chinas_digital_transformation.

¹³ Yu Hong, *Labor, Class Formation and China's Informationized Policy of Economic Development* (Lanham: Lexington Books, 2011).

and China in some areas? What China will do, and how various internal and external forces interact with China's multifaceted strategies, will have profound impacts on global communications and political economy in the decades to come.

Finally, this dissertation also tries to shed new light on the ongoing debate on the social class ramifications of the transnationalization of capital accumulation. The character and complexity of class structures require continuing attention.¹⁴ Some would dispute the existence of a Chinese capitalist class. I will argue that this class does exist, and that one may study it by documenting and investigating several key factors (e.g., education, political affiliation, transnational linkage), in addition to ownership of productive assets and accumulated wealth, in forging class consciousness. Without exhausting all the possible social formations in contemporary Chinese society, this dissertation looks specifically at the class fraction that is growing in China around network technologies and applications, and at its transnational interlocks. By doing so, it offers a new window onto the international Internet "with Chinese characteristics", and likewise contributes to our understanding of the complex transnational class relations that animate contemporary digital capitalism.

Theoretical Approach and Concerns

This dissertation draws on the intellectual contributions of critical political economy of communication, which places the mutual constitution of social relations, especially power

¹⁴ William K. Carroll, *The Making of a Transnational Capitalist Class: Corporate Power in the 21st Century* (London: Zed Books, 2010); William G. Domhoff, *Who Rules America?: Challenges to Corporate and Class Dominance*, 6th ed. (New York: McGraw-Hill, 2009); William I. Robinson, *A Theory of Global Capitalism: Production Class, and State in a Transnational World* (Baltimore: Johns Hopkins University Press, 2004); Leslie Sklair, *The Transnational Capitalist Class* (Oxford: Blackwell, 2001).

relations, and the “production, distribution and consumption of resources, including communication resources” at the forefront.¹⁵ The political economy of communication works to contextualize the role of communication within the larger and historically evolving political economy by focusing on issues such as media ownership and commodification, the international division of labor and the transnationalization of capital.

More specifically, this dissertation situates itself within the theoretical framework of the political economy of the Internet, which positions the relationship between the development of the Internet and the reconfiguration of the global capitalist political economy at the center of analysis.¹⁶ Dan Schiller, in particular, foregrounds the crucial role of the state and capital, and their complex interactions – encompassing both conflict and cooperation – in structuring and restructuring the international Internet system.¹⁷ Invoking David Harvey’s conceptualization of the contradiction between the territorial logic of the state and the expansive logic of capitalist accumulation in the operation of power,¹⁸ Yuezhi Zhao further argues that the tensions between capital and the state have been especially prominent in China’s information industries, “a sector over which the state exerts a high degree of control”.¹⁹ This dissertation aims to contribute to this theoretical tradition by foregrounding, and further clarifying, the interlocking relationship between capital and the state, and their respective roles, in defining and responding to the

¹⁵ Vincent Mosco, *The Political Economy of Communication: 2nd Edition* (New York: SAGE Publications, 2009), 2.

¹⁶ Robert W. McChesney, *Digital Disconnect: How Capitalism is Turning the Internet against Democracy* (New York: The New Press, 2013); Dan Schiller, *Digital Capitalism: Networking the Global Market System* (Cambridge: MIT Press, 1999).

¹⁷ Dan Schiller, “Rosa Luxemburg’s Internet? For a Political Economy of State Mobilization and the Movement of Accumulation in Cyberspace,” *International Journal of Communication*, no. 8 (2014): 355–75.

¹⁸ David Harvey, *The New Imperialism* (Oxford: Oxford University Press, 2003).

¹⁹ Zhao, “China’s Pursuits of Indigenous Innovations in Information Technology Developments: Hopes, Follies and Uncertainties,” 276.

emergence of China, as an increasingly powerful force – albeit, a complex one – in shaping the global Internet.

I aim broadly to unpack the multifaceted dynamics of China’s outward expansion in cyberspace. Often perceived only as a repressive authoritarian regime that aims at building an inward-looking national “intranet,” China in fact is now increasingly projecting power outward in this sphere. This process has made China increasingly ready to assume the role of a major participant, or even a definer, in the policy debates that accompany today’s reshaping of the international communication order. The “going-out” strategy, however, is not only about policy but also about capital; it is not only political, but also economic. This dissertation attempts to document the historical and structural conditions of this “going-out” of the Chinese Internet, on both the policy and business fronts, by clarifying how state strategies and capital’s imperatives on a transnational level cooperate (or not) with each other (Chapter 1 to 3), and provides a case study to exemplify the dynamics and complex state-capital relations in concrete and specific historical contexts (Chapter 4).

Chapter 5 begins by recognizing that political economy understands “society” as a complex totality of social relations.²⁰ In their conceptualization, Graham Murdock and Peter Golding identify class relations that capital generates as the pivot of social stratification.²¹ In a similar vein, Dan Schiller argues that “capital” is not a thing – as money or investment – but

²⁰ Mosco, *The Political Economy of Communication*; Dan Schiller, *Theorizing Communication: A History*, (New York: Oxford University Press, 1996); Janet Wasco, Graham Murdock, and Helena Sousa, eds., *The Handbook of Political Economy of Communications* (Hoboken: Wiley-Blackwell, 2011).

²¹ Peter Golding and Graham Murdock, “Theories of Communication and Theories of Society,” *Communication Research* 5, no. 3 (1978): 339–56.

a two-sided, contradictory social relation that is built around wage labor.²² Labor and social class relations thus provide an essential lens to understanding social totality. This point is directly relevant to China, as Yuezhi Zhao argues that in contemporary China, “market reforms have not only accentuated preexisting political, economic, and social inequalities, but have also created new forms of social inclusion and exclusion, engendering rapid processes of social stratification and class polarization.”²³

Building upon this framework, a group of communication scholars have taken labor as a starting point and foregrounded one pole of class relations by studying how China’s working class articulates with the Internet.²⁴ This dissertation builds on and contributes to this emerging body of work by granting attention to the other pole – the capitalist class. Chapter 5 asks: How have Chinese Internet corporate elites interlocked with and differentiated from the transnational capitalist class – and how has this process interacted with the Chinese party-state? Is there a fraction of the transnational capitalist class growing around Internet-based accumulation strategies in China? Admittedly, the process of capitalist development in China is by no means contained by the specific class segment investigated here. This dissertation hopes, however, that by focusing on the Internet capitalist class fraction, it will open up a different window onto the movements of Chinese capital in a core industry.

²² Schiller, “Rosa Luxemburg’s Internet? For a Political Economy of State Mobilization and the Movement of Accumulation in Cyberspace.”

²³ Zhao, *Communication in China*, 7.

²⁴ Hong, *Labor, Class Formation and China’s Informationized Policy of Economic Development*; Jack Linchuan Qiu, *Working-Class Network Society: Communication Technology and the Information Have-Less in Urban China* (Cambridge: The MIT Press, 2009); Jack Linchuan Qiu, *Goodbye iSlave: A Manifesto for Digital Abolition* (Urbana: University of Illinois Press, 2017).

The Political Economy of the Internet

As pointed out by Dan Schiller, 20 years after the popularization of the World Wide Web, the political economy of the Internet remains "chronically undernourished" in communication studies and to rectify this research void is "one of our greatest intellectual challenges".²⁵ Instead of foregrounding networked cultural practices of end users or digital activism on social networking sites, a political economy of the Internet raises fundamental questions about power relations in global cyberspace: Who (which social actors) are exercising dominant power over various levels of the network system, from access devices to backbone infrastructure to online services and applications? How have these power-holders interacted with each other? And how has their complex interplay affected the development of the international Internet system? These questions constitute one of the bases of this dissertation project.

A group of scholars strives to engage some related questions by situating the historical development of the Internet within a broader political-economic context. Robert McChesney focuses specifically on the context of the United States and provides a detailed political economic analysis of the development of the Internet system in its home country. In *Digital Disconnect*, he argues that political economy offers valuable analytical tools for understanding the current colonization of the Internet by large corporations in the United States. For him, the "unnatural marriage" between the Internet and monopoly capitalism has transformed the Web from a government-funded research project into a fully commercialized surveillance apparatus, which has dire ramifications for democracy.²⁶

²⁵ Schiller, "Rosa Luxemburg's Internet? For a Political Economy of State Mobilization and the Movement of Accumulation in Cyberspace", 355.

²⁶ McChesney, *Digital Disconnect*.

Dan Schiller extends this focus to the international stage. In studying network technologies and their relationship with contemporary capitalism, he introduces the theoretical framework of “digital capitalism” to foreground the centrality of information and communication technologies (ICT) in reconstructing the global capitalist political economy. He demonstrates that as capitalist powers entered into a new stage of globalization beginning in the late 1970s, not only have digital technologies significantly advanced the global expansion of transnational corporations, but the manufacturing and provision of network products and services has also become a leading area of profit making. For China, this global political economic trend has in many ways proceeded in concert with its early efforts at network building and interconnection.²⁷

With the continuing penetration of the Internet into almost every aspect of human life, scholars in the PEC tradition have also begun to develop specific studies to illustrate certain important or emergent aspects of the Internet economy. For example, Vincent Mosco’s recent study of “cloud computing” – *To the Cloud* – provides an insightful assessment of the burgeoning data-center based industry. He outlines some of the “dark clouds” of cloud computing, such as environmental damage, privacy and security threats, and the reconstruction of IT labor force. He also warns us that, building upon cloud computing, the “surveillance capitalism” that “market(s) information about subscribers and customers to advertisers” and the “surveillance state” – as exemplified by the NSA scandal – are accruing their power over citizens.²⁸

Critical scholarship has made important advances in understanding the political economy of the Internet. These advances, however, have been situated almost exclusively in or in regard to

²⁷ Schiller, *Digital Capitalism*.

²⁸ Vincent Mosco, *To the Cloud: Big Data in a Turbulent World* (Boulder: Paradigm Publishers, 2014), 10.

the United States. This is understandable, as the Internet for most of its existence was broadly a US-centric creation. The predominance of US-based corporations in the global Internet economy further contributes to this geographic focus. However, with the emergence of substantial players from the Global South – especially, China – this focus must be widened and partly redirected. This dissertation aims to fill this gap by offering a political-economic examination of the complex relationship between China and the global Internet. This is important for clarifying the changing structure of transnational capitalism.

Another important scholarly work on the political economy of the Internet pays attention to issues related to labor and class relations, as a lens for comprehending the character of the social totality in the Internet age.

In *Labor in the Global Digital Economy*, Ursula Huws conceptualizes the role of labor in global cyberspace by intervening into the current debates on “digital labor”. Instead of viewing “digital labor” performed online as a unique type of labor that can be separated from “material labor,” Huws understands “digital labor” as integrative to the global capitalist political economy. She argues that “digital labor” actually builds upon the global connected network infrastructure that is both highly material and involves the physical labor of millions of working class people all over the world, especially in developing countries.²⁹ In other words, the performance of “digital labor” largely depends on common capitalist relations of production.

Focusing on the political economy of search, Shinjoung Yeo adds to this analysis by specifically examining the labor structure and labor management behind the global search engine

²⁹ Ursula Huws, *Labor in the Global Digital Economy: The Cybertariat Comes of Age* (New York: Monthly Review Press, 2014), 82.

industry.³⁰ Instead of isolating “digital labor” and positing a dichotomy between “mental” and “manual” labor, she proposes three distinctive categories of work – high-skilled/paid, low-waged and unwaged labor – and examines how the search industry has employed not only high-skilled and relatively high-paid engineers but also a large number of low-paid contingent workers and even unwaged workers that are often referred as “Internet users”. She also shows that, far from exceeding or going against capital’s logic of labor exploitation, the current labor management techniques at the search giant Google are actually evolved from an earlier era of US industrial capitalism.

Working in the Chinese context, a number of scholars have further expanded this research focus. For them, the category of labor – and, relatedly, of class relations – offers an essential angle to apprehend the highly complex and fluid co-evolution of Internet and contemporary Chinese society.

Moving beyond the binary distinction of “haves” or “have-nots” behind the “digital divide” thesis, Jack Linchuan Qiu, in *Working-Class Network Society*, delves into the more nuanced social formation of the “information have-less” and of a “working class network society” in contemporary China.³¹ He asks, how China’s evolving political-economic and social reform has shaped the working-class ICTs usage and how the use of ICTs has affected working-class practices and resistance? While Qiu’s work pays more attention to technology consumption of Chinese working class, Yu Hong’s work *Labor, Class Formation and China’s Informationized Policy of Economic Development* anchors analysis in production. Based on a critical examination of both transnational capital and Chinese state policies, Hong’s work explores the labor relations

³⁰ Shinjoung Yeo, “Behind the Search Box: The Political Economy of a Global Internet Industry” (PhD Dissertation, University of Illinois at Urbana-Champaign, 2015).

³¹ Qiu, *Working-Class Network Society*.

and class formation of industrial workers – as wage earners rather than end users – in China’s ICT industry.³²

This emerging strand of scholarship places the role of labor and the working class at the forefront of its analysis and raises important questions on the social/class dimension of the rise of the “information society” in China. Extending their work of understanding China’s network society through the lens of social class – yet distinct from their focus on the working class – this dissertation strives to illuminate the complex dynamics of China’s incorporation into the global Internet by problematizing and investigating another side of the capital-labor relation – the Internet capitalist class fraction in China.

The Geopolitics of Internet Policymaking

The geopolitics of Internet policymaking is a vital, controversial, and contested field, encompassing many issues and engaged by a body of work on the emerging field of “global Internet governance”.

Internet governance, usually refers to “policy and technical coordination issues related to the exchange of information over the Internet”.³³ There are several different taxonomies of Internet governance.³⁴ Laura DeNardis broadly identifies five themes: control of critical Internet

³² Hong, *Labor, Class Formation and China’s Informationized Policy of Economic Development*.

³³ Laura DeNardis, *Protocol Politics: The Globalization of Internet Governance* (Cambridge: MIT Press, 2009), 14.

³⁴ For example, John Mathiason, Milton Mueller, Hans Klein and Lee McKnight in their report to the UN ICT Task Force in 2004 identify technical standardization, resource allocation and public policies as the three key themes of Internet governance, see John Mathiason, *Internet Governance: The New Frontier of Global Institutions* (London: Routledge, 2008); The Working Group on Internet Governance (WGIG) also proposes an Internet governance taxonomy that includes: (1) Issues relating to infrastructure and the management of critical Internet resources, (2) Issues relating to the use of the Internet, including spam,

resources, Internet protocol design, Internet governance-related intellectual property rights, Internet security and infrastructure management, and Internet governance-related communication rights.³⁵ There exist different views toward the governing process of such a complex set of issues. Rather than assuming the existence of a consensus among different participants, Jill Hills argues that there are complex power relations that actually underpin the construction of international communication and information policies.³⁶ Hills' arguments echo other scholars' observations that policymaking is a site of power contestation.³⁷ Following this critical tradition, this dissertation studies the formation and formulation of global Internet policies as a potentially conflicted process that expresses rival, deep-seated political-economic interests.

One of the pioneers in the study of global Internet governance is Milton Mueller. In *Ruling the Root*, he provides an important historical account of the struggle over the management of the domain name system, which he considers as the major point of control over the Internet. He demonstrates that through the Domain Name System, i.e., the "root," the Internet has been far more extensively managed – governed – than is often recognized, and that this critical governance function was institutionalized by the United States in the 1990s.³⁸ In *Networks and States*, Mueller shifts his attention to a series of international conflict points in Internet policymaking, including the World Summit on the Information Society (WSIS) and the

network security and cybercrime, (3) Issues that are relevant to the Internet but have an impact much wider than the Internet and for which existing organizations are responsible, and (4) Issues relating to the developmental aspects of Internet governance, see www.wgig.org/docs/WGIGREPORT.pdf.

³⁵ Laura DeNardis, "The Emerging Field of Internet Governance," in *The Oxford Handbook of Internet Studies*, ed. W Dutton (Oxford: Oxford University Press, 2013), 1890–1905.

³⁶ Jill Hills, *Telecommunications and Empire* (Urbana: University of Illinois Press, 2007).

³⁷ Ralph Miliband, "The Capitalist State: Reply to Nicos Poulantzas," *New Left Review* 59 (1970): 53–59; Vincent Mosco, *Pushbutton Fantasies: Critical Perspectives on Videotex and Information Technology*, (Norwood: Ablex, 1982).

³⁸ Milton Mueller, *Ruling the Root: Internet Governance and the Taming of Cyberspace* (Cambridge: MIT Press, 2002).

formation of the Internet Governance Forum (IGF).³⁹ He argues that, the rise of the Internet as an unprecedented transnational communication medium has posed new issues and challenges to the traditional state-centric model of communication policymaking. During this process, novel transnational institutions have been invented, notably, multi-stakeholder-based institutions like ICANN and the IGF. In this context, multi-stakeholderism has become a pervasive concept in discussions of Internet governance. In principle, it compels governments, businesses and civil society groups to participate in the policymaking process on an equal basis. However, as Mueller points out, although this model identifies governments, private actors, and civil society organizations as the primary players in Internet governance, it “does not determine how power is distributed among these groups or how much weight they are given in decision-making processes”.⁴⁰ Therefore, it is not surprising that multi-stakeholderism itself is a contentious practice, since it downgrades all states, except the United States, from meaningful participation.

While Mueller focuses his analytical attention mainly on nation-states as “some of the biggest threats to the global character and freedom of networked communications,”⁴¹ Laura DeNardis provides a more comprehensive picture of Internet governance by taking into account the role of private corporate power, in addition to states and international treaties. In *The Global War for Internet Governance*, she aptly notices the greater privatization of cyberspace and how private actors, such as the US-based domain name registrar VeriSign, are actually exercising critical governing power over network infrastructure.⁴²

³⁹ Milton Mueller, *Networks and States: The Global Politics of Internet Governance* (Cambridge, MA: MIT Press, 2010).

⁴⁰ Ibid, 8.

⁴¹ Mueller, *Networks and States*, 253.

⁴² Laura DeNardis, *The Global War for Internet Governance* (New Haven: Yale University Press, 2014).

Anchored in a political-economic framework, Shawn Powers and Michael Jablonski understand the geopolitics of Internet governance – or the “real cyber war” – as a state-centered battle over information resources.⁴³ They put power relations among states in the international system at the center of their analysis, in contrast to approaches that foreground the democratic potentials of network technologies. More specifically, drawing upon Herbert Schiller’s studies on the “free flow of information,” they document how the prevalent policy discourse of “Internet freedom” has been driven historically by geopolitical-economic motivations of the United States rather than by democratic ideals. Since this book is primarily concerned with the “Internet freedom” policies that have been promoted and projected by the United States into global cyberspace, it pays relatively little attention to other countries. For example, when talking about China, the authors choose to focus on how the Chinese state regulates its domestic network, rather than explicating what is China’s complex and historically evolving approaches toward the management of the international Internet.

Recently, with the apparently rising economic influence of some Global South countries, welcome attention has also begun to be directed to their role in the international Internet system.

Taking a historical perspective, in *From NWICO to WSIS: 30 Years of Communication Geopolitics*, a group of scholars has made an attempt to bring together the two highpoints in international communication policymaking, i.e., debates centering on the United Nations Educational, Scientific and Cultural Organization (UNESCO) during the 1970s-80s in the context of the movement for the New World Information and Economic Order (NWICO) , and the International Telecommunications Union (ITU)-sponsored debates at the World Summit of

⁴³ Shawn Powers and Michael Jablonski, *The Real Cyber War: A Political Economy of Internet Freedom* (Urbana: University of Illinois Press, 2015).

Information Society (WSIS) in 2003-05.⁴⁴ Spearheaded by the Non-Aligned Movement and supported by the often-newly independent “Third World countries,” the NWICO movement made a clear demand for a more equitable distribution of the world’s resources, including communication resources. The recent WSIS discussions, on the other hand, focused more specifically on the issues of “information society” and global Internet governance, especially the management of the Internet Domain Name System. Looking into those two benchmark debates, scholars in this book provide an assessment of the continuities and discontinuities between them. Although writing from different viewpoints, most of them agree that the uneven international information flow between the South and the North that characterized the NWICO movement remains intact, if not reinforced, with the diffusion of network technologies. Mustapha Masmoudi, a former member of the MacBride Commission,⁴⁵ suggests in his chapter that the South countries need to continue to challenge such imbalances and find new solutions.⁴⁶

Abu Bhuiyan details the struggles of the Global South to find such new solutions during the WSIS process. In *Internet Governance and the Global South: Demand for a New Framework*, he provides a wide-ranging analysis of how the South countries negotiated Internet-related issues at the WSIS, including issues related to the digital divide, multilingualism, intellectual property

⁴⁴ Divina Frau-Meigs et al., eds., *From NWICO to WSIS: 30 Years of Communication Geopolitics-Actors and Flows, Structures and Divides* (Chicago: The University of Chicago Press, 2013).

⁴⁵ The MacBride Commission, named after its president Sean MacBride, was officially called the UNESCO’s International Commission for the Study of Communication Problem. The commission’s 1980 report, *Many Voices, One World*, was a contradictory milestone in the NWICO discussions. It raised a specific and contradictory demand to create a “free and balanced” international communication system.

⁴⁶ Mustapha Masmoudi, “Correlations between NWICO and Information Society: Reflections of a NWICO Actor,” in *From NWICO to WSIS: 30 Years of Communication Geopolitics-Actors and Flows, Structures and Divides*, ed. Divina Frau-Meigs (Chicago: The University of Chicago Press, 2013), 17–28.

rights and cyber security.⁴⁷ He argues that, although during the WSIS process, these states jointly called for a more internationalized framework to manage the international Internet, they did not oppose the neoliberal basis of the existing governance scheme. Therefore, compared with the NWICO movement in the 1970s, their quest for a more equitable Internet governing scheme has demonstrated deep ambiguities.

Bhuiyan's analysis resonates with South Asian scholar Vijay Prashad's broader historical account of the rise of the Global South in a neoliberal capitalist context. In *The Poorer Nations: A possible history of the Global South*, Prashad argues that although as the "locomotives of the South," the formation of the BRICS (Brazil, Russia, India, China, and South Africa) has brought some fresh air into "the stagnant world of neoliberal imperialism," these states do not challenge the neoliberal agenda in general.⁴⁸ This BRICS formulation, in some sense, is itself an objectification, rather than a concrete reality, as the initial term "BRIC" was actually coined in 2001 by an investment banker of Goldman Sachs. Prashad further argues that performing "neoliberalism with southern characteristics," the ruling elites in those leading states of the South aim at participating in the existing system to further their own political-economic interests, despite the increasing social conflicts within each society.

Among these leading Global South states, China stands out as a critical case. It not only has the world's largest online population; Chinese Internet corporations are also progressively expanding their territories into global cyberspace. How are we to understand China's role in the geopolitics of Internet governance, a key field in transnational capitalism?

⁴⁷ A.J.M.S.A Bhuiyan, *Internet Governance and the Global South: Demand a New Framework* (London: Palgrave Macmillan, 2014).

⁴⁸ Vijay Prashad, *The Poorer Nations: A Possible History of the Global South* (London: Verso, 2012), 12.

Based on a normative liberal position, many have sought to posit variants of what may be called the “cyber-sovereignty” framework. Largely concerned with China’s repressive Internet control domestically, this conventional framework foregrounds the role of the authoritarian Chinese state in attempting to govern the international Internet. This position is then often counterpoised to the preference of US-centric policy for a borderless Internet that should remain as free from government control as possible. In short, the debate centers on Chinese “Internet sovereignty” versus American “Internet freedom”.⁴⁹ While the policy discourse of “Internet freedom” has been debunked by a group of scholars,⁵⁰ “Internet sovereignty” remains as a prevailing formula in interpreting China’s position.

Although it offers important insight into one aspect of China’s motivation, the “cyber-sovereignty” framework focuses primarily on political control and generally tends to reduce China’s complex and contradictory position to that of a heavy-handed state motivated to elevate governments and intergovernmental organizations as the only legitimate governors of the global Internet. Sometimes, they are caught in a problematic dichotomy of states versus markets – “that the state controls but the market sets free”.⁵¹ In contrast, a number of critical scholars emphasize the complex interactions between state agencies and corporate players in issues related with Internet governance. For example, Dan Schiller provides a historical overview of the construction of international networks in the expansion of capitalism and argues for the need to situate US-China disputes over cyberspace within this historical framework. He points out, the construction and management of international networks has been a “richly complex and

⁴⁹ Yangyue Liu, “The Rise of China and Global Internet Governance,” *China Media Research* 8, no. 2 (2012): 46–55.

⁵⁰ Powers and Jablonski, *The Real Cyber War*; Schiller, “Rosa Luxemburg’s Internet? For a Political Economy of State Mobilization and the Movement of Accumulation in Cyberspace.”

⁵¹ Bhuiyan, *Internet Governance and the Global South*, 16.

conflicted process” and has involved various power-holders, among which both government agencies and major corporate users and suppliers have been especially significant.⁵²

Informed by the latter strand of critical observations, this dissertation adds to the scholarship on the geopolitics of Internet governance by explicating an evolving Chinese approach to global Internet management both historically and analytically and attempting to clarify the complexity of the actual process of Internet governance. It also differs from the existing literature by foregrounding the interlocking roles of the state and capital in the Chinese context, therefore moving beyond the state-market dichotomy in Internet policy discourse.

Chinese Internet Research

Using content analysis to examine Chinese Internet studies from the 1990s to 2005, scholars have found that the majority of early academic research on the Internet in China “seeks to answer just two questions: Can China build an Internet, and if so, can China control it?”⁵³ Although the development of the Internet in China remains as an unfinished process, during the past decade, these questions have been partly answered. In 2008, China surpassed the United States as the world’s largest Internet population, with 253 million users. In the mid of 2016, this number increased to 710 million.⁵⁴ The .cn domain name system also topped the list of the

⁵² Dan Schiller, “Geopolitical-Economic Conflict and Network Infrastructures,” *Chinese Journal of Communication* 4, no. 1 (2011): 90–107, 90.

⁵³ Kluver and Yang, “The Internet in China: A Meta-Review of Research,” 306.

⁵⁴ China Internet Network Information Center (CNNIC), “2016 Statistical Report on Internet Development in China”.

world's largest national domain name systems in 2008.⁵⁵ In 2010, the total market value of China's three Internet giants, Baidu, Tencent, and Alibaba (only business to business, or B2B sector) reached a far-from insubstantial \$77.4 billion.⁵⁶ With all these developments, the Chinese Internet seems to be still under the control of the Chinese government.⁵⁷ However, as Peter Nolan reminds us, since transnational Internet corporations (e.g. IBM) have already occupied the commanding heights of some of China's most important strategic industries (e.g., the banking industry), the extent to which the Chinese state holds full control over its domestic network actually needs careful qualification.⁵⁸

Foregrounding the democratic and political implications of network technologies, one of the primary concerns underlying many researchers is the repressive web censorship regime in China. As a result, the coercive role of the Chinese party-state receives significant attention in Chinese Internet research.⁵⁹ While these studies provide valuable insights into the complex state censorship apparatus and also into online activism in China, the analyses oftentimes collapse down to one dimension – the authoritarian state. Some critical pieces are still missing from the puzzle. As Zhao points out, the evolution of the Internet in China has been shaped not only by the state, but also by corporate power.⁶⁰ Therefore, to create a fuller understanding of the myriad

⁵⁵ China Internet Network Information Center (CNNIC), "The Internet Timeline of China, 2008," http://www1.cnnic.cn/IDR/hlwfzdsj/201209/t20120904_36019.htm.

⁵⁶ Qiang Xiaoji, "Baidu, Tencent, Alibaba Forming Oligopoly on Chinese Internet," *China Daily*, February 18, 2011, http://www.chinadaily.com.cn/business/2011-02/18/content_12042514.htm.

⁵⁷ Rebecca MacKinnon, *Consent of the Networked: The World-Wide Struggle for Internet Freedom* (New York: Basic Books, 2012).

⁵⁸ Nolan, *Is China Buying the World?*, 118-119.

⁵⁹ See review articles, Kluver and Yang, "The Internet in China: A Meta-Review of Research,"; Qiu and Chan, "China Internet Studies: A Review of the Field,"; Herold and Seta. "Through the Looking Glass: Twenty Years of Chinese Internet Research".

⁶⁰ Zhao, "China's Pursuits of Indigenous Innovations in Information Technology Developments: Hopes, Follies and Uncertainties."

aspects of an Internet with “Chinese characteristics,” we need to consider the Internet not only as a site of political control or state-centered geopolitics, but also as a site of capitalist construction.

Compared with the vast number of studies focusing on issues of Internet censorship and surveillance, scholarly works on the political economy of the Chinese Internet have so far been rather underdeveloped. Recently, however, some critical scholars have blazed a trail.

Looking at China’s ongoing pursuits of “indigenous innovations” in next-generation network systems, Yuezhi Zhao paints a multifaceted picture of China’s development of Internet technologies. As she argues, China’s developmental strategies for network infrastructure have been influenced by both state and corporate power. However, perhaps neither the “Chinese state” nor “corporate China” is monolithic. Moreover, with China’s accelerated integration into the global marketplace, the relationship between state and business actors in China has been further complicated by geopolitical factors. There are both growing conflicts and ambiguities in China’s quest to rebalance the power structure of global cyberspace.⁶¹

With a broader focus on the global level, Dan Schiller foregrounds the international dimensions of the political economy of the Chinese Internet. He situates China’s ICT development in the context of the rise of global digital capitalism. He points out that since the 1970s, ICT products and service have played a vital role in restructuring the world capitalist economy, both as an important economic growth point and as an instrumental tool for big corporations to reorganize their transnational production and operation. Meanwhile, China’s much-contested reintegration into global capitalism since the open-door policy has created a vast supply of cheap labor and products, especially in the ICT industry, which have both contributed to and been conditioned by the concurrent worldwide transformation. It is in this sense that

⁶¹ Ibid.

China and ICTs, and later the Internet, came to form “two poles of growth” in contemporary capitalism. Conflicts and struggles among different power-holders and social classes, however, have accompanied the transforming political economy of global communications and the growth of China’s digital media and networks.⁶²

More recently, Hong Yu contributes to this literature by critically evaluating China’s Internet-centric policies in the country’s post-2008 restructuring. As she shows in her recent work *Network China: The Digital Transformation of the Chinese Economy*, a developmental strategy of “informatization” has been instrumental in China’s global rise and domestic transformation since the late 1970s. If in the 1980-1990s, ICT manufacturing was considered as a “pillar industry” that spearheaded China’s FDI-driven, export-oriented, and labor-intensive development, in the 2000s, especially after the global economic crisis, network connectivity and online applications have gained growing centrality, as they were perceived by the ruling elites as critical in helping the country to move up the global production chain and to transform into a more domestic-oriented economy. However, as she warns, hindered by internal contradictions and external constraints, these newly articulated state policies will unlikely solve China’s long-standing problems of overproduction and under consumption, since – at least so far – they have not directly addressed the country’s fundamental labor-exploitative model in capital accumulation that is highly dependent on the consumer markets of the Global North and thus is exposed to the vicissitudes of global capitalism.⁶³

While these studies provide a convincing and critical evaluation of the complex interactions between and among a group of power-holders in shaping the political economy of

⁶² Dan Schiller, *How to Think about Information* (Urbana, IL: University of Illinois Press, 2006).

⁶³ Yu Hong, *Networking China: The Digital Transformation of the Chinese Economy* (Urbana: University of Illinois Press, 2017).

the Chinese Internet, their focus is largely on the domestic network. This dissertation looks at China's increasingly pivotal role in the international Internet by critically examining its growing impact in several areas, including economic investment, Internet resource management, technical standardization and public policy disputes. As I will show, Chinese engineers from the private sector have been increasingly prominent in Internet standardization. The Chinese state also took a vociferous stand at the 2012 World Conference on International Telecommunications (WCIT-12), an international telecommunications conference organized by a United Nations (UN) affiliate, the International Telecommunications Union (ITU). The evidence of China's growing influence can be observed in the economic area as well. For example, China's e-commerce company, Alibaba, following a record of \$25 billion IPO last year, announced its plan to invest \$575 million into the Indian online marketplace.⁶⁴ Baidu, China's search engine giant, similarly, confirmed its recent investment in Uber, the US-based taxi sharing company, with some estimate the figure to be around \$600 million.⁶⁵

Building upon and systematically clarifying previous insights, this dissertation shifts the research focus from the previous concerns with "how the Internet will change China" to "how China will change the global Internet" and strives to explicate an international Internet system with "Chinese characteristics." By doing so, it looks toward the following big questions: How has China strived to (re) develop the US-centric international Internet system? What are the flash points of conflict? Is China still mostly marginalized? Or is China beginning to join the existing

⁶⁴ Dhanya Ann Thoppil, "Alibaba to Invest About \$575 Million in Indian Online-Shopping Service, Paytm," *The Wall Street Journal*, January 10, 2015, <http://www.wsj.com/articles/alibaba-to-invest-about-575-million-in-indian-online-shopping-service-paytm-1420879692>.

⁶⁵ Lulu Yilun Chen, "Baidu Said to Buy Stake in Uber, Boosting App in China," *Bloomberg*, December 11, 2014, <http://www.bloomberg.com/news/articles/2014-12-12/baidu-said-to-buy-stake-in-uber-boosting-app-in-china>

scheme and try to alter it to suit its own interests? If so, to serve which interests? Indeed, what are China's interests in global cyberspace and what are the "Chinese characteristics" of its international Internet system constitute the central questions of this dissertation. Sociologist and China scholar Ching Kwan Lee raises similar questions when studying China's investments in Africa: After all, what is the nature of China's outward expansion? Is "global China" the "imperialist hegemon feared and condemned by the West" or the "egalitarian partner of win-win development trumpeted by Beijing"?⁶⁶ In other words, what is the "Chinese model"? Are the "socialist characteristics" fundamental or secondary? Those questions remain critical not only for investigating the relation between "global China" and the international Internet, but also for studying china's outbound expansion in the global political economy.

Rather than attempting to find a mechanical or static formula, this dissertation looks into these questions based on concrete historical evidence and situates China's strategies within a contingent historical process. It strives to understand how such an international Internet system with "Chinese characteristics" has been shaped and reshaped by a variety of political and economic forces, both in and out of China, over the past three decades.

Methods

China's intersection with the global Internet in fact denotes a rapidly shifting and complex process. A variety of socio-political-economic forces are influencing its nature and direction. The primary goal of this dissertation is to clarify the political-economic dimensions of

⁶⁶ Ching Kwan Lee, "The Spectre of Global China," 63.

this evolution, and to foreground the development of a capitalist class fraction in the process – as one important aspect to understand the transformation of contemporary Chinese society.

To tackle this task, this project employed a mix of research methods.

First of all, to offers a panoramic account of the multifaceted trajectory of China's engagement with the global Internet, historical approach – the cornerstone methodology of the critical political economy of communication – was undertaken to set the stage.⁶⁷ This process drew on a systematic and intensive document research on a wide range of primary and secondary sources collected on both the state and capital side. On the state side, government policies, white papers, conference documents and policy proposals issued by a variety of agencies both in and out of China are critical for peeking into the complex and highly opaque Internet policymaking process. Data were collected from the official websites and publications of domestic state agencies such as China's Ministry of Industry and Information Technology (MIIT), the State Council of Information Office (SCIO) and the China Internet Network Information Center (CNNIC), as well as international institutions like the Internet Engineering Task Force (IETF), the Internet Corporation for Assigned Names and Numbers (ICANN), and the United Nation International Telecommunications Union (ITU).

On the capital side, archival trade press, company financial filings, industrial annual reports, national and international statistical compendia were investigated to help piece together an overall picture of the historical development and structural characteristics of China's Internet industry and its interactions with the international internet. Critical data in this step were obtained through both official publications and online archives and databases. I paid particular

⁶⁷ Vincent Mosco, *The Political Economy of Communication*, 2nd ed. (London: SAGE Publications, 2009).

attention to the *Statistical Bulletin of China's Outward Foreign Direct Investment* issued by the MOFCOM and the *World Investment Report* compiled by the UNCTAD to trace the picture of China's outward FDI activities in general and its Internet OFDI in particular. Moreover, archival trade press related to Chinese Internet industry such as *China Internet Weekly* (Hulianwang Zhoukan) and *People's Posts and Telecommunications News* (Renmin Youdian), studies and reports from marketing and consulting firms, such as those from Mckinsey & Company, were also examined to offer additional information.

Apart from extensive archival research, this project also employed case study to investigate a particular Chinese Internet company (Alibaba) to further analyze state-capital relationships (Chapter 4). For the case study, I primarily relied upon documentary research and media analysis. First and foremost, the company's two IPO documents, especially prospectuses, were studied carefully to obtain fundamental but also highly convoluted information on revenues, ownership and corporate structure, market share and financial flows of the firm. In addition, I studied Alibaba's annual reports in order to get a historical perspective on its business strategies. Government policies and initiatives related to e-commerce development in China were also examined to provide insights into the intersection between Alibaba and state agencies. Related secondary sources, such as media coverage, press releases, and especially several Chinese publications, including books on Alibaba's developmental history and biographies of and speeches by its founder, Jack Ma, were also examined to provide supplemental information.

Finally, to understand the range of the "going-out" of China's Internet industry (Chapter 3) and to investigate the structural role of China's Internet capitalist class fraction (Chapter 5) in this process, two datasets were compiled for this dissertation. While detailed accounts of the data are presented later in each chapter, the construction process deserves some discussion here.

Based on the “China Global Investment Tracker (2005-2015)” compiled by the American Enterprise Institute-Heritage Foundation,⁶⁸ and supplemented by knowledge gained from financial and business newspapers and company’s annual reports, the first dataset documents firm-level outbound capital projections of China’s Internet companies that reach or exceed \$100 million (Appendix A). Categorizing Chinese enterprises based on three different industrial subsectors – hardware and equipment makers, network operator, and web services and applications providers, and examining their individual overseas FDI activities in the past 10 years, this dataset constituted the foundation for Chapter 3 and enabled a detailed and disaggregate investigation of the outward expansion of China’s now large and diverse Internet industry.

The second dataset, used in Chapter 5, was constructed by studying the biographies of all the mainland-based board members and senior managers of 20 major Internet companies in China (Appendix B). The 20 major Internet companies were selected according to both their market capitalization and revenue in fiscal year 2015. The biographical data of their executives were obtained through reading those companies’ annual reports, which were then coded binarily according to four measurements: transnational board connections, overseas schooling, government occupation, and political affiliation. Complemented by discursive evidences collected from media reports, this dataset permitted us to study Chinese Internet elites as a group and offered a closer look at their interactions with both state agencies and other transnational capitalists.

⁶⁸ For an introduction of this dataset, see <https://www.aei.org/china-global-investment-tracker>.

Chapter Outline

This dissertation is organized as follows:

Chapter 1 provides a historical overview of China's multifaceted interactions with the global Internet, from its first international email in 1987 to the more recently minted "Internet Plus" and "One Belt One Road" initiatives in 2015. Conceptualizing the Internet sector as three different but interpenetrating cyber domains – equipment manufacturing, network operating, and web services and applications, this chapter shows a large and diversified Internet industry has been built out in China in the past three decades, in the context of its strategic engagement, and uneven encounters, with global digital capitalism. Tracing this historical development as a matrix of transnational trends, geopolitical struggles and domestic political-economic transitions, it demonstrates the conventional perception of China's Internet as a "giant cage" is misleading as it overlooks the long and complex interactions between China and the global Internet political economy. Indeed, foreign government agencies and transnational capital have been heavily involved in building a digital economy in China, and China's Internet industry is at the pivot of the restructuring of global capitalism.

While Chapter 1 offers a brief overview of the historical formation and transformation of China's relationship with the global Internet, Chapter 2 goes deeper to explicate the evolving government policies toward the management of this vital international infrastructure. Examining China's efforts to edge its way into the existing governing scheme in three critical areas – technical standardization, resource allocation and assignment, and public policy – this chapter demonstrates that China's approach is both built upon and differentiable from the US-centric, market-oriented approach to Internet governance. In addition, this chapter builds a historically

grounded theoretical framework to engage the complex dynamics of China's Internet policymaking process, by foregrounding the enduring interaction between and among a limited group of power-holders, including different state agencies and business units, in both domestic and transnational contexts. Each of these power-holders – in collaboration or conflict with others – attempts to leverage its access to the state in order to further a preferred vision of global Internet management.

Looking specifically into Outward Foreign Direct Investment (OFDI) activities of China's native IT enterprises, Chapter 3 shifts attention to the “going-out” strategy of China's Internet industry, as some leading businesses that provide network equipment, operation, services and applications for China's domestic Internet have also set their sights on the international market. Relying on a dataset that documents all the large overseas capital projections of \$100 million or above, this chapter situates the outward expansion of China's Internet companies within a broader picture of the PRC's continuing reinsertion into the world market economy and delineates the landscape of the transnationalization of China's Internet industry across three industrial subsectors. By doing so, it moves beyond simplistic labels like “state capitalism” or “China Inc.” and elucidates the convoluted interactions between capitals and states in this ongoing process. This chapter also raises open questions regarding China's developmental path: How important are these companies and their market segments in the global digital ecosystem? Is China heading toward a position of creating its own group of globally competitive Internet corporations? Does it stand a chance of leapfrogging into advanced capitalism by altering the political economy of transnational digital capitalism?

To try to give greater clarity to questions covered in the second and the third chapters, Chapter 4 offer a detailed case study of the internationalization of a particularly important unit of

Chinese Internet capital, the e-commerce giant, Alibaba. How has Alibaba's international journey – from its founding in 1999 to its New York IPO in 2014 – interlocked with both the transformation of China's political economy and the structural development of the global Internet? Taking a comprehensive approach toward “internationalization”, which not only includes physical expansion beyond home base, but also various complex forms of interactions with transnational capital within the Chinese border, this chapter shows that the intricate trajectory of Alibaba's business development presents a specific pattern of state-capital relationships that encompasses both conflict and cooperation.

Finally, Chapter 5 foregrounds a social class dimension in China's engagement with the global Internet. Using a sample of all the mainland-based executives from the major 20 Chinese Internet companies, this chapter investigates the rise of China's Internet capitalist class fraction in the context of the industry's increasing transnational expansion, looking specifically into their complex interactions with both Chinese state entities and their transnational counterparts. Drawing both from biographical data gained from companies' annual reports and discursive traces collected from media sources, this chapter demonstrates that deep entanglement with other transnational elites notwithstanding, China's corporate leaders in its Internet sector have not yet actually successfully joined the transnational capitalist class. The territorial logic of the Chinese state has still held considerable influence in curbing and interfering with the formation of an Internet-based transnational capitalist class fraction in China. The unfinished nature of China's reintegration into the global economy and its unsettled position in the world capitalist system has further complicated this picture, which requires continuing attention.

CHAPTER 1

REPOSITIONING THE CHINESE INTERNET IN GLOBAL DIGITAL CAPITALISM

In April 2013, the *Economist* released a special report on China and the Internet. The title was simple: “China’s Internet: A giant cage.” As the article continued:

“If this special report were about the Internet in any Western country, it would have little to say about the role of the government; instead, it would focus on the companies thriving on the Internet.... Such things are of interest in China too, but this report concentrates on the part played by the government because that is the most extraordinary thing about the Internet there.... The party has achieved something few had thought possible, the construction of a distinct national Internet. The Chinese Internet resembles a fenced-off playground with paternalistic guards.”⁶⁹

This “giant cage” metaphor, which characterized the Chinese Internet as *both* a “national Internet” unplugged from the international network and a digital empire dominated by a single-minded authoritarian party-state, seems to have become increasingly inadequate – even misleading – in the face of the growing expansion of China’s Internet companies in global cyberspace. For example, in April 2016, Alibaba, China’s e-commerce behemoth, completed its largest overseas deal so far – spending \$1 billion for a controlling stake of Lazada, an e-commerce company that operates across six countries in Southeast Asia, including Singapore, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam.⁷⁰ In the mid of 2016, Tencent,

⁶⁹ Gady Epstein, “China’s Internet: A Giant Cage,” *The Economist*, April 6, 2013, <http://www.economist.com/news/special-report/21574628-internet-was-expected-help-democratise-china-instead-it-has-enabled>.

⁷⁰ Newley Purnell and Alyssa Abkowitz, “Alibaba Thinks Outside the China Box,” *The Wall Street Journal*, August 12, 2016, http://www.wsj.com/articles/alibaba-thinks-outside-the-china-box-1470995037?cx_navSource=cx_picks&cx_tag=contextual&cx_artPos=5#cxrecs_s.

another China-based social media and mobile gaming giant, led an investment group to purchase 84% percent of Finnish mobile games maker Supercell for \$8.6 billion.⁷¹

How are we to understand this recent but highly visible phenomenon? Previous literature on the Chinese Internet has foregrounded the democratic and political implications of network technologies in contemporary Chinese society.⁷² While these studies provide valuable insights into the complex state censorship apparatus and also into online activism in China, the role of Internet corporate power has received rather limited attention. Scholars of China's communication and information industry, on the other hand, have offered well-documented accounts of network construction in China, with attention largely devoted to the domestic dimension.⁷³ What remains little examined is the important role of the Internet industry in China and how has this vital sector interacted with the international Internet system. What are the chief attributes and political-economic contours of China's Internet industry? Where do its origins lie – what accounts for its formation and outward expansion? What are its strengths and weaknesses? And finally, what the political economy of China's Internet embraces and how it operates?

To shed light on these questions, this chapter maps out and historicizes the evolution of China's Internet industry, foregrounding its multifaceted interactions with the external Internet.

⁷¹ Lulu Yilun Chen, Pavel Alpeyev and Yuji Nakamura, "Tencent Leads \$8.6 Billion Deal for Clash of Clans Studio," *Bloomberg*, June 22, <http://washpost.bloomberg.com/Story?docId=1376-O949KV6KLV701-44DR9M9STL12JECOAD2GQOLPSP>.

⁷² Rebecca MacKinnon, *Consent of the Networked: The World-Wide Struggle for Internet Freedom* (New York: Basic Books, 2012); Guobin Yang, *The Power of the Internet in China: Citizen Activism Online* (New York: Columbia University Press, 2009); Yongmin Zhou, *Historicizing Online Politics: Telegraphy, the Internet, and Political Participation in China* (Stanford: Stanford University Press, 2005); Yongnian Zheng, *Technological Empowerment: The Internet, State, and Society in China* (Stanford: Stanford University Press, 2007).

⁷³ Milton Mueller and Zixiang Tan, *China in the Information Age: Telecommunications and the Dilemmas of Reform* (Washington: Center for Strategic and International Studies, 1996); Irene S Wu, *From Iron Fist to Invisible Hand: The Uneven Path of Telecommunications Reform in China* (Stanford: Stanford University Press, 2009); Paul S N Lee, *Telecommunications and Development in China* (Cresskill: Hampton Press, 1997).

It shows that a large and diversified Internet industry has been built out in China in the past three decades, in the context of its strategic engagement, and uneven encounters, with global digital capitalism. It joined the growing literature on the political economy of the Chinese Internet by bringing to the forefront the intricate interactions between capital and the state in endowing the global Internet system with “Chinese characteristics.”⁷⁴ This was achieved by a systematic and intensive document research on a wide range of scholarly works, as well as primary and secondary sources, both on the state and on the capital side. On the state side, I reviewed government policies, white papers, conference documents and policy proposals issued by a variety of state agencies both in and out of China. On the capital side, archival trade press, company financial filings, industrial annual reports, national and international statistical compendia were also examined. This collection of sources and documents helped to set up an overall picture of the rise of China’s Internet industry in global digital capitalism.

The structure of the chapter is organized as follows. The next section sets the stage by presenting a comprehensive approach to conceptualize the “Internet industry” in China, which not only includes web services and applications providers like Alibaba, but also network operators like China Mobile, equipment and hardware manufacturers like Huawei, as well as major government and corporate network users. Section Three to Five delineate, document and assess the historical evolution of this vital sector in the past three decades while situating its

⁷⁴ Yu Hong, *Networking China: The Digital Transformation of the Chinese Economy* (Urbana: University of Illinois Press, 2017); Min Tang, “Tencent as a Nexus: The Political Economy of China’s Internet Industry” (PhD dissertation, University of Illinois at Urbana-Champaign, 2017); Yun Wen, “The Transnationalization of Chinese ICT Corporations: A Case Study of Huawei,” Paper presented at the International Communication Association Annual Convention, Seattle, 2014; Christian Fuchs, “Baidu, Weibo and Renren: The Global Political Economy of Social Media in China,” *Asian Journal of Communication* 26, no. 1 (2015): 14–41; Dan Schiller, *Digital Depression: Information Technology and Economic Crisis* (Urbana: University of Illinois Press, 2014); Yuezhi Zhao, “China’s Pursuits of Indigenous Innovations in Information Technology Developments: Hopes, Follies and Uncertainties,” *Chinese Journal of Communication* 3, no. 3 (2010): 266–89.

development in the interplay between the transformation of China's developmental path and the changing dynamics of global digital capitalism.

The last section concludes by countering the popular perception of the Chinese Internet as a “giant cage” that is sealed by the “Great Firewall” and that is dominated merely by a monolithic authoritarian party-state. Indeed, by repositioning the evolution of China's Internet industry in the political economy of the International Internet, this chapter demonstrates two things. First, without taking into account the intricate and uneven engagement between China and the changing political economy of the global Internet, the puzzle of the Chinese Internet remains incomplete. Indeed, as will be shown in the following discussion, foreign government agencies and transnational capital have been heavily involved in the construction of the digital economy in China, and China's Internet sector is pivotal in the restructuring of global digital capitalism. Second, the Chinese Internet is not only political, but also economic. Moreover, although the building of an Internet industry in China has been a joint effort of both the state and capital, their interests and objectives have not always aligned with each other. On the one hand, the Chinese state, as a territorially defined entity, aims to both cultivate and control its homegrown Internet companies in order to keep them in line with the state's developmental and diplomatic agenda. On the other hand, Chinese Internet companies, propelled by the borderless logic of capital accumulation, have coordinated an increasingly powerful and expansive transnational capital network with an overarching aim of profit-maximization, along with their increasingly outward expansion in global cyberspace. To add on to the complexity, neither the state nor capital is a unified monolithic force. Offering a historical perspective, this chapter sketches out these efforts on both the policy and business fronts, by clarifying how state strategies and capital's imperatives on a transnational level cooperate (or not) with each other.

China's Internet industry: An Inclusive Approach

In the past three decades, a large and diversified internet industry has been built out in China. To better understand the range of this expansive sector, its segmentation, and especially its complex interactions with the political economy of the global Internet, this section sets the stage by developing a distinct conceptualization of the “Internet Industry” in China.

Some might argue that the category of “Internet companies” should exclude firms whose main businesses are not Internet-based. Instead, I try to be inclusive. This inclusive approach builds on the argument of Dan Schiller in his book *Digital Depression*, which contends that today’s Internet is constituted by multiple transnational commodity chains, including not only software and applications, but also networks and access devices. An inclusive analysis of these “Web communications commodity chains” helps reveal “how a global division of labor evolves and mutates in the historical context of an ever-reconfiguring process of capital accumulation”.⁷⁵ In addition, my conceptualization also extends and modifies previous scholarly work on China’s telecommunications industry. For example, Eric Harwit points out that in order to fully grasp China’s telecommunications revolution, the definition of the telecommunications needs to go beyond the service sector to include equipment manufacturing.⁷⁶ Roselyn Hsueh adds to the picture and argues that an analysis of China’s telecommunications policy should pay attention to both equipment (network and consumer) and service (basic and value-added), and should clarify significant differences among these industrial subsectors, as they hold different strategic values

⁷⁵ Schiller, *Digital Depression*, 6-9, 83-114.

⁷⁶ Eric Harwit, *China's Telecommunications Revolution* (Oxford: Oxford University Press, 2008), 17.

to the state.⁷⁷ Drawing on these previous insights into China's telecommunications sector – a sector that has increasingly impinged on the Internet – I take an unusually comprehensive approach toward studying the Internet industry in China. My definition of China's Internet industry includes not only web services and applications providers such as Alibaba and Tencent, but also equipment and hardware manufacturers like Huawei and Lenovo, network operators such as China Mobile, Telecom and Unicom,⁷⁸ as well as major government and corporate network users (see Figure 1.1).

It is important to point out that big government and business users also constitute a crucial component of China's digital sector, for the structural profile of the Internet political economy not only encompasses the supply side but also the demand side.⁷⁹ These institutional users are studied only occasionally in this dissertation, but they do fall in this inclusive conceptualization. Indeed, with the continuing incorporation of network technologies into the Chinese economy, government and corporate IT expenditures have risen significantly. It is reported that, even in the economic downturn, China's government and businesses together spent \$147 billion in ICT equipment and services in 2015, up from \$124 billion in 2014.⁸⁰ China's oil

⁷⁷ Roselyn Hsueh, *China's Regulatory State: A New Strategy for Globalization* (Ithaca: Cornell University Press, 2011), 49-51.

⁷⁸ It is worth noting that in May 2016, another state-owned player, China Broadcasting Network (CBN), was granted a basic telecom services license, becoming the fourth domestic operator, after China Telecom, Unicom, and Mobile. However, since the license only allowed CBN to offer fixed broadband service, it was considered as a "half license" and CBN has so far remained very marginal in this strategic industrial subsector. See, "Huo bange paizhao, zhongguo guangdian cheng disida yunyingshang," 获“半个牌照”, 中国广电成第四大运营商 [obtaining "half license", China Broadcasting Network becomes the fourth network operator], *Xinhua Net*, May 6, 2016, http://news.xinhuanet.com/fortune/2016-05/06/c_128962083.htm.

⁷⁹ Schiller, *Digital Depression*.

⁸⁰ Brian Spegele and Alyssa Abkowitz, "China's Tech Leaders Try Teaching Dinosaurs to Dance," *The Wall Street Journal*, April 24, 2016, <http://www.wsj.com/articles/chinas-tech-leaders-try-teaching-dinosaurs-to-dance-1461526201>.

giant Sinopec, for example, has recently recruited Alibaba's help on big data analysis and information security.⁸¹

Given the fact that the Internet industry in China is a volatile field, trying to be more inclusive helps to cover the largest, most powerful, and most important elements, which may alter rapidly, even in the near future. For example, traditional web services and applications providers have recently entered the realm of hardware manufacturing. Search engine Baidu's new project "Baidu Inside" has allowed the company to penetrate into the smart home devices market.⁸² Established network operators have also deepened their reach into the web applications sector. The "Big Three" network operators – China Mobile, Telecom and Unicom – for instance, have all taken strategic steps toward the booming mobile gaming market in China.⁸³ The inclusive approach, as proposed in this dissertation, therefore allows us to take into account these recent developments, which will likely become more prominent in the next a few years with the further promulgation of the "Internet Plus" and "One Belt One Road" initiatives both in and outside of China.

⁸¹ Ibid.

⁸² Michael Kan, "With 'Baidu Inside' the Chinese firm takes aim at hardware market," *PC World*, April 22, 2014, <http://www.pcworld.com/article/2146620/with-baidu-inside-the-chinese-firm-takes-aim-at-hardware-market.html>.

⁸³ Chi Youlei 迟有雷, "Fenshi yidongyouxi shichang, sanda dianxinyunyingshang mang buju," 分食移动游戏市场, 三大电信运营商忙布局 [Three telecom operators are busy dividing China's mobile gaming market], *The Economic Observer* 经济观察报, August 4, 2012, <http://tech.qq.com/a/20120804/000036.htm>.

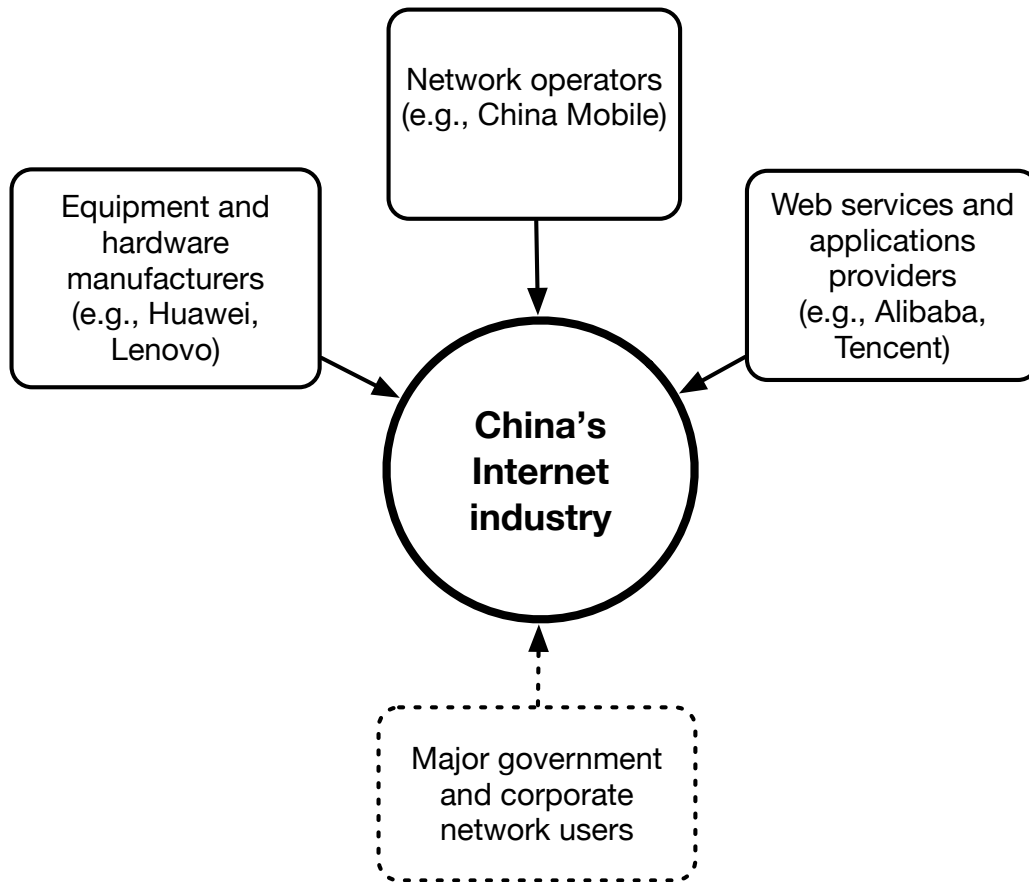


Figure 1.1: An inclusive approach toward China’s Internet industry.

1990s: Market integration, informatization and Global Internet Connection

“Across the Great Wall we can reach every corner in the world” – this was the first email sent through an indigenous Chinese server to the global Internet, in September 1987.⁸⁴ This contrasted the assumptions of many Western observers that the *only* aim of China’s early network construction was to build a nationwide “intranet” that would be sealed from the external

⁸⁴ Werner Zorn, “How China Was Connected to the International Computer Networks,” *The Amateur Computerist* 15, no. 2 (2007): 36–49.

network by the “Great Firewall”.⁸⁵ It should also be noted that the political concerns of the US government partly delayed China’s full connection to the global Internet until 1994.⁸⁶ China’s initial encounter with the international network was indeed shaped by these two interconnected forces: the strong will of reform-minded state leaders to re-enter the international system and a complex and swiftly altering geopolitical-economic power structure.

Why did China want to be connected to the International Internet in the first place? Two domestic trends were at play. On the one hand, it is important to note that the construction of the modern Internet system in China was concurrent with the country “opening and reform” process.⁸⁷ In order to solve the economic stagnation and political instability that afflicted the party-state in the post-1989 crisis, the top leadership adopted new hardline policies to interact with transnational capital.⁸⁸ Deng Xiaoping’s “southern tour” in 1992 has further opened up China’s domestic market and brought in a swath of foreign corporations, which pressed for modernized telecommunications services and advanced information networks for their transnational market operation.⁸⁹ In other words, an internationally linked Internet system was a key infrastructure for China’s global market reintegration. Indeed, reform-minded leaders were well aware of this situation. For example, in 1993, the State Council initiated the “Golden Gate Project” (also known as the “Golden Customs project”), as one of its first government-funded

⁸⁵ Geremie R. Barme and Sang Ye, “The Great Firewall of China,” *Wired*, June 1, 1997, <https://www.wired.com/1997/06/china-3>.

⁸⁶ China Internet Network Information Center (CNNIC), “The Internet Timeline of China 1986-2003,” http://www1.cnnic.cn/IDR/hlwfzdsj/201306/t20130628_40563.htm.

⁸⁷ Hu Qiheng 胡启恒, “Hulianwang de yuanqi jiqi zai zhongguo de zaoqifazhan” 互联网的缘起及其在中国的早期发展 [The origin of the Internet and its early development in China], *China Education and Research Network* 中国教育和科研计算机网, December 12, 2008, http://www.edu.cn/li_lun_yj_1652/20081202/t20081202_344154.shtml.

⁸⁸ Hui Wang, *China’s New Order: Society, Politics, and Economy in Transition* (Cambridge: Harvard University Press, 2003), 141-142.

⁸⁹ Yu Hong, “Repurposing Telecoms for Capital in China,” *Asian Survey* 5, no. 2 (2013): 319–47.

national information infrastructures, to develop electronic customs clearance services and facilitate international trade, given that China's major trading partners were already going digital at the moment.⁹⁰

On the other hand, strong nationalist development agenda also structured China's early response to network technology. Motivated by long-standing nationalist sentiments to catch up with the technologically advanced West, the development and application of information technologies – informatization (*xinxi hua*, 信息化) – soon became the buzzword in China's policy discourse, with later the Internet occupying a more visible position. In 1997, the Ninth Five-Year Plan for State informatization and the Long-range Objective of the Year 2010 was published, prioritizing the role of the Internet in national economic informatization.⁹¹ As Yuezhi Zhao argues, from Premier Zhou Enlai's "four modernizations" in the 1970s to President Jiang Zemin's "none of the four modernizations would be possible without informatization" in the 1990s, the development of a modern information industry – under the influence of the flashy international branding of the Internet as the "information superhighway" – was regarded by the Chinese leadership as a critical opportunity to reclaim the country's historical position in the international system.⁹²

Concurrent with China's global market integration and nationalist development agenda was the reconstitution of the transnational digital economy. As Dan Schiller points out, since the late 1970s, global capitalism had undergone a systemic transformation that was both organized around digital technologies and simultaneously turned this sector into a leading pole of economic

⁹⁰ Hong, *Networking China*, 54.

⁹¹ State Council Information Office (SCIO), "The Internet in China", *Xinhua Net*, June 8, 2010. http://news.xinhuanet.com/english2010/china/2010-06/08/c_13339232_7.htm.

⁹² Yuezhi Zhao, "After Mobile Phones, What? Re-Embedding the Social in China's 'Digital Revolution,'" *International Journal of Communication* 1, no. 1 (2007): 92–120.

growth.⁹³ As transnational corporate powers have increasingly pursued an unparalleled globalization project *through* network technologies, integrating China into this newly constructed digital system seemed to have also become a preference for the West. Indeed, even with strong political and national security concerns, in 1994, the US government finally officially approved China's full-functional Internet connection, seven years after the country's first international email.⁹⁴ American equipment makers and network operators soon rushed in to grab this emerging market. For example, one of China's early backbone networks, CHINAPAC, was built on the equipment supplied by Cisco and Sun Microsystem.⁹⁵ Even the "Golden Shield" project – the notorious nationwide surveillance program that has been characterized by the popular media as the poster child for authoritarian Internet control – was also built up by US multinational conglomerates including Sun Microsystem, Cisco and Compaq.⁹⁶

In sum, by the mid-1990s, an elite consensus had been reached that to incorporate into global digital capitalism through the Internet was the primary strategy for China's future development.⁹⁷ Correspondingly, a variety of substantial measures were taken to reorganize China's digital economy. Despite cross-sector variance, throughout the 1990s, China heavily relied on transnational capital – in particular, US capital – in both jumping start its domestic Internet sector and realizing technology transfer, which resulted in an industrial structure highly dependent on transnational capital and a domestic market dominated by foreign players.

⁹³ Dan Schiller, *Digital Capitalism: Networking the Global Market System* (Cambridge: MIT Press, 1999).

⁹⁴ China Internet Network Information Center (CNNIC), "The Internet Timeline of China 1986-2003".

⁹⁵ Harwit, *China's Telecommunications Revolution*, 85.

⁹⁶ Greg Walton, "China's Golden Shield: Corporations and the Development of Surveillance Technology in the People's Republic of China," *Rights & Democracy*, 2001, <http://publications.gc.ca/collections/Collection/E84-7-2001E.pdf>.

⁹⁷ Zhao, "After Mobile Phones, What? Re-Embedding the Social in China's 'Digital Revolution.'"

As the most technology-intensive segment of the Internet industry in China, hardware manufacturing was initially wide open to transnational forces in the early days of the country's digital revolution. On the one hand, as a latecomer to the global Internet industry, China lacked both the necessary capital and technology to modernize the basis of its network infrastructure. Despite a national computer industry started to emerge in the 1980s largely from state-owned or military-controlled research institutions – for example, Lenovo was launched in 1984, as a spin-off from the Chinese Academy of Science (CAS) and Founder was established in 1986, as a spin-off from the Peking University – China still lacked the key capacity to produce core network equipment such as routers or micro-computer chips.⁹⁸ Therefore, it was imperative for the state to heavily rely on foreign capital and technology to build its basic network foundation. For example, the country's 1994 global Internet interconnection was realized based on Cisco's TCP/IP router, which arrived in Beijing only after the US Department of Commerce's exportation approval.⁹⁹ On the other hand, as Roselyn Hsueh points out, high-tech nature notwithstanding, equipment manufacturing is generally considered as of medium strategic importance by the state, as all the cables, routers and digital devices still need to “plug into” the network infrastructure through state-owned telecommunications carriers.¹⁰⁰

Under the interplay of both domestic and transnational trends, an “exchanging market for technology” strategy was applied in China's ICT manufacturing industry, as Hong Yu has

⁹⁸ “Gaige kaifang 30nian IT ye: Fengyun tuqi,” 改革开放 30 年 IT 业: 风云突起 [IT industry after three decades of opening up], *Phoenix New Media* 凤凰新媒体, <http://news.ifeng.com/special/30yearsit/#2.2>.

⁹⁹ IDG News Service, “China Celebrates 10 Years of Being Connected to the Internet,” *PC World*, May 17, 2004, http://www.pcworld.idg.com.au/article/128099/china_celebrates_10_years_being_connected_internet.

¹⁰⁰ Roselyn Hsueh, “Nations or Sectors in the Age of Globalization: China's Policy Toward Foreign Direct Investment in Telecommunications,” *Review of Policy Research* 32, no. 6 (2015): 627–48, 640.

shown.¹⁰¹ China opened up its domestic equipment market widely for transnational capital, with a hope that it would both help provide necessary capital resources to modernize the basic backbone infrastructure and to realize technology transfer. A series of measurements were carried out in the early 1990s to support this strategy, such as facilitating key component imports through lowering tariffs, introducing foreign investment through preferential tax treatment and encouraging joint ventures between foreign firms and local governments.¹⁰² Transnational capital soon took this opportunity. It is reported that from 1990 to 2002, the total FDI in China's ICT industry was more than twice that of government investment.¹⁰³

Although this industrial strategy had, admittedly, helped China construct its network base in a staggering rate, it also caused undesirable results – a high degree of technological dependence and a domestic market increasingly dominated by foreign companies.¹⁰⁴ In the computer industry, for example, after the state significantly lowered the tariffs and ended its computer import approval system, the market shares of China's domestic computer makers dropped from 67% in 1989 to 22% in 1992.¹⁰⁵ This resulted in a situation that in the early 1990s, the Chinese PC market was almost entirely dominated by a group of transnational, especially US

¹⁰¹ Yu Hong, "Distinctive Characteristics of China's Path of ICT Development: A Critical Analysis of Chinese Developmental Strategies in Light of the Eastern Asian Model.," *International Journal of Communication*, no. 2 (2008): 456–71.

¹⁰² Ibid.

¹⁰³ Lutao Ning, "China's Leadership in the World ICT Industry: A Successful Story of Its 'attracting-in' and 'Walking-Out' strategy for the Development of High-Tech Industries?" *Pacific Affairs* 82, no. 1 (2009): 67–91.

¹⁰⁴ Hong, "Distinctive Characteristics of China's Path of ICT Development: A Critical Analysis of Chinese Developmental Strategies in Light of the Eastern Asian Model.,"; Ning, "China's Leadership in the World ICT Industry: A Successful Story of Its 'attracting-in' and 'Walking-Out' strategy for the Development of High-Tech Industries?"; Zhao, "China's Pursuits of Indigenous Innovations in Information Technology Developments: Hopes, Follies and Uncertainties."

¹⁰⁵ "IT industry after three decades of opening up".

companies, such as IBM and Compaq.¹⁰⁶ This pattern was consistent for carrier equipment sector as well. By the end of the 1990s, 17 joint ventures and wholly foreign-owned network equipment makers were responsible for producing almost 94 percent of China's telecommunications equipment; domestic firms only accounted for 6.4 percent.¹⁰⁷

China's indigenous network gear suppliers were therefore struggling in this unfavorable domestic market and had to seek for other methods or channels for their development. In the late 1990s, a few homegrown PC makers such as Lenovo and Founder survived in the face of fierce foreign competition by significantly lowering their prices and competing with transnational giants through bloody price wars.¹⁰⁸ Other companies were forced to exit the more lucrative urban market into rural areas or even turn to overseas markets for opportunities. For example, Huawei, founded in 1987 by Ren Zhengfei in Shenzhen, unable to compete head to head with transnational companies and their joint ventures in the city area, started building its business capacity in small towns and rural places. To avoid the over-saturated domestic market, it also tapped into overseas markets from early on. As Yun Wen has shown in her case study, in the mid-late 1990s and before the state officially implementing its "going out" initiative in 2003, Huawei had already extended its business to Hong Kong and Russia, and this international strategy was soon applied to other Asian, African and Latin America countries.¹⁰⁹

Compared with equipment vendors, China's network operators had been tightly controlled by the state throughout the 1990s and were largely shielded from *direct* foreign participation. Indeed, in the majority of the 1990s, China's network operating sector was

¹⁰⁶ Ibid.

¹⁰⁷ Jamie P. Horsley, "China's New Telecommunications Regulations and the WTO," *The China Business Review* 28, no. 4 (2001): 34–38.

¹⁰⁸ "IT industry after three decades of opening up".

¹⁰⁹ Wen, "The Transnationalization of Chinese ICT Corporations: A Case Study of Huawei".

dominated by three major carriers, China Telecom, China Unicom and Jitong Communications, all of which were state-owned and were backed by different government entities.¹¹⁰ However, it does not mean that this industrial segment was entirely cut off from the external market.

Transnational capital was still able to find a way to participate and shared a limited portion of the operating revenue, as will be discussed shortly.

Why did China keep such a tight control of its network operation sector? On the one hand, there were political and security concerns. As aforementioned, network operators have controlled the “entry point” of China’s network system and equipment makers are dependent on the operators for access to the Chinese market. Keeping the operators in the hands of the state, therefore, can help the state exercise indirect control over its equipment makers. On the other hand, there were economic considerations as well. As Eric Harwit argues, as a large and emerging market with huge potential profits, the Chinese state wanted to reserve the domestic market for its native players, and in particular, the state-owned players.¹¹¹ Based on these concerns, in 1992, China issued the “Re-statement on Forbidding Joint Operation of Postal and Telecommunications Business with Foreign Companies,” prohibiting foreign investors in owning or operating any telecommunications network. This ban was later included in the “Catalogue of Industries for Guiding Foreign-funded Investment” promulgated by the State Council in 1995.¹¹²

Despite its strong will to keep a tight rein over domestic network operating sector, in the early 1990s, to follow the international “norm,” the leadership started to cultivate a major

¹¹⁰ Another group of smaller operators emerged at the eve of China’s WTO accession, including China Satcom, China Railcom, China Unicom and China Mobile, which was separated from China Telecom in May 2000. See, Harwit, *China’s Telecommunications Revolution*, 68-72.

¹¹¹ Harwit, *China’s Telecommunications Revolution*, 46.

¹¹² Candice Tsang, Sandy Wong, Emily Li & Steve Pang, “CEPA and Its Impact on the Development of the Telecommunications and Media Industries in China and Hong Kong,” <http://newmedia.cityu.edu.hk/cyberlaw/gp24/intro.html>.

corporate reform, introducing competition and separating direct government management from state-owned enterprises.¹¹³ For the first part, in 1994, both China Unicom and Jitong Communication were introduced to compete with the incumbent China Telecom. For the second part, China Telecom was split from the industry regulator, the Ministry of Posts and Telecommunications (MPT), to become a profit-oriented “modern” corporation. To add more complexity to the picture, as will be discussed in Chapter 2, China’s Internet governance apparatus is a deeply conflicted system, with different state agencies and various levels of governments fighting with each other to advance their own interests, sometimes even at the expense of the overall state strategy. The three major carriers also represented two different camps of bureaucratic actors: China Telecom was affiliated with the Ministry of Posts and Telecommunications (MPT), the existing industry regulator, while China Unicom and Jitong were backed by the Ministry of Electronic Industry (MEI), the government agency that was responsible for regulating equipment manufacturing in China.

Fierce competition between these companies developed along with the construction of the Internet system in China, with each operating a different commercial network: ChinaNET managed by China Telecom, ChinaGBN under the purview of Jitong, and Uninet operated by China Unicom. As latecomers to the game, China Unicom and Jitong faced special obstacles in obtaining capital to build its network. To fund its network expansion and to fight with the more powerful China Telecom, China Unicom, in particular, introduced a specific and complex business structure to court foreign capital – the Chinese-Chinese-Foreign, or CCF – despite the

¹¹³ Barry Naughton, *The Chinese Economy: Transitions and Growth* (Cambridge: MIT Press, 2006).

state's official prohibition of foreign participation in China's network operation, as mentioned above.

Constituted by China Unicom, a Chinese intermediary company (usually a satellite company of Unicom's regional shareholders), and a foreign company, the CCF was a specific investment mechanism to operate experimentally in the policy gray area. In this arrangement, both the satellite company of China Unicom and the foreign investor injected a certain amount of capital to form a joint venture, with the foreign investor taking a controlling stake. The joint venture then signed a contract with Unicom in order to participate in network construction and operation efforts. As a return for its previous capital investment in the joint venture, the foreign company received a portion of Unicom's operating revenue and thus indirectly participated in China's network operating market (see Figure 1.2).

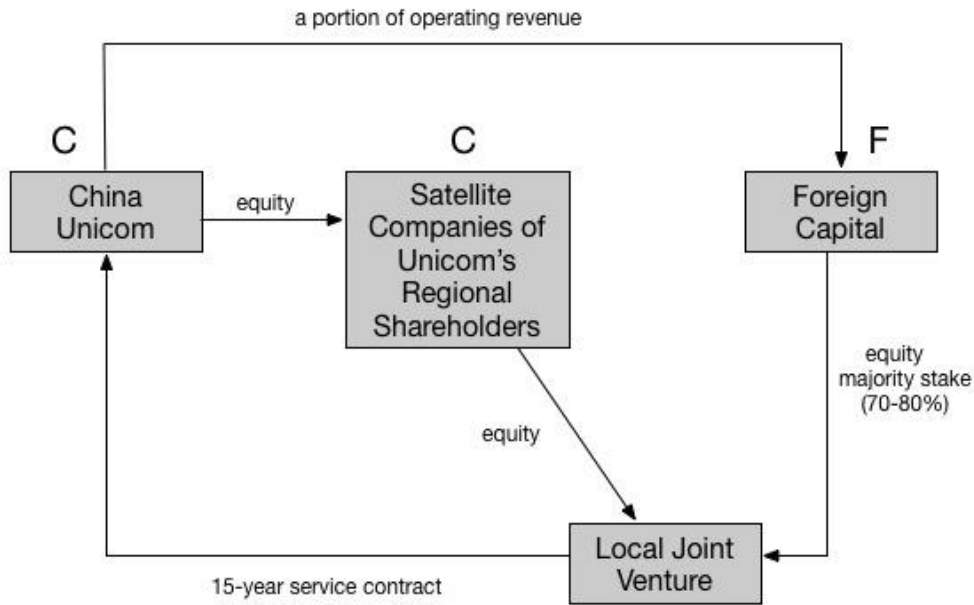


Figure 1.2: The CCF structure.

Source: Author's own compilation, based on Harwit, *China Telecommunication Revolution*, 54-55; Zhang Chenshuang 张晨霜, *Da Kuayue: Zhongguo Dianxinye Sanshi Chunqiu 大跨越: 中国通信业三十春秋 [Great Leap Forward: Thirty Years of Chinese Telecommunications]* (Beijing, China: 人民出版社, 2008), 355.

The CCF arrangement contributed significantly to China Unicom's development. From April 1995 to December 1997, up to 46 CCF ventures were created, which contributed about \$10 billion to Unicom's total funding.¹¹⁴ About 32 foreign companies participated in the game, including Ameritech, AIG and Nextel from USA, Bell and Telesystem from Canada, Deutsche Telecom from Germany, France Telecom, and Stet from Italy.¹¹⁵

¹¹⁴ Zhang Chenshuang 张晨霜, *Da Kuayue: Zhongguo Dianxinye Sanshi Chunqiu 大跨越: 中国通信业三十春秋 [Great Leap Forward: Thirty Years of Chinese Telecommunications]* (Beijing, China: 人民出版社, 2008), 355.

¹¹⁵ *Ibid.*, 355.

Furthermore, the level of foreign involvement in China's early network construction and operation went much further than merely capital contribution. Lack of necessary technological knowhow and eager to adopt "modern" corporate practices, these Chinese carriers heavily relied on its transnational partners for advice. For example, through its local joint ventures, China Unicom often turned to its foreign partners for suggestions on its "equipment procurement, network design, and related management matters".¹¹⁶ Even China Telecom, the more powerful incumbent that didn't participate in the CCF scheme, co-designed its early Internet backbone with American company Sprint.¹¹⁷

The CCF story ended before China's WTO accession. In 1998, the newly consolidated Ministry of Information Industry (MII), which combined both the MEI and MPT, officially banned this scheme and dissolved these contracts, with Unicom paying back up to RMB 15 billion to its foreign collaborators.¹¹⁸ The cancelation of the CCF was later interpreted as a way to prepare for Unicom's public offering on the Hong Kong and New York Stock Exchange, as the Chinese officials started to realize the global stock market might be an easier way to absorb foreign capital without giving out controlling stake.¹¹⁹

When transnational capital was forced to leave the network operating sector, China's web services and applications providers, in contrast, flourished with foreign investments. The first generation of China's web companies – notably, the three biggest portals, Sohu, Sina, NetEase – all emerged in the late 1990s with venture capital funding raised overseas. For example, in 1996, Charles Zhang, an MIT graduate, raised \$225,000 from his professors Nicolas NegroPonte and

¹¹⁶ Harwit, *China's Telecommunications Revolution*, 55.

¹¹⁷ China Internet Network Information Center (CNNIC), "The Internet Timeline of China 1986-2003".

¹¹⁸ Zhang, *Great Leap Forward*, 355.

¹¹⁹ Harwit, *China's Telecommunications Revolution*, 63.

Edward Robert, went back to China and founded Sohu, a Chinese version of *Yahoo*.¹²⁰ As we will see, China's web services and application sector were indeed built from scratch with the heavy involvement of transnational capital.

Why did the state reinforce its regulation to ban foreign capital in its network operation sector but at the same time, turned a blind eye to similar – and literally more aggressive – practices in its web applications sector? One possible reason is the relatively less sensitive nature of telecommunications value-added services in terms of national security threats, as previous scholars has pointed out.¹²¹ On the other hand, because the state in the late 1990s only perceived web applications as “an extension of telecom services,” companies in this sector had a low priority in terms of receiving state funding.¹²² This meant that they had to seek other forms of investment. Meanwhile, the rise of the dot.com bubble in the US also prompted many transnational financial firms to look into emerging Internet markets for opportunities, especially China. As a result, a large amount of transnational capital poured into Chinese online market in the late 1990s and early 2000s. Due to the highly speculative and short-term nature of venture capital investments,¹²³ these firms rushed to list shares on foreign stock markets in order to find exit channels for their early investors. The listing procedure further deepened their interactions with the global capital market.

¹²⁰ “Sohu CEO Zhang Chaoyang: Gujia cengjing xiangwo huaxue yiyang xiahua,” 搜狐 CEO 张朝阳: 股价曾经像我滑雪一样下滑 [Sohu CEO Charles Zhang: The stock price was dropping], <http://finance.sina.com.cn/crz/20040207/0017621249.shtml>.

¹²¹ Hsueh, “Nations or Sectors in the Age of Globalization,” 637; Harwit, *China's Telecommunications Revolution*, 105.

¹²² Yu Hong, “Pivot to Internet+: Political Economy of China's New Communications Agenda,” Paper presented at the International Communication Association Annual Convention, Fukuoka, 2016.

¹²³ Matthew Crain, “Financial Markets and Online Advertising: Reevaluating the Dotcom Investment Bubble,” *Information, Communication & Society* 17, no. 3 (2014): 371–84.

The process, however, was by no means a smooth one. Indeed, in the eve before Sina's Nasdaq IPO in 1999, the then MII minister Wu Jichuan publicly reinstated that foreign investment in China's Internet content providers was "illegal".¹²⁴ In order to both satisfy their transnational investors – who controlled the money, and the state authorities – who controlled their business license, a complex investment vehicle called "Variable Interest Entity" (VIE) was invented by Sina and got a tacit approval from the authorities.¹²⁵ The VIE structure, therefore, is also known as the "Sina model".

The essence of the VIE structure is to separate – at least partially – the Chinese company that is allowed to operate in the domestic market from its foreign investors, which partially satisfies the authorities' will to keep control over its domestic network. To remit part of its revenue to its foreign investors for their capital contribution, however, the Chinese firm needs to link itself back. This is achieved through a middle man, a third foreign-owned enterprise registered in China. Therefore, under a VIE structure, the Chinese firm and its foreign investors first set up an offshore holding company, called a Special Purpose Vehicle (SPV). This SPV then establishes a wholly foreign-owned enterprise (WFOE) in China, which nominates the Chinese partner to get license and operate in China (see Figure 1.3).

¹²⁴ Xie Peng 谢鹏, "Shui zhizao le VIE konghuang," 谁制造了 VIE 恐慌 [Who created the VIE panic], *Southern Weekly* 南方周末, October 14, 2011, <http://www.infzm.com/content/63887>.

¹²⁵ Ibid.

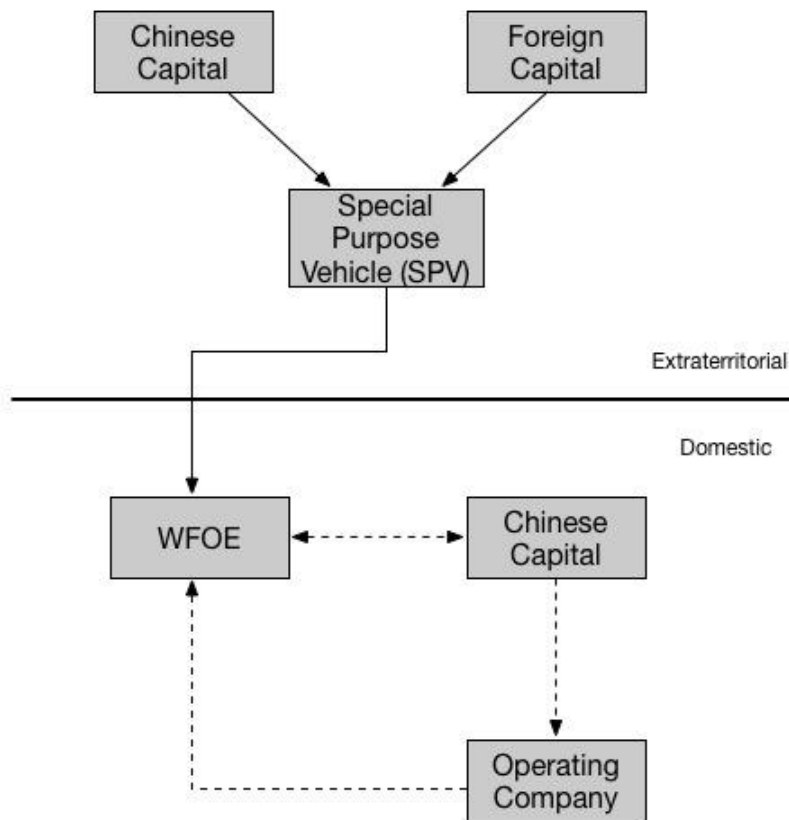


Figure 1.3: The VIE structure.

Source: Author's own compilation, based on Shen, “Deconstructing the Myth of Alipay Drama—Repoliticizing Foreign Investment in the Telecommunications Sector in China”.

Note: The solid lines indicate equity investment. The dotted lines indicate contractual agreements.

In this way, foreign companies are able to have a stake in a market that they otherwise wouldn't be able to easily get access, while their Chinese partners are also able to retain their licenses by claiming their “Chineseness”. As the CCFs in the case of China Unicom, the establishment of these VIEs was hardly a secret, and the state would conduct several efforts in the coming years to curb its growing influence, as will be discussed in the next section.

2000s: WTO, “Indigenous Innovation” and the Entanglement between China and the Global Internet

Entering the 21st century, China experienced a series of political-economic changes that molded its emergent relationship with the global Internet.

To begin with, China’s 2001 WTO accession had – to a certain extent – brought the country into a new phase in its integration with global capitalism. On the one side was accelerated market opening. In the Internet sector, China agreed to let foreign firms take up to 50 percent ownership of value-added services in its domestic market in two years, which included a broad range of Internet service and applications, such as e-mail, databases and e-commerce.¹²⁶ For reasons stated above, basic telecommunications services were more tightly regulated, as only up to 49 percent foreign ownership in mobile and fixed-line services was allowed in three and five years, respectively.¹²⁷

The coin of China’s WTO accession has another side. In addition to an accelerated and calculated domestic market opening, China also officially inaugurated its “going-out” initiative to complement its FDI friendly policies introduced in the 1980s and 1990s, with an aim to cultivate a group of national and international competitive firms in face of the anticipated competition along with its WTO accession. A series of policies were carried out under this banner, including deregulating China’s FDI regime, streamlining the approval process, signing bilateral and regional investment treaties and offering financial support through state policy banks. China’s relationship with the global economy therefore entered a new phase, i.e., by expanding from “attracting-in,” or drawing in FDI investment into its territory, to “going-out,” or

¹²⁶ “Dianxin zengzhi yewu jaingyou waiqi zhengshi,” 电信增值业务将有外企争食 [Foreign companies will compete in value-added services], October 17, 2000, <http://www.c114.net/news/16/a1472.html>.

¹²⁷ Wu, *From Iron Fist to Invisible Hand*, 71.

promoting China's outward capital flow.¹²⁸ China's Internet firms have increasingly taken a leading role in this new phase, as will be shown in greater detail in Chapter 3.

Apart from its WTO accession, China also had its leadership transition in 2003 – from Jiang Zemin-Zhu Rongji to the Hu Jintao-Wen Jiaobao administration. Recognizing the pitfalls of its export- and FDI-driven path of the 1980s and 1990s and fearing that China would continue to occupy a low position in the global production chain, the Hu-Wen leadership initiated a handful of policies to depart from the previous single-minded pursuit of marketization to emphasizing more on the role and the capacity of the state in resource redistribution in its domestic market.¹²⁹ In the field of the Internet industry, the overall policy focus started to shift from accentuating informatization in all fields to boosting the development of proprietary technology and standards, or “indigenous innovation,” in key areas.¹³⁰ As Hong Yu points out, the 2000s witnessed “a drastic shift from technological and industrial dependence on foreign inputs to a systematic and purposeful buildup of domestic innovation and production capacities by building and leveraging China's domestic demand”.¹³¹

Concurrent with China's policy reorientation was the turbulent transformation of the global Internet. Due to over speculation on Internet based stocks and overcapacity in the related telecommunications sector introduced by the neoliberal deregulation policy, the dot.com bubble

¹²⁸ Ning, “China's Leadership in the World ICT Industry: A Successful Story of Its ‘attracting-in’ and ‘Walking-Out’ strategy for the Development of High-Tech Industries?”

¹²⁹ Barry Naughton, “China's Economic Policy Today: The New State Activism,” *Eurasian Geography and Economics* 52, no. 3 (2011): 313–29.

¹³⁰ Zhao, “China's Pursuits of Indigenous Innovations in Information Technology Developments: Hopes, Follies and Uncertainties.”

¹³¹ Hong, Bar, and An, “Chinese Telecommunications on the Threshold of Convergence: Contexts, Possibilities, and Limitations of Forging a Domestic Demand-Based Growth Model,” 924.

burst in 2001 and plunged the center of global digital capitalism into a digital crisis.¹³² To dig them out of the slump and to look for fresh investment opportunities, transnational capital increasingly turned their sights to the newly emergent – and relatively less damaged – Chinese market. As both a manifestation and a propellant of this reorientation, in 2004, Mary Meeker, a former Morgan Stanley Internet analyst once dubbed “Queen of the Net,” for the first time, published a 217-page long investment report on the Chinese digital market.¹³³ “It is an irony that a few years ago some folks thought the Internet was over,” said Meeker, “well, it has just started, and it is not all made in America.”¹³⁴

Probably as a result of all these domestic and global trends, China’s digital industry in the 2000s presented some unique attributes in terms of its relationship with the international Internet. On the one hand, along with the WTO process and the rise and fall of the Internet bubble in the early 2000s, there was growing interpenetration between Chinese Internet capital and transnational capital. On the other hand, the developmental and nationalistic agenda of the state, under the Hu-Wen leadership, also exerted substantial influence over this increasingly interconnected relationship. In sum, the 2000s witnessed a growing contradictory relationship between China and the global Internet, across the three industrial subsectors.

As discussed above, during the majority of the 1990s, the Chinese network manufacturing sector remained largely open for transnational companies, which resulted in a high degree of foreign domination and technological dependence. This situation started to change at the end of the 1990s. Realizing both the pitfalls of its early FDI-driven developmental

¹³² Crain, “Financial Markets and Online Advertising: Reevaluating the Dotcom Investment Bubble”.

¹³³ Geoffrey A. Fowler and Susanne Craig, “Meeker Opines on China,” *The Wall Street Journal*, April 16, 2004, <http://www.wsj.com/articles/SB108205207415283875>.

¹³⁴ Ibid.

model and probably also in preparation for the anticipated fierce competition along with the WTO deal, the state initiated a series of import substitution policies, including setting up research funds, offered policy loans and strategically leveraging the procurement power of its network operators.¹³⁵ A group of competitive domestic players started to emerge and to expand their reach overseas.

One highly visible example of this policy reorientation was China's efforts in developing its "indigenous innovation," in particular native technical standards, across a wide range of different network systems, including the "third generation" (3G) mobile communication standard TD-SCDMA, wireless local area network (WLAN) standard WAPI and Internet Protocol (IP) version 9.¹³⁶ Technical standards are important for both political and economic reasons. Politically, they influence the design of the backbone of the Internet and therefore bear national security implications. Economically, because of the economies of scale of the Internet, proprietary network standards, once become "de facto," will both generate considerable royalties and help related equipment makers gain future market share.¹³⁷

Commanding the procurement power of its network operators through tight ownership control, the state was able to use various policy mechanisms to support its preferred homegrown standards, with a hope to upgrade its native equipment industry. For example, in order to give a significant commercial boost to its indigenous 3G standard TD-SCDMA (Time Division

¹³⁵ Hong, Bar, and An, "Chinese Telecommunications on the Threshold of Convergence: Contexts, Possibilities, and Limitations of Forging a Domestic Demand-Based Growth Model".

¹³⁶ Zhao, "China's Pursuits of Indigenous Innovations in Information Technology Developments: Hopes, Follies and Uncertainties."

¹³⁷ Scott Kennedy, "The Political Economy of Standards Coalitions: Explaining China's Involvement in High-Tech Standards Wars," *Asia Policy* 2, no. 1 (2006): 41–62; Richard P. Suttmeier, Xiangkui Yao, and Zixiang Tan, "Standards of Power? Technology, Institutions, and Politics in the Development of China's National Standards Strategy," *Geopolitics, History, and International Relations* 1, no. 1 (2009): 46–84.

Synchronous Code Division Multiple Access), the Chinese state postponed the country's 3G adoption to 2008, reorganized its operating sector and ordered its most powerful mobile operator, China Mobile, to build a TD-SCDMA network.¹³⁸ At the same time, it is also worth noting that despite its weak global performance, TD-SCDMA was designed not as a national standard, but as an *international* standard, and the state actively promoted its deployment in other countries. For example, in 2006, the high-level National Development and Reform Committee (NDRC) successfully signed a memorandum of understanding with South Korea's SK Telecom to build trial TD networks in Korea's Bundang.¹³⁹ Indeed, Zhao Houlin, the first Chinese Secretary-General of ITU was once quoted saying that "promoting TD in only the domestic market is not enough to succeed, it must expand overseas".¹⁴⁰

In parallel with its efforts to help domestic firms build up production capacity based on domestic market, the state also started to offer significant help for its equipment makers to go out. For example, in 2004 and 2009, Huawei were granted a \$10 billion and a \$30 billion line of credit by China's Development Bank, respectively. ZTE, in 2009 alone, received \$10 billion credit line from China Exim bank and \$15 billion from China's Development Bank. In 2012, the latter increased ZTE's credit line to \$20 billion.¹⁴¹

By the end of 2000s, China's equipment makers started to gain a visible presence on the global stage. Lenovo's 2005 purchase of IBM's PC business constituted probably the most

¹³⁸ Ailan Zhan and Zixiang Tan, "Standardisation and Innovation in China: TD-SCDMA Standard as a Case," *International Journal of Technology Management* 51, no. 2 (2010): 453–68.

¹³⁹ "China's 3G standard in Korea," *China Daily*, September 4, 2006, http://www.chinadaily.com.cn/business/2006-09/04/content_680865.htm.

¹⁴⁰ Kirby Chien, "China 3G Standard Needs Overseas Markets to Succeed," *Reuters*, September 18, 2009, <http://www.reuters.com/article/telecom-china-3g-idINPEK30004920090918>.

¹⁴¹ Zhao Hejuan 赵何娟 and Zhang Yuzhe 张宇哲, "Dianxin zhan feizhou," 电信战非洲 [The Chinese telecommunications war in Africa], *Caixin New Century* 财新《新世纪》, January 16, 2012, <http://magazine.caixin.com/2012-01-13/100348416.html>.

visible example. Huawei and ZET, the two domestic champions and the forerunners of this outbound tactic achieved considerable success. In 2008, the Huawei's overseas sales reached 75 percent of its total revenue while that of ZTE's reached 60 percent.¹⁴² The growing weight of the overseas market in their profit strategies, however, also pushed these firms to – in some cases – readjust their relationship with the Chinese state. For example, due to the dominance of non-Chinese standards in the global 3G market, both Huawei and ZTE showed limited support for the government-backed TD-SCDMA standard, given its restricted adoption in the international mobile market.¹⁴³ By pushing its domestic gear makers to “go global,” therefore, the Chinese state has also weakened – to a certain extent – its capacity in coordinating nationalistic and developmental projects.

Compared with liberalized equipment manufacturing sector, throughout the 2000s, China's network operators – through a series of industrial reshuffles and complex institutional setups – remained in the hands of the central state, despite China's WTO commitment to allow up to 49 percent foreign ownership in this strategic sector. This process, however, was accompanied by the deep integration of these operators into the global stock market, which resulted in an unusually high degree of foreign involvement.

On the one hand, the Hu-Wen administration, through the dual institutional setup of the State-Owned Asset Supervision and Administration Commission (SASAC) in 2003 and the Ministry of Information and Industry Technology (MIIT) in 2008, strengthened both its ownership control and regulatory power over its domestic network operators. The repeated restructuring of China's telecom sector and management rotations demonstrated this state power.

¹⁴² Hong, Bar, and An, “Chinese Telecommunications on the Threshold of Convergence: Contexts, Possibilities, and Limitations of Forging a Domestic Demand-Based Growth Model.”

¹⁴³ Ibid.

For example, in 2004, all the top leaders of China Telecom, China Mobile and China Unicom switched their positions overnight, per requested by the state.¹⁴⁴

On the other hand, this strengthened role of the state in China's network operating sector should not be mistaken as an indication of a complete "nationalization" of China's network infrastructure. What was concurrent with the enlarged state power was a further and strategic integration of this sector into the global digital economy. As aforementioned, at the eve of China's WTO accession, China officially banned the CCF businesses and forced foreign companies to divest their early investment in China Unicom, largely in preparation for the company's upcoming IPO. Indeed, to absorb foreign capital and to cultivate a group of global competitive players in face of the upcoming WTO, China actually allowed all its state-owned operators to list – at least part of – their assets on foreign stock exchanges to generate capital inflows. It is reported that by the end of 2004, all of the four carriers at the time – China Telecom, China Mobile, China Unicom and China Netcom – were listed overseas.¹⁴⁵

This "plugging" of these network operators into transnational financial networks had two major implications. On the one hand, as Dariusz Wojcik and James Camilleri have shown, since the listing process itself heavily relied on global business services firms as auditors, legal advisors and IPO underwriters, it also resulted in an extremely high degree of involvement of transnational financial institutions – including investment banks such as Goldman Sachs and law and accountant firms like Linklaters & Paines – into the financial design and corporate

¹⁴⁴ "China's State-Run Telecom Firms Announce Management Reshuffles," *The Wall Street Journal*, November 2, 2004, <http://www.wsj.com/articles/SB109938485426762099>.

¹⁴⁵ Zhang, *Great Leap Forward*, 273.

restructuring of China's network operating sector.¹⁴⁶ On the other hand, enmeshed deeply into the structure of transnational stock market, China's carriers were no longer merely defined by state orders or domestic market conditions; they were also subjected to the pressure of international capital markets. Moreover, Riding the tide of the "going-out" policy, Chinese carriers also started to expand their reach overseas. In 2007, China Mobile completed its first successful overseas acquisition, purchasing 88.86 percent of Paktel, the fifth largest mobile operator in Pakistan, through Luxembourg-based Milicom.¹⁴⁷ In sum, in the 2000s, despite their status as state-owned, Chinese network operators deepened their integration with the external digital market both through intensive interactions with transnational financial institutions as well as their growing global footprint.

As with the situation in the equipment manufacturing and network operating sectors, China's web services and applications sector experienced similar contradictions in its relationship with the state and transnational digital capitalism. As aforementioned, during the WTO negotiation, China promised to open up a good portion of its web market for foreign players to enter. Admittedly, this period witnessed a few foreign Internet firms localizing their service in China. For instance, Yahoo opened Yisou.com for Chinese language search and Google launched its Chinese service in 2005. In practice, however, a license was still required for any web company that wanted to operate in the Chinese market. This was a particularly

¹⁴⁶ Dariusz Wojcik and James Camilleri, "'Capitalist Tools in Socialist Hands'? China Mobile in Global Financial Networks," *Transactions of the Institute of British Geographers* 40, no. 4 (2015): 464–78.

¹⁴⁷ Llaina Jonas and Jeffrey Goldfarb, "China Mobile to buy Paktel in first overseas deal," *Reuters*, January 22, 2007, <http://www.reuters.com/article/paktel-chinamobile-idUSL2278866820070122>.

troublesome process for foreign companies. It is reported that until 2008, the state had granted 22,000 operating licenses but only 7 of them were granted to foreign invested companies.¹⁴⁸

This does not mean, however, that China closed its web applications sector to transnational capital. The aforementioned VIE structure, as one of the founding blocks of China's web sector, was still allowed and indeed was prevalent in China's quickly growing digital market. In other words, although the state controlled China's domestic Internet through various regulatory measures, it exhibited an unusually high degree of tolerance toward foreign capital *as portfolio* investment. For example, Baidu, Tencent and Alibaba – the three most powerful domestic Internet companies, the BATs – were all founded in the late 1990s and early 2000s based on the VIE model and were jump-started by transnational capital: Tencent in 1998 with \$2.2 million from Hong Kong's PCCW and Boston-based IDG, Baidu in 2000 with \$1.2 million from Silicon Valley-based venture capital firms Integrity Partners and Peninsula Capital, and Alibaba with \$5 million from a Goldman Sacks-led foreign investment team. According to an estimate, as of April 2011, 42 percent of Chinese Internet application companies listed in the US have used this structure and thousands of unlisted companies continue to operate through it.¹⁴⁹

Moreover, probably both encouraged by the acquiescence of Chinese authorities and propelled by the continuing development and restructuring of the digital capitalism in the West, foreign investors didn't stop after the seed round of fundraising; they kept rushing in. Along with their enormous capital contribution, some even took controlling stakes – as well as corporate

¹⁴⁸ Shen, "Deconstructing the Myth of Alipay Drama – Repoliticizing Foreign Investment in the Telecommunications Sector in China," 930.

¹⁴⁹ Kathrin Hille, "Foreign Internet Presence in China to Face Scrutiny," *Financial Times*, September 1, 2011, <https://www.ft.com/content/7f8645e2-d493-11e0-a42b-00144feab49a>.

board membership – in some largest Chinese web conglomerates. In other words, the corporate nationality of these firms started to become a vexing issue. For example, it is reported that due to their early capital contribution, in 2013, foreign investors controlled some major shares of the BATs: South African company Naspers controlled 34% of Tencent, US investment firm DFJ Venture Capital controlled 25.8% of Baidu and Softbank of Japan owned 31.9% of Alibaba.¹⁵⁰

It is worth noting that the state was well aware of this aggressive penetration of foreign capital into its web market. Different government entities – for example, both the Ministry of Commerce and the State Administration of Foreign Exchange – had issued related documents, trying to put the VIE structure under their own regulatory territory.¹⁵¹ The central government, in contrast, deployed few resources to support these efforts and in general turned a blind eye to these FDI activities at this moment. After all, the web sector – at least in the majority of the 2000s – presented little concerns in terms of national security or strategic economic considerations for the central government.

Concurrent with the continuing infiltration of foreign capital into the Chinese digital market, China's web services and application providers also set their sights overseas, along with the state's "going out" initiative. On the one hand, partly pushed by their early investors' need to cash out, the mid-2000s witnessed an "overseas IPO tide of Chinese Internet firms" – a group of major homegrown companies, including Baidu, Tencent, Alibaba's Business-to-Business sector, Shanda, 51job and eLong, all pushed their way into international stock markets in Hong Kong

¹⁵⁰ "Baidu/Tencent/Alibaba/Renren de zhenzheng dalaoban shishui?" 百度/腾讯/阿里巴巴/人人网的真正大老板是谁? [Who're the real big bosses behind Baidu/Tencent/Alibaba/Renren], http://big5.gmw.cn/g2b/IT.gmw.cn/2013-11/05/content_9394755.htm.

¹⁵¹ Xie, "Who created the VIE panic".

and the US.¹⁵² On the other hand, they also started expanding their reach to foreign markets. For example, in 2007, Baidu opened its first international search service in Japan, with a partnership with Japanese e-commerce giant Rakuten. In 2008, e-commerce company Alibaba also entered Japanese market by founding a joint venture, Alibaba Japan, with SoftBank. In 2009, Tencent launched its English language portal IMQQ.com.¹⁵³ These overseas activities, however, remained both limited in scope and exploratory in nature at this stage, as will be discussed in Chapter 3.

By the end of the 2000s, the Chinese Internet has grown by great leaps and bounds, making it the largest online user base in the world. On the one hand, the WTO deal at the end of 2001 has indeed opened up China's digital market to a greater extent, which in turn prompted a wave of outward expansion of its homegrown Internet companies. On the other hand, recognizing China's marginal position in the global Internet ecosystem as well as many pitfalls of its outward-looking development trajectory in the 1980s and 1990s, the Hu-Wen leadership redirected China's information policy toward nationalistic indigenous innovation and domestic market consumption, using varying policy measures (e.g., licensing and ownership control) to exercise regulatory power over its domestic network. The Chinese Internet industry, across all its three subsectors, demonstrated a growing but also contradictory entanglement with transnational digital capitalism.

¹⁵² China Internet Network Information Center (CNNIC), "2004 niandu zhongguo hulianwang fazhan dashiji," 2004 年度中国互联网发展大事记 [Major events in Internet development in China, 2004], <http://tech.sina.com.cn/i/2005-07-19/1142667022.shtml>.

¹⁵³ Ibid.

Post-2010s: “Internet Plus,” “One Belt One Road,” and a “Strong” Internet Nation

China’s growing interpenetration with the global Internet stands out at a time when China and the Internet have constituted two of today’s “unsurpassed poles of growth” during a prolonged “digital depression”.¹⁵⁴ Despite recent slowdowns, China has maintained a relatively stable GDP growth rate during the economic turmoil. It has also accelerated the process of global economic power projection. It is reported that during the financial crisis, China’s outward FDI increased 110 percent, from \$26 billion in 2007 to \$55 billion in 2008.¹⁵⁵

Meanwhile, the Internet has become the “dragonhead” of China’s economy, which can be observed across all the three industrial segments. In 2011, state-owned China Mobile became the world’s largest mobile operator. Huawei also replaced Ericsson and topped the global telecom equipment sector in 2012. In the web services and applications sector, the massive \$25 billion IPO of Alibaba constituted the highest-profile episode of the global rise of the Chinese Internet. It seems like China has indeed become a “big” player in global cyberspace.

However, this seeming rise needs careful qualification. In spite of strong state intervention in the 2000s and the rise of a group of powerful Internet companies, the joint strategies of “attracting in” and “going out” have yet “not made China the real leader of the global ICT industry,” as its production networks are still largely controlled by foreign enterprises.¹⁵⁶ The former US intelligence contractor Edward Snowden’s revelations of the US National Security Agency (NSA)’s massive digital surveillance in 2013, on the other hand,

¹⁵⁴ Schiller, *Digital Depression*, 231.

¹⁵⁵ Nargiza Salidjanova, *Going out: An Overview of China’s Outward Foreign Direct Investment* (Washington: US-China Economic and Security Review Commission, 2011).

¹⁵⁶ Ning, “China’s Leadership in the World ICT Industry: A Successful Story of Its ‘attracting-in’ and ‘Walking-Out’ strategy for the Development of High-Tech Industries?”, 87.

intensified China's long-standing concerns over its technological dependence on foreign companies.

Recognizing both China's strength and – probably more significantly – its vulnerability in the post-Snowden and post-crisis global Internet, the newly inaugurated Xi Jinping-Li Keqiang administration pushed “strong Internet power” into the policy foreground, calling the nation to transform from a “big Internet country” to a “strong Internet power”.¹⁵⁷ Still unfolding, China's efforts of turning itself into a globally competitive cyber force has become more integrated under the new leadership, based on a two-pronged approach: maintaining a firm political stance on Internet security issues, while engaging in proactive and accelerated digital market integration.

On the one hand, probably in response both to the Snowden revelation and escalating accusations of cyber espionage activities levelled by the United States, China has put a greater emphasis on the issues of Internet security. In 2014, Xi renamed the long-standing State Informatization Leading Group under previous administrations to the “Central Internet Security and Informatization Leading Group,” raising the issue of Internet security on the same level of importance as informatization. He claimed that “Internet security” and “informatization” are “two wings of a bird and two wheels of an engine”.¹⁵⁸ Since then, a series of cyber security-related laws or regulations were in formulation, including a National Security Law passed in

¹⁵⁷ Xinhua News Agency, “Xi Jinping: Ba woguo cong wangluodaguo jianshe chengwei wangluoqianguo,” 习近平:把我国从网络大国建设成为网络强国 [Xi Jinping: To transform China from a “big Internet country” to a “Strong Internet power”], *Xinhua Net*, February 27, 2014, http://news.xinhuanet.com/politics/2014-02/27/c_119538788.htm.

¹⁵⁸ Xinhua News Agency, “Xi heads Internet security group,” *Xinhua Net*, February 27, 2014, http://news.xinhuanet.com/english/china/2014-02/27/c_133148418.htm.

2015 and a Cybersecurity Law passed in 2016, which shared the same aim to make China's network equipment “secure and controllable”.¹⁵⁹

On the other hand, the government has also progressively pushed a new round of economic reform and global market integration – spearheaded by and organized around the Internet sector – through two hallmark policies: “Internet Plus” and “One Belt One Road”. The “Internet Plus” policy, unveiled by Premier Li in 2015, plans to deepen links between the Internet and almost all sectors of the Chinese economy and deregulates many previous highly restricted industrial sectors for China’s Internet capital to enter.¹⁶⁰ The “One Belt, One Road” strategy, proposed by President Xi in 2013, has a grand aim to build up the geopolitical-economic “Silk Road Economic Belt” (SREB) and the “21st Century Maritime Silk Road” (MSR), connecting China to major Eurasian countries through infrastructure building, especially the Internet infrastructure.¹⁶¹ For example, the plan’s “Vision and Actions” specifically called to “create an information Silk Road linking regional information and communication technology networks”.¹⁶² In the name of building “an informational Silk Road,” China’s domestic Internet companies have been deeply integrated into the country’s geopolitical strategy.

China’s effort of constructing a “strong Internet nation” has therefore manifested itself in these seemingly contradictory but also interrelated policy initiatives – strengthening the country’s network security capacity by making its Internet system “safe and controllable” while

¹⁵⁹ Eva Dou, “Untangling China’s Cybersecurity Laws,” *The Wall Street Journal*, June 3, 2016, <http://blogs.wsj.com/chinarealtime/2016/06/03/untangling-chinas-cybersecurity-laws>.

¹⁶⁰ Xinhua News Agency, “China Unveils ‘Internet Plus’ action plan to fuel growth,” *Xinhua Net*, July 4, 2015, http://news.xinhuanet.com/english/2015-07/04/c_134381498.htm.

¹⁶¹ Xinhua News Agency, “Chronology of China’s Belt and Road Initiative,” *Xinhua Net*, March 28, 2015, http://news.xinhuanet.com/english/2015-03/28/c_134105435.htm.

¹⁶² National Development and Reform Commission, Ministry of Foreign Affairs and Ministry of Commerce, “Vision and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road,” March 2015, http://en.ndrc.gov.cn/newsrelease/201503/t20150330_669367.html.

simultaneously pushing its Internet companies to expand overseas. The territorial logic of the state, however, is not always in line with the expansive logic of China's Internet capital.

As mentioned previously, riding the wave of the “going out” strategy, by the end of the 2000s, China's equipment vendors have already become global players with internationally diversified revenue streams. The state's new emphasis on market expansion and Internet security in the 2010s have both reinforced this trend by further pushing forward these companies' overseas expansion, while also created conflict zones in their profit strategies.

On the one hand, as the pioneers of the “going-out” of China's Internet sector, Chinese equipment makers have been assigned a new role in the “Belt and Road” initiative. In 2015, the State Council released the “Guideline on Boosting International Cooperation in Production Capacity and Equipment Manufacturing,” urging domestic network equipment companies to collaborate with telecom operators in building overseas information networks and data centers.¹⁶³ Substantive policy support, such as export credit and diplomatic aid, was soon carried out. For example, in 2015, China Development Bank and Industrial and Commercial Bank of China issued a total of \$2.5 billion credit line to Bharti Airtel, the largest telecom operator in India, for its domestic infrastructure projects. Bharti Airtel then outsourced its network equipment, at least partly, to Huawei and ZTE.¹⁶⁴ Furthermore, the role of equipment vendors in China's “Belt and Road” initiative is more than simply building telecom networks, as networking products essentially constitute the basic infrastructure of contemporary market system. As Zhou Jialiang,

¹⁶³ State Council, “Guowuyuan guanyu tuijin guojichanneng he zhuangbeizhizhaohezuo de zhidaoyijian,” 国务院关于推进国际产能和装备制造合作的指导意见 [Guideline on Boosting International Cooperation in Production Capacity and Equipment Manufacturing], May 16, 2015, http://www.gov.cn/zhengce/content/2015-05/16/content_9771.htm.

¹⁶⁴ Victor Mallet and Lucy Hornby, “India and China sign \$22bn in deals during Modi visit,” *Financial Times*, May 17, 2015, <http://www.ft.com/cms/s/0/88de2eea-fc60-11e4-ae31-00144feabdc0.html#axzz4IfS8Q9OO>.

the General Director of Huawei Bishkek, pointed out in a domestic interview, “One Belt, One Road” will benefit Huawei enormously not only because information network is one of the major targeted areas, but also because many modern infrastructures, such as railways, airports and oil pipelines, all rely on network products to realize system integration.¹⁶⁵

On the other hand, with the growing security concerns over its Internet system after the Snowden revelations, China also enacted a series of cyber security initiatives to reregulate its domestic digital market. Such initiatives, surprisingly, have complicated the alliance between the state and its already globally-oriented equipment vendors. One revealing example came in August 2015, as one of Huawei’s top executives openly questioned the direction of China’s cyber security pact, worrying that it would intensify the political tensions among different countries.¹⁶⁶ In 2016, when Microsoft was investigated in China for its sales and marketing practices and after Huawei was shut out of the US market due to cybersecurity reasons, the two collaborated in creating a “buyer’s guide” for big government and corporate users to ease their worries over cybersecurity threats.¹⁶⁷ Indeed, as these Chinese vendors have become more and more internationally oriented, to what extent the state still maintains its regulatory power requires continuing attention.

For network operators, as aforementioned, despite a considerable degree of foreign involvement through corporate reform and overseas listing in the 2000s, China’s three operators

¹⁶⁵ Zhao Yining 赵忆宁, “Yidaiyilu jiangwei Huawei tigong gengda de shichangkongjian,” 一带一路将为华为提供更大的市场空间 [One Belt One Road will open up more market space for Huawei], *21st Century Business Herald* 21 世纪经济报道, May 12, 2015, <http://finance.sina.com.cn/roll/20150512/011922155612.shtml>.

¹⁶⁶ Gerry Shih, “Huawei CEO says Chinese cybersecurity rules could backfire,” *Reuters*, April 21, 2015, <http://www.reuters.com/article/us-huawei-cybersecurity-idUSKBN0NC1G920150421>.

¹⁶⁷ Juro Osawa, “Microsoft, Huawei Join in Cybersecurity Message,” *The Wall Street Journal*, September 13, 2016, <http://www.wsj.com/articles/microsoft-huawei-join-in-cybersecurity-message-1473757469>.

– China Telecom, Mobile, and Unicom – have still remained securely in the hands of the central government. This pattern has been consistent through the first half of the 2010s. It is reported that till 2015, foreign investment accounted less than 10 percent in all three carriers.¹⁶⁸

As state-owned corporate entities, these network operators have been assigned important roles in China’s new efforts to both upgrade its network security capacity and build information infrastructure connecting Eurasian countries. On the one hand, still unfolding, China’s new cybersecurity law is expected to grant more power to its carriers to make the connected devices “safe and controllable,” which might translate into favorable treatment to domestic players.¹⁶⁹ On the other hand, under the banner of the “Belt and Road”, Chinese carriers also shoulder the responsibility to actively build network infrastructure in order to offer both platforms and outlets for other Chinese capital as they go out. In 2015, for instance, China’s three network operators, in collaboration with international partners such as Microsoft and SoftBank, announced that a submarine cable connecting Asia and North America – the New Cross Pacific Cable Network – was under construction. This cable, with a total estimated expenditure of \$500 million, will not only help build information channels that connect countries alongside the “Belt and Road,” but also benefit fiber optic cable makers as they struggle to find new growth opportunities during the prolonged global economic crisis.¹⁷⁰

As internationally listed corporations, however, all the three Chinese carriers are also subject to the stock market pressure – though limited – on a *transnational* scale. This translates

¹⁶⁸ Hsueh, “Nations or Sectors in the Age of Globalization: China’s Policy Toward Foreign Direct Investment in Telecommunications,” 637.

¹⁶⁹ Dou, “Untangling China’s Cybersecurity Laws”.

¹⁷⁰ “Xinkua taipingyang haidi guanglan kaijian,” 新跨太平洋海底光缆开建 [New Cross Pacific Cable Network under construction], *Xinhua Net*, May 30, 2015, http://news.xinhuanet.com/local/2015-05/30/c_127858460.htm.

into the fact that sometimes they have to balance their procurement plans to include not only Chinese players, but also foreign ones. For example, in August 2016, China Mobile announced that it contracted Finnish vendor Nokia to deploy 4G technology in 19 provinces in China's domestic market.¹⁷¹ Their complex relationship with the digital players from the external Internet, therefore, cannot be overlooked.

As will be shown in greater detail in Chapter 3 and 4, unlike the sporadic and unsystematic internationalization activities in the 2000s, Chinese web services and applications providers started to project significant amount of capital in global cyberspace since the 2010s. It is reported that from 2013 to mid-2016, Baidu, Alibaba and Tencent have invested a combined \$75 billion in acquiring strategic assets.¹⁷² Allying themselves closely with the state's "going out" strategy – with an updated version manifested in the newly-minted "One Belt One Road" plan – China's homegrown Internet companies have become increasingly entangled in the global web. The expansive logic of capitalistic accumulation seems to have overlapped with the territorial logic of the Chinese state.

Under the growing national security concerns and with the disproportionate weight exercised by these companies in both China's domestic market and its international strategies, however, the state has also started to flex its regulatory muscle to reorganize these companies' relationship with transnational capital. The aforementioned VIE structure, which channeled a

¹⁷¹ "China Telecom enlists Nokia for 4G expansion," *Telegeography*, August 15, 2016, https://www.telegeography.com/products/commsupdate/articles/2016/08/15/china-telecom-enlists-nokia-for-4g-expansion/?utm_source=CommsUpdate&utm_campaign=7a94b779ab-CommsUpdate+15+August+2016&utm_medium=email&utm_term=0_0688983330-7a94b779ab-8822597.

¹⁷² Bien Perez, "BAT – Baidu, Alibaba and Tencent – lead charge in China mergers and show no sign of slowing down," *South China Morning Post*, April, 8 2016, <http://www.scmp.com/business/companies/article/1934083/bat-baidu-alibaba-and-tencent-lead-charge-china-mergers-and-show>.

large amount of foreign capital into China's web sector, has become a target. In 2015, China's Ministry of Commerce issued a draft Foreign Investment Law, claimed that the "nationality" of an enterprise in the VIE structure would be defined not based on *ownership* structure, but based on who has ultimate *control* over the enterprise. Under this circumstance, companies like Baidu that have adopted structures of dual-class shares, or similar ones like Alibaba's unique "Alibaba Partnership," will remain intact, since the dual-class share structure has given their Chinese executives effective voting power over foreign investors.¹⁷³ For other companies, however, this new Law, once implemented, would have considerable impact, as many foreign investors in the VIE structure would be pressed to render control to their Chinese partners in order to keep their operational licenses in China.¹⁷⁴ Although the specific outcome remains uncertain as of this writing, it has nevertheless demonstrated the state's awareness and efforts to reregulate its web application sector, with results remain to be seen.

In sum, the first half of the 2010s has witnessed a more proactive China rising in the post-Snowden and post-economic crisis global cyberspace, making continuing efforts to renovate itself from a "big Internet country" to a "strong Internet power". These efforts, however, are multifaceted. On one side, the leadership's increased emphasis on Internet security has reflected deep-seated geopolitical-economic tensions around this critical international infrastructure, which can hardly be resolved in the near future. At the same time, China has also clearly taken steps toward accelerating the process of economic opening and global integration both in and via the Internet sector, as the strategic industry has not only become a locomotive of China's

¹⁷³ Gillian Wong and Juro Osawa, "How China's Draft Rules May Affect Foreign Investors," *The Wall Street Journal*, January 28, 2015, <http://www.wsj.com/articles/how-chinas-draft-rules-may-affect-foreign-investors-1422412416>.

¹⁷⁴ Ibid.

economy, but also served as a vital underlying infrastructure of China's interaction with transnational capitalism. After all, apart from the much-highlighted cyber security pact, President Xi also attended the 8th US-China Internet Industry Forum during his 2015 US visit, joining the meeting with a group of Internet elites from both China and the US – including Apple's Tim Cook and Facebook's Mark Zuckerberg.¹⁷⁵ Will the security concerns and heightened tensions over the management of the global Internet reinforce the territorial logic of the Chinese state that has been strong under Xi? Or will the dynamics of transnational capitalist accumulation precede these concerns and push for further economic integration?

Conclusion

Taking a historical approach, this chapter maps out the rise and transformation of China's now large and diversified Internet industry in the past three decades, from its first international email in 1987 to the more recently minted "Internet Plus" and "One Belt One Road" strategies, foregrounding its multifaceted interactions with the political economy of the International Internet. Conceptualizing China's Internet industry as three distinctive but highly interrelated digital segments – hardware and equipment manufacturers, network operators and web services and applications providers, this chapter sets the stage for the dissertation by repositioning the development of this vital sector into the changing dynamics of global digital capitalism.

¹⁷⁵ Liyan Chen, "The \$2.5 Trillion Photo: China's President Xi Jinping Meets with Heads of Apple, Amazon, And More," *Forbes*, September 24, 2015, <http://www.forbes.com/sites/liyanchen/2015/09/24/the-2-5-trillion-photo-chinas-president-xi-jinping-meets-with-heads-of-apple-amazon-and-more/#37decfff2748>.

Tracing this evolution as a complex interplay between the territorial logic of the state and the expansive logic of capitalistic accumulation, this chapter identifies three major historical stages. In the 1990s, driven by the flashing global branding of the Internet as the “information superhighway,” the state’s longstanding nationalistic development agenda to catch up with the technologically advanced West, as well as the market pressure resulted from its capitalist reintegration, China opened up its domestic digital market for transnational capital. Adopting the “trading market for technology” strategy, China jump-started its then infant Internet sector by aggressively deregulating its domestic digital market. Indeed, the initial development of the Chinese Internet spearheaded the country’s post-1989 reintegration into the global capitalist system. In the 2000s, in anticipation of the growing competition along with its WTO accession and realizing the pitfalls of its previous FDI-driven development trajectory in the 1990s, China reregulated its Internet sector with varying degree across three subsectors while simultaneously pushed its Internet champions to go global. The 2008 global economic crisis opened up the third stage. This prolonged “digital depression,”¹⁷⁶ in conjunction with the 2013 Snowden revelation of the massive surveillance program operated by US National Security Agency (NSA), has both intensified the state’s long-standing security concerns over its domestic network infrastructure, which triggered another round of adjustment, and propelled a new wave of market integration centered around China’s now-potent Internet industry.

By bringing to light some overlooked insights and materials, this chapter offers a historical and structural understanding of China’s Internet Industry and its complex interaction with the external Internet. It demonstrates, first, the conventional perception of China's Internet as a "giant cage" is misleading as it overlooks the long and complex interactions between China

¹⁷⁶ Schiller, *Digital Depression*.

and the global Internet political economy. Indeed, transnational capital has been heavily involved in building a digital economy in China, and China's Internet industry is at the pivot of the restructuring of global capitalism. Second, China's increasing interpenetration with the global Internet ecosystem has evolved not only as a political process, but also as an economic one. The state's efforts of developing a coherent cyber strategy have been accompanied with – and complicated by – the intricate interactions between its domestic Internet capital and the changing structure of transnational digital capitalism.

The ascending role of China in global cyberspace therefore gives rise to a number of questions: How has China strived to (re) develop the US-centric international Internet system? What are the flash points of conflict? Is China still mostly marginalized? Or is China beginning to join the existing scheme and try to alter it to suit its own interests? If so, to serve which interests? In other words, if China is indeed exporting its “Internet model” to other countries, what is this “Chinese model”? To answer those questions, first of all, requires a historical understanding of China's evolving approach toward the management of this vital global infrastructure.

CHAPTER 2

BEYOND CYBER SOVEREIGNTY? CHINA AND GLOBAL INTERNET GOVERNANCE¹⁷⁷

While Chapter 1 offers a brief overview of the historical formation and transformation of China's Internet industry by repositioning it within the changing political economy of the global Internet, this chapter goes deeper to explicate an evolving Chinese approach toward the management of this vital infrastructure, an emerging field called "global Internet governance".

Defined broadly, the term "Internet governance" usually refers to "policy and technical coordination issues related to the exchange of information over the Internet".¹⁷⁸ Drawing on a critical political economic perspective, this chapter studies the formulation of global Internet policies as a potentially conflicted process that expresses rival, deep-seated political-economic interests.¹⁷⁹ Indeed, as more human communication moves online and as the Internet intertwines with once-separate media systems, questions about how to govern this unprecedentedly versatile and expansive communication system not only possess widening research significance, they also have acquired a rising political prominence. At the 2012 World Conference on International Telecommunications (WCIT-12), 89 attending countries openly challenged the existing governance scheme and called for placing the Internet under the jurisdiction of a United Nations

¹⁷⁷ This chapter is adopted from Hong Shen, "China and global Internet governance: Toward an alternative analytical framework," *Chinese Journal of Communication* 9, 3 (2016): 304-324.

¹⁷⁸ Laura DeNardis, *Protocol Politics: The Globalization of Internet Governance* (Cambridge: MIT Press, 2009), 14.

¹⁷⁹ Dan Schiller, *Digital Depression: Information Technology and Economic Crisis* (Urbana: University of Illinois Press, 2014).

(UN) affiliate, the International Telecommunication Union (ITU). Struggles over Internet policy escalated to such an extent that some observers cast the situation as a “Digital Cold War”.¹⁸⁰

One of the leading countries in the “ITU camp” is China. How are we to understand China’s position in this vital field? Based on a normative liberal position, many have sought to do so by positing some variant of what we may call a “cyber-sovereignty” framework. Largely concerned with China’s repressive Internet control domestically, this conventional framework foregrounds the role of an authoritarian Chinese state in attempting to govern the international Internet. Confrontation between China and the United States over global cyberspace in turn may be cast in terms of a state-centric model versus a multi-stakeholder model. Multi-stakeholderism, however, is a contentious concept. Milton Mueller argues that although the multi-stakeholder model identifies government, private sector, and civil society as the actors in the decision-making process, it “does not determine how power is distributed among these groups or how much weight they are given in decision-making processes”.¹⁸¹

Despite lending important insight into one aspect of China’s motivation, this “cyber-sovereignty” framework focuses primarily on political control and generally tends to underestimate or oversimplify the multifaceted power dynamics among different business units and state agencies in the construction of China’s unfolding approach. It therefore reduces China’s complex and contradictory position to that of a heavy-handed state motivated to solely elevate governments and intergovernmental organizations as the legitimate governors of the global Internet. This position is then often counterposed to a US-centric policy preference for a

¹⁸⁰ L. Gordon Crovitz, “America’s first big digital defeat,” *The Wall Street Journal*, December 16, 2012. <http://online.wsj.com/news/articles/SB10001424127887323981504578181533577508260>.

¹⁸¹ Milton Mueller, *Networks and States: The Global Politics of Internet Governance, Information Revolution and Global Politics* (Cambridge: MIT Press, 2010), 8.

borderless Internet that should remain as free from government control as possible: for short, Chinese “Internet sovereignty” versus American “Internet freedom”.¹⁸²

This dichotomy, as scholars have argued, obscures more than it reveals about the geopolitics of the Internet.¹⁸³ Recent scholarship on global Internet governance has begun to acknowledge the complexity of China’s approach. In a wide-ranging analysis of how the Global South countries negotiated Internet-related issues at the World Summit on the Information Society (WSIS), Bhuiyan observes deep ambiguities in China’s policy stance – indeed, in some cases, China acquiesced to the US.¹⁸⁴ These recent developments call for a more comprehensive historical and theoretical examination of China’s evolving approach: How may we historically contextualize China’s position toward global Internet governance? What forces have propelled this evolution? Have they changed over time? How have they interacted with one another? Conceding that the “cyber-sovereignty” framework inadequately captures and explains China’s evolving approach, what may be offered in its place?

To shed light on these questions, this chapter draws on historical methods. As with Victor Pickard’s recent studies,¹⁸⁵ two levels of historical examination was conducted by using sources in both the English and Chinese languages. First, I systematically reviewed trade journals, news

¹⁸² Liu Yangyue, “The Rise of China and Global Internet Governance,” *China Media Research* 8, no. 2 (2012): 46–55.

¹⁸³ Dan Schiller, “Geopolitical-Economic Conflict and Network Infrastructures,” *Chinese Journal of Communication* 4, no. 1 (2011): 90–107; Yuezhi Zhao, “China’s Pursuits of Indigenous Innovations in Information Technology Developments: Hopes, Follies and Uncertainties,” *Chinese Journal of Communication* 3, no. 3 (2010): 266–89.

¹⁸⁴ A.J.M.S.A Bhuiyan, *Internet Governance and the Global South: Demand a New Framework* (London: Palgrave Macmillan, 2014).

¹⁸⁵ Victor Pickard, “The Battle over the FCC Blue Book: Determining the Role of Broadcast Media in a Democratic Society, 1945-8,” *Media, Culture & Society* 33, no. 2 (2011): 171–91; Victor Pickard, “Reopening the Postwar Settlement for U.S. Media: The Origins and Implications of the Social Contract between Media, the State, and the Polity,” *Communication, Culture & Critique* 3, no. 2 (2010): 170–89.

articles, and the secondary literature on China's Internet history to trace its engagement with the international Internet. Second, informed by these resources, I located and analyzed relevant primary sources, including government reports, state documents, national statistical compendia, and conference documents issued by both the WSIS and the WCIT-12, focusing on those submitted by the Chinese delegation.

The structure of this chapter is organized as follows. Moving beyond the conventional framework of "cyber sovereignty," the next section proposes an alternative analytical framework to capture the historical transformation of China's approach toward the management of the global Internet. Section Three to Five tests this analytical tool by tracing the frictions and adjustments between China and the existing global Internet governance regime in the past three decades. This history is divided by two landmark events: The first is the WSIS in 2003-2005, which marked the first open confrontation between China and the prevailing Internet governance system in a global policymaking forum.¹⁸⁶ The second is the conflict between China and Google in 2010, which not only produced China's first Internet White Paper in response, but also signaled the eruption of "the geopolitics of the Internet" in public awareness.¹⁸⁷ After a brief overview, each historical section is organized around the three critical Internet governance functions proposed by John Mathiason, Milton Mueller, Hans Klein, and Lee McKnight in their 2004 report for the UN ICT Task Force; these have proven useful to other scholars in analyzing the Chinese situation.¹⁸⁸ The first of these functions is technical standardization, decision-making about the Internet's fundamental "networking protocols, soft application and data formats"; the

¹⁸⁶ Bhuiyan, *Internet Governance and the Global South*.

¹⁸⁷ Dan Schiller and Christian Sandvig, "Google v. China: Principled, brave, or business as usual?" *The Huffington Post*, April 5, 2010, http://www.huffingtonpost.com/dan-schiller/google-v-china-principled_b_524727.html.

¹⁸⁸ Liu, "The Rise of China and Global Internet Governance."

second is resource allocation and assignment, the distribution, coordination, and operation of critical Internet resources such as domain names; and the third is public policy, or “policy formulation, policy enforcement and dispute resolution” for the Internet.¹⁸⁹

China and Global Internet Governance: An Alternative Analytical Framework

Drawing on the theoretical framework of the critical political economy of communication,¹⁹⁰ this chapter proposes an alternative analytical framework to better capture the multifaceted dimensions of China’s changing approach toward global Internet governance. The critical political economy approach to media policies aims to “ruthlessly scrutinize these policies, expose their contingencies and contradictions” and “emphasize the power structures that produce any given media system”.¹⁹¹ Instead of “technologies of freedom,”¹⁹² critical political economy posits network technologies as political-economic constructions and policymaking for communication technologies needs to be situated and analyzed within prevailing social power relations.¹⁹³ This theoretical framework prioritizes the relationship between the development and governance of the Internet and the reconfiguration of global capitalism.¹⁹⁴ As Dan Schiller argued, the escalating geopolitical-economic controversy over Internet governance is a chief

¹⁸⁹ John Mathiason, *Internet Governance: The New Frontier of Global Institutions* (London: Routledge, 2008), 17-18.

¹⁹⁰ Vincent Mosco, *The Political Economy of Communication: 2nd Edition* (New York: SAGE Publications, 2009).

¹⁹¹ Victor Pickard, “Mending the Gaps: Reconnecting Media Policy and Media Studies,” in *Media Studies Future*, ed. Kelly Gates (London: Blackwell Pub., 2013), 404–21, 412.

¹⁹² Ithiel de Sola Pool, *Technologies of Freedom* (Cambridge: Harvard University Press, 1984).

¹⁹³ Herbert Schiller, *Mass Media and American Empire* (New York: Augustus M. Keeley Publishers, 1969); Dallas Walker Smythe, *Dependency Road: Communications, Capitalism, Consciousness, and Canada* (Westport: Praeger Pub Text, 1981).

¹⁹⁴ Robert W. McChesney, *Digital Disconnect: How Capitalism is Turning the Internet against Democracy* (New York: The New Press, 2013).

feature of the wide inter-capitalist struggle to appropriate the strategically vital ICT industry, which is “a rare pole of profitable growth” in today’s capitalist political economy.¹⁹⁵ This conceptualization considers Internet governance a site of not only political control and geopolitical struggle, but also capitalist construction. This perspective is particularly relevant to China. As Yuezhi Zhao reminded us in her study of the China’s recently policy reorientation toward “indigenous innovation,” the evolution of the Internet in China has been shaped by not only the state but also corporate power.¹⁹⁶ Moreover, it is possible that neither the “Chinese state” nor “corporate China” is monolithic, while the growing conflicts and contradictions between different state agencies and various units of capital has been further complicated by China’s accelerated global integration.¹⁹⁷

Drawing on this critical tradition, the chapter seeks a further clarification of the interlocking power relations between capital and the state in shaping China’s strategies to achieve global Internet governance. It argues that China’s approach can be best understood as the result of multifaceted power interactions among a group of power-holders, including different state agencies and business units on a level that is transnational in scope. The chief actors for the state include economic agencies, notably, the Ministry of Industry and Information Technology (MIIT); political and ideological units, including the State Internet Information Office (SIIO); and military departments led by the People's Liberation Army (PLA). On the side of capital, several different actors are prominent. Web application and service providers such as Alibaba, telecom equipment manufacturers such as Huawei, network operators such as China Mobile, and

¹⁹⁵ Schiller, *Digital Depression*, 146.

¹⁹⁶ Zhao, “China’s Pursuits of Indigenous Innovations in Information Technology Developments: Hopes, Follies and Uncertainties.”

¹⁹⁷ Ibid.

major corporate network users are all centrally involved. China's policy formation process also extends beyond national considerations to interact with foreign government agencies, transnational corporations that invest in or trade with China, and organizations with supranational responsibilities.

The alternative model proposed here contributes to the existing literature in three ways. First, it recognizes that both the state and capital have been critical in constructing China's approach, and it breaks down the monolithic category of the "state" and "capital" into different state agencies and business units in order to identify the key power-holders in each category. Second, rather than merely emphasizing one aspect of the complex state-capital relations, it underscores the multifaceted nature of this relationship, which encompasses both conflict and cooperation. Indeed, the territorial logic of the state and the expansionist logic of capital sometimes overlap, but more often than not, are in conflict with each other. The "dialectic of the territorial and capitalistic logics of power,"¹⁹⁸ as David Harvey puts it, is at the center of this proposed model. Third, instead of attempting to identify a mechanical or static formula, the chosen analytical framework situates these interactions both on a transnational level and within a contingent historically unfolding process. This framework permits us to see that China's approach to Internet governance over the past three decades has been shaped and reshaped as a product of these power dynamics (see Figure 2.1).

¹⁹⁸ David Harvey, *Spaces of Global Capitalism: Towards a Theory of Uneven Geographical Development* (London and New York: Verso, 2006), 107.

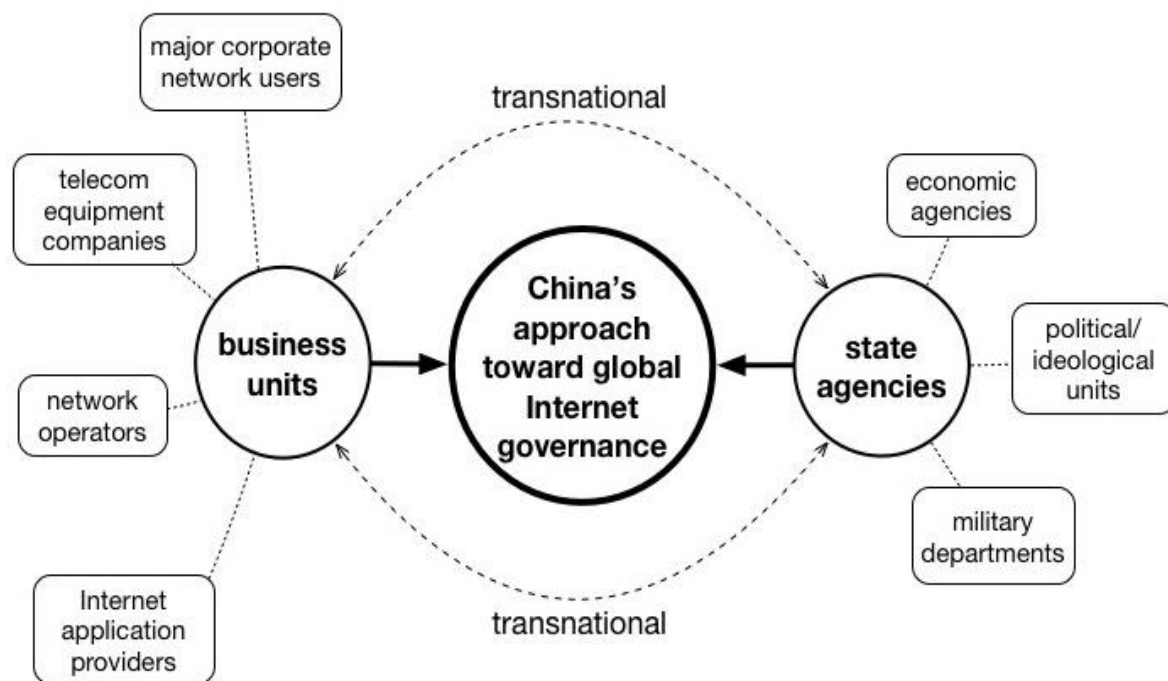


Figure 2.1: An alternative analytical framework for China and global Internet governance.

1987-2001: Early Engagements with Global Internet Governance

As we saw in the previous chapter, since the first international email in 1987, China's interactions with the international Internet were been part and parcel of its reintegration with transnational capitalism. After the leadership accorded to ICTs a critical role in this process, China then claimed for itself a role in the arena of global Internet governance, albeit from a very peripheral position. During this stage, state initiatives were paramount in structuring China's approach.

In the field of technical standardization, among a number of groups involving in the standard setting process, the Internet Engineering Task Force (IETF), is generally considered as

the leading organization in Internet standardization. Started in 1986 and overseen by the Internet Society (ISOC) through the Internet Architecture Board (IAB), the IETF is a private organization for technical experts to discuss and make recommendations on technical standards for the global Internet. Far from an international organization, the IETF is largely dominated by corporate players, especially computer companies, from the United States.¹⁹⁹

Standard setting in the area of information technology is a highly conflict-ridden process *internationally*, for one crucial aim of IT standards is to “make technologies and equipment compatible across companies and regions”.²⁰⁰ There are a couple of reasons for a country to get involved. On the one hand, there are political and national security concerns as Internet standards, once globally established, often constituted the foundation of a country’s network infrastructure. On the other hand, there are also economic reasons. Proprietary technology standards allow their corporate developers to charge royalties for the use of their technologies and thus can be employed to nurture the development of a country’s own IT industry.

In the years between 1987 and 2001, China had a very limited, if not entirely negligible role, in the IETF. Li Xing, a Tsinghua professor and the deputy director of the CERNET Center, recounts that at the 2002 IETF meeting, only around ten Mainland Chinese were present among over 1,000 participants. Before 2007, the IETF did not even keep statistics for Chinese attendees.²⁰¹ Of the 2,206 Requests for Comments (RFCs) – the key documents for the development of Internet standards – published by the IETF from 1987 to 2001, China co-

¹⁹⁹ Mathiason, *Internet Governance*, 36.

²⁰⁰ Dan Breznitz and Michael Murphree, *Run of the Red Queen: Government, Innovation, Globalization, and Economic Growth in China* (New Haven: Yale University Press, 2011), 64.

²⁰¹ “Li Xing: The co-development of the Chinese Internet and IETF in the past 16 years,” *China Education and Research Network*, November 16, 2010, http://www.edu.cn/ietf_10913/20101116/t20101116_539431.shtml.

authored just one: RFC 1922, in 1996, titled “Chinese Character Encoding for Internet Messages.”

²⁰² This indicates, on one side, China’s early awareness of and willingness to enter global Internet governance. On the other side, however, that this was China’s only RFC in that formative stage in global Internet development signifies its then-marginal position.

China faced a similar situation in resource allocation, represented by its initial interaction with the Domain Name System (DNS) and the establishment of the China Network Internet Information Center (CNNIC). Comprising the name space, name registration, and name resolution function, the DNS is the focal point of the Internet. Through the DNS, the Internet has been far more extensively governed than is often recognized.²⁰³

The DNS originated in the United States. In 1998, with the fast commercialization of the Internet, the US Government transferred power over the DNS to the Internet Corporation for Assigned Names and Numbers (ICANN), a private nonprofit organization in California. However, as per a separate Internet Assigned Numbers Authority (IANA) contract, ICANN is formally accountable to the US Commerce Department. As Mueller *et al* have contended, the ICANN model has demonstrated the US government “succeeded in establishing a governance regime dominated by itself and by non-state actors” through “privatizing and internationalizing key policymaking functions but retained considerable authority for itself”.²⁰⁴ In other words, the organizational structure of ICANN is designed to favor the United States and private sectors, with little space for other governments to share its authority. In fact, the only room for

²⁰² China Internet Network Information Center (CNNIC). *The Internet timeline of China 1986-2003*. http://www1.cnnic.cn/IDR/hlwfzdsj/201306/t20130628_40563.htm.

²⁰³ Hans Klein, “Private Governance for Global Communications: Technology, Contracts, and the Internet,” in *The Emergent Global Information Policy Regime*, ed. Sandra Braman (New York: Palgrave Macmillan, 2004), 179–202.

²⁰⁴ Milton Mueller, John Mathiason, and Hans Klein. The Internet and Global Governance: Principles and Norms for a New Regime. *Global Governance*, 13(2), 237-254.

governmental participants in ICANN is the Governmental Advisor Committee (GAC) that is authorized only to "consider and provide advice on the activities of ICANN".²⁰⁵

As a latecomer, China's first engagement with the DNS involved merely the registration of its country code top-level domain name (ccTLD) in 1990. There are two types of Internet top-level domains (TLDs): generic TLDs (gTLDs) such as .com and ccTLDs such as .cn. Werner Zorn, the German professor who directed China's first international email team, also helped China apply for the .cn domain name from the Internet Network Information Center. Since China didn't have full Internet connection at that time, the .cn root server was maintained in German's Karlsruhe University until China fully connected to the global Internet in 1994.²⁰⁶ In 1997, the CNNIC, a state-owned non-profit organization that manages the .cn name system, was established. Since then, domestic domain name registration became "a function of the Chinese state".²⁰⁷

China also made its first forays into ICANN. In 1999, Tsinghua Professor Wu Jianping was elected to ICANN's Address Supporting Organization. The same year, Chen Yin, a deputy bureau director of the Ministry of Information Industry (MII, later MIIT), represented China at the meeting of the ICANN Governmental Advisory Committee (GAC), the official, albeit secondary, space for governmental input into ICANN's activities.²⁰⁸

However, friction between China and ICANN soon arose. One dispute concerned ICANN's acceptance of Taiwan in the GAC as an independent country, challenging China's

²⁰⁵ <https://gacweb.icann.org/display/gacweb/ICANN+Bylaws>.

²⁰⁶ Li Nanjun and Werner Zorn, "An Overview of China's Early Efforts to Connect to the Global Internet," *Xinhua Net*, November 22, 2006, http://news.xinhuanet.com/newmedia/2006-11/21/content_5358804.htm.

²⁰⁷ Monika Ermert and Christopher R. Hughes, "What's in a Name? China and the Domain Name System," in *China and the Internet: Politics of the Digital Leap Forward*, ed. Christopher R. Hughes and Gudrun Wacker (London: Routledge, 2003), 127–38, 133.

²⁰⁸ China Internet Network Information Center (CNNIC). *The Internet timeline of China 1986-2003*.

diplomatic stance.²⁰⁹ Another cause of estrangement came after the rapid commercialization of domain names during the first dot-com boom. In 2001, a Virginia court ordered the Hong Kong- and Shanghai-based company Maya to give up its ownership of the CNNNews.com domain name to CNN, despite the name's having been obtained legitimately from an accredited Chinese domain name registrar. As Ermert and Hughes argue, the case was broader than Maya versus CNN, but indicated that anyone who registers a domain name on the global Internet somehow "comes under United States jurisdiction, regardless of whether they go through a Chinese, German or South African ICANN accredited registrar".²¹⁰

Besides its early interactions with the leading organizations in Internet standardization and resource allocation – which, as noted, were headed mainly by state agencies and state-owned research institutions – China also started to formulate its own policy position on global Internet affairs. On the one hand, long-standing bureaucratic conflicts impinged on China's policymaking and the leadership had grown concerned about an outbreak in conflict between rival state agencies that rushed into the profitable area of network operation. Apart from the long-standing turf war between the MPT and MEI – the two competing agencies that carved up China's lucrative telecom market, in 2000, military departments led by PLA, the Ministry of Foreign Trade and Economic Cooperation and the Ministry of Railway all joined this competition.²¹¹ In a move to reorganize the decision-making process, the State Council had established the National Joint Conference on Economic Informatization in 1993; this evolved into the State Council's Steering Committee on National Information Infrastructure, chaired by vice Premier Zhou Jiahua.

²⁰⁹ Rebecca MacKinnon, "China @ ICANN: Thoughts from former CEO Paul Twomey," *RConversation*, July 3, 2009, <http://rconversation.blogs.com/rconversation/2009/07/china-icann-thoughts-from-former-ceo-paul-twomey.html>.

²¹⁰ Ermert and Hughes, "What's in a Name? China and the Domain Name System," 134.

²¹¹ Eric Harwit, *China's Telecommunications Revolution* (Oxford: Oxford University Press, 2008), 84.

In 1998, integrating both the MEI and MPT, the MII was established, and the Steering Committee was absorbed into the newly established ministry.²¹²

On the other hand, it is worth noting that the leadership was well aware of the country's peripheral position in the international Internet system and was already actively seeking ways to boost China's position in this critical front. As early as in 2000, at the 16th World Computer Congress, the then President Jiang Zemin had commented on the digital discrepancy between the developing countries and the developed countries and advocated the formulation of an international Internet convention.²¹³ In the words of Jiang, the world was increasingly divided between the "information rich" and "information poor" – and that, because developed countries enjoyed superior information technology, the continuing diffusion of the Internet was not alleviating this.²¹⁴

This concern – probably not ungrounded, as shown in the previous Chapter – tinged China's response to even seemingly benign attempts to internationalize Internet access. In 2000, VeriSign, the American company in charge of the .com domain name, announced a plan to start developing technical standards and registering domain names in non-Roman characters, or "internationalized" domain names, on a trial basis. This plan also included the standardization and registration of Chinese-script domain names, potentially an extremely lucrative market. The CNNIC countered with a rival system under the .cn extension. The MII also published the "Circular Concerning Administration of Internet Chinese Character Domain Names," which

²¹² Zixiang Tan, "Regulating China's Internet: Convergence toward a Coherent Regulatory Regime," *Telecommunications Policy* 23, no. 3–4 (1999): 261–76.

²¹³ Jiang Zemin, "Speech at the Opening Ceremony of the 16th World Computer Congress," in *On the Development of China's Information Technology Industry*, ed. Jiang Zemin (Oxford: Elsevier, 2010), 257–59.

²¹⁴ *Ibid.*

required any entity intending to enter the Chinese domain name market to get approval from the MII. As Xue observes, for Chinese leaders, keeping a Chinese domain name under China's control was driven not just by political and national security concerns but by such factors as economic consideration, consumer protection and content regulation as well.²¹⁵ And although VeriSign eventually withdrew from the Chinese market, such initiatives, especially the disproportionate power of US corporations in global cyberspace, continued to raise anxieties. Chinese leaders' wariness assumed political form when Wu Jichuan, then MII Minister, declared at the Pacific Telecommunication Conference that the uneven information flow had "challenged" the "cultural traditions, moral standards and values" of developing countries, since the majority of Internet content was in English and produced in developed countries.²¹⁶ These concerns escalated to the point that, in 2001, China stopped sending representatives to the ICANN GAC meeting.

To this point, the Chinese government, represented by state agencies like the CNNIC and state-owned research institutions, was the central actor in shaping China's position toward global Internet governance, with domestic business players largely not evident. The government, however, still did not speak with a single voice: Rival agencies (e.g., the MEI and MPT) competed with one another for influence and control over the both economically lucrative and politically strategic network operation system. And China's position was already complicated by transnational forces: For example, the state's insistence on a Chinese domain name system controlled by China conflicted with the offerings of the US corporation VeriSign. Soon, these

²¹⁵ Xue Hong, "The Voice of China: A Story of Chinese-Character Domain Names," *The Cardozo Journal of International & Comparative Law* 12 (2004): 559–92.

²¹⁶ Ermert and Hughes, "What's in a Name? China and the Domain Name System," 136.

complex interactions between China and a US-centric Internet would be elevated to a global stage.

2002-2009: Selective Participation in the Existing Regime

China's further entry into the global market after its 2001 WTO accession deepened the linkage between its domestic cyber market and the global Internet system. At the same time, as mentioned in Chapter 1, with the Hu-Wen administration taking office, this period also witnessed a restructuring of China's developmental path more toward its domestic market and a particular highlight of "indigenous innovation" in its domestic IT industry. A mixed approach to global Internet governance has therefore started to take shape: China became more outspoken in its critique of the unilateral US control of the DNS but also displayed limited acquiescence to the established governance system.

Behind China's ambivalent position there were complex power dynamics. First, with the growing importance of the Internet in China's political economy and the internal fragmentation of its domestic Internet governance apparatus, the central government continued to consolidate its Internet governing capability. As a successor to the previous informatization committee, the State Informatization Leading Group (SILG) was reestablished and this time was elevated from the vice-Premier level to the Premier level, chaired first by Premier Zhu Rongji, then by Wen Jiabao. In 2008, the industry regulator MII was also upgraded into the Ministry of Industry and Information Technology (MIIT), in order to better coordinate the application of information technology to traditional industry.

Second, more non-governmental or semi-governmental Internet governance organizations also started to take shape and joined the game. For example, the Internet Society of China (ISC) was established in 2001, with more than 400 industrial and academic members, including the most prominent Chinese Internet corporate elites serving on its board – Jack Ma from Alibaba, Pony Ma from Tencent and Robin Li from Baidu. However, it might still be a mistake to regard the ISC as a pure industrial or civil society organization without governmental connections. On the one hand, despite sharing the similar name, it is not associated with the global non-profit Internet Society. On the other hand, the ISC states clearly on its official website that the organization is “guided by the MIIT”.²¹⁷

Finally, this period also witnessed the takeoff of a China-based Internet industry, whose constituents showed pressing interests in participating in this vital field. Apart from an already growing network equipment industry spearheaded by Huawei and ZTE, the state-owned telecommunications sector had undergone a series of radical corporate restructuring, which in 2008 settled into three powerful operators, China Telecom, Unicom and Mobile. Meanwhile, its web application and service sector started to show positive progress. In 2004, for example, under significant foreign financing, the three major homegrown web portals – Sina, Sohu and Netease – reported notable revenue growth and achieved full-year profitability for the first time.²¹⁸ All these developments added further complexity on China’s approach, not only introducing new corporate actors into the game, but also restructuring state’s policy discourse to a both resistant and accommodating tone.

²¹⁷ “About Internet Society of China,” http://www.isc.org.cn/english/About_Us/Introduction.

²¹⁸ China Internet Network Information Center (CNNIC), “2004 niandu zhongguo hulianwang fazhan dashiji,” 2004 年度中国互联网发展大事记 [Major events in Internet development in China, 2004], July 8, 2005, http://www.cnnic.net.cn/gywm/xwzx/rdxw/2005nrd/201207/t20120710_31437.htm.

In the realm of Internet standardization, the CNNIC was still at the forefront, but a small group of corporate actors, such as Huawei, also began to emerge. Although China’s influence within the IETF community remained limited, beginning in 2004, the nation’s RFC publication record accelerated (see Table 2.1).

Table 2.1: RFCs led or participated by China (1996-2009)

Year	Number of RFCs ^a	Leading or participating organizations
1996	1	Tsinghua (1)
2004	1	CNNIC (1)
2006	3	CNNIC (1), Huawei (1), China mobile (1)
2007	2	Tsinghua (1), Huawei (1)
2008	6	Huawei (3), China mobile (2), Tsinghua (1), CNNIC (1)
2009 ^b	6	Huawei (5), China mobile (1), Tsinghua (1)

Source: Cao, “The Current Situation and Suggestions for China’s Participation in the IETF Standardization Work”.

Notes: ^a Some RFCs may have multiple authors; ^b the data is updated till June 30, 2009.

In 2004, in collaboration with the Japan Network Information Center and the Korea Network Information Center, the CNNIC published RFC 3743 – China’s second RFC. China then published three RFCs in 2006, two in 2007, six in 2008 and six by the end of June in 2009, of which four reached the standard track.²¹⁹ It is worth noting that there is still a long way for a RFC to become an official Internet Standard. For one thing, not all RFCs are standard track documents, some may be published as “Informational” or “Experimental”. Moreover, not all standard-track RFCs would reach the level of Internet standards, which often requires different

²¹⁹ Cao Jiguang 曹蓊光, “Woguo canyu IETF biao zhunhua gongzuo xianzhuang ji jianyi,” 我国参与 IETF 标准化工作现状及建议 [The Current Situation and Suggestions for China’s Participation in the IETF Standardization Work], *Tongxin Jishu Yu Biaozhun* 通信技术与标准, no. 6 (2010): 75–80.

rounds of review in the community.²²⁰ Although still just a fraction of the total number of annual RFCs – IETF published 459 RFCs in 2006, 320 in 2007, 290 in 2008 and 286 in 2009²²¹ – this rise testified that China was enlarging its role within the crucial Internet standardization process. As Suttermeier *et al.* note, a complex “neo-techno-nationalism,” in which national interests were pursued through “leveraging opportunities provided by globalization,” became prominent in China’s post-WTO technology strategy.²²² Such an approach necessitated a certain compliance with global norms. Indeed, as the organization that is responsible for the allocation and standardization of Chinese domain names, the CNNIC has been one of the pioneers in pushing native Internet standards into the global arena. Recognizing the necessity to join – rather than to exit – the existing international technology setting apparatus, its former Director Mao Wei once warned, “to set up standards, we need to get into the standard setting process first”.²²³

Besides participating in the IETF, China also vigorously promoted the development and adoption of a number of indigenous technological standards at home. In carrying out these domestic experiments, its growing Internet industry moved to a more prominent position. However, such pointed attempts to introduce indigenous standards drew resistance from different state and business players, both domestic and international. The case of WAPI (Wireless Local Area Network Authentication and Piracy Infrastructure), a native Chinese standard alleged to improve the security weakness of the Wi-Fi standard, was illustrative in this conflict zone. When

²²⁰ “The Internet Standards Process – Revision 3,” *IETF*, https://datatracker.ietf.org/doc/rfc2026/?include_text=1.

²²¹ See http://www.rfc-editor.org/num_rfc_year.html.

²²² Richard P. Suttmeier, Xiangkui Yao, and Zixiang Tan, “Standards of Power? Technology, Institutions, and Politics in the Development of China’s National Standards Strategy,” *Geopolitics, History, and International Relations* 1, no. 1 (2009): 46–84, 3.

²²³ Liu Huitao 刘会涛, “Yong zhongwen dakai wangluozhimen,” 用中文打开网络之门 [Using Chinese to Open the Door of the Internet], *Beijing Youth Daily* 北京青年报, December 27, 2006, http://news.xinhuanet.com/tech/2006-12/27/content_5538749.htm.

the state announced in 2003 its plan to require all wireless devices on the Chinese market to install WAPI, a campaign was organized by foreign governments (e.g., the US government) and transnational companies (e.g., Intel) to oppose this initiative. As Kennedy argues, this “high-tech standard war” occurred not only because of the advanced industrial countries’ uneasiness about China’s rise as a high-tech power and their unwillingness to share their advantage with newcomers, but also because this new standard seriously challenged the vested economic interest of a powerful coalition of transnational companies and their Chinese partners.²²⁴ And as Zhao points out, battling interests among domestic state agencies and business players also fractured the state’s agenda.²²⁵ The promotion of WAPI was more in line with the interests of the state’s military and national security division (e.g., the PLA) than those of its commerce and trade division – which sports close ties with transnational political-economic forces. Moreover, because the standard was developed and owned by a small inland firm, Jietong (IWNCOMM), who has a reportedly military connection, those well-established heavyweights like Huawei and ZTE showed little interest in supporting it. When China tried to push WAPI internationally, it faced additional geopolitical pressure. In 2004, the US embassy denied visas to some important technical members of China’s delegation seeking to attend the Joint Technical Committee, Subcommittee 6, of the International Organization for Standardization and the International Electrochemical Commission (ISO/IEC JTC1 S6) in Florida, preventing them from joining the discussion of WAPI as an international standard. In 2005, the WAPI application was moved off the agenda of a follow-up meeting of ISO/IEC JTC1 S6, triggering a walkout protest by the

²²⁴ Scott Kennedy, “The Political Economy of Standards Coalitions: Explaining China’s Involvement in High-Tech Standards Wars,” *Asia Policy* 2, no. 1 (2006): 41–62.

²²⁵ Zhao, “China’s Pursuits of Indigenous Innovations in Information Technology Developments: Hopes, Follies and Uncertainties.”

Chinese delegation.²²⁶ As a visible and complex example, it indicated China's increasing efforts to gain more power within the Internet standardization community and the resistance – both inside and outside of China – this stance engendered.

In the realm of resource allocation, this period witnessed estrangement between the Chinese state and the process of Internet governance, as the state not only stopped attending the ICANN GAC meeting, but also developed a series of domestic initiatives to boost its own control over the governance of Internet resources. During this period, however, different governmental and quasi-governmental organizations of China remained active in their interaction with the existing system.

Internet resources like domain names constitute the backbone of the internationally interconnected network system and therefore bear critical importance for the states. Two highly visible examples uncovered China's ambition to gain more control over Internet resource allocation: the progressive development of Internet Protocol version 6 (IPv6) and the promotion of the .cn domain name system. Backed by strong concerns over the uneven distribution of Internet resources among developing and developed countries—a situation that was widely framed by the Chinese media as “Stanford University has more internet addresses than China”²²⁷ – the state strenuously advocated the development of a national network backbone around a new Internet Protocol, IPv6. IPv6 claims to have a number of advantages over the current IPv4 protocol, especially its ability to provide for almost unlimited Internet addresses. As Zhao argues,

²²⁶ Jack Linchuan Qiu, “Chinese Techno-Nationalism and Global Wifi Policy,” in *Reorienting Global Communication: Indian and Chinese Media beyond Borders*, ed. Michael Curtin and Hemant Shah (Urbana: University of Illinois Press, 2010), 289–303.

²²⁷ Huang Quanquan and Feng Xiaofang 黄全权 冯晓芳, “IPv9 heyi chengwei hulianwang jishu zhongda chuangxin,” IPv9 何以成为互联网技术重大创新 [Why IPv9 became a major Internet innovation], *Xinhua Net*, January 23, 2008, http://news.xinhuanet.com/newscenter/2008-01/23/content_7482216.htm.

due to America's initial hesitation to promote this new version of Internet Protocol, China's political economic elites saw the development of IPv6 as a "historical opportunity" to leapfrog toward technological leadership of digital networks as well as to rectify the "glaring disparity in the distribution of IP addresses".²²⁸ Starting formally in 2003, a series of state-led initiatives aggressively pushed forward the technological development and commercial application of IPv6 and related products (e.g., Internet routers) in the hope of gaining a growing share of the global network market going forward.²²⁹ In 2006, CERNET2, the core IPv6-based network that linked 25 universities across the country, announced its formal operation. As the world's largest pure IPv6 network, CERNET2 was portrayed in the Chinese media as a landmark of China's impact on the global Internet, with one article even heralding that the "future of the Internet begins to take shape".²³⁰

In addition to the development of IPv6, China also strongly promoted the registration of .cn domain names. This became urgent after the Taiwan earthquake in December 2006, which knocked out a few undersea cables connecting the United States and East Asia. At the time, almost half the domain names in China were registered under .com and relied on US-based servers for Internet connection.²³¹ The earthquake therefore severely disrupted China's domestic Internet operation. In 2007, with support from the MII, the CNNIC announced a plan to reduce the yearly registration price of .cn domain names dramatically – from around 300 Yuan per name to 1 Yuan. In January 2008, the number of .cn domain names soared from 1.8 million to 8.45

²²⁸ Zhao, "China's Pursuits of Indigenous Innovations in Information Technology Developments: Hopes, Follies and Uncertainties," 279.

²²⁹ DeNardis, *Protocol Politics*, 109.

²³⁰ Li Weitao, "Future of the Internet Begins to Take Shape," *China Daily*, September 25, 2006, http://www.chinadaily.com.cn/china/2006-09/25/content_695792.htm.

²³¹ Nicholas Ning, ".cn Domain Name Costs 1 Yuan," *Shanghai Daily*, March 8, 2007 http://www.chinadaily.com.cn/bizchina/2007-03/08/content_822992.htm.

million, which made .cn the second largest ccTLD in the world, only after Germany's national domain name .de.²³² In July 22, 2008, the number of .cn domain further increased to 12.2 million and .cn officially became the world's largest ccTLD.²³³ In a statement, the CNNIC declared that the “wider use of the ‘.cn’ service will improve our Internet independency and it's safer for Chinese website operators”.²³⁴

Yet these state-led initiatives revealed only one aspect of China's multifaceted approach. While the Chinese state stopped sending government representatives to the ICANN GAC meeting from 2001 to 2009 and proactively carried out these projects at home, the interaction between ICANN and other actors in the Chinese Internet community continued. In 2003, Qian Hualin, a research fellow of the CAS, was elected to the ICANN Board of Directors to serve a three-year term. The CNNIC and the ISC also jointly hosted ICANN's 2002 meeting in Shanghai.²³⁵ The state's acquiescence to these continuing interactions revealed underlying rival approaches pursued by different agencies in China's strategies.

Accompanying the changes happened in the realm of technical standardization and resource allocation, a public policy position toward global Internet governance also began to cohere around the WSIS. This position was marked by a mixture of resistance and accommodation.

²³² “Woguo CN yuming zhuceliang qunian jizeng liubaiwan,” 我国 CN 域名注册量去年激增六百万 [Our Country's CN Domain Name Registration Increased Six Million Last Year], *Renmin Youdian* 人民邮电报, January 9, 2008, <http://www.cnii.com.cn/20071008/ca444865.htm>.

²³³ China Internet Network Information Center (CNNIC), “Zhongguo guojia dingji yuming .CN fazhan dashiji,” 中国国家顶级域名.CN 发展大事记 [Major events in the development of .CN] https://www.cnnic.net.cn/jczyfw/CNym/cnymcpgg/201207/t20120719_32327.htm.

²³⁴ Ning, “.cn Domain Name Costs 1 Yuan”.

²³⁵ China Internet Network Information Center (CNNIC), *The Internet timeline of China 1986-2003*.

For China, the most pressing issue was unilateral US control over the DNS. During the WSIS, China actively sought to internationalize the governance of the DNS by putting it under an intergovernmental organization like the ITU. China insisted that the governance of the domain name system should be prioritized over other public policy issues pertaining to the Internet. China's argument was that the Internet belongs to the international community – and that critical Internet resources were public resources belonging to the world – and therefore that the DNS should be governed jointly by developing and developed countries through intergovernmental organizations like the United Nations.²³⁶

However, China's position was more complex than a simple forswearing of the existing system and a call to have the UN “take over” the Internet, as some journalists declared.²³⁷ The further integration of China into the global system and the development of an emerging Chinese Internet industry pressed the state to participate in, or to make room for other Chinese entities to participate in, the existing governance institutions, in order to be able to defend and negotiate on their behalf in the current system, as in the case of the upcoming release of the internationalized top-level domain names, which will be discussed shortly. This ambivalence can be found in China's policy discourse, as the Chinese state, to a limited extent, acknowledged the existing multi-stakeholder Internet governance model. In its report to the Working Group on Internet Governance (WGIG), a committee set up to investigate and compose a report on Internet governance during the two phases of the WSIS, China suggested that “sovereign governments and governmental organizations should play leading roles under the United Nations' framework,

²³⁶ “China's comments to the WGIG on draft working papers: Identifying issues for Internet governance,” February 11, 2005, www.wgig.org/docs/Comment-China.doc.

²³⁷ Larry Downes, “Why is the UN Trying to Take over the Internet?” *Forbes*, August 9, 2012, <http://www.forbes.com/sites/larrydownes/2012/08/09/why-the-un-is-trying-to-take-over-the-internet/#5c6d224530f6>.

while guaranteeing broad participation of all the other stakeholders”.²³⁸ This complex stance was also reaffirmed by Hu Qiheng, the Chinese representative at the WGIG. As the President of the ISC, Hu was purported to represent the interests of non-state actors. However, as aforementioned, given the fact that the ISC is not associated with the global non-profit Internet Society but is rather supported by the MII and that Hu herself was once the Vice President of the CAS, her close linkage to the Chinese government cannot be ignored. Those factors jointly complicated Hu’s position. In a domestic interview, Hu pointed out that there were several layers of global Internet governance. While the governance of critical Internet resource needed to be arranged multilaterally based on the equal participation of states, the governance of Internet content and application required an alliance of governments, businesses and civil society organizations.²³⁹

During this stage, China’s approach toward global Internet governance demonstrated considerable ambivalence as nascent domestic business units started to claim a visible presence. For example, both Huawei and ZTE were major sponsors for the WSIS at Tunis. The interests of these Chinese business players, however, were not always in line with the official position of the Chinese government. The WAPI case suggests that, sometimes, vested economic interests could lead domestic companies, in cooperation with foreign governments and transnational businesses, to work against the state’s developmental agenda. The complex interplay between the territorial logic of the state – which prioritizes nationalistic and developmental goals, and the expansive logic of capital – which prioritizes borderless capitalist accumulation, has manifested itself in China’s policy discourse and created significantly complexity.

²³⁸ “China’s comments to the WGIG on draft working papers: Identifying issues for Internet governance.”

²³⁹ Li Baojing 李宝进, “Hulianwang zhili sanchongmen,” 互联网治理三重门[The Triple Gates of Internet governance], *China Education Network* 中国教育网络 7 (2005): 5-6.

2010-Present: Integration and Revision

The close of the new millennium's first decade marked a flashpoint of geopolitical conflict between China and the United States in global cyberspace. In 2010, Google announced its plan to stop censoring results in Mainland China, with the possibility of entirely pulling out of the Chinese market. In supporting Google's position, then-US Secretary of State Hilary Clinton implied that the Chinese government was building a new virtual Berlin wall, which was entirely against the US "Internet freedom" agenda.²⁴⁰ In response, China strongly insisted that it had world's "most active development of the Internet" and the US should stop exercising "information imperialism" over China.²⁴¹ The Chinese State Council also issued a policy White Paper to elaborate on its Internet governance approach for the first time. A more assertive and sophisticated position therefore started to surface, indicating that China's approach toward the global Internet had entered into a new stage.

Concomitant with the surfacing of this new approach has been the emergence of an increasingly powerful domestic Internet industry. In 2014, four out of the ten largest Internet application firms by market capitalization were based in China: Alibaba, Tencent, Baidu, and JD.com.²⁴² Members from this now fully-fledged industry have been actively seeking opportunities to leverage its own position and its access to the state in order to further a preferred vision of global Internet management that will favor their continuing capitalist expansion in the

²⁴⁰ Hillary Rodham Clinton, "Remarks on Internet freedom," January 21, 2010, <http://www.state.gov/secretary/20092013clinton/rm/2010/01/135519.htm>.

²⁴¹ Christopher Bodeen, "China Slams Clinton's Internet Speech: 'Information imperialism,'" *Associated Press*, January 22, 2010.

²⁴² Eva Dou, Juro Osawa and Wayne Ma, "Internet Power Balance Tilts Toward Asia," *The Wall Street Journal*, September 16, 2014, <http://www.wsj.com/articles/internet-power-balance-tilts-toward-asia-1410887497>.

International market. For example, as will be discussed in greater detail in Chapter 5, Tencent's CEO Pony Ma submitted several proposals to the 2013 National People's Congress, asking for high-level state backing for the industry's overseas expansion, including providing preferential financial assistance and offering diplomacy support.²⁴³

On the other hand, with the rising importance of the Internet, the state's governing institutions reshuffled again. In 2011, the State Internet Information Office (SIIO) was established under the State Council Information Office (SCIO), mainly taking responsibility for Internet content regulation. In 2014, the former State Informatization Leading Group chaired by the Premier during the Hu-Wen administration was elevated to the President level and became an organizational apparatus of the Party, the State and the military. Renamed as the "Central Internet Security and Informatization Leading Group" and headed by President Xi Jinping, this new group brought together high-ranking officials from varying ministries, including representatives from economic agencies (e.g., MIIT), political and ideological units (e.g, the Party Propaganda Department) as well as military departments (e.g, the PLA and the Ministry of Public Security). Soon the SIIO was integrated under the Leading Group and restructured as a ministry-level body, the Cyberspace Administration of China (CAC). Directed by Lu Wei, a senior propaganda officer, this new CAC reports directly to Xi and claims to manage a wide range of cyber issues, including content governance, infrastructure building and international Internet affairs. The CAC, therefore, has become the "chief manager" of China's Internet. Other

²⁴³ "Ma Huateng lianghui sanxiang tian," 马化腾两会三项提案 [Pony Ma's three proposals to the National People's congress], *Xinhua Net*, March 5, 2013, http://news.xinhuanet.com/info/2013-03/05/c_132208282.htm.

organizational bodies, such as the CNNIC and ISC all report directly to it.²⁴⁴ This institutional setup, however, is not without rivalries. For example, for several global Internet governance meetings, such as the 2015 Global Conference on Cyberspace, the CAC and the Ministry of Foreign Affairs have sent separate delegations. The consolidation process is expected to keep unfolding.²⁴⁵

The global Internet governance system has also gradually realized and begun to respond to China's growing influence. The Internet standardization community offers a salient example. In 2010, the 79th IETF Meeting was held in Beijing, the first IETF meeting to be held in Mainland China. This could be viewed as a reaction to the fast-growing Chinese community of network technical experts: Of the 1,200 engineers at the meeting, only the United States sent a number greater than China.²⁴⁶ The number of RFCs formulated by Chinese experts also increased. IETF Chair Jari Arkko estimated that with the further development of emerging technical areas like IPv6 and Internet of Things, China would soon be the most prolific RFC contributor after the United States.²⁴⁷

Concurrent with this boost in public engagement, Chinese private players also grew in prominence. In 2010, two experts from Huawei, China's largest telecommunication equipment provider, were appointed as, respectively, Internet Architecture Board (IAB) member and Transport Area Director (AD); this combined to form a strong representation of the homegrown Chinese company at IETF, with two members of the Internet Engineering Steering Group (IESG),

²⁴⁴ Rogier Creemers, "The Pivot in Chinese Cybergovernance: Integrating Internet Control in Xi Jinping's China," *China Perspectives* 4 (2015): 5–13.

²⁴⁵ Ibid.

²⁴⁶ China Internet Network Information Center (CNNIC), "IETF Meeting Held in China for the First Time," November 12, 2010, http://www1.cnnic.cn/IC/Events/201209/t20120917_36224.htm.

²⁴⁷ Jari Arkko, "China," September 19, 2013, <http://www.ietf.org/blog/2013/09/china>.

one IAB member, two ADs, and over 10 working groups chairs in total. By the end of 2010, Huawei had in total submitted 38 RFCs, 85 working group drafts, and 286 active drafts. Covering a wide range of network standards, the company had become one of the fastest-growing standards contributors in the IP field.²⁴⁸ Thus the Chinese private sector, like the Chinese state, was taking on an increasingly active approach to maximize its interests of capitalist expansion in the present regime.

China's reengagement with the ICANN-centric DNS further revealed this proactive and complex position. As Rebecca Mackinnon points out, the key background for this reconnection was the opening up of a new set of gTLDs in addition to the existing ones like .com, and the introduction of internationalized top-level domain names.²⁴⁹ In 2009, for the first time since 2001, the Chinese state sent a deputy divisional director of the MIIT, Cui Shutian, to the ICANN GAC meeting. For China, this meant the possibilities of a Chinese ccTLD representing China in the global Internet system (i.e., zhongguo) and new trademark gTLDs like .alibaba and .taobao. With China's expanding Internet market and the growing power of its private players, it was paramount for the state to speak for their interests during this major reform, during which a considerable quantity of critical Internet resources would be released. Meanwhile, China's active participation in the standardization of Chinese domain names also gave the state a more confident position in the negotiation.

ICANN welcomed China's return by offering China an accelerated process for creating its ccTLDs in the native language. The reason behind this attitude is probably simple: By 2008,

²⁴⁸ Yao Chungge 姚春鸽, "Cong shichang dao biao zhun, Huawei zai IP lingyu fachu qiangzhezhiyin," 从市场到标准, 华为在 IP 领域发出强者之音 [From Market to Standards, Huawei Grows Stronger in the IP Field], *Renmin Youdian* 人民邮电报, November 10, 2010, p.8.

²⁴⁹ MacKinnon, "China @ ICANN: Thoughts from former CEO Paul Twomey."

China has already had the world's largest online population and, as aforementioned, the world's largest ccTLD, the .cn domain name.²⁵⁰ This pure size made the existing global Internet governance institutions to realize that in order to maintain their global legitimacy, they have to engage China within the system. In 2010, ICANN approved the establishment of Chinese ccTLDs, in both simplified and traditional Chinese characters, in an accelerated pace – indeed, less than one year after China's return. Like the .cn system, the new Chinese ccTLDs would be managed by the CNNIC. The expedited approval and allocation of the new Chinese ccTLDs to the CNNIC could be construed as a compromise by ICANN to keep China acquiescent to the existing governance mechanism. Milton Mueller notes that the US government and ICANN appeased antagonistic states like China and Russia, by granting their state ccTLD monopolies “an economically valuable and politically powerful gift in order to keep them happy with the ICANN regime”.²⁵¹ China's re-connection with ICANN, however, did little to alter the existing power structure: The US government, through its contract with ICANN, has retained the power to rename the core, or the “root,” of the global Internet.

Since then, the relationship between China and ICANN has seemed to enter into a period of active cooperation – for example, in 2013, ICANN opened its global engagement office in Beijing and, in 2014, it signed a Memorandum of Understanding with MIIT's research arm to

²⁵⁰ “Zhongguo wangminshu he guojia yumingshu junju shijiedi yi,” 中国网民数和国家域名数均居世界第一 [China has the world's largest online population and the largest ccTLD], *Xinhua Net*, July 24, 2008, http://news.xinhuanet.com/internet/2008-07/24/content_8761186.htm.

²⁵¹ Milton Mueller, “China and Global Internet Governance: A Tiger by the Tail,” in *Access Contested: Security, Identity, and Resistance in Asian Cyberspace*, ed. Ronald Deibert et al. (Cambridge: MIT Press, 2012), 177–94, 184.

enhance its connections with China.²⁵² This reengagement, however, by no means suggested that China had become comprehensively aligned with the current US-centered DNS scheme. Major contention in the international arena continued to expose the entrenched power relations. The Snowden disclosures in 2013 intensified the longstanding concerns about the US spying on the global Internet. In the international community, both German Chancellor Angela Merkel and Brazil President Dilma Rousseff took strong public stands for privacy. Major Internet governance organizations, including ICANN and IETF, also issued a statement, expressing their uneasiness about the growing discontent over the existing Internet governance regime that is dominated by the US. In response to escalating pressure, the US Commerce Department announced its intention to transfer its control over ICANN to the global multi-stakeholder community. A series of regional and international meetings were convened in reaction to these events, or in attempts to explore solutions to this policy transition, including the Brazil-sponsored NETmundial conference in 2014. It seemed that the US-centric global Internet has been, to a certain extent, called into question.

China seemed to keep a relatively low profile in these tumultuous meetings – as Zhao observes, the state sent only a bureau-level, rather than a ministerial-level, representative to NETmundial.²⁵³ State agencies, however, were not the only interactive points between China and ICANN. Private players also increasingly assumed critical positions. One latest indication of this change is the council election of the NETmundial Initiative, a multi-stakeholder global Internet governance platform co-sponsored by ICANN, the Brazilian Internet Steering Committee and the

²⁵² ICANN, “ICANN and CATR Signs Memorandum of Understanding to Enhance Collaboration Between ICANN and Chinese Stakeholders,” June 24, 2014, <https://www.icann.org/resources/press-material/release-2014-06-24-en>.

²⁵³ Yuezhi Zhao, “The BRICS Formation in Reshaping Global Communication: Possibilities and Challenges,” in *Mapping BRICS Media*, ed. Daya Kishan Thussu (New York: Routledge, 2015), 66–86.

World Economic Forum. During its inaugural meeting in June 2015, Alibaba’s founder Jack Ma was elected as one of the five co-chairs of the council, along with four other high-profile figures, including ICANN CEO Fadi Chehade, while CAC director Lu Wei participated as a council member.²⁵⁴ China is now therefore engaging in ICANN’s reform not only through government agencies or quasi-governmental organizations, but also through business actors, much like in the realm of technical standardization.

During this stage, a more assertive Chinese policy position also began to unfold. This new attitude has been manifested both through a key policy document – the Internet White Paper – and an international conference, the WCIT-12. With the growing importance of Chinese cyberspace for the global economy, the state increasingly situated its attempts to rebalance the power structure of the global Internet *within* the existing governance system.

On the one hand, partly as a response to the American cyber-freedom agenda, Internet sovereignty was raised to the top level of China’s policy discourse. The Internet White Paper declared: “Within Chinese territory the Internet is under the jurisdiction of Chinese sovereignty. The Internet sovereignty of China should be respected and protected”.²⁵⁵ At the WCIT-12, the Chinese government, in alliance with other states, proposed to define the Internet as the “international conglomeration of interconnected telecommunication networks” in which sovereign states possess the ultimate power over each “national Internet segment”.²⁵⁶ An extension of this policy discourse was China’s consistent preference for the UN system to take

²⁵⁴ NETmundial Initiative. “São Paulo Communiqué: Inaugural Council Meeting,” June 30, 2015, <https://www.netmundial.org/blog/secretariat/São-paulo-communicé-inaugural-council-meeting>.

²⁵⁵ State Council Information Office (SCIO), “The Internet in China,” *Xinhua Net*, June 8, 2010. http://news.xinhuanet.com/english2010/china/2010-06/08/c_13339232_7.htm.

²⁵⁶ World Conference on International Telecommunications (WCIT), “Document 47-E,” 3-14 December 2012, <http://files.wcitleaks.org/public/S12-WCIT12-C-0047!!MSW-E.pdf>.

the lead in global Internet governance. In the Internet White Paper, China recommended, “the role of the UN should be given full scope in international Internet administration.”²⁵⁷ This is not a surprising position for China to take, since individual nation-states usually have more power in the UN system than in organizations that allow different forms of weighted voting. In addition, China is one of the five permanent members of the UN Security Council. China’s claim to “Internet sovereignty” might have been designed to help the government defend its own questionable Internet censorship within its borders. However, it also served as a stepping-stone for the Chinese state, as a legitimate player in the global communications system, to press for a reconstitution of the US-dominated global Internet.

On the other hand, although the official US policy discourse portrayed the Chinese position as a mere reflex of heavy-handed state domination,²⁵⁸ this was belied by the reality of an increasingly powerful Chinese Internet industry that had introduced important extra-governmental actors into the existing Internet governance structure. This complex development can be observed in both the actual character of China’s engagement with the existing system and the state’s policy discourse. Practically, the state no longer served as the only major Chinese participant in the governance institutions; instead, it appeared to be making increased room for corporate actors, notably Huawei and Alibaba. In policy discourse, the existing governance arrangement was recognized by the Chinese government, as its Internet White Paper went as far as to pronounce that the ideal framework for global Internet governance, especially the administration of the critical Internet resources, be “established on the basis of the current

²⁵⁷ SCIO, “The Internet in China”.

²⁵⁸ Robert M. McDowell, “The U.N. Threat to Internet Freedom,” *The Wall Street Journal*, February 21, 2012, <http://www.wsj.com/articles/SB10001424052970204792404577229074023195322>.

management mode”.²⁵⁹ Similarly, at the WCIT-12, although China, joining Russia and a number of other governments, tried to expand the ITU’s role in Internet governance by adding articles related to “Internet” (e.g., cyber security) to its treaty, the proposal still reaffirmed that “Internet governance shall be effected through the development and application by governments, the private sector and civil society”.²⁶⁰

China’s hosting of the World Internet Conference offers a notable example of this assertive and sophisticated approach. Titled “An interconnected world shared and governed by all,” this annual summit was launched in 2014 and updated in 2015, as a major initiative sponsored by the newly established CAC. It could be viewed as a proactive attempt by the state to enlarge China’s role in a post-Snowden cyberspace and, as a *China Daily* article put it, have “its voice heard”.²⁶¹ What “China’s voice” is, however, needs careful clarification. On the one hand, President Xi, in his 2014 congratulatory message and 2015 keynote speech, continued to propose “an international Internet governance system of multilateralism, democracy and transparency.” On the other hand, the conference itself was far more inclusive than pure “multilateralism”. The attendees comprised not only delegates from state agencies and leaders from key Internet institutions, but also, notably, high-level executives from both domestic and foreign Internet corporations, such as Alibaba’s founder Ma and Facebook Vice President Vaughan Smith. In 2015, a high-level advisory committee was established, with ICANN CEO Chohade and Alibaba’s Ma sharing the chairman position. Li Yuxiao, a professor of Internet governance at Beijing University of Posts and Telecommunications, was quoted in a domestic

²⁵⁹ SCIO, “The Internet in China”.

²⁶⁰ WCIT, “Document 47-E”.

²⁶¹ Zhao Yinan and Cao Jin, “China wants its voice heard in cyberspace,” *China Daily*, November 21, 2014, http://usa.chinadaily.com.cn/business/2014-11/21/content_18951166.htm.

interview to highlight the role of Internet companies in structuring China's approach. For Li, "Chinese Internet-based companies, not only the government, have to take their shared responsibility in developing facilities, operating systems and applications as concrete steps to carry out China's strategy on the Internet".²⁶²

In sum, this third stage witnessed the growing power and presence of China's domestic business players as they increasingly acquired a critical position in China's approach toward global Internet governance. Indeed, the ascent of corporate capital has now become a chief feature of China's Internet power. For example, Huawei emerged as a significant player in Internet standardization, while other companies – such as Alibaba – likewise acquired quickly growing international stature. While the state continued to sharpen its approach toward this crucial geo-political economic terrain, relationships between the state and these substantial units of capital could not be assumed. Will Chinese capital and the Chinese state work as a unity to maximize their shared interests within the US-centric cyberspace? Or, do significant conflict-points characterize the opaque interlock between the state and capital, both domestically and on a transnational level?

Conclusion

In December 2015, China opened its door to launch the second World Internet Conference in Wuzhen, Zhejiang, after its previous one in 2014. This time, President Xi Jinping attended and delivered a keynote speech. The importance of this meeting was thus elevated to the highest level of China's political economy. As a clear indicator of the leadership's effort to build

²⁶² Ibid.

a “strong Internet power” and to shift the terrain of battle on to its home ground, this Wuzhen Summit warrants discussion in some detail.

Attended by some 2,000 participants from over 120 countries and regions – including representatives from states, corporations and organizations, the Wuzhen summit certainly signifies China’s increasing readiness and capability to shift the center of gravity of global cyberspace. It also exposes China’s weaknesses, however. For one thing, the International breadth of this “World Internet Conference” was rather limited. Twenty-one countries sent ministerial level government officials – but not the major Internet powers, including the United States.

The lack of participation of high-level state representatives from major Internet advanced countries – notably, the United States – is hardly a minor issue. It reveals deep geopolitical-economic tensions in this volatile arena, as exemplified in two competing media discourses. On the one side, concerned with China’s repressive Internet censorship practices and its insistence on “respecting the cyber sovereignty and honoring the rights of countries to choose independently cyberspace development path, cyberspace regulation models and Internet public policies,”²⁶³ Western media largely framed the summit as China’s new effort to export its version of the global Internet – or to sell its “filtered and policed Internet model” – to other countries.²⁶⁴ On the other hand, probably not unaware of this resistant international environment, the Chinese side claimed that its aim was to construct a “community of common future in cyberspace,” with

²⁶³ Ministry of Foreign Affairs, “Xi Jinping Attends Opening Ceremony of Second World Internet Conference and Delivers Keynote Speech,” December 16, 2015, http://www.fmprc.gov.cn/mfa_eng/zxxx_662805/t1325603.shtml.

²⁶⁴ Li Yuan, “Will China’s Censorship Spread?” *The Wall Street Journal*, December 16, 2015, <http://www.wsj.com/articles/will-chinas-censorship-spread-1450292176>.

a particular emphasis on building cyber infrastructure to connect developing countries.²⁶⁵ Domestic media headlines thus trumpeted, “Wuzhen summit speaks for the developing nations”.²⁶⁶ Is China the “world’s largest online censor” that is eager to export its “Internet sovereignty model” to other nations, as criticized by the West?²⁶⁷ Or it is the speaker and defender of the developing nations against the American “Information imperialism,” as claimed by Beijing?²⁶⁸

This chapter analyzes and clarifies China’s evolving stance toward the governance of global cyberspace over the past three decades and tests the adequacy of the conventional framework for capturing and interpreting this approach. It argues that the dominant “cyber sovereignty” framework focuses primarily on political control and therefore generally reduces China’s position to that of a heavy-handed authoritarian state motivated to elevate governments and intergovernmental organizations as the sole governors of the global Internet. The historical record demonstrates that China’s approach has been more complex than the conventional framework allows, and that it is both built upon and differentiable from the US-centric, market-oriented Internet governance scheme that predominates today.

In the Internet’s nascency, China participated in the US-dominated governing institutions from a very peripheral position and soon clashed with them. The 2000s witnessed heightened alienation between the Chinese state and the governing mechanisms of the global Internet.

²⁶⁵ Ministry of Foreign Affairs, “Xi Jinping Attends Opening Ceremony of Second World Internet Conference and Delivers Keynote Speech”.

²⁶⁶ Carlos Aquino, “Wuzhen Summit Speaks for the Developing Nations,” *China Daily*, December 18, 2015, http://www.chinadaily.com.cn/opinion/2015-12/18/content_22743887.htm.

²⁶⁷ Hannah Beech, “Xi Jinping, Leader of World’s Largest Online Censor, to Address World Internet Conference,” *Time*, December 9, 2015, <http://time.com/4142305/xi-jinping-china-censorship-world-internet-conference>.

²⁶⁸ Lin Hongyu, “‘Information Imperialism’ and ‘New Berlin Wall,’” *China Daily*, January 29, 2010, http://www.chinadaily.com.cn/opinion/2010-01/29/content_9400604.htm.

Nevertheless, China's efforts to rebalance the system were backed by selective participation in existing governance entities and a series of domestic experiments, and epitomized by its position at the WSIS. After the 2010 battle with Google, China, boasting the world's largest online population and a thriving Internet industry, started to fully integrate into the current system, with a proactive and sophisticated approach of revising it from within.

Based on historical evidence, this chapter argues that, China's policy formation toward global Internet governance is best understood as the product of multifaceted interactions among a group of power-holders, including different state agencies and business units, in both domestic and transnational contexts.

First, as this and other studies²⁶⁹ make clear, competing political and economic interests among different domestic state agencies have significantly influenced China's governing approach; China's effort to centralize its Internet policymaking system may be seen as a result of this intra-state struggle. Second, nationally headquartered business units have also emerged as important players and are using their access to the state to further their own visions of global Internet governance. There is every reason to expect that other Chinese companies are joining Huawei and Alibaba in this respect, as will be discussed in Chapter 3. Third, China's stance is not only influenced by domestic players but also mediated by the multifaceted interactions among state agencies and business units on a transnational level. As the WAPI case illustrates, under certain circumstances, transnational and domestic business players might work together to oppose China's attempts to rebalance the global Internet. It is these multifaceted power dynamics

²⁶⁹ Jun Xia, "Competition and Regulation in China's 3G/4G Mobile Communications Industry—Institutions, Governance, and Telecom SOEs," *Telecommunications Policy* 36, no. 10 (2012): 798–816; Feng Yang and Milton L. Mueller, "Internet Governance in China: A Content Analysis," *Chinese Journal of Communication* 7, no. 4 (2014): 446–65.

– which encompass both conflict and cooperation – among different state and business actors on a transnational scope that constitute an appropriate analytic focus with which to study the unfolding Chinese approach toward global Internet governance.

While it is still too early to make any definite prediction regarding China’s future stance in this critical field, because – as for many fundamental policy questions – China has not yet developed a full-fledged approach, it is probably safe to say that in the near future, China will continue to demonstrate a mixture of resistance and compliance in its strategies. On the one hand, at the 2014 China-US Internet Industry Forum, Lu Wei, China’s Director of the SIIO, openly called for “mutual governance of cyberspace” because of “the deep fusion and high mutual stakes” between the two countries in the Internet industry.²⁷⁰ Indeed, as discussed in Chapter 1, for instance, the intricate but widely adopted business structure VIE has deeply involved US Internet and investment capitals into China’s web applications and services industry. If this is any indication, we must not discount the possibility of a shared policy vision between the US and China in some areas, such as making room for Internet companies based in each country to operate transnationally. On the other hand, this study reminds us that neither can we dismiss the growing conflict between forces within and without China over whose vision should structure the global Internet. As this chapter has demonstrated, different state agencies and business units compete but also cooperate with one other at particular sites and specific historical moments in this volatile and important area. What is certain is that, however the global Internet and its governance may evolve, China – which continues to move from the margins to the center – will be a major force in shaping it.

²⁷⁰ Chen Weihua, “Mutual Governance of Cyberspace Called For,” *China Daily*, December 3, 2014, http://usa.chinadaily.com.cn/epaper/2014-12/03/content_19017163.htm.

CHAPTER 3

TOWARD THE “EXTERNAL” INTERNET: THE “GOING OUT” OF CHINA’S INTERNET INDUSTRY

The world capital market is a highly unequal, deeply stratified field and Chinese transnational corporations are now joining the game. Since the state promulgated its “going out” strategies in the early 2000s, Chinese companies have increasingly looked to expand into global markets. By the end of 2014, 18,500 Chinese corporations had established 29,700 foreign affiliates in 186 countries and regions all over the world.²⁷¹ The World Investment Report released by the United Nations Conference on Trade and Development (UNCTAD) also shows, in 2015, China’s Outward Foreign Direct Investment (OFDI) flow reached 127 billion, ranked 3rd in the world, after the US and Japan. From 2000 to 2015, total Chinese-based outward FDI stock – FDI calculated on a cumulative basis – surged from \$27 billion to \$1,010 billion; ranked 9th, after the US, Germany, UK, Hong Kong SAR (Special Administrative Region),²⁷² France, Switzerland, Japan and Netherlands.²⁷³

With more than \$3 trillion foreign exchange reserve at hand and, indeed, as the “world’s largest capital-surplus economy,” this trend is estimated to continue.²⁷⁴ The UNCTAD predicts that in the next few years, China’s outward FDI will surpass inward FDI, shifting the country’s

²⁷¹ MOFCOM, *2014 Statistical Bulletin of China’s Outward Foreign Direct Investment* (Beijing: Ministry of Commerce, 2015).

²⁷² Due to technical reasons, official FDI statistical agencies such as UNCTAD and MOFCOM continue to treat Hong Kong and Mainland China as separate economic entities after 1997. See, Kevin G. Cai, “Outward Foreign Direct Investment: A Novel Dimension of China’s Integration into the Regional and Global Economy,” *The China Quarterly* 160, no. Dec. (1999): 856–80.

²⁷³ UNCTAD, *World Investment Report 2016*, United Nations, Geneva, http://unctad.org/en/PublicationsLibrary/wir2016_en.pdf.

²⁷⁴ Nargiza Salidjanova, *Going out: An Overview of China’s Outward Foreign Direct Investment* (Washington, DC: US-China Economic and Security Review Commission, 2011).

role from a net FDI recipient to a net FDI supplier.²⁷⁵ Despite this significant growth, it is worth note that China is still a young and recent global investor and its outward FDI magnitude remains small: In 2015 China's outward FDI accounted to 9% in global FDI outflow, while its share in the global FDI stock was only 4%.²⁷⁶

Apart from its quantity, China's outbound FDI landscape is also rapidly evolving. National oil companies used to be at the forefront of this trend. Increasingly, however, the Internet sector has started to gather momentum. An investment report from consulting firm Ernst & Young calculated that from 2010 to 2014, the share of Chinese companies' overseas M&A deals in the technology, media and telecommunication sector has increased from 6% to 21%, while the share of energy and mining dropped from 61% to 16%.²⁷⁷ Recent firm level examples support this observation, as China's three Internet giants – the BATs – all aggressively engaged in the global buying spree. Alibaba, the e-commerce behemoth, announced its plan to invest \$575 million into the Indian online marketplace.²⁷⁸ Baidu, China's search engine company, similarly, confirmed its recent investment in Uber, the US-based taxi sharing company, with some estimate the figure to be around \$600 million.²⁷⁹ It is also reported that by the middle of

²⁷⁵ UNCTAD, *World Investment Report 2015*, United Nations, Geneva, http://unctad.org/en/PublicationsLibrary/wir2015_en.pdf.

²⁷⁶ UNCTAD, *World Investment Report 2016*.

²⁷⁷ Ernst & Young, "Riding the Silk Road: China Sees Outbound Investment Boom," March 2015, [http://www.ey.com/Publication/vwLUAssets/ey-china-outbound-investment-report-en/\\$FILE/ey-china-outbound-investment-report-en.pdf](http://www.ey.com/Publication/vwLUAssets/ey-china-outbound-investment-report-en/$FILE/ey-china-outbound-investment-report-en.pdf).

²⁷⁸ Dhanya Ann Thoppil, "Alibaba to Invest About \$575 Million in Indian Online-Shopping Service, Paytm," *The Wall Street Journal*, January 10, 2015, <http://www.wsj.com/articles/alibaba-to-invest-about-575-million-in-indian-online-shopping-service-paytm-1420879692>.

²⁷⁹ Lulu Yilun Chen, "Baidu Said to Buy Stake in Uber, Boosting App in China," *Bloomberg*, December 11, 2014, <http://www.bloomberg.com/news/articles/2014-12-12/baidu-said-to-buy-stake-in-uber-boosting-app-in-china>.

2016, Tencent, China's social media and mobile gaming giant, is leading an investment group to purchase 84% percent of Finland's mobile games maker Supercell Oy for \$8.6 billion.²⁸⁰

How are we to understand this recent but highly visible phenomenon? Is this the digital version of “China buying the world,” as often portrayed in the popular media? Or, from a communication scholar's perspective, does this mean the authoritarian Chinese state is now “taking over the global Internet” through its commercial arms? Previous literature has documented the motivations, policy evolutions and institutional setting of China's “going out” strategies, often with a special focus on the resource extraction sector.²⁸¹ The Internet industry, however, has received limited attention. Scholars of China's Internet and telecommunication industry tend to focus more on the domestic aspect, rarely extending their analysis to the external Internet.²⁸² What remains little known is how Chinese Internet companies, in all the three different but interpenetrating cyber domains – network equipment, operation, services and applications – have interacted with various state entities in their route to global cyberspace. What causes have motivated their overseas expansion? What have been the major strategies and routes for each of these three segments to strike abroad, respectively? Do they exhibit a unique reliance

²⁸⁰ Lulu Yilun Chen, Pavel Alpeyev and Yuji Nakamura, “Tencent Leads \$8.6 Billion Deal for Clash of Clans Studio,” *Bloomberg*, June 22, <http://washpost.bloomberg.com/Story?docId=1376-O949KV6KLVR701-44DR9M9STL12JECOAD2GQOLPSP>.

²⁸¹ See, for example, Shaofeng Chen, “China's Outward FDI and Energy Security,” in *Foreign Direct Investments: State Experiences*, ed. A. Govinda Reddy (Hyderabad, India: The Icfai Univeristy Press, 2009), 149–81; Xiaomei Tan, “China's Overseas Investment in the Energy/resources Sector: Its Scale, Drivers, Challenges and Implications,” *Energy Economics* 36, no. March (2013): 750-758; Bates Gill and James Reilly, “The Tenuous Hold of China Inc. in Africa,” *The Washington Quarterly* 30, no. 3 (2007): 37–52.

²⁸² See review articles, Jack Linchuan Qiu and Joseph Man Chan, “China Internet Studies: A Review of the Field,” in *The Academy & the Internet*, ed. Helen Fay Nissenbaum and Monroe E. Price (New York: Peter Lang, 2004), 275–307; Randolph Kluver and Chen Yang, “The Internet in China: A Meta-Review of Research,” *The Information Society* 21, no. 4 (2005): 301–8; David Kurt Herold and Gabriele de Seta, “Through the Looking Glass: Twenty Years of Chinese Internet Research,” *The Information Society* 31 (2015): 68–82.

on and closeness to the Chinese state? To what extent may the Chinese state set the parameters of ownership and behavior in these three market segments? And how important are these companies in the global digital political economy?

While the interactions between China and global cyberspace have been both diverse and extensive since the late 1980s – as we saw in Chapter 1 – this chapter highlights one of the most crucial aspects of this relationship: outward capital projection from China-based Internet companies. Recent Internet OFDI is analyzed at two levels: at the aggregate level using the official data provided by the Chinese Ministry of Commerce and at the firm and sector level based on the data compiled by the American Enterprise Institute-Heritage Foundation.

This chapter is organized as following: The first section briefly reviews the historical evolution of China’s “going out” policies and the changing landscape of China’s outward FDI, in which the Internet sector has gained increasing importance in recent years. The second section delineates the institutional structure and state strategies that impact China’s Internet capital projection. The third section, rely on firm-level data, further disaggregates the Internet industry to three subsectors. It looks at how different units of capital in network equipment, operation, and services and applications sectors, have interacted with state institutions in different ways to carry out their global objectives as well as how the Chinese state, through different policy mechanisms, has exercised various degree of control over these Internet firms.

This chapter concludes by presenting a more nuanced picture of China’s “going out” in global cyberspace: Neither the label of “China Inc.” nor the characterization of “state capitalism” accurately captures the complex interactions between the state and capital in this historical

process.²⁸³ Instead, the theoretical framework presented in the Introduction suggests that this state-capital relation is best understood as a constantly changing and highly complicated dynamics between the territorial logic of the state and the expansive logic of capitalist accumulation.²⁸⁴ On the one hand, the Chinese state, as a territorially defined entity, aims to retain its control over China's homegrown Internet companies and to keep them in line with the state's developmental and diplomatic agenda. On the other hand, Chinese Internet companies, propelled by the borderless logic of capital accumulation, have coordinated an increasingly powerful and expansive transnational capital network with an overarching aim of profit-maximization. As will be manifested in China's Internet OFDI projects, state objectives and business initiatives sometimes collaborate, but are often in tension with each other. Moreover, not only is there a tension between the state and capital, but the state itself is constrained by internal fragmentation and contradiction, while different units of Chinese Internet capital compete ruthlessly with each other in the global digital market. Under certain circumstances, they might collaborate with foreign companies against the state's agenda.

Indeed, one perplexing question is, in what ways are these Internet corporations "Chinese" – since most, if not all of them, are jointly funded by transnational capital? As we saw in Chapter 1, foreign ownership controlled by transnational capital – through the VIE arrangement – has been prevalent in China's web services and applications sector. However, it might be premature to conclude that the state has lost its control. By looking closely at individual OFDI projects on the firm level, this chapter demonstrates that through various regulatory mechanisms, the jurisdictions and rules of the Chinese state still hold considerable impact on

²⁸³ Friedrich Wu, "Corporate China Goes Global," *World Economics* 6 (2006): 171–81.

²⁸⁴ David Harvey, *The New Imperialism* (Oxford: Oxford University Press, 2003).

many units of China's Internet capital in their own profit strategies, even when they have worked their way into the global scene. This influential role of the Chinese state, however, should not be overestimated, as the rising power of Chinese Internet corporations have continued to push the capitalist logic of accumulation into the forefront of China's "going out" process.

Methods and Data

To explore the global expansion of China's Internet industry as part of the wide process of Chinese outward capital investment, this chapter utilizes two types of datasets.²⁸⁵

The first is aggregate data of China's outbound FDI compiled by China's Ministry of Commerce (MOFCOM).²⁸⁶ This official statistical compilation, from a macro level, offers a valuable perspective to look at the historical and structural trends of China's outward capital projection. However, it has several problems, especially with regard to studying the Internet industry. First, MOFCOM's data are based on officially registered investments that exceed a certain capital floor. This means a large number of small-scale investments will not be documented. Second, frequent reclassification of industrial sectors in MOFCOM's data makes it hard to study the industrial breakdown of China's OFDI on a disaggregated level.²⁸⁷ Moreover, the "Internet industry," as defined in this study, is not specified in MOFCOM's statistics. Finally, the third problem relates to Chinese capital that goes to overseas financial centers and tax havens.

²⁸⁵ Another important source that tracks China's OFDI is the UNCTAD's *World Investment Report*. But since the report itself uses MOFCOM's data for its China sector since 2003, this chapter only uses it for comparative purpose.

²⁸⁶ See, MOFCOM, *Statistical Bulletin of China's Outward Foreign Direct Investment*, various years. (Beijing: Ministry of Commerce).

²⁸⁷ PJ Buckley et al., "Historic and Emergent Trends in Chinese Outward Direct Investment," *Management International Review* 48, no. 6 (2008): 715–48.

It is reported that in 2014, Hong Kong, the Cayman Islands, the British Virgin Islands and Luxemburg, collectively received almost 70 percent of China's outbound FDI.²⁸⁸ It is possible that companies might inject capital into these overseas financial center and tax havens via the establishment of special purpose vehicles, then bring them back in China in order to receive preferential financial treatment and other policy benefits – a widespread practice called “round-tripping”. Indeed, before the promulgation of the 2008 Enterprise Income Tax Law, foreign-investment enterprises received preferential tax breaks in China as they were taxed at only 11 percent, compared with domestic firms' 23 percent tax rate.²⁸⁹ Scholars also report that around 2008, in anticipation and after the announcement of the Enterprise Income Tax Law, China's FDI to Cayman Islands and Hong Kong dropped significantly.²⁹⁰ Given that VIE structures, which often involve using special purpose vehicles in overseas financial centers to redirect capital projection, are extremely popular among Chinese web firms, such practices of “round-tripping” may have significant impact for documenting the outward FDI of China's Internet sector. Indeed, VIE structure can be viewed as “a variation of the round-trip investment model”.²⁹¹ With those caveats in mind, however, it is still possible to use such aggregate data to identify some major historical trends and characteristics of China's outward FDI, which sets the background for the discussion on China's Internet industry.

To move the analysis to a micro level, this chapter also employs a firm-level database – the “China Global Investment Tracker” (2005-2015) compiled by the American Enterprise

²⁸⁸ MOFCOM, *2014 Statistical Bulletin of China's Outward Foreign Direct Investment*.

²⁸⁹ Salidjanova, *Going out: An Overview of China's Outward Foreign Direct Investment*.

²⁹⁰ Yasheng Huang, “China's Inbound and Outbound Foreign Direct Investment,” in *Routledge Handbook of the Chinese Economy*, ed. Gregory C. Chow and Dwight H. Perkins (London: Routledge, 2015), 222–34.

²⁹¹ Wei Shen, “Deconstructing the Myth of Alipay Drama – Repoliticizing Foreign Investment in the Telecommunications Sector in China,” *Telecommunications Policy* 36 (2012): 929–42.

Institute-Heritage Foundation.²⁹² This dataset documents individual transactions of more than \$100 million in China’s global investment – both successful and troubled (including both failed and incomplete ones), and includes information on transaction parties, capital amount, share size and mode of entry (greenfield investments or mergers and acquisitions). It has been proven to be useful to other scholars in analyzing the Chinese case.²⁹³ The database starts from 2005, when China’s outward capital flow in general, and the Internet OFDI in particular, started to take off, after the state implemented the “going out” policy.²⁹⁴

Drawing on this dataset, and supplemented by knowledge gained from news reports and companies’ annual reports, I have further compiled an individual transaction dataset that specifically focuses on China’s Internet industry. Investors in the dataset were categorized according to the three subsectors of China’s Internet industry: Equipment, operation, and services and applications. Investors whose core businesses are not Internet but nevertheless inject capital into the Internet sector are categorized as “others” and discussed at the end of this chapter. The finalized firm-level dataset includes 102 deals, of which 10 were troubled (see appendix A). It helps provide investment projects as examples for illustration and allow an examination of the actual investment activities made by Chinese Internet companies in global cyberspace.

²⁹² For an introduction of this dataset, see <https://www.aei.org/china-global-investment-tracker>.

²⁹³ Deborah Bräutigam and Xiaoyang Tang, ““Going Global in Groups’: Structural Transformation and China’s Special Economic Zones Overseas,” *World Development* 63 (2014): 78–91; Tan, “China’s Overseas Investment in the Energy/resources Sector: Its Scale, Drivers, Challenges and Implications.”

²⁹⁴ Buckley et al., “Historic and Emergent Trends in Chinese Outward Direct Investment.”

The Turn to “Going Out” and China’s Internet industry

Although Chinese firms’ overseas adventures can be dated back to the late 1970s, China’s outbound FDI in general remained trivial at this early stage, especially compared with the massive foreign capital poured into the country.²⁹⁵ In the 1990s, China brought in an average of more than 7 percent of world total FDI annually, while only projected around 0.6 percent outward.²⁹⁶ Foreign exchange and capital shortage, as well as worries over illegal outward capital flight and loss of control of state assets in a volatile global capital market, which was intensified by the 1997 Asian financial crisis, jointly contributed to this phenomenon. Overall, throughout the 1990s, China’s “open door” policy consistently focused on the “attracting in” facet, while its policy and institutional support for outward investment remained “eclectic, ad hoc, and even half-hearted”.²⁹⁷ Indeed, before 2003, private owned enterprises were officially banned from investing overseas.

This situation began to change in the late 1990s. After two decades of export-oriented economic development – as the “world’s factory” – China had accumulated a growing foreign exchange reserve: from \$0.8 billion in 1979 to \$139.9 billion in 1997.²⁹⁸ Meanwhile, rising demand for natural resources, domestic market saturation and under consumption, and the need for industrial upgrading became urgent problems for China’s future development. The upcoming WTO deal also made Chinese leaders realize that they need a group of globally competitive

²⁹⁵ Cai, “Outward Foreign Direct Investment: A Novel Dimension of China’s Integration into the Regional and Global Economy.”

²⁹⁶ Buckley et al., “Historic and Emergent Trends in Chinese Outward Direct Investment.”

²⁹⁷ Eunsuk Hong and Laixiang Sun, “Dynamics of Internationalization and Outward Investment: Chinese Corporations’ Strategies,” *The China Quarterly* 187, no. 187 (2006): 610–34, 616.

²⁹⁸ Cai, “Outward Foreign Direct Investment: A Novel Dimension of China’s Integration into the Regional and Global Economy.”

Chinese corporations to join the anticipated fierce competition both in and outside China.²⁹⁹ Indeed, China's outward FDI policy is in part an aspect of this large domestic economic structural restructuring. As stated in the 2006 State Council's *Opinions on Encouraging and Guiding Foreign Investment and Cooperation by Chinese Enterprises*, one objective of China's OFDI strategies is to "facilitate the structural adjustment of the economy".³⁰⁰

Accordingly, a noticeable change started to occur in China's policy discourse, in which the top leadership openly advocated for an institutional environment that encourages firms to go out. In 1996, after his visit to six African countries, Jiang Zemin first introduced the term "going out," encouraging SOEs to expand into developing countries. In 1997, he raised the term to the same level as "attracting in," claiming that the former was complementary to the latter, both of that were inseparable aspects of the "open door" policy.³⁰¹ This "going out" (*zouchuqu*, 走出去) initiative, was then officially endorsed in the 10th Five Year Plan (2001-2005), and reiterated in all the Five Year Plans thereafter – including the 11th (2006-2010), the 12th (2011-2015) and the most recent one, the 13th (2016-2020) under the current Xi-Li administration.³⁰² Based on this national strategy, a series of institutional restructurings have been introduced and the regulatory

²⁹⁹ Karl P. Sauvant, "New Sources of FDI: The BRICs-Outward FDI from Brazil, Russia, India and China," *Journal of World Investment & Trade* 6, no. 5 (2005): 639–709.

³⁰⁰ *Ibid.*

³⁰¹ Jiang Zemin, "Implementing 'Attracting-In' and 'Walking-Out' Combined 'Opening-Up' Strategies 1997," in *Selected Works of Jiang Zemin*, ed. Jiang Zemin (Beijing, China: People's Publisher, 2006), 91–94.

³⁰² For a detailed discussion of the formulation of the "going out" policy, see David Shambaugh, *China Goes Global: The Partial Power* (Oxford: Oxford University Press, 2013); Karl P. Sauvant and Victor Zitian Chen, "China's Regulatory Framework for Outward Foreign Direct Investment," *China Economic Journal* 7, no. February (2014): 141–63.

framework for outward capital investment has also shifted “from restricting to facilitating to supporting to encouraging”.³⁰³

Two major institutional changes marked the evolution of this OFDI friendly initiative. The first one in 2004, came when the State Council issued a "Decision on reforming the investment management system," officially regularizing its FDI authorization system. Two approving state bodies – the MOFCOM and NDRC – were identified, with each issuing follow-up documents to clarify their respective roles in the system. The two agencies also delegated part of their authorization power to the local level, further decentralizing the approval process.

Another significant deregulation of China’s FDI regime has been undertaken under the current leadership. In 2013, the State Council issued the “Catalogue of Investment Projects Subject to Governmental Verifications (2013),” substantially reducing the powers of the NDRC and MOFCOM and making “record-filing” – instead of “approval” – as the primary measure for China’s outward FDI. In 2014, the State Council also announced its plan to entirely eliminate OFDI approvals in the next a few years. In light of this policy shift, both the NDRC and MOFCOM issued similar orders to further relax the regulatory regime, under which only a small number of overseas projects would need approval. All others need only be filed for record. It is reported that in 2013, only 2% of China’s outward FDI projects needed approval from the government.³⁰⁴

This turn to “going out” can be observed from the aggregated data from the MOFCOM (see Figure 3.1). China’s outward FDI started to take off in the early 2000s. Animated by the

³⁰³ Sauvant and Chen, “China’s Regulatory Framework for Outward Foreign Direct Investment,” 141.

³⁰⁴ MOFCOM, “Shangwubu xiangjie duiwai touzi fumian qingdan: 98% zhixu beian,” 商务部详解对外投资负面清单：98%项目只需备案 [MOFCOM detailed Outbound Investment Negative List: 98% only need be filed for record], October 27, 2014, <http://www.mofcom.gov.cn/article/i/dxfw/gzzd/201410/20141000773143.shtml>.

RMB 4 trillion (US \$586 billion) stimulus package installed by the state, it more than doubled in the global financial crisis during 2007-2008, when foreign assets became considerably cheaper. The significant appreciation of the Chinese currency *Yuan* since 2005 – at an average annual rate of 20% – also further decreased the price of foreign acquisition and therefore contributed to this growth.³⁰⁵ The rising trend continued through the date of this writing. The main sources of these investments came, as might be expected, from companies based in the wealthier areas such as Shanghai, Zhejiang, and Guangdong. The MOFCOM reports that in 2014, non-financial OFDI flow from east coastal provinces accounted for 81.8% of all the investment from local companies that are not controlled by the central government.³⁰⁶

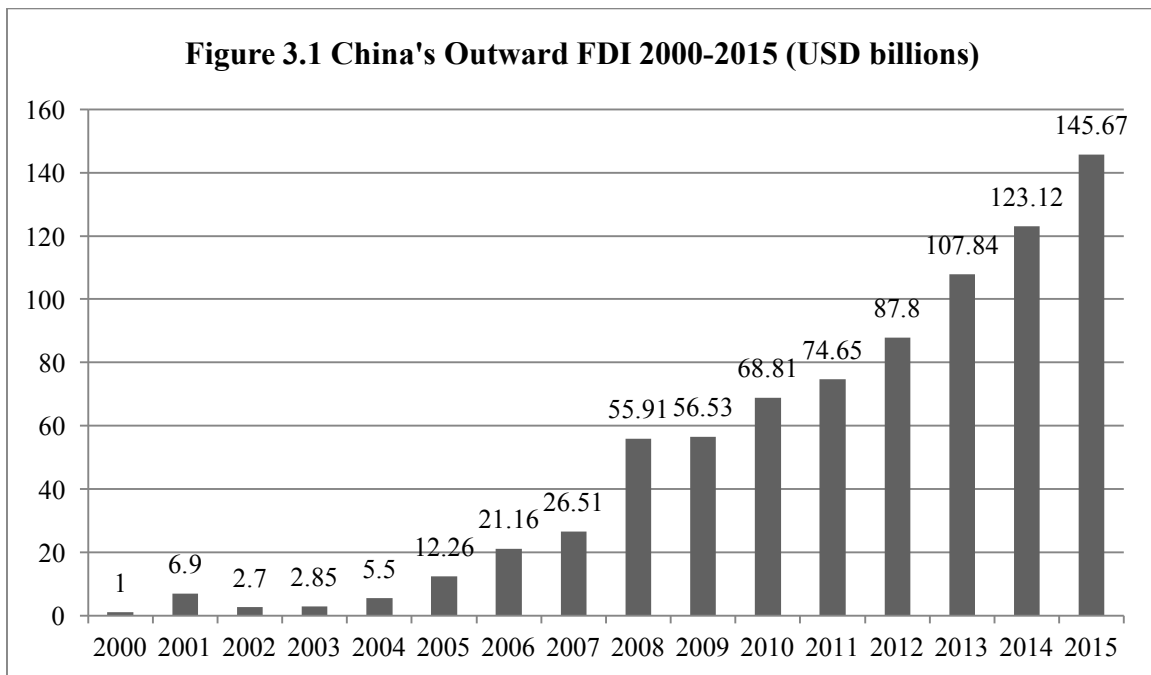


Figure 3.1: China's Outward FDI 2000-2015 (USD billions).

Source: MOFCOM, *Statistical Bulletin of China's Outward Foreign Direct Investment*, various years.

³⁰⁵ Huang, "China's Inbound and Outbound Foreign Direct Investment."

³⁰⁶ MOFCOM, *2014 Statistical Bulletin of China's Outward Foreign Direct Investment*.

Accompanying this spectacular growth of China's outward capital flow has been an equally impressive rise of China's Internet industry. As Hong Yu shows, an ICT-based developmental strategy of "informatization" has been instrumental in China's global rise and domestic transformation in the past three decades.³⁰⁷ In the 1980-1990s, ICT manufacturing was considered as a "pillar industry" that spearheaded China's FDI-driven, export-oriented, and labor-intensive development. In the 2000s, network connectivity and online applications started to gain prominence and have been accorded a new role in propelling China's post-2008 restructuring toward an innovation and consumption-based economy, i.e., both moving up the global production chain and transitioning to a more domestic-oriented economy. And as Chapter 1 has shown, this consistent prioritization of ICTs, and later the Internet, in Chinese political economy – with various preferential policy treatments, including selective substitution initiatives, as well as substantial interactions with transnational capitalism – has cultivated a large and diversified Internet industry in China. If anything, the 2008 Global Financial Crisis, which put a stop sign on China's low-tech, labor-intensive and export-oriented development model, has only amplified this sector's importance in China's domestic market.

China's now-potent Internet industry, however, is not only critical for its *domestic* economic transformation. It has also become an important segment of, and a crucial vehicle for, corporate China's *outward* expansion. On the one hand, as one of the two "rare poles of growth" of today's crisis-ridden transnational capitalism, Internet companies have accumulated a large amount of money capital that in turn needs profitable outlets to reinvest. It is reported that in 2013, China's e-commerce giant Alibaba held \$7 billion in cash reserves, social media and

³⁰⁷ Yu Hong, *Labor, Class Formation and China's Informationized Policy of Economic Development* (Lanham: Lexington Books, 2011); Yu Hong, *Networking China: The Digital Transformation of the Chinese Economy* (Urbana: University of Illinois Press, 2017).

online gaming company Tencent has \$5 billion, and telecom vendor Huawei \$13 billion.³⁰⁸ In other words, China's Internet companies have become capable of substantial investment themselves. On the other hand, when Internet companies go abroad, instead of bringing in natural resources or circumventing trade barriers – two important motives for China's early OFDI projects³⁰⁹ – they bring in advanced technologies, expand digital networks, and develop marketing channels that might be helpful for other Chinese companies when they venture out. All these potential impacts are perceived as critical for China's economic transformation.

The newly minted "Internet Plus" strategy illustrates this dual role of the Internet industry in China's political economy. In March 2015, Premier Li Keqiang announced that China has adopted an "Internet Plus" strategy, which not only plans to deepen links between the Internet and almost all the sectors of China's domestic economy, but also commits the Government to active support for Chinese Internet companies as they expand their reach in global cyberspace.³¹⁰ A few months later, the State Council released the "Guiding Opinions on Actively Promoting the 'Internet Plus' Action Plan," strongly advocated Chinese Internet firms to join traditional industries, such as manufacturing and finance, in their overseas expansion. It also encouraged those firms to build globally competitive application platforms to offer Internet service such as

³⁰⁸ Alistair Barr, "Just How Much Cash Does Alibaba Have," May 6, 2014, *The Wall Street Journal*, <http://blogs.wsj.com/digits/2014/05/06/just-how-much-cash-does-alibaba-have/>; Evelyn M. Rusli and Paul Mozur, "China Buys Its Way Into Silicon Valley," November 4, 2013, *The Wall Street Journal*, <http://www.wsj.com/articles/SB10001424052702303843104579171963801529056>; Jacob Steinberg, June 19, 2013, "Huawei Can't Really Buy Nokia," <http://seekingalpha.com/article/1510092-huawei-cant-really-buy-nokia>.

³⁰⁹ John Wong and Sarah Chan, "China's Outward Direct Investment: Expanding Worldwide," *China: An International Journal* 1, no. 2 (2003): 273–301.

³¹⁰ "Internet Plus set to push China's economy to higher level: Premier," *Xinhua Net*, http://news.xinhuanet.com/english/2015-03/15/c_134067831.htm.

cloud computing and big data analysis, to both Chinese and global businesses.³¹¹ Moreover, the Internet sector also held a critical role in China's recent "One Belt, One Road" strategy. In a speech given at China-Arab State Expo, Lu Wei, China's director of the State Internet Information Office (SIIO) and the Cyberspace Administration of China (CAC), proposed an "Online Silk Road" of cross-border e-commerce between China and Arab countries that would be equipped with new IT technologies (e.g., cloud computing and big data) from Chinese Internet companies. As he said, "connectivity is the key to 'One Belt One Road,' and connectivity to the Internet is the top priority".³¹²

The growing importance of the Internet sector for China's "going out" strategies may be observed from the changes in China's outward FDI distribution. Indeed, in recent years there has been a sectoral shift from the previous high concentration in trade and resource-intensive industry toward a more technology-intensive focus.³¹³ Aggregate data from MOFCOM, though incomplete, offers a glimpse of this trend. From 2004 to 2010, the annual outward FDI flows in the category "Information Transmission, Computer Service and Software" rose from \$31 million to \$506 million. In 2014, this number reached \$3.17 billion, a significant increase of 126.4% from 2013.³¹⁴ For example, a quick look into the firm-level dataset confirmed that this year, the BATs have all completed large-scale overseas acquisitions: Tencent spent \$500 million in exchange for a 28 percent share of South Korea's CJ Games, Baidu poured out \$600 million in taxi-hauling company Uber, and Alibaba invested \$220 million into US social media company

³¹¹ State Council, "Guiding Opinions on Actively Promoting the 'Internet Plus' Action Plan," July 4, 2015, http://www.gov.cn/zhengce/content/2015-07/04/content_10002.htm.

³¹² "Lu Wei delivers keynote speech to China-Arab States Expo Online Silk Road Forum," *Xinhua Net*, http://news.xinhuanet.com/english/china/2015-09/10/c_134611915.htm.

³¹³ Tobias ten Brink, "Chinese Firms 'Going Global': Recent OFDI Trends, Policy Support and International Implications," *International Politics* 52, no. 6 (2015): 666–683.

³¹⁴ MOFCOM, *2014 Statistical Bulletin of China's Outward Foreign Direct Investment*.

TangoMe. Although the absolute magnitude of this category remains small – possible reasons include that the transaction numbers in mining and energy are usually larger and MOFCOM classifies network equipment into the manufacturing sector – it nevertheless constitutes the fastest growing sector in China’s now expansive OFDI landscape, compared to mining (\$16.5 billion, a yearly decrease of 33.3%) and construction (\$3.4 billion, a yearly decrease of 22%).³¹⁵ A report from global Intelligence and consulting company Stratfor estimated that in 2014, more than half of China’s FDI to the US are in the ICT industry.³¹⁶

Firm level data, calculated based on “China Global Investment Tracker,” further illustrates this trend (see Table 3.1). From 2005 to 2015, the number of large OFDI deals – meaning the transaction value is over \$100 million – attempted by Chinese Internet companies has increased significantly – from 1 deal in 2005 to 21 deals in 2015. Moreover, the sub-sectoral distribution has also expanded – starting from the network equipment sector to all the three subsectors. Finally, both the equipment sector and the services and applications sector saw a strong growth after the 2008 economic downturn.

³¹⁵ Ibid.

³¹⁶ Strategic Forecasting, Inc., “China's Outward Push in High-Tech Investment and Innovation,” June 12, 2015, <https://www.stratfor.com/analysis/chinas-outward-push-high-tech-investment-and-innovation>.

Table 3.1: Numbers of OFDI deals attempted by China’s Internet companies (2005-2015)

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Equipment	1	1	2	1	4	4	5	6	8	5	10
Operation	0	0	2	0	2	0	1	0	0	2	2
Services & Applications	0	0	0	0	0	2	1	1	2	7	9
Troubled	0	1	0	3	0	3	0	0	1	1	1
Total	1	2	4	4	6	9	7	7	11	15	22

Source: The author, based on “China Global Investment Tracker” (2005-2015) compiled by American Enterprise Institute-Heritage Foundation.

Note: Only deals over \$100 million are included in the database.

China’s Internet OFDI Regime: Fragmentation and Contradiction

The changing landscape of China’s OFDI has been shaped by both state policies and capital initiatives. The role of the state, however, has been regarded as the most significant factor for the overseas propulsion of China’s corporations.³¹⁷ As Huang Yasheng argues: “The fact that Chinese OFDI increased over ten-fold within a short five-year span (2005–10) is prima facie evidence that the Chinese OFDI flows are driven or at least induced by policies or policy changes”.³¹⁸ For all this, however, it is probably still misleading to portray this oversized role of the state in China’s OFDI as a case of “state capitalism”. In other words, the territorial logic of the state itself is not unified. As I will demonstrate below, although the state retains some critical

³¹⁷ Buckley et al., “Historic and Emergent Trends in Chinese Outward Direct Investment”; Hong and Sun, “Dynamics of Internationalization and Outward Investment: Chinese Corporations’ Strategies.”

³¹⁸ Huang, “China’s Inbound and Outbound Foreign Direct Investment,” 230.

maneuvering powers over China's OFDI activities, its regulatory regime is rather fragmented. The complexity and expansive nature of the Internet sector, as discussed in this study, further contributes to this fragmentation and contradiction.

In general, the bureaucracies that regulate China's Internet OFDI can be divided into three groups: First, the core OFDI authorities that have approving or reviewing power over an OFDI project; Second, the supporting agencies that don't hold direct power but nevertheless impact China's OFDI activities; and third, the Internet regulatory system that governs China's Internet sector and therefore retains considerable sway over these companies' overseas undertakings (see figure 3.2).

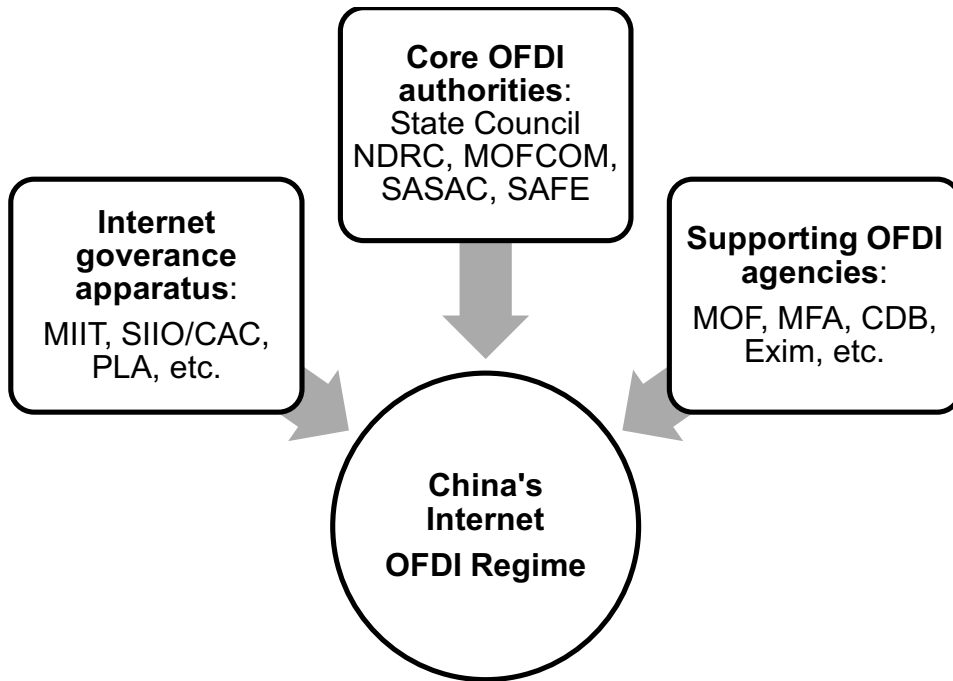


Figure 3.2: China's Internet OFDI regime.

Note: The abbreviations used in this figure are MIIT (Ministry of Industry and Information Technology), SIIO (State Internet Information Office), CAC (Cyberspace Administration of China), PLA (People's Liberation Army), NDRC (National Development and Reform Commission), MOFCOM (Ministry of Commerce), SASAC (State-owned Assets Supervision and Administration), SAFE (State Administration of Foreign Exchange), MOF (Ministry of Finance), MFA (Ministry of Foreign Affairs), CDB (China Development Bank), Exim (China Export-Import Bank).

First, the state agencies that have direct power – meaning that they have approving or reviewing authority over an OFDI project – include the State Council, the Ministry of Commerce (MOFCOM), the National Development and Reform Commission (NDRC), the State Administration of Foreign Exchange (SAFE), and the State-owned Assets Supervision and Administration (SASAC).

The State Council, at the top of the power hierarchy, is responsible for formulating China's OFDI policies. Under the current regime, companies, including Internet companies, that

wish to invest more than \$2 billion into sensitive countries or regions (e.g., countries or regions that are politically unstable or do not have diplomatic ties with China), or sensitive industries (e.g. basic telecommunications service or news media), would need an approval from the State Council. Under the State Council, there are two parallel approving ministries: the NDRC and MOFCOM. Central NDRC's approval is needed when investment exceeds \$1 billion or project involves sensitive countries, or regions, or industries. Others only need to be either filed with the central NDRC or provincial-level NDRC. Besides the NDRC, OFDI projects also need to go through the MOFCOM. The existing system requires projects in sensitive countries, or regions, or industries to be approved by the MOFCOM, regardless of deal size. Others only need to be filed. Moreover, after going through both the NDRC and MOFCOM and before transferring foreign currency outbound, companies need to submit their proposals to the SAFE – the agency that manages China's foreign exchange market – for a review. Finally, SASAC, which owns many large State-Owned Enterprises (SOEs), including three network operators – China Telecom, Unicom, and Mobile, also has the power to decide whether or which OFDI projects are allowed to be pursued among SOEs.

Second, aside from those core authorities, there are other supporting agencies that have impact on China's Internet OFDI. On the diplomatic side, the Ministry of Foreign Affairs (MFA), which supervises China's foreign policies, and the Ministry of Finance (MOF), which is involved in negotiating China's international tariff and taxation agreements, also offer various supports for corporate China's "going out". Indeed, China has long been an active member in signing bilateral and regional investment treaties as well as Free Trade Agreements along its "opening up" process. These agreements have become even more important for the state as its policy focus started to shift to "going out," since these agreements and treaties now also serve

the purpose of protecting the interests of Chinese capital – making sure that they receive preferential treatments in other countries.³¹⁹ According to UNCTAD, as of 1 June 2016, China has signed in total 129 Bilateral Investment Treaties with different countries in the world. It is currently ranked 2nd in the world, only after Germany, which has signed 135 Bilateral Investment Treaties.³²⁰ As trade agreement established between two countries to facilitate capital investment both from state agencies and private companies, those treaties hold profound importance for China’s Internet OFDI. Data from MOFCOM also show that China is currently a signatory to 13 Free Trade Agreements, including ones with Switzerland and Australia.³²¹ The “One Belt One Road” initiative under the current leadership is expected to create more room and opportunities to for companies to go out, including Internet companies.

On the economic side, two major policy banks – the China Development Bank (CDB) and the China Export-Import Bank (Exim) – provide financial incentives along with the “going out” initiatives. These economic supports are often a mixture of different means of financial instruments, including foreign aid program like concessional loans as well as strategic line of credit like export seller’s/buyer’s credit.³²²

Concessional loans are part of China’s foreign aid program that offers low-interest loans to underdeveloped countries. Operating as an agreement between the Chinese state (through the MOFCOM) and the foreign government, this program has funded many countries in building their backbone infrastructure that they otherwise would not be able to afford. It has benefited

³¹⁹ Sauvart and Chen, “China’s Regulatory Framework for Outward Foreign Direct Investment.”

³²⁰ UNCTAD, “International Investment Agreements Navigator,” 2016, <http://investmentpolicyhub.unctad.org/IIA/CountryBits/42#iaInnerMenu>.

³²¹ MOFCOM, “China FTA network,” 2016, http://fta.mofcom.gov.cn/english/fta_qianshu.shtml.

³²² Deborah Brautigam, *The Dragon’s Gift: The Real Story of China in Africa* (Oxford: Oxford University Press, 2009).

Chinese network companies, too, as the loan often requires foreign governments and their state-owned operators to use Chinese products and service. For example, in 2006, Huawei successfully secured a concessional loan of around \$16.6 million from China Exim bank in its project with Sierra Leone's state-owned telecommunications company, to develop a wireless communication system in this West African country.³²³

Besides foreign aid loans, both the CDB and China Exim bank offer strategic lines of credit to support China's national champions' global expansion, such as export seller's/buyer's credit. Unlike foreign aid programs that function between two governments, this type of credit allows foreign companies to borrow money from Chinese banks to buy products and service from Chinese companies, and then either repay to the lending banks (export buyer's credit) or to Chinese companies (export seller's credit). Such strong financial backing from Chinese policy banks, in addition to their highly competitive price, has helped Chinese gear suppliers, notably, Huawei and ZTE, successfully gain a toehold in many rapidly developing Internet markets. For example, in 2006, with \$15 billion line of credit from the CDB, ZTE secured a contract from Ethiopia Telecom to build the country's Millennium Telecoms project, including 2259 kilometers of fiber-optic cable to cover 13 major cities.³²⁴

Finally, the third group of state agencies that retains substantial sway over China's Internet OFDI is the country's Internet governance regulators. As discussed in Chapter 2, due to the expansive nature of the Internet sector in China's political economy, this regulatory apparatus is extremely complex: On the economic level, MIIT, the industry regulator, manages China's

³²³ Ibid., 140-141.

³²⁴ Zhao Hejuan 赵何娟 and Zhang Yuzhe 张宇哲, "Dianxin zhan feizhou," 电信战非洲 [The Chinese telecommunications war in Africa], *Caixin New Century* 财新《新世纪》, January 16, 2012, <http://magazine.caixin.com/2012-01-13/100348416.html>.

Internet sector in general, and therefore has certain power over these companies' global strategies. On the political front, the newly established SIIO/CAC, besides regulating domestic Internet content, also holds responsibility for China's global Internet diplomacy. Furthermore, the military departments, led by PLA, exercise considerable influence over some of the companies that are considered as "military enterprises," such as China Electronic Technology Corporation and China Aerospace Science and Technology. Finally, the current Central Leading Group for Internet Security and Informatization, a tripartite Party-State-Military endeavor led by President Xi Jinping, sitting at the top of China's Internet governance system, aims to smooth out some long-standing power struggles and turf wars among different state bodies vying for influence by coordinating policy in the existing system. The impact of this new Leading Group, however, remains to be seen.

Offering substantial support, this expansive and complex institutional apparatus, however, also creates considerable conflicts and contradictions for China's Internet OFDI.

First, as previous literature on China's OFDI has pointed out, significant simplification and streamlining notwithstanding, the current system remains fragmented. On the one hand, China's OFDI system lacks overall policy coordination: there is no specific state body or law that oversees the entire regulatory regime, which may result in uncoordinated government actions.³²⁵ On the other hand, there is no clear division of labor between the NDRC and the MOFCOM – the two parallel ministerial-level agencies that both hold approving authority of China's OFDI projects, which also creates ambiguities in the system.³²⁶ Since China's Internet companies, like other Chinese corporations, need to go through this regulatory system before

³²⁵ Chen, "China's Outward FDI and Energy Security."

³²⁶ *Ibid.*; Sauvart and Chen, "China's Regulatory Framework for Outward Foreign Direct Investment."

projecting capital outward, all these fragmentations and ambiguities of the exiting OFDI framework affect China's Internet industry by slowing actions or creating opportunities for corruption and rent seeking.

Second, the role of the SASAC in China's political economy in general, and its OFDI system in particular, remains self-contradictory. As the major shareholder that represents the state in many large SOEs, the SASAC carries both the political objective of regulating these companies and keeping them in line with China's international agenda as well as the economic objective of profit-maximization. This dual task creates sharp conflicts, especially when the performance of the SASAC has been increasingly tied up with the profitability of its subsidiary SOEs.³²⁷ Sometimes, profits of the SOEs are pursued at the expense of China's strategic and diplomatic agenda. For example, in Africa, the profit-seeking activities of China's SOEs have created issues of environment pollution and labor exploitation, which then resulted in local protests, seriously damaging China's international reputation and diplomatic relationship with host countries.³²⁸ Since all the three network operators, and other large Internet SOEs, come under the purview of the SASAC, this self-contradiction is also played out in China's Internet sector, as I will demonstrate in the following discussion.

Third, as discussed in Chapter 2, intra-state power struggles as well as center-local tensions have long characterized China's Internet policymaking, which adds further complexity to its Internet firms' OFDI activities. A prominent indicator of this persistent internal bureaucratic division is the continuous need of the central government to create a series of Leading Groups to coordinate and centralize its regulatory regime. Moreover, various

³²⁷ Barry Naughton, "SASAC and Rising Corporate Power in China," *China Leadership Monitor*, no. 24 (2008): 1–9.

³²⁸ Gill and Reilly, "The Tenuous Hold of China Inc. in Africa."

government agencies, with their diverse functions and varied interests in China's digital economy, might choose to pursue their own interests, through Internet companies' outward expansion. As aforementioned, as the main industry regulator, the MIIT prioritizes the economic development of the Internet industry. This priority, which probably in many cases aligns with the Internet companies' global ambitions, however, is not always in line with the strategic consideration of the military departments to maintain China's "Internet security". Furthermore, China's long-standing center-local tensions have also played out in the game as local governments, representing their respective Internet companies – often the largest taxpayer and employer – are competing for resources and policy preferences in the central government.

In sum, this sector delineates the regulatory framework that governs China's Internet companies' outward capital projection. This regulatory framework – as a manifestation of the territorial logic of the Chinese state – however, is not monolithic. Notwithstanding the continuing efforts of the state to promote the "going out" of its Internet sector, the fragmented and contradictory nature of this bureaucratic apparatus is set to limit the capacity of the capital to some extent. To what extent does the state still hold power over China's Internet companies when those companies have increasingly become transnational in nature? Building on a detailed analysis of firm-level OFDI projects, the next section looks at this issue on a subsector-by-subsector basis.

China's Internet Industry "Goes Out"

A brief overview of the firm-level dataset gives us a general idea of the outward expansion of China's Internet sector: From 2005 to 2015, Chinese Internet companies – across

all the three subsectors – initiated a total of 88 outbound FDI projects that had a value of \$100 million or more, of which 10 were troubled. Those OFDI deals – with a medium value around \$300 million – were widely distributed geographically, in both the Global South and Global North – 34 in Asia (16 in West Asia and 17 in East Asia), 22 in North America (20 in USA), 14 in Europe, 12 in Africa, five in Latin America, and one in Australia. They have also been widely diversified – 55 in the equipment sector, 11 in the operation sector, and 22 in the services and applications sector (see Appendix A). Indeed, Chinese Internet companies have become active investors across global cyberspace.

Equipment manufacturers

Among all the three subsectors, network equipment manufacturers have so far played a leading role in the “going out” of China’s Internet industry. The data shows that from 2005 to 2015, China’s equipment-makers initiated a total of 55 large OFDI deals; among them, eight went failed. Geographically, these projects were widely distributed. In the Global South, Chinese network equipment-makers started their global expansion by participating in national infrastructure projects, sometimes with substantial financial support from the Chinese state. The aforementioned ZTE’s project in Ethiopia is an example in this regard. They also moved into the Global North by collaborating or purchasing companies with strong sales networks or brand names. China’s computer maker, Lenovo’s 2005 acquisition of IBM’s PC division – a \$1.75 billion deal, as well as its 2014 purchase of Motorola Mobility from Google – a \$2.91 billion deal, offer good examples in this area. Finally, those Chinese vendors also invested in transnational telecommunications operators to establish cooperative relationships. For example,

Huawei invested \$180 million to Telenor of Norway in 2009 and another \$970 million in Vodafone Italia in 2010. Such capital projections have helped Chinese firms to gain a toehold in overseas telecommunications markets.

In terms of sectional distribution, although the majority of these OFDI projects were still in the hardware manufacturing or network operations sector, some companies have also moved into other realms to improve their core businesses or to look for other investment outlets. For example, to improve power consumption in network base-stations, equipment manufacturers have made strategical investments into the renewable energy sector. In November 2015, ZTE invested \$200 million in Zimbabwe Power to develop solar farms in this African country. Others, through their related private equity funds,³²⁹ have started to project capital into non-Internet related areas in order to diversify their assets and look for other profitable projects. Legend Holdings, the parent company of China's computer vendors Lenovo, offers an interesting case. In 2014, Legend Holding, through its private equity arm, Holy Capital, brought British restaurant chain PizzaExpress for \$1.54 billion. In 2015, it spent another \$490 million to acquire 8% of Santos, an Australian Energy company.

Finally, with all the geographical and sectoral diversifications in mind, Huawei, ZTE and Lenovo have evidently emerged as the “dragonheads” in this sector's outward movement:

Among all the 54 deals, Huawei were involved in 26 of them, ZTE 12 and Lenovo 8.

Chinese equipment makers spearheaded the outward expansion of the Chinese Internet. As Chapter 1 has demonstrated, domestic market saturation and foreign domination, resulting from the inward FDI-driven developmental model in the 1980s and 1990s, have largely propelled

³²⁹ Although only studied occasionally in the dissertation, it is worth noting that Chinese Internet firms have become increasingly interested in establishing its related private equity funds, for example, Alibaba's Jack Ma founded Yunfeng Captial in 2010. See, <https://wallstreetcn.com/node/92439>.

many Chinese network gear suppliers to turn to overseas markets for development. For example, in the late 1990s and before the state's "going out" initiative, Huawei already got its first overseas contract from a Hong Kong company and extended its international business to Russia.³³⁰ State support, however, has also played an important role in those companies' globalization strategies, mainly through financial support and diplomatic assistance.

On the one hand, Chinese networking gear providers have received significant financial support from China's policy banks. In 2004 and 2009, Huawei were granted a \$10 billion and a \$30 billion line of credit by China's Development Bank, respectively. ZTE, in 2009 alone, received \$10 billion credit line from China Exim bank and \$15 billion from China's Development Bank; the latter increased ZTE's credit line to \$20 billion in 2012.³³¹ Apart from those strategic credits, another common practice of the Chinese state is to utilize policy funds and foreign aid programs to support its "national champions". For example, in 2010, China and Nigeria reached a \$900 million concessional loan agreement for basic infrastructure building. Nigeria's government, in turn, awarded ZTE a \$400 million contract to build its Public Safety Communication System.³³²

On the other hand, the Chinese state has also offered considerable diplomatic assistance in the internationalization of its equipment-makers. As Yun Wen shows, Huawei's entry into Russia and later into Africa has significantly benefited from the state's diplomatic efforts, such as the establishment of the Forum on China-Africa Cooperation in 2000, and therefore closely

³³⁰ Yun Wen, "The Transnationalization of Chinese ICT Corporations: A Case Study of Huawei". Paper presented at the International Communication Association Annual Convention, Seattle, 2014.

³³¹ Zhao, "The Chinese telecommunications war in Africa".

³³² Zhang Weiwei 张威伟, "Zhongxing huo niriliya guojia gonggong anquan tongxun xitong xiangmu 4yi meiyuan dingdan," 中兴获尼日利亚国家公共安全通讯系统项目 4 亿美元订单 [ZTE received 400 million contract from Nigeria to build its Public Safety Communication System], December 28, 2010, <http://www.c114.net/news/127/a572092.html>.

“followed the state’s diplomatic trajectories”.³³³ The Chinese state has also hoped that the international operation of these Chinese vendors would reciprocally reinforce its diplomatic relationship with host countries and enhance its international status. Sometimes, those vendors’ overseas projects have even been elevated as a manifestation of Chinese foreign policy. For example, in 2011, during his visit to Ethiopia, China’s then propaganda officer Liu Yunshan visited ZTE’s local branch and openly praised the company’s Ethiopian network infrastructure project as “a model of Sino-Africa cooperation”.³³⁴

This close and highly complex relationship between the state and Chinese network gear suppliers in their outward expansion, however, should not be oversimplified.

First, although government credit has certainly helped China’s companies gain a foothold in the international market, the real impact of these credit lines still requires careful evaluation. In 2011, facing charge of unfair competition and government support from Fred Hockber, the Chairman of US Exim bank,³³⁵ Huawei pointed out that government credit had played a limited role in its business operation. Although China Exim bank had granted a total \$40 billion credit line (mainly in the form of exporter’s credit) to Huawei, only a small portion of that credit – \$2.99 billion – was actually used, while during the same time period, the company had made a far more substantial \$110 billion in its revenue.³³⁶

³³³ Wen, “The Transnationalization of Chinese ICT Corporations: A Case Study of Huawei”.

³³⁴ Zhao, “The Chinese telecommunications war in Africa”.

³³⁵ Although many countries, including the US, have their own Exim banks, the Chinese ones are usually much bigger. It is reported in early 2017 that the China Development Bank has 1.8 trillion in assets, bigger than the US Exim bank “by a multiple of 64”. See, Scott Cendrowski, “Is the world big enough for Huawei,” *Fortune*, February 1, 2017, <http://fortune.com/huawei-china-smartphone>.

³³⁶ Stephen Lawson, “Huawei Calls Charge of Government Help 'hogwash', ” *IDG News Service*, http://www.pcworld.com/article/230671/Huawei_Calls_Charge_of_Government_Help_hogwash.html.

Second, due to the fact that foreign markets have become an important part of some of the leading firms in this sector – indeed, in 2008, Huawei’s overseas revenues accounted for a historical high of 75% of its total revenue,³³⁷ to what extent the Chinese state still exercises control over its “national champions” has become a vexing question. In certain cases, Chinese vendors, under the logic of capital accumulation, have chosen to distance themselves from the state’s agenda. For example, when the state determined to promote China’s indigenous third generation (3G) networking standard – TD-SCDMA, leading Chinese vendors such as Huawei and ZTE only offered limited support. Instead, they prioritized the application of European-backed WCDMA and the US-backed CDMA 2000 standards in their global development, since those non-Chinese 3G standard enjoyed wider global market penetration.³³⁸

Moreover, when facing obstacles in entering lucrative markets in the Global North, Chinese firms have aligned themselves with the structure of global neoliberal capitalism. Huawei’s arduous journey in the United States is illustrative of this conflict zone. According to the data, from 2005 to 2015, eight OFDI deals in the network equipment sector were troubled, of which six were targeted to the US market. In particular, Huawei, has been repeatedly forced by the US government to drop its investments in several US equipment manufacturers and network operators, including its investment in 3Com in 2008, and in 2Wire, Motorola and Sprint in 2010. The Committee on Foreign Investment in the United States (CFIUS) rejected those deals based on national security grounds. Entrenched players in the US market, notably, Cisco, have also lobbied aggressively to protect their home fronts. To counter these accusations, Huawei has adopted Western rules of game playing: It hired a group of high-level executives from

³³⁷ Zhao, “The Chinese telecommunications war in Africa”.

³³⁸ Hong, Bar, and An, “Chinese Telecommunications on the Threshold of Convergence: Contexts, Possibilities, and Limitations of Forging a Domestic Demand-Based Growth Model.”

transnational corporations (e.g., Cisco and Ericsson), involved in extensive lobbying activities in Washington, and eventually, opened all its source code to the US government.³³⁹ Those practices, however, seemed to have little effect; in 2012, a House intelligence committee report warned that both Huawei and ZTE, with their opaque ties with the Chinese state, posed a national security threat to the US.³⁴⁰ In 2013, just 2.2% of Huawei revenue came from the US, the largest Telecom market in the world.³⁴¹ Since then, along with its rapidly expanding handsets arm, Huawei seemed to have rearranged its US strategy by shifting its focus to the less security-concerned consumer market. In 2015, Huawei announced a strategic partnership with Google to manufacture the Google Nexus 6P Smartphone.³⁴²

Finally, the fierce global competition among major players in this sector has further undercut the idea of a monolithic "China, Inc.". It is well known that Huawei and ZTE are sworn rivals in African telecommunications markets, as bloody price wars have become common practices between the two firms. It is reported that when Huawei first entered into the African market, its bidding price was 5%-15% lower than that of Ericsson and Nokia Siemens, which helped the company win significant market share from those well-entrenched Western players; however, when ZTE came in, it offered an even more aggressive price that was 30%-40% lower

³³⁹ Sheridan Prasso, "What Makes China Telecom Huawei so Scary?," *Fortune*, July 28, 2011, <http://fortune.com/2011/07/28/what-makes-china-telecom-huawei-so-scary>.

³⁴⁰ Investigative Report on the U.S. National Security Issues Posed by Chinese Telecommunications Companies Huawei and ZTE,

[https://intelligence.house.gov/sites/intelligence.house.gov/files/documents/huawei-zte%20investigative%20report%20\(final\).pdf](https://intelligence.house.gov/sites/intelligence.house.gov/files/documents/huawei-zte%20investigative%20report%20(final).pdf).

³⁴¹ David Gilbert, "Why has Google Chosen Unknown Chinese Company Huawei to Build its Flagship Nexus 6P Smartphone?" *International Business Times*, September 29, 2015, <http://www.ibtimes.com/why-has-google-chosen-unknown-chinese-company-huawei-build-its-flagship-nexus-6p-2119391>

³⁴² Ibid.

and snatched part of the market share from Huawei.³⁴³ The increasingly overlapping markets and similar low-price strategies of the two firms reached a highly conflicting point in 2011: In March 2011, Huawei filed lawsuits in Germany, France and Hungary, accusing ZTE for patent infringements; ZTE, in response, filed similar cases against Huawei in China. The battle was so intense that China's MIIT, as the industry regulator, eventually stepped in and arranged talks with executives from both firms, but achieved limited results.³⁴⁴

By the end of 2015, a number of globally competitive firms had emerged from China's network hardware manufacturing sector: Since 2012, Huawei has replaced Ericsson as the world's largest network equipment suppliers in terms of revenue. ZTE has also pushed its way into the top league. The 2016 *Fortune Global 500*, based on revenue, ranked Huawei as 129 on its list, Lenovo as 202, China Electronics Corporation as 329, and China Electronics Technology Group as 408.³⁴⁵ Furthermore, some leading Chinese firms have enjoyed a high degree of transnationality. In 2015, revenue generated outside China accounted for 58% for Huawei, 47% for ZTE and 68% for Lenovo, respectively.³⁴⁶ However, with the ongoing economic downturn in the US and European markets and the implementation of a series of Internet-centered developmental strategies under the Xi-Li administration, domestic market still remains as a critical growth engine for those Chinese vendors – in 2015, while the global equipment market

³⁴³ Zhao, "The Chinese telecommunications war in Africa".

³⁴⁴ Guo Haifei 郭海飞 and Yan Yu 燕语, "Huawei Zhongxin roubozhan," 华为中兴肉搏战[The Battle Between Huawei and ZTE], May 18, 2011, http://paper.people.com.cn/jhzk/html/2011-05/18/content_959339.htm?div=-1.

³⁴⁵ Fortune Global 500, <http://beta.fortune.com/global500>.

³⁴⁶ See Huawei 2015 Annual Report, <http://www.huawei.com/en/about-huawei/annual-report>; ZTE 2015 Annual Report, <http://www.zte.com.cn/MediaFiles/5/3/8/%7B538634A7-5C16-45C2-9FA0-39901F83657D%7DP020160406712290589315.pdf>; Lenovo 2015/16 Annual Report, http://www.lenovo.com/ww/lenovo/pdf/report/E_099220160603a.pdf.

saw a weak annual increase of 0.5%, the Chinese market still enjoyed an increase of 4.6%.³⁴⁷ Moreover, when facing the territorial power of other states in their global routes, Chinese firms might still turn to their home country for help. When the CFIUS forced Huawei to drop its OFDI projects, China's MOFCOM intervened and expressed diplomatic regret to the US government. Domestic media also called on the state to "show the sword" to foreign states and companies in order to "not let Huawei fight all by itself".³⁴⁸ In 2011, China established its Security Review System on Mergers and Acquisitions of Domestic Enterprises by Foreign Investors – a Chinese version of the CFIUS, which was largely believed to be a reaction to previous US interventions into Huawei's deals.³⁴⁹ The real impact of this relatively new regulation, however, remained to be seen.³⁵⁰

In sum, it is true that some of the leading Chinese Internet equipment manufacturers have become genuinely "transnational" in terms of business scope and profit strategies. However, China's growing domestic Internet market that is controlled tightly by state-owned carriers, as well as the diplomatic and financial power of the Chinese government, still subject these hardware makers to Chinese state power, at least to a limited extent.

³⁴⁷ Wu Bingbing 吴冰冰, "Zhongguo tongxin he IT shebei changye: Zai biangezhong xunqiu xintupo," 中国通信和 IT 设备产业：在变革中寻求新突破[China's telecom and IT equipment industry: Seeking new breakthroughs], *Renmin Youdian* 人民邮电报, June 28, 2016, http://www.cnii.com.cn/industry/2016-06/28/content_1745005.htm.

³⁴⁸ Yao Chuanfu 姚传富, "Huawei de kangzheng jixu zhenfu liangjian," 华为的抗争亟须政府“亮剑”[Huawei's struggle calls for the state to show the sword], *Renmin Youdian* 人民邮电报, March 2, 2011, http://www.cnii.com.cn/zz/content/2011-03/02/content_847700.htm.

³⁴⁹ Souvik Saha, "CFIUS Now Made in China: Dueling National Security Review Frameworks as a Countermeasure to Economic Espionage in the Age of Globalization," *Northwestern Journal of International Law & Business* 33, no. 1 (2012): 199–235.

³⁵⁰ Yu Hong, "Pivot to Internet+: Political Economy of China's New Communications Agenda." Paper presented at the International Communication Association Annual Convention, Fukuoka, 2016.

Network operators

Compared with the massive and wide-ranging OFDI projects in the equipment-manufacturing sector, both the number and the range of the deals in China's network operating sector have remained limited so far. The data show that from 2005 to 2015, China's major operators – China Telecom, Unicom and Mobile – have initiated a total of 11 large OFDI deals, of which two were troubled. Geographically, the majority of these deals have targeted countries that either have strong diplomatic ties with China (e.g., Pakistan) or countries that have geographical proximity (e.g. Thailand and South Korea). Sectionally, those overseas acquisitions have so far still concentrated on the core business of network operation. In other words, Chinese operators haven't started to diversify their business model in the global arena. Finally, China Mobile, as the world's largest operator by subscribers, has become the flagship company in the global expansion of Chinese operators: Among all the 11 attempted deals, China Mobile had eight (two were failed), China Unicom had three, and China Telecom has not yet accomplished any large OFDI deal, despite the growing number of its overseas offices – it is reported by 2015, China Telecom has established foreign branches in 27 countries.³⁵¹

The “going out” of Chinese carriers started in the early 2000s. In anticipation of fierce post-WTO competition, the Chinese state restructured its basic telecommunications sector with the aim of cultivating a group of globally competitive corporations. To absorb foreign capital, it also allowed all the state-owned operators to adopt corporate structure reform and list part of their assets on foreign stock exchanges. The “plugging” of those network operators into transnational financial markets has resulted in an extremely high degree of involvement of

³⁵¹ “China Telecom made a big move to implement the ‘One Belt and One Road’ program,” *Xinhua Net*, http://news.xinhuanet.com/info/2015-11/13/c_134813626.htm.

transnational financial institutions in the process, including investment banks such as Goldman Sachs and law and accountant firms like Linklaters & Paines.³⁵² Despite this high degree of involvement, foreign equity investment, however, has been tightly regulated in this strategic area. By 2015, foreign investment remains under 10% in all three Chinese carriers, although the country's WTO commitment promised that it would open up its operating sector up to 49%.³⁵³ Through the institutional setup of both the MIIT and SASAC, the state also retains its power of executive regulation and ownership control, as demonstrated in the 2004 reshuffle of the chief executives among the three companies. China's network operators, therefore, have been transformed into state-owned enterprises with corporate structure. On the one hand, they carry the logic of capital accumulation, performing as corporate entities with a prominent goal of profit maximization and capitalist-expansion. On the other hand, they are tightly controlled by the state through both the industry regulator (the MIIT) and the ownership agency (the SASAC). Therefore, they are also obliged to undertake special political missions. This dual identity, which creates significant contradictions, has become prominent in their overseas expansion.

China Mobile's global route illustrates this dual identity. On the one hand, state supports and geopolitical considerations have certainly infused its global projects. For example, in 2007, China Mobile spend a total of \$560 million in acquiring Paktel, the fifth largest mobile operator in Pakistan, and has since operated local networks under the "ZONG" brand. As the first successful OFDI project completed by China Mobile, Pakistan was not a random choice. Wang Jianzhou, the company's former Chairman, was quoted in saying, "if we can't do well in

³⁵² Dariusz Wojcik and James Camilleri, "'Capitalist Tools in Socialist Hands'? China Mobile in Global Financial Networks," *Transactions of the Institute of British Geographers* 40, no. 4 (2015): 464–78.

³⁵³ Roselyn Hsueh, "Nations or Sectors in the Age of Globalization: China's Policy Toward Foreign Direct Investment in Telecommunications," *Review of Policy Research* 32, no. 6 (2015): 627–48, 637.

Pakistan, we wouldn't be able to do well in other places".³⁵⁴ As one of China's closest allies since the 1950s, China Mobile's expansion into Pakistan has certainly taken into account the diplomatic assistance of the Chinese state; the establishment of a Chinese telecommunications brand in Pakistan, in turn, might also serve to boost the close connections between the two countries.

Apart from geopolitical considerations, another prominent role played by Chinese operators in their journey abroad is to promote China-owned network standards. In the 2008 restructuring, China Mobile, as the strongest among three, has been assigned by the MIIT as the single major carrier of China's indigenous third generation (3G) networking standard – TD-SCDMA, and subsequently, as one of the major carriers of the China-developed fourth generation (4G) TD-LTE standard. As discussed in previous chapters, technological standards matter for both political and economic reasons, as they not only constitute the foundation of the global network system but also play a major role in shaping related equipment industry. The outward expansion of China Mobile, therefore, also shoulders the political responsibility of promoting China's homegrown standards. The company is well aware of this situation. Xi Guohua, China Mobile's Chairman, in his proposal to the National People's Congress, reportedly stated that China Mobile would actively promote the internationalization of TD-LTE; meanwhile, it will also use this opportunity to expand its own overseas territory.³⁵⁵ In October 2015, China

³⁵⁴ Ma Xiaofang 马晓芳, "Wang Jianzhou: Bajisitan zuobuhao buqu qitadifang," 王建国: 巴基斯坦做不好不去其他地方[Wang Jianzhou: If we can't do well in Pakistan, we wouldn't be able to do well in other places], *China Business News* 第一财经日报, June 23, 2010, <http://tech.qq.com/a/20100623/000234.htm>.

³⁵⁵ Nan Shan 南山, "Xi Guohua: Zhongyidong zaiqi guojihua, jie TD-LTE yangfan chuhai," 奚国华: 中国移动重启国际化 借 TD-LTE 扬帆出海[Xi Guohua: China Mobile restarted its globalization through developing TD-LTE], March 5, 2014, <http://www.c114.net/news/22/c16710.html>.

Mobile invested \$280 million in South Korea's KT to jointly fund a new network operator in Korea – with an aim to expand TD LTE to the local customer.³⁵⁶

For all this, however, it might be misleading to consider political aims as the *only* logic that has driven China Mobile's global expansion. Profit maximization, sometimes, plays a more decisive role. As aforementioned, the state strongly encourages Chinese Internet companies to work together in conquering foreign markets – a practice called “go global in groups” (*Jituan Chuhai* 集团出海). Operators' overseas expansion, in particular, carries the aim of promoting the export of Chinese network products. To some extent, China Mobile has built part of its overseas network based on equipment provided by Chinese makers such as Huawei and ZTE. It has also, however, collaborated with foreign vendors. For example, in 2007, Alcatel-Lucent, Ericsson, ZTE and Huawei jointly shared a \$500 million network expansion contract from China Mobile's Pakistan subsidiary.³⁵⁷ Sometimes, instead of granting a contract to the members in its home team, China Mobile has chosen to let the vendors compete and has benefited from the price wars.³⁵⁸ Such practices, driven by the corporate rationale of profit maximization, have certainly decreased the company's procurement expenditure; however, they have also weakened the state's agenda of promoting a unified “Chinese team” in the global arena.

³⁵⁶“Zhongyidong xie KT Net chengli hanguo disida yunyingshang, tui liangguo mianfei manyou,” 中国移动携 KT Net 成立韩国第四大运营商, 推两国免费漫游[China Mobile collaborated with KT Net to establish the fourth largest operator in Korea], October 28, 2015, <http://www.cidcom.com/html/yunyingshang/201510/28-245642.html>.

³⁵⁷ Syed Fazl-E-Haider, “China Mobile Expanding Its Network in Pakistan,” September 17-23, 2007, <http://www.pakistaneconomist.com/pagesearch/Search-Engine2007/S.E600.php>.

³⁵⁸ Zhao Hejuan 赵何娟, “Zhongyidong bajisitan zigongsi paimindiandi nianfuyinian,” 中移动巴基斯坦子公司排名垫底年复一年 [China Mobile's Pakistani subsidiary ranked the lowest again this year], May 23, 2011, *CaiXin* 财新, <http://www.c114.net/news/118/a603483.html>.

Thanks to China's growing domestic market and its state's protectionist policy, by the end of 2015, all the three network operators had grown into the top-tier telecommunications companies in the world. For example, the 2016 *Fortune Global 500* ranks China Mobile as 45, China Telecom as 132 and China Unicom as 207 on its list.³⁵⁹ Their international presence, however, has so far been rather limited. China Telecom has not yet had any large overseas acquisitions. This pattern persisted for China Unicom, as two of its three large OFDI projects in the past ten years were minority equity investment into Spain's Telefonica – 1% in 2009 and 1% in 2011. In contrast, Telefonica once held a 9.57% stake in China Unicom and recently decreased this number to 5.01% due to financial constraints.³⁶⁰ For China Mobile, the most powerful among the three, not only has Pakistan remained as the only overseas market, but by the middle of 2013, the company only possessed a market share of 15.7% in Pakistan.³⁶¹

But this trend might start to change, as the Internet sector has been assigned an unprecedented role in the current leadership's "Internet Plus" and "One Belt, One Road" strategies. The Internet's growing importance in both China's domestic market and its foreign diplomacy might reinforce the territorial power of the state in those network operators' global strategies. As aforementioned, since 2015, China Mobile has started a new project to build local network in South Korea to support the homegrown 4G standard. The same year, China Unicom invested \$490 million in Cameroon's CamTel to build a trans-Atlantic submarine cable connecting Africa to Latin America. Supported by Telefonica's international facilities and constructed by Huawei Marine, this project is expected not only to improve local Internet service,

³⁵⁹ Fortune Global 500, <http://beta.fortune.com/global500/>.

³⁶⁰ Zhang Huanping 张焕平, "Xibanya dianxin rugu, zengchi yu jianchi liantong guiqi huigu," 西班牙电信入股、增持与减持联通轨迹回顾 [A review of Spain's Telefonica's equity investment in China Unicom] June 13, 2012, *Caixin* 财新, <http://economy.caixin.com/2012-06-13/100400074.html>.

³⁶¹ Nan, "Xi Guohua: China Mobile restarted its globalization through developing TD-LTE".

but also to serve “Chinese enterprises which have entered into the African and Latin American markets”.³⁶²

Web services and applications providers

In contrast to hardware manufacturing and network operation, large OFDI projects from China’s web services and applications sector have been a fairly recent but rapidly growing phenomenon. Beginning in 2010, Chinese Internet application companies started to invest overseas; by the end of 2015, they had accomplished 22 OFDI projects that had a transaction value of \$100 million or over. The majority of these deals were targeted at countries of the Global North – indeed, more than half (11) were targeted at the US market. Others concentrated in neighboring countries that either shared cultural proximity or linguistic commonality with China (such as Japan, Singapore, and South Korea), or that enjoyed significant growth potential due to large population sizes (such as India), or that maintained close diplomatic ties with China (such as Russia and Brazil). Moreover, China’s BATs played a dominant role in this sector’s OFDI projects: Of the 22 deals, Alibaba had 8, Tencent 7, and Baidu 2.

In terms of OFDI strategies, most companies in this sector still chose to focus on their core businesses. For example, Shanda Interactive, an online gaming company, bought Eyedentity Games in South Korea in 2010. Ctrip, China’s largest online travel agency, acquired Travelfusion of Britain in 2015 to gain a toehold in the British online travel booking business. Among Tencent’s 7 OFDI deals, 5 supported the company’s primary growth engine – the online

³⁶² “CamTel and China Unicom to build trans-Atlantic submarine cable to connect Africa to Latin America,” <https://www.business-solutions.telefonica.com/en/information-centre/news/camtel-and-china-unicom-to-build-trans-atlantic-submarine-cable-to-connect-africa-to-latin-america>.

gaming market (with Riot Games, Epic games, Activision, CJ games, Glu Mobile). However, some companies have started to diversify their overseas investments. For Alibaba, although half of its OFDI deals were to support the development of its main business of e-commerce (with Shoprunner, Singapore Post, One 97, and Snapdeal), the company also accomplished 2 deals in social media (with Tangome and Snapchat), 1 deal in online gaming (with Kabam) and 1 in in robotics (with SoftBank and FoxConn). Baidu's OFDI projects have remained modest so far: In May 2014, it spent \$300 million to build an overseas research center in Silicon Valley; in December 2014, it invested \$600 million in Uber to build a strategic relationship with this fast-expanding US ride-hailing company.³⁶³

Finally, an emerging but significant trend can also be observed from the data: Chinese Internet companies have started to partner with transnational venture capital firms in their global capital projection. In April 2010, Tencent injected \$300 million to Digital Sky Technologies, a Russian investment firm that is well known for its investments in Facebook, to build a "long-term strategic partnership".³⁶⁴ In January 2015, Tencent and another Chinese social media company Renren, invested \$100 million in Singulariteam, an Israeli venture capital firm. This \$100 million money, according to Singulariteam, would be used to fund local startups.³⁶⁵ In other words, China-based Internet companies have now started to form collaborative relationship with transnational financial capital to project money *outbound*.

³⁶³ Baidu, "Baidu, Uber xuanbu dacheng quanqiu zhanlue hezuo ji touzi xieyi," 百度, Uber 宣布达成全球战略合作及投资协议 [Baidu and Uber reached agreement on global strategic partnership], December 18, 2014, <http://home.baidu.com/2015-01-04/1424097506.html>.

³⁶⁴ Tim Bradshaw and Kathrin Hille, "Tencent to invest \$300m in DST," *Financial Times*, April 12, 2010, <https://next.ft.com/content/5364d9c2-464d-11df-9713-00144feab49a>.

³⁶⁵ Ingrid Lunden, "Israel VC Singulariteam Raises 2nd Fund, \$102M Backed by Tencent, Renren Founders," *TechCrunch*, January 28, 2015, <https://techcrunch.com/2015/01/28/singulariteam-vc-fund>.

As discussed in Chapter 1, the Internet services and applications sector in China has largely been funded by transnational capital from the beginning. Although the state has controlled China's domestic Internet through various regulatory measures, it has exhibited a high degree of tolerance toward foreign capital *as a portfolio investor* in this sector. One possible reason behind this strategy is the relatively less sensitive nature of value-added services in terms of national security threats.³⁶⁶ On the other hand, because the state in the late 1990s only perceived web applications as “an extension of telecom services,” companies in this sector had a low priority in terms of state funding.³⁶⁷ The rise of the dot.com bubble in the US also prompted many transnational financial firms to look into emerging Internet markets for investment opportunities, especially China. As a result, a large amount of transnational capital poured into the Chinese online market in the late 1990s and early 2000s, often through an extremely complex VIE structure, and literally jump-started China's Internet applications sector. Due to the highly speculative and short-term nature of venture capital investments,³⁶⁸ those firms – many of them were registered in offshore tax havens such as the Cayman Islands – have also rushed to list shares on foreign stock markets to raise capital and, to some extent, to further “internationalize” their assets. The Chinese state, therefore, does not hold significant influence over these companies in terms of ownership and financing structure, especially compared with its close relationship with hardware manufacturers and network operators.

For China's web applications companies, this relatively detached relationship with the state has significantly influenced their global adventures. Indeed, their deep tie with global

³⁶⁶ Hsueh, “Nations or Sectors in the Age of Globalization,” 637; Harwit, *China's Telecommunications Revolution*, 105.

³⁶⁷ Hong, “Pivot to Internet+: Political Economy of China's New Communications Agenda”.

³⁶⁸ Matthew Crain, “Financial Markets and Online Advertising: Reevaluating the Dotcom Investment Bubble,” *Information, Communication & Society* 17, no. 3 (2014): 371–84.

financial networks means that global banks, instead of the Chinese state, have often stood behind their OFDI projects. In this regard, it is not “China buying the world,” but rather “transnational capital buying the world”. For example, in 2015-2016, with help from foreign investment banks such as Citigroup, Deutsche Bank, Goldman Sachs, JP Morgan and Morgan Stanley, all the three Internet giants in China have secured some types of syndicated loans to fund their overseas buying spree: Alibaba \$4 billion, Tencent \$4.4 billion and Baidu \$2 billion.³⁶⁹ And, more often than not, China’s Internet firms have used these loans to invade each other’s turf. For example, Alibaba, the e-commerce behemoth, has elbowed into Tencent’s core businesses – the social media and online gaming market – through aggressive transborder capital projections. In 2014-15, Alibaba invested over \$400 million in mobile messaging apps like TangoMe and Snapchat, and another \$120 million in Kabam, an online gaming company. In other words, China-based Internet firms have competed ruthlessly with each other on a global scale based on the support of transnational financial networks. There is, indeed, no unified “Chinese team” to speak of.

Moreover, for those China-based Internet services and applications companies, to keep some forms of distance with the Chinese state might be beneficial for their expansion into the center of neoliberal capitalism, notably, the US. For example, from 2005 to 2015, none of the 21 OFDI projects in this sector were troubled, including 11 targeting the US market. This contrasts sharply with the equipment-manufacturing sector – 8 out of 54 were troubled, and network operation sector – 2 out of 11 were failed. As aforementioned, the US state has forced several Chinese vendors, including ZTE and Huawei, to drop their OFDI deals in the US market. Then

³⁶⁹ Sandra Tsui, “Tencent Said to Increase Size of Syndicated Loan to \$4.4 Billion,” *Bloomberg*, June 6, 2016, <http://www.bloomberg.com/news/articles/2016-06-06/tencent-said-to-increase-size-of-syndicated-loan-to-4-4-billion>; Adam Jourdan, “China's Alibaba says agrees \$3 billion five-year loan,” *Reuters*, March 9, 2016, <http://www.reuters.com/article/us-alibaba-loan-idUSKCN0WC00D>.

why didn't the territorial logic of the US intervene into the merger and acquisition activities of Chinese Internet application companies? One possible reason is, as previous scholars have argued, in general, value-added services present fewer security concerns for states.³⁷⁰ Another possible reason, however, might lie in the transnational nature of these companies. As Alibaba's IPO prospectus reveals, SoftBank of Japan holds a 34.4% stake of the company, Yahoo owns 22.6% and the founder Jack Ma only 8.9%.³⁷¹ To what extent are Alibaba – and many other companies in this sector – Chinese? Furthermore, under certain circumstances, those companies might choose to delink themselves from the state and realign with neoliberal transnational capitalism. Indeed, when *New York Times* raised questions over Alibaba's potential political ties with some high-level Chinese politicians, the company firmly responded through its Weibo account that “our only background is the market”.³⁷² This response, of course, has concealed the fact that Alibaba, and other Chinese Internet companies, are dependent for access to Chinese market on state-controlled operators.

This does not mean, however, that the state has lost its control over its homegrown Internet companies. First, it is worth noting that in some cases, the state still offered critical financial support to those Internet firms through its now highly capable and complex financial arms. Alibaba 2012's deal with Yahoo to buy back half of its stock is illustrative in this regard. It is reported that this \$7.6 billion project were funded by a group of mixed investors, including not only foreign banks, but also Chinese investors. For example, China Development Bank made

³⁷⁰ Hsueh, “Nations or Sectors in the Age of Globalization,” 637; Harwit, *China's Telecommunications Revolution*, 105.

³⁷¹ Alibaba, “Form F1 submitted to the United States Securities and Exchange Commission,” May 6, 2014, <https://www.sec.gov/Archives/edgar/data/1577552/000119312514184994/d709111df1.htm>.

³⁷² “Alibaba: Women de beijing shi shichang,” 阿里巴巴：我们的背景是市场 [Alibaba: The market is our background], *International Business Times*, July 23, 2014, <http://www.ibtimes.com.cn/articles/38199/20140723/a-li-ba-ba-wo-men-de-bei-jing-shi-shi-chang.htm>.

Alibaba a \$2 billion loan. Alibaba also raised part of the funds by selling its stocks to China-based investors, including China's sovereign wealth fund (the CIC), CITIC capital holdings, an investment management firm under the state-owned CITIC, and CDB capital, the private investment arm of the China Development Bank.³⁷³ Apart from providing the loan, the Chinese state has also teamed up with China-based Internet firms in their overseas buying activities. For example, in October 2015, China's sovereign wealth fund has collaborated with Didi Kuaidi (now Didi Chuxing), China's dominant ride-hailing company, to inject \$100 million into GrabTaxi, Uber's rival in Southeast Asia, with a possible aim to distract Uber from its fierce competition with Didi Kuaidi in the Chinese market. Such financial muscle, under certain circumstance, might be able to translate into some maneuvering power over these Internet firms.

Second, although in some cases, China-based Internet companies may want to distance themselves from the state, in other cases, they also need to rely on the state's diplomatic relations to further their global journey. Indeed, it has now become a common practice that high-level executives of China's Internet companies often accompanied Chinese leaders in their diplomatic visits. For example, in July 2014, Baidu's CEO, Robin Li, accompanied Chinese President Xi Jinping on a visit to Brazil. During the visit, Baidu launched its Portuguese search engine, with an opening ceremony attended by both Xi Jinping and Brazilian President Dilma Rousseff.³⁷⁴

The same year, Baidu acquired Peixe Urbano, a Brazilian online-discount company to gain a

³⁷³ Michael Forsythe, "Alibaba's I.P.O. Could Be a Bonanza for the Scions of Chinese Leaders," *The New York Times*, July 21, 2014, http://dealbook.nytimes.com/2014/07/20/alibabas-i-p-o-could-be-a-bonanza-for-the-scions-of-chinese-leaders/?_r=0.

³⁷⁴ Ministry of Foreign Affairs, "Xi Jinping Holds Talks with President Dilma Rousseff of Brazil, Inheriting the Past and Ushering in the Future to Forge More Splendid Future for China-Brazil Relations," July 18, 2014, http://www.fmprc.gov.cn/mfa_eng/topics_665678/xjpxcxjzgjldrdlchwdxbxagtwnrllgbjxgsfwbcbxzlldrhw/tl176222.shtml

foothold in a country whose e-commerce market is expected to maintain a strong annual growth of 18% in 2016.³⁷⁵ Apart from significant market potential, Brazil was chosen by Baidu probably also for geopolitical reasons. South Asian historian Vijay Prashad illustrates the deepening connections between China and Brazil in the era of neoliberal globalization. He documents how the non-Aligned Movement in the 1970s, which was originally constructed as an alternative South-South movement to Western capitalism, were demolished and how the BRICS countries (Brazil, Russia, India, China, and South Africa) noteworthy reemerged as the “locomotives of the South” pulling the “wagons of the North”.³⁷⁶ Deep divisions and conflicts notwithstanding, Yuezhi Zhao reminds us in her case study of the BRICS cable that in a Post-Snowden cyberspace where the US hegemonic power has been – at least to some extent – destabilized, there might exist possibilities that the BRICS would start to form a potential power bloc to rebalance the US-dominated global communication order.³⁷⁷ Baidu’s engagement with Brazil, and the involvement of two countries’ top leaders in the process, is illustrative of this complex economic and geopolitical zone.

Finally, and probably most importantly, as we saw in Chapter 1, the Chinese state has so far still retained a strong command over its domestic online market. This is especially relevant for China’s web services and applications companies because the majority – if not all – of them are still heavily, if not exclusively, reliant on the domestic market for profit and growth. In 2014, the overseas revenues of the three strongest Internet applications companies in China – Alibaba,

³⁷⁵ Guillermo Parra-Bernal, “China’s Baidu buys control of Brazil’s Peixe Urbano in expansion push,” October 9, 2014, *Reuters*, <http://www.reuters.com/article/us-peixe-urbano-m-a-baidu-idUSKCN0HY1EN20141009>

³⁷⁶ Vijay Prashad, *The Poorer Nations: A Possible History of the Global South* (London: Verso, 2012), 10-12.

³⁷⁷ Yuezhi Zhao, “The BRICS Formation in Reshaping Global Communication: Possibilities and Challenges,” in *Mapping BRICS Media*, ed. Daya Kishan Thussu (New York: Routledge, 2015), 66–86.

Tencent, and Baidu – only accounted for 8.5%, 8.2%, and 0.5% of their annual revenues, respectively.³⁷⁸ In other words, despite their extensive and deep ties with transnational financial capital, in terms of revenue distribution, China’s Internet applications companies are still dominantly “Chinese”. The state’s tight control over the domestic digital market, in turn, can be converted into leverage over these companies, in order to keep them in line with the state’s developmental and international agenda, especially through regulatory power such as licensing.

One highly visible manifestation of this state power is the recently released draft Foreign Investment Law by China's Ministry of Commerce in 2015, which has largely been interpreted as an effort by the state to regulate the VIE structures in China’s Internet sector.³⁷⁹ As will be discussed in Chapter 4, with the growing interpenetration of Internet capital into various aspects of China’s political economy, the state has both political and security concerns to curb the influence of foreign capital. Although the specific outcome remains uncertain as of this writing, it is reported that under this new Law, the state will define the “nationality” of an enterprise in the VIE arrangement not based on *ownership* structure, but based on who has ultimate *control* over the enterprise. Given the fact that foreign ownership has largely been shielded from China’s online sector and a large amount of transnational capital has entered into this market through the VIEs, this new Law holds enormous significance. If a VIE can prove that Chinese executives or Chinese companies are in control, it will be qualified as “Chinese” and will be able to continue operating in the much-restricted but highly lucrative Chinese market. Under this circumstance,

³⁷⁸ “Hulianwang xingui BAT guojihua zhilu de deiyushi,” 互联网新贵 BAT 国际化之路的得与失 [The gains and losses of BAT’s routes to globalization], <http://www.kanshangjie.com/article/58410-1.html>.

³⁷⁹ Pei Yu 裴昱, “Waiguo touzifa niannei bao quanguo renda, VIE moshi huojiang naru jianguan,” 外国投资法年内报全国人大, VIE 模式或将纳入监管 [New Foreign Investment Law might start to regulate the VIE model] *China Business* 中国经营报, May 7, 2016, <http://finance.sina.com.cn/roll/2016-05-07/doc-ifyryhhi8474566.shtml>.

companies like Baidu that have adopted structures of dual-class shares, or similar ones like Alibaba's unique "Alibaba Partnership," will remain intact, since the dual-class share structure has given their Chinese executives effective voting power over foreign investors.³⁸⁰ For other companies, however, this new Law, once implemented, would have massive impact, as many VIEs would be pressed to render control to their Chinese partners in order to keep their operational licenses in China.³⁸¹ The formulation process of this Foreign Investment Law has remained largely opaque: It is possible that Chinese Internet elites, under the logic of capital accumulation, have propelled the state to maximize their interests – sometimes against the interests of their transnational partners – through legal means. It is also possible, however, that the Chinese state, under the territorial logic, has started to flex its regulatory muscle and tighten control over its online market. No matter what or who was behind the curtain, this new Law has demonstrated the state's regulatory power to continue disciplining these firms in spite of the domination of transnational capital in their ownership structure.

By the end of 2015, China's web services and applications sector had gained substantial importance in global cyberspace. In 2014, four out of the ten largest Internet applications firms by market capitalization were based in China: Alibaba, Tencent, Baidu, and JD.com.³⁸² Despite strong ties with transnational capital and an aggressive record of transborder FDI activities, however, for those companies, China has remained as the largest market segment in their profit strategies. The dominant position of the Chinese market, in addition to the state's highly capable

³⁸⁰ Gillian Wong and Juro Osawa, "How China's Draft Rules May Affect Foreign Investors," *The Wall Street Journal*, January 28, 2015, <http://www.wsj.com/articles/how-chinas-draft-rules-may-affect-foreign-investors-1422412416>.

³⁸¹ Ibid.

³⁸² Eva Dou, Juro Osawa and Wayne Ma, "Internet power balance tilts toward Asia," *The Wall Street Journal*, September 16, 2014, <http://www.wsj.com/articles/internet-power-balance-tilts-toward-asia-1410887497>.

and complex financial arms as well as its diplomatic support, still lend the Chinese government certain leverage over these firms in their global ventures, and therefore might keep them in line with the state's diplomatic agenda, as will be discussed in the case of Alibaba.

Other Chinese investors in global cyberspace

Aside from companies in all the three Internet subsectors, a closer look at the firm-level data also reveals several other China-based investors that have injected capital in global cyberspace. Those investors – categorized as “others” in the dataset because their primary businesses are not Internet-related – can be generally divided into two camps and warrant some discussion here.

The first type involves state-owned construction contractors, such as China Communications Construction, China National Machinery Industry Corporation (Sinomach) and its subsidiary China Machinery Engineering Corporation (CMEC). Those contractors have been active in building overseas engineering projects, including network infrastructures. The projects were mostly in the Global South and often were built with the financial support of China's policy banks. It is therefore fair to say that this type of Chinese investment has helped many countries in the Global South build national networks that they otherwise would not be able to afford. More often than not, however, those Chinese contractors outsourced the network equipment part to their fellow Chinese firms. In this way, the same type of Chinese investment has also helped the global expansion of China's Internet sector. For example, in 2010, with a concession loan of 216 million from China Exim bank, Sinomach/CMEC signed a contract with Bangladesh's state-owned operator Teletalk to help the country build its 3G network; it then sub-contracted the

network equipment and service work to Alcatel-Lucent Shanghai Bell, a SASAC-controlled telecommunications enterprise.³⁸³

The second camp of the Chinese investors includes portfolio investment – financial firms and venture capital organizations based in China. According to the data, they started to project capital into foreign Internet firms since the early 2010s. This group of Chinese investors is highly diverse: Not only includes state agencies such as the SAFE; China’s Sovereign Wealth Fund, the China Investment Corporation (CIC); state-owned investment company, the CITIC; but also includes private financial firms like Uphill Investment and Cybernaut. Most of these investments targeted Internet firms in the Global North, especially those in the US. For example, in 2014, China Huaxin Post and Telecommunication Economy Development Center, a state-controlled ICT investment firm, spent \$310 million in acquiring an Alcatel-Lucent enterprise. In August 2015, the state-owned investment firm CITIC, invested \$100 million in US taxi hauling company Uber. The relationship between those different units of Chinese financial capital is extremely intricate and in some cases, state-owned financial firms and private investment companies have worked together to accomplish a single deal. In April 2015, Hua Capital, a private equity management firm in Beijing, in collaboration with the CITIC, completed a \$1.9 billion acquisition of OmniVision, a US tablet and smartphone chipmaker. While still emergent, this new trend illustrates the increasing interpenetration of finance capital and FDI, and of China and global cyberspace. More importantly, unlike the situation in the late 1990s and early 2000s – in

³⁸³ Zheng Jianghua 郑江华, “Mengjialaguo mairu 3G shidai,” 孟加拉国迈入 3G 时代[Bangladesh entered into the 3G era], *Xinhua Net* 新华网, October 14, 2012, http://news.xinhuanet.com/world/2012-10/14/c_113364783.htm; Alcatel-Lucent Shanghai Bell, “Shanghai Bell and Zhongguo gongchen xieshou kaituo mengjiala yidong tongxun shichang,” 上海贝尔、中国工程携手开拓孟加拉移动通信市场 [Shanghai Bell and Sinomach explored the Bangladesh’s mobile telecom market], March 19, 2012, <http://www.alcatel-sbell.com.cn/Default.aspx?tabid=262&ArticleID=1580>.

which global financial capital poured into China to activate its web applications sector, China-based financial capital has now started to project investment *outbound* to fund companies in global cyberspace. Tencent's strategic relationship with Russian investment firm Digital Sky Technologies and Israeli venture capital firm Singulariteam, as aforementioned, might add to this trend.

Conclusion

Not only having the world's largest number of Internet users, China now has a group of world-class Internet corporations that started to aggressively set their sights on the international market. What does the "going-out" strategy of China's Internet industry look like? What have been the enabling and constraining forces for this aspect of their growth? How have they become entangled and engaged with the state, other units of capital and inter-state and inter-capitalist relationships? And how important are these Internet companies in global and comparative perspective?

To answer those questions, this Chapter, based on two types of datasets, has offered an overview of the "going out" of China's Internet industry, focusing on the OFDI projects attempted by China-based Internet firms from 2005 to 2015. It has demonstrated, contrary to the conventional wisdom, that China's Internet companies are not the expansionist tools of a monolithic authoritarian state nor do they constitute a unified "corporate China" as they venture out into the international Internet. Instead, the global expansion of China's Internet sector has been constituted and complicated by both the territorial logic of the state and the expansive logic of capital accumulation. Moreover, not only has the state itself been constrained by inter-

department conflicts and center-local tensions, but the complex relationship between the state and the different sub-sectors of China's Internet industry does not adhere to a single template.

Moreover, the independence of this state power should also not be overestimated. With the increasingly overarching role played by the Internet in both China's political economy and global digital capitalism, the ability of China's Internet elites to shape or set the state's agenda become a vital research question. For this reason, we will zoom in and look at the relationship between the state and an emerging Internet capitalist class fraction in China. But before doing so, the following chapter will first dig deeper into the state-capital interactions covered in this chapter by offering a case study of a particularly important unit of Chinese Internet capital, the e-commerce giant, Alibaba.

CHAPTER 4

“THE COMMUNISTS JUST BEAT US AT CAPITALISM”? THE “INTERNATIONALIZATION” OF ALIBABA

In September 2014, Alibaba Group Holding Limited (hereafter “Alibaba”) debuted on the New York Stock Exchange, claiming the world’s largest Initial Public Offering (IPO) in history.³⁸⁴ This historical IPO has brought the Hangzhou-headquartered company into the global spotlight. Despite intensive media coverage, however, to a certain extent, Alibaba remains a puzzle.

Indeed, a simple question like “is Alibaba a Chinese company” may still need careful qualification, as evidenced by a quick survey of its 2014 IPO filing to the US Security and Exchange Commission. In terms of revenue distribution, Alibaba is dominantly “Chinese” as China’s domestic market has accounted for up to 84% of its total revenue. In terms of ownership structure, however, Alibaba is barely “Chinese” – SoftBank of Japan holds a 34.4% stake of the company, Yahoo owns 22.6% and its Chinese founder Jack Ma only 8.9%.³⁸⁵ In terms of location, Alibaba is a mix. On the one hand, its five major subsidiaries (and their respective operating companies) are all based in China, mainly registered in the East Coast regions like Zhejiang or Shanghai. On the other hand, through a series of complex contractual agreements, these China-based entities have also linked to a number of overseas entities registered in offshore

³⁸⁴ Chen Liyan, “Alibaba's IPO By The Numbers: Bigger Than Google, Facebook, And Twitter Combined,” *Forbes*, September 19, 2014, <http://www.forbes.com/sites/liyanchen/2014/09/19/alibabas-ipo-by-the-numbers-bigger-than-google-facebook-and-twitter-combined/#726fa2c44e52>.

³⁸⁵ It is worth noting that despite Yahoo sold its core business to Verizon in July 2016, Alibaba’s share was not included in this deal and Yahoo said the remaining company will hold these stakes “indefinitely”. See, Malathi Nayak and Deborah M. Todd, “Verizon to buy Yahoo's core business for \$4.8 billion in digital ad push,” *Reuters*, July 25, 2016, <http://www.reuters.com/article/us-yahoo-m-a-verizon-idUSKCN1040U9>.

tax havens like Hong Kong and the British Virgin Islands. Indeed, the parent company Alibaba Group itself is incorporated in the Cayman Islands.³⁸⁶ Commenting on the intricate ownership and corporate structure of a China-based company that successfully raised an enormous amount of capital on the New York capital market, Jon Stewart of the Daily Show joked, “the Communists just beat us at Capitalism!”

Among all the Chinese Internet companies that have established a global presence, Alibaba stands out as a particularly significant case. In 2014, it has become the largest e-commerce company in the world, according to a couple of measurements, including active buyers, profits, market capitalization and gross merchandise volume, or commerce transactions occurred on its platforms.³⁸⁷ In 2013, the total online transaction value on Alibaba’s platforms reached \$248 billion, triple the size of eBay, more than double the size of Amazon, and one-third larger than Amazon and eBay – the two US-based e-commerce giants – combined.³⁸⁸ In the fiscal year ending in March 2016, Alibaba’s online transaction volume has reportedly surpassed Wal-Mart’s annual sales, making the company officially the largest retail platform in the world, both online and offline.³⁸⁹

This enormous online trading volume has translated into a lofty market valuation. In 2007, during its first IPO, Alibaba raised \$1.5 billion by listing 17% of its business-to-business (B2B) division – Alibaba.com and Alibaba.com.cn – on the Hong Kong Stock Exchange, claiming the

³⁸⁶ Alibaba Group, SEC Form F-1, September 15, 2014, <https://www.sec.gov/Archives/edgar/data/1577552/000119312514341794/d709111df1a.htm>.

³⁸⁷ Krishna Palepu et al., “Alibaba Goes Public (A),” *Harvard Business School Case*, no. December (2014): 115–029.

³⁸⁸ Juro Osawa, Paul Mozur and Rolfe Winkler, “Alibaba Flexes Muscles Before IPO,” *The Wall Street Journal*, April 15, 2014, <http://www.wsj.com/articles/SB10001424052702303887804579501411932558776>.

³⁸⁹ Meng Jing, “Alibaba Becomes the World’s Largest Retailer,” *China Daily*, April 6, 2016, http://www.chinadaily.com.cn/business/tech/2016-04/06/content_24315726.htm.

largest technology IPO since Google in 2004.³⁹⁰ In September 2014, the parent company Alibaba Group revealed another historical IPO of \$25 billion on the New York Stock Exchange – as we saw at the beginning of this chapter – surpassing the total amount of capital raised by Google (\$2.7 billion in 2004), Facebook (\$16.8 billion in 2012) and Twitter (\$1.82 billion in 2013) in their respective IPOs.³⁹¹ It has also positioned Alibaba as one of the most valuable Internet companies in the world: Valued at \$167.6 billion at the time of its IPO, Alibaba trailed only a few US Internet giants such as Google, Microsoft and Facebook.³⁹²

The strategic importance of Alibaba in both the Chinese and global Internet, as well as the puzzles around its corporate nationality – i.e., how international it is – makes the company a revealing case for studying the evolution, structure, and especially the global journey of China’s web companies. Popular media, on the one hand, have highlighted the “Chineseness” of Alibaba, framing it as a manifestation of a rising Chinese Internet, indeed, a “symbol of China’s new tech giants”.³⁹³ The company itself, on the other hand, has tried to blur its nationality and presented itself as an “international” firm – as its founder Jack Ma famously announced before its New York IPO, “we are not a company from China, we are an Internet company that happened to be in China.”³⁹⁴ Although there is a growing body of literature examining the internationalization of Chinese multinationals,³⁹⁵ few studies have paid attention to the recently-emerged Internet

³⁹⁰ “Alibaba.com IPO jumps in Hong Kong debut,” *CNN*, November 5, 2007, http://money.cnn.com/2007/11/05/markets/ipo/ali_baba_ipo.

³⁹¹ Chen Liyan, “Alibaba’s IPO by The Numbers: Bigger Than Google, Facebook, And Twitter Combined.”

³⁹² *Ibid.*

³⁹³ Joe McDonald, “Alibaba, Symbol of China’s New Tech Giants,” *AP*, <https://www.yahoo.com/news/alibaba-symbol-chinas-tech-giants-081759468-finance.html?ref=gs>.

³⁹⁴ Elzio Barreto and Fiona Lau, “Alibaba to Boost IPO Size on ‘Overwhelming’ Demand,” *Reuters*, September 15, 2014, <http://www.reuters.com/article/alibaba-group-ipo-idUSL3N0RG2AD20140915>.

³⁹⁵ See, for example, John Child and Suzana B. Rodrigues, “The Internationalization of Chinese Firms: A Case for Theoretical Extension?,” *Management and Organization Review* 1, no. 3 (2005): 381–410;

services and applications industry in China – an industry born with intensive ties with transnational capital and an industry that has been “internationalized” since its inception. Indeed, as Dariusz Wojcik and James Camilleri remind us in their case study of China Mobile, global financial networks have been instrumental in the construction and internationalization of China’s “national champions”.³⁹⁶ Building upon previous literature but also taking these insights further, this chapter takes a comprehensive political economic approach to understanding the global routes of Alibaba, which not only includes physical expansion beyond home base, but also interactions with transnational capital within Chinese borders.

In what follows, this chapter discusses the “internationalization” of Alibaba, its business development and its rise on the global Internet landscape. It asks: How has Alibaba’s route toward internationalization interlocked with the structural development of both the Chinese and the global Internet? What pattern of state-capital relationships does it manifest? What implications may it have for understanding the “internationalization” of China’s Internet industry in general? In this regard, this chapter also digs deeper into the questions covered in previous chapters: How have the constantly changing and highly complicated dynamics between the territorial logic of the state and the expansionary logic of capital accumulation played out in the internationalization of Alibaba, a particularly important unit of Chinese Internet capital?

This chapter draws on both secondary and primary sources of data. To investigate the fundamental but also convoluted information on ownership and corporate structure, market share

Yadong Luo and Rosalie L. Tung, “International Expansion of Emerging Market Enterprises: A Springboard Perspective,” *Journal of International Business Studies* 38, no. 4 (2007): 481–98; Eunsuk Hong and Laixiang Sun, “Dynamics of Internationalization and Outward Investment: Chinese Corporations’ Strategies,” *The China Quarterly* 187, no. 187 (2006): 610–34.

³⁹⁶ Dariusz Wojcik and James Camilleri, “‘Capitalist Tools in Socialist Hands’? China Mobile in Global Financial Networks,” *Transactions of the Institute of British Geographers* 40, no. 4 (2015): 464–78.

and financial flows of the company, hundreds of pages-long prospectuses prepared for both Alibaba.com's Hong Kong IPO in 2007 and Alibaba Group's New York IPO in 2014 have been studied. Additionally, to trace the history of Alibaba's global journey in the past 15 years, I have used the company's annual reports and filings with the US Securities and Exchange Commission (e.g., Annual Report SEC form 20-F) to gain a historical perspective on its business development. Government policies and initiatives related to e-commerce development in China were also examined to provide insights into the intersection between Alibaba and state agencies. Related secondary sources, such as media coverage, press releases, and especially several Chinese publications, including books on Alibaba's developmental history and biographies of and speeches by its founder, Jack Ma, were also reviewed to provide supplemental information.

The chapter is organized as follows. The first section offers a brief overview of Alibaba's ownership structure and business scope to contextualize the following historical analysis. Sections two to four delineate, document and assess Alibaba's evolution in the past 15 years – from its inception in Hangzhou in 1999 to its debut on the New York Stock Exchange in 2014 – and situate this history in a broader political economic context. It does not claim that Alibaba's development reflects a coherent corporate strategy. Rather, the historical analysis shows that it is both strategic and opportunistic. Indeed, it is likely become more strategic as the company becomes bigger and cultivating more close ties with the state.

The last section concludes and presents implications for understanding Alibaba's global journey, and the internationalization of China's Internet industry in general. As the following analysis will show, the state and capital both collaborate and compete for control in Alibaba's various interactions with the global Internet. The territorial logic of the state and the expansionary logic of capital sometimes overlap, but more often than not, are in conflict with

each other. As a China-based Internet company that is enmeshed deeply in global digital capitalism, Alibaba's intricate global trajectory presents a specific pattern of state-capital relationships that encompasses both tension and cooperation. Instead of creating a formula, the following analysis will show that this state-capital relation needs to be understood and analyzed in specific historical and global contexts.

What is Alibaba: Ownership Structure and Business Scope

What is Alibaba? This seemingly simple question turns out to be surprisingly difficult to answer. First and foremost, its ownership structure remains an enigma. In its 2014 prospectus (SEC Form F-1) to the US Securities and Exchange Commission, Alibaba revealed an exceptionally complex structure of major shareholders (see Table 4.1). Among them, Japanese Internet and investment company SoftBank owns 34.1% of the company, American Internet company Yahoo owns another 22.4%, Alibaba's management team – including its executive chairman Jack Ma and vice executive Chairman Joseph Tsai – controls only 14.6%. Other major shareholders include: Fengmao Investment Corporation – a division of China Investment Corporation, the nation's sovereign wealth fund – owns 2.8%. Silver Lake, an American investment firm, owns 2.5%. Yunfeng Capital, a China-based investment fund established by Jack Ma, owns 1.5%. And CITIC Capital Excel Wisdom Fund, a unit of China's state-owned investment company CITIC, owns 1.1%.³⁹⁷ In other words, Alibaba's major shareholders consisted of a complex network, including not only foreign units of Internet capital like

³⁹⁷ Maureen Farrell, "Alibaba's IPO: The Billionaires and Other Big Winners," *The Wall Street Journal*, September 5, 2014, <http://blogs.wsj.com/moneybeat/2014/09/05/alibabas-ipo-the-billionaires-and-other-big-winners>.

SoftBank and Yahoo, transnational investment firms like Silver Lake, but also state-controlled investment firms like CITIC, and China-based private funds like Yunfeng Capital. How has Alibaba developed such a convoluted ownership structure? Is Alibaba still a Chinese company?

There are different measurements to define a company's corporation nationality, such as ownership structure, headquarter location, dominant market, or relationship with the state.

Corporate nationality matters, in the case of Alibaba and more generally, of China's Internet industry, for two reasons. Domestically, "Chinese" companies and "foreign" companies often receive different policy treatment in their operations in the Chinese market, and public opinion and policy interventions can often be mobilized in favor of the "home company," as we saw in the case of China's continuing effort to define the "*de facto* controller" in the VIE structure.

Internationally, corporate nationality will also determine whether a company is qualified to receive favorable trade treatments or subject to certain trade barriers and national security scrutiny, as those considerations are still organized on a national basis.³⁹⁸

³⁹⁸ Curtis J. Milhaupt and Wentong Zheng, "Beyond Ownership: State Capitalism and the Chinese Firm," *Georgetown Law Journal* 103, no. 3 (2015): 665–722.

Table 4.1: The main shareholders of Alibaba

Name	Stock
SoftBank	34.1%
Yahoo	22.4%
Jack Yun MA	8.8%
Joseph C. TSAI	3.6%
Fengmao Investment Corporation	2.8%
Silver Lake Affiliated entities	2.5%
Yunfeng affiliated entities	1.5%
CITIC Capital Excel Wisdom Fund, L.P.	1.1%
All directors and executive officers as a group*	14.6%

Source: Alibaba Group, SEC form F-1, 250-254.

Note: This table only includes major shareholders that have a stake over 1%.

Moreover, Alibaba’s business scope presents another puzzle. In its 2014 prospectus, the company described itself as “the largest online and mobile commerce company in the world in terms of gross merchandise volume in 2013”.³⁹⁹ E-commerce, however, appeared to be only the “tip of iceberg” of its now eclectic digital empire. As its prospectus continued to reveal, in 2014, Alibaba operated approximately 290 subsidiaries and other consolidated entities both in and outside of China, including not only 70 domestic business units, but also approximately 120 offshore subsidiaries that registered in overseas tax havens like Hong Kong, the British Islands and the Cayman Islands. Most of these overseas entities were tied with onshore companies

³⁹⁹ Alibaba Group, SEC Form F-1, 100.

through a series of complex contractual agreements called the VIE structure, a topic I will return to shortly.

It is worth mentioning that the prospectus only offers information on major subsidiaries, which is presented in Figure 4.1. The function of these relatively smaller subsidiaries, including around 70 in China and more than 120 outside of China – which might serve the aim as infrastructure companies for other Chinese company as they go overseas – is an important topic for future research.

Figure 4.1, based on the information the company submitted to the US Securities and Exchange Commission, presents a simplified chart of Alibaba's corporate structure and its five major subsidiaries, including a business-to-business (B2B) division, Alibaba; a consumer-to-consumer (C2C) division, Taobao; a business-to-consumer (B2C) division, Tmall; a proprietary online marketing platform, Alimama, and an online business software provider, Alisoft.⁴⁰⁰ To add to the complexity, online payment service Alipay and Internet portal Yahoo China – the previous two major subsidiaries of Alibaba – are not included since they were either closed (Yahoo China) or transferred into a different company (Alipay) by the time Alibaba filed its 2014 IPO. I will elaborate more on these two subsidiaries in the following discussion.

⁴⁰⁰ Ibid., 11.

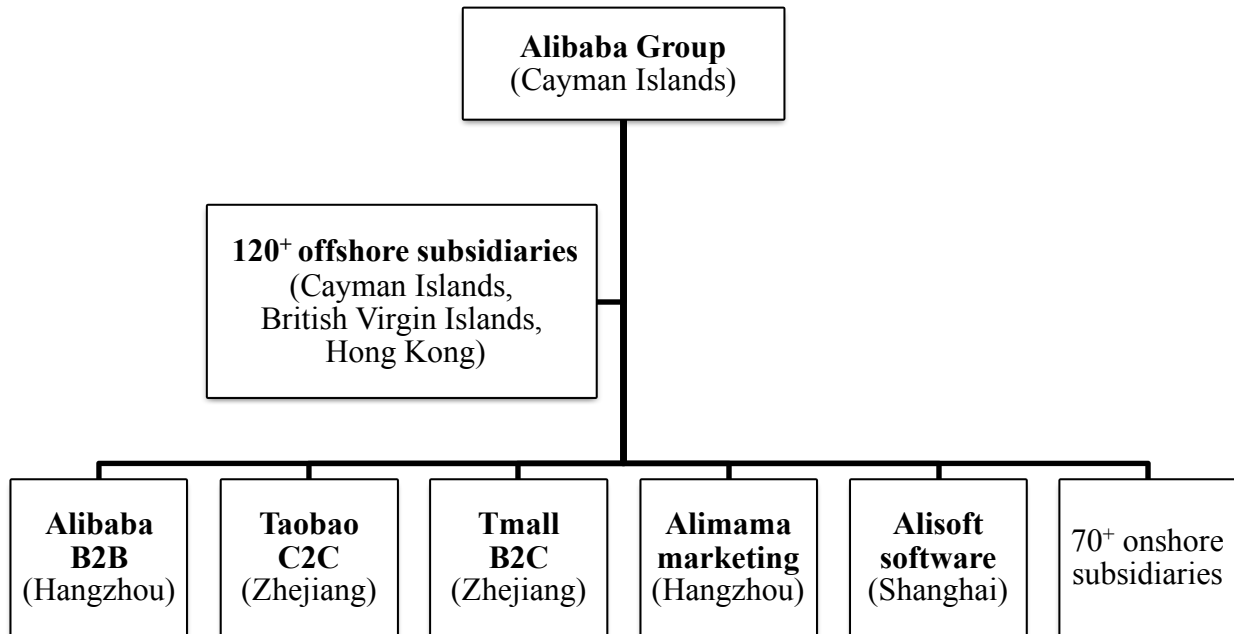


Figure 4.1: The simplified corporate structure of Alibaba Group.

Source: Author, based on information in Alibaba Group, SEC form F-1, 11.

Note: Apart from major subsidiaries illustrated in this figure, Alibaba Group has also operated around 70 subsidiaries incorporated in China, and approximately 120 subsidiaries incorporated in offshore tax havens, including Cayman Islands, British Virgin Islands and Hong Kong.

The five major subsidiaries in this already quite intricate corporate structure, however, have only presented a limited picture of Alibaba’s multifaceted digital landscape. As will be discussed later, in the years around its 2014 IPO, funded by both domestic and transnational capital, the company conducted a buying spree both at home and abroad, penetrating deeply in China’s political economy and expanding significantly its business footprint in the global Internet. This significant expansion has been both strategic and opportunistic. In general, Alibaba’s now massive corporate system can be divided into three layers: (1) the core layer of e-commerce; (2) the middle layer that directly supports or relates with the operation of the core,

including mobile Internet, logistics, finance, and offline retailing; and (3) the outermost layer that moves beyond e-commerce and extends into different aspects of the global political economy, ranging from cloud computing, media and entertainment, to healthcare and automobile manufacturing.

First, Alibaba's core business has remained in the e-commerce domain. It is worth noting that despite fierce competition from domestic rivals such as Baidu, Tencent and JD, and formidable challenges from transnational peers like Amazon and eBay, by the end of 2015 Alibaba still commands over 80% of China's domestic e-commerce marketplace – by some measure the world's largest online market that accounted for 35% of all global digital trade.⁴⁰¹ Its various platforms have touched upon almost every aspect of online commerce. In the Chinese market, Alibaba owns the largest online C2C platform, Taobao; the largest B2C platform, Tmall; China's most popular group buying website, Juhuasuan. Facing the international market, it operates China's largest B2B website Alibaba.com (and its Chinese version 1688.com), connecting Chinese manufacturers with global buyers; and AliExpress, a platform through which global consumers can buy products from Chinese manufacturers in small quantities.⁴⁰² To spread its core business overseas, Alibaba has also acquired various stakes in a group of foreign e-commerce companies, including Shoprunner in the US, Lazada in Southeast Asia, and Snapdeal in India.

Second, aside from e-commerce, Alibaba has also built up a middle layer that directly relates to or supports the development of its core in order to keep its edge in the extremely competitive digital market. This layer consists of a group of different business units, ranging

⁴⁰¹ Morgan Stanley, "China's eCommerce Revolution," March 13, 2015, <http://www.morganstanley.com/ideas/china-e-commerce-revolution>.

⁴⁰² Alibaba Group, SEC Form F-1, 1.

from mobile Internet, logistics, financial services, to offline retailing. In the realm of mobile Internet – to compete with Tencent’s killer app WeChat⁴⁰³ – Alibaba has developed its own R&D group on the android operating system YunOS in 2011, acquired UCWeb, a popular mobile browse in 2013, and invested in Meizu, a Chinese smartphone maker in 2015.⁴⁰⁴ In the field of logistics – to fend off the competition from JD, its major rival in China’s B2C market that holds inventory in its own warehouses – Alibaba formed a logistics group “China Smart Logistics” (or Cainiao) in 2013 to connect logistics providers, warehouses and distribution centers using consumer data it collected on its various websites.⁴⁰⁵ In 2014, it also acquired shares in Singapore Post to participate in overseas logistics operations. In the field of financial services, building upon its successful online payment service Alipay, Alibaba has developed new financial investment tools such as Yu’e Bao and micro loans businesses. Through investments into One 97, it now owns a share of Paytm, a popular Mobile Wallet in India. Moreover, the company also invested into Chinese offline electronics retailers Sunning and department store operator Intime to move its business from “online” to “offline”.⁴⁰⁶

Finally, to further diversify its businesses and to search for new profit channels, Alibaba has extended its reach beyond e-commerce to build an outermost layer that infiltrates into various aspects of the global political economy. It has entered the media and entertainment industry, acquiring the Hong Kong-based English newspaper South China Morning Post, the US-

⁴⁰³ For a detailed discussion on Tencent, see Min Tang, “Tencent as a Nexus: The Political Economy of China’s Internet Industry” (PhD dissertation, University of Illinois at Urbana-Champaign, 2017).

⁴⁰⁴ Charles Clover, “Alibaba invests \$590m in Chinese smartphone maker Meizu,” *Financial Times*, February 9, 2015, <http://www.ft.com/cms/s/0/1b6e7248-b011-11e4-b42e-00144feab7de.html#axzz4L2WjdY3q>.

⁴⁰⁵ Duncan Clark, *Alibaba: The House That Jack Ma Built* (New York: Ecco/HarperCollins Publishers, 2016), 15-16.

⁴⁰⁶ Patti Waldmeir and Charles Clover, “Alibaba and Suning in \$6.9bn strategic partnership,” *Financial Times*, August 10, 2015, <http://www.ft.com/cms/s/0/6f1cf606-3f3d-11e5-9abe-5b335da3a90e.html>.

traded Chinese video streaming giant Youku Tudou, 30% of the financial media China Business News, 18% of social media giant Sina Weibo, 20% of the US-based social media company TangoMe, and even half of Guangzhou Evergrande football club.⁴⁰⁷ It has set foot in the fast growing cloud business – six years after launching its own cloud computing service, Aliyun, the parent group announced in 2015 that it will invest another \$1 billion into it to competes directly with Amazon Web Services.⁴⁰⁸ To add to this picture, in 2014, Alibaba brought the Hong Kong based pharmaceutical data firm CITIC 21CN to restructure it into Alibaba Health in order to get a foothold in the healthcare industry. In 2015, it started a robotics project with SoftBank and Foxconn. In 2016, the company even moved into the automobile industry by jointly developing driverless cars with China’s largest automaker, the state-owned SAIC Motor Corporation.⁴⁰⁹

How has Alibaba constructed such a massive online empire in the past 15 years? What implications does it have for both the Chinese and the global Internet? Apart from various business strategies that have been well-documented in the business literature,⁴¹⁰ the following historical analysis focuses on state-capital dynamics and situates the evolution of Alibaba at the interplay between China’s shifting developmental strategies and the structural transformation of global digital capitalism.

⁴⁰⁷ Charles Clover, “Alibaba buys 50% stake in Chinese football club,” *Financial Times*, June 5, 2014, <http://www.ft.com/cms/s/0/90688d56-ec6f-11e3-ab1b-00144feabdc0.html#axzz4L2WjdY3q>.

⁴⁰⁸ Catherine Shu, “Alibaba Plows \$1B into Aliyun, Its Cloud Computing Unit,” *TechCrunch*, July 29, 2015, <https://techcrunch.com/2015/07/29/alibillion>.

⁴⁰⁹ Yue Wang, “Alibaba, SAIC Motor to Invest \$160 Million in Connected Cars,” *Forbes*, March 12, 2015, <http://www.forbes.com/sites/ywang/2015/03/12/alibabasaic-motor-to-invest-160-million-in-connected-cars/#44909e3f3bbf>.

⁴¹⁰ See, for example, Felix Oberholzer-Gee and Julie M. Wulf, “Alibaba’s Taobao (A),” *Harvard Business School Case*, no. January (2009): 709–456; Palepu et al., “Alibaba Goes Public (A)”; Julie M. Wulf, “Alibaba Group,” *Harvard Business School Case*, no. March (2010): 710–436.

Before 2008: A Broker Between Chinese Suppliers and Global Buyers

In March 1999, Alibaba launched its first business, Alibaba.com, in Hangzhou, a city close to the east coast of China, just a few months after the first Internet commerce transaction was conducted in the country in early 1998.⁴¹¹ Alibaba.com is a B2B e-commerce platform that connects small and medium-sized Chinese manufactures with transnational buyers. In the words of Jack Ma, different from many B2B websites in the US that primarily served large companies, Alibaba's target is the "shrimp."⁴¹² This was not a random choice. Indeed, different from the US market, which was already dominated by a group of big businesses, the then emerging Chinese market were filled up with smaller companies.⁴¹³ To encourage rapid growth realistically, Alibaba had to focus on the existing players in its domestic market. More importantly, the company was established at a time when the development of electronic commerce among small and medium-sized enterprises (SMEs) had become a top priority for the Chinese leadership.

On the one hand, the reintegration of China into global capitalism since the "opening up" in the late 1970s has transformed the country from a self-reliant one in the Mao's era to an export-oriented economy.⁴¹⁴ China's export industry has experienced dramatic growth and its share of total exports in the global market rose from 1.8% in 1990 to 9.1% in 2008.⁴¹⁵ Meanwhile, the concurrent market reform has also led to a rapid growth of small and medium-

⁴¹¹ Dieter Ernst and Jiacheng He, "The Future of E-Commerce in China," *Analysis from the East-West Center* 46 (2000).

⁴¹² Clark, *Alibaba: The House That Jack Ma Built*, 94.

⁴¹³ Zheng Zuoshi 郑作时, *Alibaba: Rang Tianxia Meiyou Nanzuo de Shengyi 阿里巴巴: 让天下没有难做的生意 [Alibaba: To make it easy to do business everywhere]* (Hangzhou, China: Zhejiang People's Publishing House, 2007), 47-48.

⁴¹⁴ Yuezhi Zhao, *Communication in China: Political Economy, Power, and Conflict* (Lanham: Rowman & Littlefield, 2008).

⁴¹⁵ Martin Hart-landsberg, "The U.S. Economy and China: Capitalism, Class, and Crisis," *Monthly Review* 61, no. 9 (2005): 14-31.

sized enterprises in China's domestic economy – first through the development of town and village enterprises in the 1980s and then through the restructuring and privatizing of the state-owned enterprise sector in the 1990s; in 2002, the government promulgated the SMEs promotion law, indicating its determination to nurture the role of SMEs in its exported-oriented economy.⁴¹⁶ By the end of 2001, there were around 2.4 million SMEs in China, accounting for the majority – 99% – of all registered corporations in the country.⁴¹⁷ Unlike large-sized state-owned enterprises, many SMEs lacked access to state-operated trading companies and some could not afford to travel long distance to attend national trade shows like the China Export and Import Fair (also known as the “Canton Fair”) in Guangzhou of southeast China.⁴¹⁸ How to connect this diverse group of enterprises to the global market had become a prime concern for the Chinese leadership.

On the other hand, as shown in Chapter 1, in the 1990s, the global branding of the Internet as the “information superhighway” has greatly shaped China's developmental strategies. The then-emerging ICT sector was not only touted as a “pillar industry” in China's economic development, but was also regarded as a critical tool for the restructuring of the Chinese political economy and its global reintegration, including trade and commerce.⁴¹⁹ In 2000, the state launched an "Enterprise Online" initiative, aiming at using network technologies to better connect Chinese businesses to the global market, with a special emphasis on the growing sector of SMEs.⁴²⁰

⁴¹⁶ Jia Chen, “Development of Chinese Small and Medium-Sized Enterprises,” *Journal of Small Business and Enterprise Development* 13, no. 2 (2006): 140–47.

⁴¹⁷ Ibid.

⁴¹⁸ Clark, *Alibaba: The House That Jack Ma Built*, 117.

⁴¹⁹ Yu Hong, *Labor, Class Formation and China's Informationized Policy of Economic Development* (Lanham: Lexington Books, 2011); Yu Hong, *Networking China: The Digital Transformation of the Chinese Economy* (Urbana: University of Illinois Press, 2016).

⁴²⁰ Nina Hachigian, “China's Cyber-Strategy,” *Foreign Affairs* 80, no. 2 (2001): 118–33.

Alibaba was established in this supportive policy environment. Indeed, the founders were well aware of this situation – before the launch of Alibaba, Jack Ma was reportedly working at a unit of China’s Ministry of Commerce, helping the government agency develop its e-commerce capacity.⁴²¹ The state’s promotion of e-commerce among SMEs established a fast growing customer base for Alibaba. According to *iResearch*, a China-based market research and consulting firm, from 2002 to 2006, while the number of China’s Internet users increased from 59 million to 137 million, the number of SMEs that traded on third-party platforms also increased, from 1 million in 2002 to 8.8 million in 2006.⁴²²

The Chinese state, however, was not the only architect of Alibaba. Transnational capital played an equally, if not more important role in the inception of the company – with the tacit consent of the state.

As discussed in previous chapters, in its domestic web services and applications sector, the Chinese state demonstrated a complex and ambiguous attitude toward transnational capital: impeding or even prohibiting foreign-operated enterprises – despite its WTO promise – but tacitly allowing foreign portfolio investments. This ambiguous policy has given rise to a highly convoluted business structure between Chinese Internet companies and their foreign investors – the Variable Interest Entity, or VIE.

The VIE model, despite its unclear legal status and high risks, has become very popular in China’s Internet services and applications industry. For Chinese Internet companies, it helped them build connections with global financial networks, which was of vital importance for their

⁴²¹ Clark, *Alibaba: The House That Jack Ma Built*, 88-89.

⁴²² Alibaba.com Limited, “prospectus to the Hong Kong Stock Exchange,” October 23, 2007, <http://globaldocuments.morningstar.com/documentlibrary/document/45dda2cbefcb49dc.msdoc/original>, 2.

early development as venture capital market was largely absent in China in the 1990s and state banks were reluctant to lend to this newly emerged web applications sector.⁴²³ For transnational capital, VIE offered them a precious link to China's rapidly growing digital market that otherwise they would not easily have accesses to. Fueled by the dot.com bubble in the US, a large amount of foreign capital poured into China's then-emergent internet industry through the VIE structure – The *Wall Street Journal* reported in 2015 that “virtually every Chinese tech company listed in New York” had used this structure.⁴²⁴

Under the VIE model, the Chinese company would first set up an offshore holding company, most in tax havens such as the Cayman Islands or the British Virgin Islands, in order to ease the transfer of foreign capital. The offshore holding company – jointly-owned by foreign investors and their Chinese partner after capital injection – would then channel equity capital into a wholly foreign-owned company in China. Due to the state's restricted policies, this wholly foreign-owned company would not be able to receive operating licenses from the Chinese authority, therefore it has to nominate its Chinese partner to obtain the necessary licenses and operate the business. The VIE model has been bound up through a series of complex contractual agreements, with an aim to ensure foreign investors to not only “capture the operating company's profits,” but also “effectively control Chinese shareholders in exercising their shareholder power”.⁴²⁵ In reality, however, the model is designed deliberately opaque and has

⁴²³ Hong, *Networking China*, 58.

⁴²⁴ Gillian Wong and Juro Osawa, “How China's New Foreign Investment Rules Might Play Out,” *The Wall Street Journal*, January 23, 2015, <http://blogs.wsj.com/chinarealtime/2015/01/23/how-chinas-new-vie-rules-might-play-out/>.

⁴²⁵ Wei Shen, “Deconstructing the Myth of Alipay Drama – Repoliticizing Foreign Investment in the Telecommunications Sector in China,” *Telecommunications Policy* 36 (2012): 929–42, 931.

changed over time. Its operation, therefore, cannot be generalized across the whole range but needs to be studied in different companies.

Alibaba's engagement with transnational capital offered a typical example of this specific business path. In June 1999 – only three months after the launch of Alibaba.com in Hangzhou – Alibaba Group, the offshore holding company, was incorporated in the Cayman Islands, in order to “ready Alibaba's corporate structure to receive venture capital investment”.⁴²⁶ Four months later, in October 1999, the first round of overseas capital came in. This total \$5 million venture capital fund consisted of \$3.3 million from American investment bank Goldman Sachs and \$1.7 million from other relatively smaller venture capital firms, including US-based Fidelity Capital, Swedish-based Investor AB, and Singapore-based Transpac Capital and Venture TDF. The highly speculative and short-term nature of venture capital investments indicated the need for continuing fund raising as well as near-future IPOs.⁴²⁷ Indeed, among the early investors, only Venture TDF and Fidelity held on to their stakes all the way through Alibaba's 2014 IPO. Goldman Sachs sold off its entire 33% stake in 2003.⁴²⁸ In January 2000, Japan's telecom and investment firm SoftBank led a second round of \$20 million in financing, taking a 30% control of Alibaba, which helped the company survive the upcoming popping of the Internet bubble⁴²⁹ (see Table 4.2 for a list of the major rounds of Alibaba's fundraising).

Drawing upon both the supportive policies of the Chinese state and the growing appetite of foreign investors in China's digital market – propelled by the rise and fall of the dot.com

⁴²⁶ Clark, *Alibaba: The House That Jack Ma Built*, 102.

⁴²⁷ Matthew Crain, “Financial Markets and Online Advertising: Reevaluating the Dotcom Investment Bubble,” *Information, Communication & Society* 17, no. 3 (2014): 371–84.

⁴²⁸ Clark, *Alibaba: The House That Jack Ma Built*, 162.

⁴²⁹ Su Longfei 苏龙飞, “Mayun bixia: Ali diguo xin zhengtu,” 马云陛下: 阿里帝国新征途 [Jack Ma: The new adventures of Alibaba], *New Fortune* 新财富, June 16, 2014, http://www.xcf.cn/tt2/201406/t20140616_602050.htm

bubble in the West, as discussed in Chapter 1, Alibaba has since expanded in a spectacular fashion. On one side, in 2002, for the first time, the company reported a nominal profit, mainly drawn from popular value-added marketing services on its B2B websites, such as “Gold Supplier” that offered Chinese exporters a presence on its English-language website, and “Trust Pass” that provided authentication services for the vendors. It also introduced both Alimama – an Internet advertising and marketing platform, and Alisoft – an online business management solution provider for e-commerce companies listed on its platforms to further expand its revenue streams.

On the other side, Alibaba also started its outward expansion. In 2000, fueled by newly raised foreign capital, it opened up overseas offices in Hong Kong and London, a R&D center in California, and planned to expand its service to Japan and Korea by launching localized websites.⁴³⁰ With the burst of the dot.com bubble in 2001 and the urgent need of fighting eBay in its domestic market in 2003, however, Alibaba soon shifted its focus and those early foreign adventures were largely unsuccessful.

In 2003, the complex state-capital dynamic that had constructed Alibaba in the first place continued to play out, manifesting itself through another milestone of Alibaba’s evolution: its battle with eBay in the Chinese online commerce market.

As we saw in Chapter 1, in the early 2000s, apart from transnational financial firms, a group of foreign Internet companies also rushed into China, seeking for new growth opportunities; eBay was one of them. Those firms had high expectations of China’s emerging but rapidly growing online market. In the words of eBay’s then-CEO Meg Whitman, “Whoever wins China, wins the world.”⁴³¹ In 2002, eBay entered China by investing \$30 million in EachNet, a

⁴³⁰ Zheng, *Alibaba: To make it easy to do business everywhere*, 96-97.

⁴³¹ Clark, *Alibaba: The House That Jack Ma Built*, 165.

Chinese online auction site that controlled 85% of China's C2C market.⁴³² In 2003, eBay took over EachNet and rebranded it as eBay EachNet, announcing its formal entry into China. At that time, eBay was already a global company, holding presence in 19 different countries, including dominant market share in Australia, Canada, Germany and the UK.⁴³³ To combat eBay in the Chinese market, Alibaba started its second business – Taobao Marketplace. A few months later, Alipay – an online payment tool – was launched to facilitate transaction on Taobao. The battle didn't last too long. By the end of 2005, eBay's market share had decreased to less than 30% and Taobao was approaching 60%.⁴³⁴ In 2006, eBay shut down its Chinese portal and entered into a joint venture with Hong Kong-based Tom Online.

What was behind Alibaba's victory over eBay? Admittedly, the Chinese state played a role. As aforementioned, despite its wholehearted embrace of the information economy, the state – through diverse means of regulation – has still held considerable sway over the domestic Internet. This sway, in some cases, may be translated into protective support for its domestic Internet capital in face of global competition. For example, when Alibaba rolled out its online payment service Alipay – a service that played a critical role in its battle with eBay, eBay was slow to bring its recent-acquired PayPal to China, partly due to China's tight regulation of its banking and financial system.⁴³⁵

The Chinese state, however, was not the only backer of Alibaba. To fund its battle with eBay in its home market, Alibaba was actively seeking support from transnational capital. Indeed, Alibaba was dependent on tremendous capital liquidity outside the Chinese market. For

⁴³² Oberholzer-Gee and Wulf, "Alibaba's Taobao (A)."

⁴³³ Ibid.

⁴³⁴ Clark, *Alibaba: The House That Jack Ma Built*, 179.

⁴³⁵ Ibid, 174.

example, to prepare Alibaba for its upcoming combat with eBay, in February 2004, SoftBank, with Fidelity Capital, Venture TDF, and GGV Capital, invested another \$82 million to Alibaba. Among them, \$60 million was directly injected into the newly-founded Taobao Marketplace.⁴³⁶ One year later, another US Internet giant Yahoo joined the game. In 2005, Alibaba and Yahoo announced a strategic partnership: Yahoo invested \$1 billion and handed over its Chinese business Yahoo China to Alibaba, in exchange for a 40% ownership stake.⁴³⁷ Yahoo's partnership and its \$1 billion investment proved to be decisive as eBay shut down its Chinese site only a few months later. The battle between Alibaba and eBay was therefore not a battle between a Chinese Internet company and a US Internet company, but a battle among different units of transnational capital. In other words, it was through Alibaba that these different units of transnational capital fought for control of the Chinese digital market.

The success of Taobao notwithstanding, up to 2008, Alibaba's B2B division remained as the most valuable asset for the company. Compared with the still-money-losing C2C business Taobao, its B2B business reported a steady profit growth, increasing from RMB 297 million in 2004 to RMB 612 million in 2005, and to RMB 1,126 million in 2006,⁴³⁸ which firmly anchored the role of the parent company as a digital broker between Chinese suppliers and transnational buyers. In 2007, for the purpose of continuing fundraising and also of finding outlets for its early venture capital investors, Alibaba listed 17% of its B2B platform on the Hong Kong Stock Exchange, further "internationalized" its assets, and raised a substantial \$1.5 billion. As might be expected, the deal was jointly underwritten by a group of transnational financial firms – US-based Morgan Stanley, Germany-based Deutsche Bank, and one of Alibaba's early investors, the

⁴³⁶ Su, "Jack Ma: The new adventures of Alibaba"

⁴³⁷ Ibid.

⁴³⁸ Alibaba.com Limited, "prospectus to the Hong Kong Stock Exchange," 106.

American investment bank Goldman Sachs.⁴³⁹ In this regard, Alibaba's early global journey presents an important case to support Wojcik and Camilleri's observation that global financial networks played a foundational role in the construction of China's "national champions".⁴⁴⁰

After 2008: A Gateway to China

The 2008 global economic crisis brought a turning point to the Chinese economy, forcing the state to speed up its long-planned restructuring from an export-oriented economy to a domestic demand-driven one. The central government, under the Hu-Wen leadership, launched a series of stimulus, structural adjustment, and social policies to redirect its FDI-driven and export-oriented developmental model in the 1980-1990s. In November 2008, a RMB 4 trillion (US \$586 billion) investment plan was announced to boost the economy and prevent mass unemployment, including loosening monetary policy and providing bank credit to support small business.⁴⁴¹

The economic crisis, meanwhile, also brought a turning point to Alibaba. If Alibaba's B2B business – its core business before 2008 – was a manifestation of China's export-oriented economy and has benefited from government favorable policies to nurture the role of SMEs in international trade, the 2008 economic crisis, which significantly hurt China's export industry, also put a stop sign to this business model. The stock market soon reflected this trend. In

⁴³⁹ Ibid., 16-17.

⁴⁴⁰ Wojcik and Camilleri, "Capitalist Tools in Socialist Hands'? China Mobile in Global Financial Networks."

⁴⁴¹ Barry Naughton, "Understanding the Chinese Stimulus Package," *China Leadership Monitor*, no. 28 (2009): 1–12, <http://media.hoover.org/documents/CLM28BN.pdf>.

September 2008, the share price of Alibaba.com plummeted on the Hong Kong Stock Exchange, dropped to a historical low – only one-third – of its IPO price a year ago.⁴⁴²

In response to this crisis and to take advantage of the state policies, Alibaba changed its business strategy, turning its focus from connecting Chinese businesses to the global market back to exploiting China's domestic consumer market. In other words, Alibaba's role has been transformed from a broker between Chinese manufacturers and global buyers to the gateway back to China. In rebranding itself for this new role, Alibaba claimed in a press release in August 2008 that it was time for transnational businesses to “export *to* China” (instead of the previous “export *from* China”) because of the growing demand in China's domestic market for imported goods, jointly fueled by the booming Chinese economy, the state's policies to promote imports, the appreciation of the Chinese currency and the growing purchasing power of the Chinese “rising middle class” – a large number of favored social strata.⁴⁴³

To tap on this “growing demand,” Alibaba implemented with full strength its “Big Taobao” strategy. Indeed, the data from the first quarter of 2008 show that Taobao has increasingly become the most critical asset of Alibaba, with its online transaction value reaching RMB \$ 18.8 billion, an increase of 170% from the same period during the previous year.⁴⁴⁴ Lu Zhaoxi, the then Taobao CEO, stated that the aim of Alibaba's “Big Taobao” strategy was two-

⁴⁴² Clark, *Alibaba: The House That Jack Ma Built*, 212.

⁴⁴³ Alibaba Group, “Alibaba.com Helps Small and Medium Businesses Sell Direct to China: New “Export- to-China” service to tap China's growing buying power,” August 2, 2008, http://www.alibabagroup.com/en/news/press_pdf/p080802.pdf.

⁴⁴⁴ Alibaba Group, “Taobao wang zhenghe alimama, zhengshi qidong da taobao zhanlue,” 淘宝网整合阿里妈妈, 正式启动大淘宝战略 [Taobao integrated Alimama, starting Big Taobao strategy], September 4, 2008, http://www.alibabagroup.com/cn/news/press_pdf/p080904.pdf.

fold: To effectively stimulate domestic consumption and to create up to one million jobs for China.⁴⁴⁵

A series of business movements were taken quickly to carry out this strategy. In April 2008, a Business to Consumer (B2C) website Tmall.com was launched under Taobao to exploit the urban-based “Chinese middle class,” which was later spin off as an independent division in 2011, due to its popularity among big corporate users from both China and overseas. Indeed, the growing importance of Tmall signified a clear reorientation of Alibaba’s business structure toward big corporate users as a many international brands – such as L’Oréal, P&G, Unilever, Macys and Costco – opened up its flagship retail storefronts on Tmall.com to expand their accesses to China’s domestic market. In 2015, even US e-commerce giant Amazon, which controlled 1.3% of China’s B2C market at the time, opened up a flagship store on Tmall, paying commission to its competitor Alibaba for each transaction.⁴⁴⁶ In September 2008, Alibaba integrated its online advertising service Alimama into Taobao to sell advertising space to its merchants, which has significantly boosted Taobao’s profit performance.⁴⁴⁷ One month later, the parent group announced that it would invest RMB 5 billion into Taobao in the next 5 years to further expand the online system.⁴⁴⁸ By the middle of 2009, Taobao commanded over 80% of China’s C2C market and more than 20% of China’s B2C market, while the market share of its

⁴⁴⁵ Alibaba Group, “50 yi touzi dazao ‘da taobao’, taobao wang jixu xuanbu mianfei,” 50 亿投资打造“大淘宝” 淘宝网宣布继续免费[5 billion invested into Big Taobao], October 8, 2008, http://www.alibabagroup.com/cn/news/press_pdf/p081008.pdf.

⁴⁴⁶ Juro Osawa, “Amazon Opens Store Inside Alibaba’s Tmall in China,” March 6, 2015, *The Wall Street Journal*, <http://blogs.wsj.com/digits/2015/03/06/amazon-opens-store-inside-alibabas-tmall-in-china>.

⁴⁴⁷ Alibaba Group, “Taobao integrated Alimama, starting Big Taobao strategy”.

⁴⁴⁸ Alibaba Group, “5 billion invested into Big Taobao”.

major competitors, such as Tencent's e-commerce platform Paipai, remained in the single digits.⁴⁴⁹

Apart from restructuring its business model to exploit China's domestic market, Alibaba continued its geographical diversification, partly riding the tide of the "going out" initiative promoted by the Chinese state, as we saw in previous chapters. Struggling with the global financial crisis and its own business model transformation, however, these overseas activities remained rather limited and unorganized. In April 2009, Alibaba announced its partnership with India's largest Yellow page company Infomedia to explore the Indian online market.⁴⁵⁰ From 2008 to 2010, it continued its collaboration with SoftBank by launching its B2B service Alibaba and C2C service Taobao in Japanese.⁴⁵¹ In July and August 2010, Alibaba made its first move toward the more competitive but also more lucrative US market by acquiring two small US-based e-commerce sites, Vendio and Auctiva, with an hope that the two sites could help it reach some eBay sellers.⁴⁵² There was no major overseas capital projection, however, during this period. Rather, with limited cash reserves at hand, Alibaba's globalization strategies seemed to

⁴⁴⁹ "Taobao COO Zhang Yong: Zhuyao duishou hai chuyu geweishu," 淘宝 COO 张勇：主要对手份额还处于个位数 [Taobao COO Zhang Yong: Major competitions' share remained in the single digits], *Sina News*, May 25, 2009, <http://dailynews.sina.com/gb/fin/chinamkt/sinacn/20090525/1845296617.html>.

⁴⁵⁰ Alibaba Group, "Alibaba.com and Infomedia Form Strategic Partnership in India," May 4, 2009, <http://news.alibabac.com/article/detail/alibaba/100096507-1-alibabac-com-infomedia-form-strategic-partnership.html>.

⁴⁵¹ Li Wei 李伟, "Riben Alibaba chengli, Ma Yun bujin dongshihui," 日本阿里巴巴成立, 马云不进董事会 [Alibaba.com Japan launched, Jack Ma won't join the corporate board], *Xinhua Net* 新华网, May 18, 2008, http://news.xinhuanet.com/internet/2008-05/18/content_8199650.htm.

⁴⁵² Kathrin Hille, "Alibaba makes first US acquisition," *Financial Times*, June 25, 2010, <http://www.ft.com/cms/s/2/671d2416-8003-11df-91b4-00144feabdc0.html#axzz4LJ1zhxVF>; KaJoseph Menn, "Alibaba makes a second US purchase," *Financial Times*, August 15, 2010, <http://www.ft.com/cms/s/2/1f9e8cda-afd6-11df-b45b-00144feabdc0.html#axzz4LJ1zhxVF>.

be both restrictive and highly dependent on its local partners, as its then-CEO David Wei pointed out the aim is to “reduce the financial risks along with the process of globalization.”⁴⁵³

Alibaba’s redirection to China’s domestic market, as well as its limited presence in the international Internet, has – to a certain extent – restructured the company’s relationship with the state and transnational capital.

First, the growing importance of China’s domestic market in Alibaba’s profit strategy has translated into greater disciplinary state power over the company, in certain cases even forcing it to recompose its transnational corporate ownership structure.

The 2011 dispute between Alibaba, Yahoo and SoftBank over Alipay – a vertically integrated payment system toward the development of an e-commerce infrastructure – is an important case in this regard. In June 2010, to regulate foreign ownership in its strategic banking and financial industry, China’s central bank, the People’s Bank of China, issued a set of regulations that required all online payment service providers to obtain business licenses in order to operate in the Chinese market. The regulations further claimed that such licenses would “only be granted to the Chinese-owned entities.”⁴⁵⁴ Concerned that the parent company’s substantial foreign ownership – at the time Yahoo owned 43% and Softbank 29.3% of Alibaba – would prevent Alipay from receiving a valid operating license under the new regulations, and/or perhaps hoping to seize greater control himself, Jack Ma transferred Alipay out of Alibaba Group to a company that is wholly-owned by Chinese nationals and 80% controlled by himself – Zhejiang Alibaba E-Commerce Company Limited, later renamed as Alibaba Small and Micro Financial Service Group, or Ant Financial. Alibaba’s transnational board members, including

⁴⁵³ Li, “Alibaba.com Japan launched”.

⁴⁵⁴ Shen, “Deconstructing the Myth of Alipay Drama – Repoliticizing Foreign Investment in the Telecommunications Sector in China,” 933.

Yahoo and Softbank, were furious about their losing control over Alipay – despite significant compensation plan later offered by Alibaba – as the subsidiary not only was expected to replace PayPal to become the world’s largest e-payment provider in a few years,⁴⁵⁵ but also incubated much more enormous economic potential. In 2015, Alipay is valued at more than \$45 billion.⁴⁵⁶ For Jack Ma, however, the divestiture of Alipay was a necessary step for the payment service to keep its operation “without delay and without any detrimental impact to our China retail marketplaces”.⁴⁵⁷ In other words, under the VIE model, dominant ownership stake in offshore holding companies does not always translate into controlling power. Under certain circumstances, Alibaba has the capacity and the incentives to recompose its corporate structure, even at the expense of its transnational partners, to keep in line with the state’s agenda in order to continue operating in the important Chinese market. No matter how it was managed – indeed, the process remained largely murky and opaque – in general it indicated the growing alliance between state policies and the self-interest of leading Chinese Internet capitalists. The state regulators seemed to welcome this movement. In May 2011, Alipay was among the first of the 27 companies to be issued a payment business license.⁴⁵⁸

Second, the financial arms of the Chinese state have also played an important role in Alibaba’s development, sometimes manifesting in the company’s power struggles with other

⁴⁵⁵ Melanie Lee and David Lin, “Alipay to become world's No 1 e-payment firm,” *Reuters*, November 24, 2009, <http://www.reuters.com/article/idUSSHA32192420091124>.

⁴⁵⁶ Liyan Chen, “Alibaba's Online Bank Is Now Valued at More Than \$45 Billion,” *Forbes*, June 18, 2015, <http://www.forbes.com/sites/liyanchen/2015/06/18/alibabas-online-bank-is-now-valued-at-more-than-45-billion/#5d8f4b997d06>.

⁴⁵⁷ Alibaba Group SEC Form F-1, 257.

⁴⁵⁸ Wang Shanshan, “Alipay Awarded Third-Party Payment License,” *Caixin*, May 27, 2011, <http://english.caixin.com/2011-05-27/100263583.html>.

units of transnational capital. This financial support, in turn, has further deepened the company's reliance on and close bond to its home state.

Alibaba's restructuring with Yahoo in 2012 is illustrative of this complex relationship. As mentioned, in 2005, Yahoo invested \$1 billion in Alibaba and took a controlling ownership position – up to 43% stake – of the company. In 2012, in preparation for its parent company's IPO and worried about losing management control because of the frequent turnover of Yahoo's executives, and Microsoft's unsuccessful attempt to acquire Yahoo in 2008,⁴⁵⁹ Alibaba negotiated with Yahoo to repurchase half of its stock back, which would reduce Yahoo's ownership stake to around 23%. Different from its previous fundraising efforts in the 2000s, during which state banks were hesitant to lend support to China's then-emergent Internet services firms, Chinese state-owned financial institutions and related investors are now both capable and willing to extend their arms to Alibaba, partly in anticipation of a handsome economic return from the parent company's upcoming IPO (see Table 4.2 for a record of the major rounds of Alibaba's capital raising).

Indeed, Alibaba's \$7.6 billion mega-project with Yahoo was jointly funded by a group of both domestic and overseas investors, which further complicated its corporate ownership structure, as we saw in the beginning of this chapter. Although foreign banks provided a portion of the funds – a group of eight international banks offered a \$1 billion debt financing, the Chinese state has played an exceptional role. China Development Bank, one of China's three policy banks that have provided financial support to China's network equipment giants Huawei and ZTE, lent Alibaba a substantial loan of \$1 billion. Alibaba also raised part of the funds by selling its shares of stocks to a group of China-based investors, including the China Investment Corporation

⁴⁵⁹ Clark, *Alibaba: The House That Jack Ma Built*, 215-219.

(China's sovereign wealth fund), CITIC capital holdings (an investment management firm under the state-owned CITIC); CDB capital (the private investment arm of the China Development Bank); as well as private equity firms New Horizon Capital and Boyu Capital that are controlled by some high-level Chinese political elites.⁴⁶⁰ The intricate financial network between Alibaba and the Chinese state has therefore manifested itself – for the first time – in the company's struggle with another unit of transnational capital.

⁴⁶⁰ Michael Forsythe, "Alibaba's I.P.O. Could Be a Bonanza for the Scions of Chinese Leaders," *The New York Times*, July 21, 2014, http://dealbook.nytimes.com/2014/07/20/alibabas-i-p-o-could-be-a-bonanza-for-the-scions-of-chinese-leaders/?_r=0; Alibaba Group, "Alibaba Closes US\$7.6 Billion Share Repurchase and Restructuring of Yahoo! Relationship," September 18, 2012, http://www.alibabagroup.com/en/news/press_pdf/p120918.pdf; Qin Wei 秦伟 and Jiang Jiadai 江家岱, "Alibaba jituan guquan biangengshi: Shui de Alibaba" 阿里巴巴集团股权变更史: 谁的阿里巴巴 [Alibaba's equity change history: Whose Alibaba], *21st Century Business Herald* 21世纪经济报道, July 25, 2013, <http://tech.sina.com.cn/i/2013-07-25/03148572476.shtml>.

Table 4.2: Alibaba’s major rounds of capital raising (1999-2014)

Round	Time	Quantity in USD millions	Investors
1st	October 1999	\$5M	* Goldman Sachs (USA), Fidelity Capital (USA), Investor AB (Sweden), Transpac Capital (Singapore), Venture TDF (Singapore)
2st	January 2000	\$25M	* SoftBank (Japan), Fidelity Capital (USA), JAIC (Japan), Investor AB (Sweden), Transpac Capital (Singapore), Venture TDF (Singapore)
3 rd	January 2001	\$82M	* SoftBank (Japan), Fidelity Capital (USA), GGV capital (USA), Venture TDF (Singapore)
4 th	August 2005	\$1,000M	* Yahoo (USA)
5 th	September 2011	\$1,600M	Silver Lake (USA), DST Global (Russia), Temasek (Singapore), Yunfeng Fund (China)
6 th	August 2012	\$7,600M	Debt providers: * CDB (China), Australia and New Zealand Banking Group, Barclays Bank (UK), Citi (USA), Credit Suisse (Switzerland), DBS Bank (Singapore), Deutsche Bank (Germany), Mizuho Corporate Bank (Japan), Morgan Stanley (USA); Investors: * China Investment Corporation (China), CITIC capital (China), CDB capital (China), Horizon Capital (China), Boyu Capital (China), Silver Lake (USA), DST Global (Russia) and Temasek (Singapore)

Source: The author, based on Su Longfei, “Jack Ma: The new adventures of Alibaba”; Qin Wei and Zhang Jiadai, “Alibaba’s equity change history: Whose Alibaba”; Alibaba Group, “Alibaba Closes US\$7.6 Billion Share Repurchase and Restructuring of Yahoo! Relationship”.

Note: Lead investors are marked by *.

Finally, this supportive role of the Chinese state has also extended beyond the Chinese border into the domain of international relations. In other words, Alibaba has – to a certain extent – relied on the state’s foreign diplomatic power in its business development. One important

example came in 2011. In November 2011, Taobao, Alibaba's C2C division, was added to the "Notorious Markets List" by the US Trade Representative, America's chief trade negotiator, for the pirated and counterfeit goods sold on its website. This move not only threatened to damage Alibaba's international reputation, but further complicated its plan for an upcoming IPO. Alibaba worked hard to delist itself, carrying out not only large-scale anti-piracy efforts on its websites, but also extensive lobbying activities in Washington, including hiring the US Trade Representative's former general counsel.⁴⁶¹ The Chinese state, on the other side, also lent its support. For example, in a regular press conference, a spokesman of China's Ministry of Commerce strongly objected to Taobao's inclusion on the 2011 notorious markets list, calling the action "irresponsible and not objective" and expressed "serious concerns and dissatisfaction" to the US government.⁴⁶² In 2012, Taobao was dropped from the list, just one week before "an annual high-level U.S.-China trade meeting" in Washington.⁴⁶³

In September 2012, Alibaba delisted the shares of its B2B division from the Hong Kong Stock Exchange – at the same price as its IPO price five years before – as the falling share price caused by the global financial crisis "continue(d) to adversely impact...employee morale."⁴⁶⁴ This does not indicate, however, the fall of the Alibaba. Rather, Alibaba, with its growing C2C division that was firmly rooted in the burgeoning Chinese market, was ready for another milestone: a flotation of the entire Alibaba Group.

⁴⁶¹ Doug Palmer, "U.S. drops China's Taobao website from 'notorious' list," *Reuters*, December 13, 2012, <http://www.reuters.com/article/net-us-usa-trade-piracy-idUSBRE8BC1IG20121213>.

⁴⁶² Liu Yanghe 刘阳禾, "Shangwubu dui Taobao bei meiguo lieru eming shichang mindang biao yanzhong buman," 商务部对淘宝被美国列入恶名市场名单表严重不满 [MOFCOM strongly objected to Taobao's inclusion on the US's notorious markets list], *China Daily* 中国日报, January 18, 2012, http://www.chinadaily.com.cn/micro-reading/fortune/2012-01-18/content_4985737.html.

⁴⁶³ Palmer, "U.S. drops China's Taobao website from 'notorious' list".

⁴⁶⁴ "So long, for now: Why the Chinese web portal is giving up its stock market listing," *The Economist*, February 25th, 2012, <http://www.economist.com/node/21548253>.

Toward 2014: Beyond E-commerce and beyond China?

In preparation for its planned IPO in 2014, Alibaba undertook an aggressive buying spree both in and outside of China, which continued afterward with even greater intensity. In 2014, the company poured out \$17 billion on more than 40 different deals.⁴⁶⁵ In 2015, it invested another \$18.5 billion on 65 companies.⁴⁶⁶ This enormous amount of capital projection, however, is not only an expression of power, but also a necessity compelled by its weakness, as Alibaba needs to both find new investment outlets and to diversify its business structure, in face of the extremely harsh competition both domestic and international. Probably driven by both strategic and opportunistic considerations, those investment has significantly transformed the role of Alibaba from a pure e-commerce company to an Internet behemoth that permeates various aspect of contemporary political economy, ranging from retailing, logistics, finance, media and entertainment, pharmaceutical, to smartphone and even automobile manufacturing, as we saw in the beginning of this chapter.⁴⁶⁷ It has also significantly enlarged Alibaba's global footprint, as the company started to project sizeable amount of capital overseas, completed eight large – over \$100 million – deals from 2013 to 2015 (see Table 4.3). Indeed, by the end of 2015, Alibaba's e-commerce platform has itself constituted an infrastructure, which might help spearhead the larger process of Chinese transnational capital as they go overseas, a topic I will return to shortly.

What has been behind this astonishing expansion? Alibaba's changing corporate landscape has been shaped by both state polices and capital initiatives. On the one hand, the

⁴⁶⁵ Wen Feixiang 文飞翔, "Pandian 'BAT+3M' wuda hulianwang hutou 2014 touzibuju," 盘点 'BAT+3M' 五大互联网巨头 2014 投资布局 [Review investment structure of five Internet giants in 2014], February 17, 2015, <https://www.huxiu.com/article/108847/1.html?odby=dateline>.

⁴⁶⁶ Du Yu 杜宇, "Alibaba de diguo bantu," 阿里巴巴的帝国版图 [The Empire of Alibaba], February 4, 2016, <http://cn.technode.com/post/2016-02-04/alibaba-2015>.

⁴⁶⁷ For a review of Alibaba's now expansive corporate landscape, see, Du Yu, "The Empire of Alibaba".

Chinese state has played an outsized role in energizing Alibaba's business proliferation. As Yu Hong shows, network connectivity and online applications have been accorded a crucial role in China's post-2008 restructuring.⁴⁶⁸ The newly-minted "Internet Plus" and "One Belt One Road" initiatives under the Xi-Li administration, if anything, have only augmented this trend, as we saw in previous chapters. This unprecedented role of the Internet in China's contemporary political economy, in the context of its continued reintegration into global capitalism, has propelled the state to not only open up many previously closed or highly restricted areas for private Internet capital – like Alibaba – to penetrate, but also integrate these units of Internet capital into its efforts of "going out," or international expansion. Accordingly, related investment in the Internet sector has risen significantly. It is reported that, even in the economic downturn, in 2015, China's government and businesses spent \$147 billion in ICT equipment and services, up from \$124 billion in 2014.⁴⁶⁹ China's Internet industry in general, and Alibaba in particular, have benefited from this policy reorientation.

On the other hand, the Chinese state has not been the only force behind Alibaba's aggressive expansion. Alibaba's gigantic purchasing power has been subsidized – at least partly – by global financial networks. The enormous proceeds – \$25 billion – it raised on the New York Stock Exchange in 2014 have certainly fed into the company's buying activities. Moreover, as we saw in Chapter 3, the buying sprees of China's Internet giants are often funded by transnational investment capital. Alibaba offers a prominent example in this regard. In August 2014, right before its landmark IPO, four of its six lead underwriters, including Deutsche Bank,

⁴⁶⁸ Hong, *Networking China*.

⁴⁶⁹ Brian Spegele and Alyssa Abkowitz, "China's Tech Leaders Try Teaching Dinosaurs to Dance," *The Wall Street Journal*, April 24, 2016, <http://www.wsj.com/articles/chinas-tech-leaders-try-teaching-dinosaurs-to-dance-1461526201>.

JP Morgan, Citigroup and Morgan Stanley, lent Alibaba \$3 billion in its business expansion to “deepen their relationship with the e-commerce giant in many different ways”.⁴⁷⁰ In March 2016, Alibaba announced another \$3 billion five-year syndicated loan with a group of eight lead arrangers to fund its expansion plans, including ANZ Group, Credit Suisse, Citigroup, Deutsche Bank, Goldman Sachs, JP Morgan, Mizuho Bank and Morgan Stanley. The aim of this loan, again, was to “help the e-commerce giant as it snaps up stakes in companies within China and overseas.”⁴⁷¹ These financial institutions, in turn, would expect to receive considerable economic benefits through Alibaba’s continued and extensive penetration in both the Chinese and global market. For example, it is reported that after its 2014 IPO, Alibaba paid its six IPO underwriters a total of \$300 million for their services.⁴⁷²

Thanks to the support from both the state and transnational capital, during this period, the company has actively expanded its footprint in both China and the global Internet.

Domestically, there have been many “first times” in Alibaba’s business adventures. In the area of banking and finance, as aforementioned, Alipay was the first non-banking payment provider that received a license from China’s central bank. In 2014, Alibaba’s affiliate bank, Zhejiang Internet Commerce Bank, was one of the two privately owned commercial banks – another one belongs to Tencent – to be allowed an operation in the highly regulated state-owned banking industry.⁴⁷³ In the area of network operation, HiChina, a subsidiary of Alibaba, was

⁴⁷⁰ Prudece Ho, “Alibaba’s Top IPO Banks Underwrite \$3Bln Loan,” *The Wall Street Journal*, August 29, 2014, <http://blogs.wsj.com/moneybeat/2014/08/29/alibabas-top-ipo-banks-underwrite-3bln-loan>.

⁴⁷¹ Adam Jourdan, “China's Alibaba says agrees \$3 billion five-year loan,” *Reuters*, March 9, 2016, <http://www.reuters.com/article/us-alibaba-loan-idUSKCN0WC00D>.

⁴⁷² Trefis Team, “Alibaba Hands Out Generous Fees to Investment Banks Involved In Its IPO,” *Forbes*, October 1, 2014, <http://www.forbes.com/sites/greatspeculations/2014/10/01/alibaba-hands-out-generous-fees-to-investment-banks-involved-in-its-ipo/#1d4428803e66>.

⁴⁷³ Gabriel Wildau, “Alibaba affiliate Wins approval for Bank License,” *Financial Times*, September 29, 2014, <http://www.ft.com/cms/s/0/605c26bc-47d3-11e4-ac9f-00144feab7de.html#axzz4KvOySat4>.

among the first 11 private companies – others include Alibaba’s major competitor B2C giant JD – to be awarded a mobile virtual network operator license to resell network services from China’s three state-owned operators.⁴⁷⁴ Alibaba has also extended its tentacles into public services through various collaborative projects with local governments. In 2015, the municipal governments of Beijing, Shanghai, Guangzhou and Shenzhen have all reached agreements with Alibaba to develop smart cities initiatives, linking public services like hospital appointments or utility bills payments with Alibaba’s platforms.⁴⁷⁵ In addition to the well-saturated and highly competitive urban market, Alibaba’s expansionist initiatives have also spread into rural areas to look for new growth outlets. In 2014, it announced its plan to build 1,000 county-level distribution and 100,000 village-level drop-off e-commerce service centers in the next three to five years to stimulate the development of e-commerce in rural China.⁴⁷⁶ Probably most significantly, Alibaba has even elbowed its way into the extremely sensitive military-related satellite and spatial industry. It is reported that in 2015, Alibaba set up a joint venture with state-owned defense company China North Industry Group to promote the commercialization of Beidou Navigation satellite – the Chinese indigenous GPS system.⁴⁷⁷ Through all these new initiatives, Alibaba cultivated an even closer partnership with the state.

Alibaba’s development has gone beyond the domestic market. Both before and after its IPO, the company has conducted a series of vigorous capital projections at an unprecedented

⁴⁷⁴ “Eleven companies issued with Chinese MVNO licenses, including Alibaba,” *Telegeography*, January 2, 2014, <https://www.telegeography.com/products/commsupdate/articles/2014/01/02/eleven-companies-issued-with-chinese-mvno-licences-including-alibaba>.

⁴⁷⁵ “Beijing gov’t signs with Alibaba for smart city initiatives,” *Xinhua Net*, April 22, 2015, http://news.xinhuanet.com/english/2015-04/22/c_134174691.htm

⁴⁷⁶ Gillian Wong and Loretta Chao, “Alibaba, JD.com Target Rural China for E-Commerce Growth,” *The Wall Street Journal*, August 30, 2015, <http://www.wsj.com/articles/alibaba-jd-com-target-rural-china-for-e-commerce-growth-1440980597>.

⁴⁷⁷ Liu Rong, “Alibaba to Partner in Commercializing China's GPS System Beidou,” *People’s Daily Online*, August 19, 2015, <http://en.people.cn/n/2015/0819/c90000-8938771.html>.

intensity and scale in the global Internet market. According to data from the China Global Investment Tracker compiled by the American Enterprise Institute-Heritage foundation, it is only since 2013 that Alibaba began projecting large amounts of capital overseas.⁴⁷⁸ From 2013 to 2015, the company initiated eight large deals of \$100 million or above, targeting neighboring countries such as India, Singapore and Japan, as well as the center of global digital capitalism, the US. For Alibaba, those cross-border investments served two aims: First, to spread and strengthen its core business of online commerce; and second, to diversify its profit structure and risks on a global scale. For the first aim, the company acquired various stakes in a group of foreign e-commerce companies, including Shoprunner in the US, Snapdeal and One97 in India and logistic company Singapore Post. For the second aim, it invested a considerable amount of capital into social media and online gaming market segments – the main business of its rival Tencent – including \$220 million in Tangome, \$200 million in Snapchat, and \$120 million in Kabam. In 2015, it even jointly funded a robotics company in Japan with SoftBank and Foxconn (see table 4.3).

⁴⁷⁸ American Enterprise Institute-Heritage foundation, “China Global Investment Tracker,” <https://www.aei.org/china-global-investment-tracker>.

Table 4.3: Major overseas deals completed by Alibaba (2005-2015)

Year	Month	Transaction Party	Quantity in USD millions	Share	Country
2013	October	Shopper (e-commerce)	\$110M	18%	USA
2014	March	TangoMe (social media)	\$220M	20%	USA
2014	May	Singapore Post (e-commerce)	\$250M	10%	Singapore
2014	July	Kabam (online gaming)	\$120M		USA
2015	Jan	One 97 (e-commerce)	\$200M	25%	India
2015	March	Snapchat (social media)	\$200M		USA
2015	June	SoftBank (robotics)	\$120M	20%	Japan
2015	Aug	Snapdeal (e-commerce)	\$200M	4%	India

Source: American Enterprise Institute-Heritage foundation, “China Global Investment Tracker (2005-2015)”.

Note: Only deals over 100 million are included in the database.

Apart from these cross-border mergers and acquisitions, Alibaba has also developed direct presence in the international market. In Western Europe, besides upgrading its London office to the company’s European headquarters, Alibaba opened up three new offices – the so-called “embassies” – in France, Germany and Italy to attract European sellers to its platforms.⁴⁷⁹ In Russia and Brazil, AliExpress, the retail version of its B2B unit Alibaba, has reportedly gained

⁴⁷⁹ Charles Clover “Alibaba seeks to become ‘gateway to China’ with Europe offices,” *Financial Times*, October 13, 2015, <http://www.ft.com/cms/s/0/c93f57c2-71bb-11e5-9b9e-690fdae72044.html#axzz4LJ1zhxVF>.

early success through its Russian and Portuguese sites.⁴⁸⁰ Those global expansions, however, were not always welcomed. Deep entanglement and interpenetration notwithstanding, fierce competitions from other units of Internet capital have certainly restricted Alibaba's sprawling route. For example, unable to gain a foothold in the home front of Amazon and eBay, Alibaba sold its US online shop 11main – just one year after its launch – to a New York-based e-commerce company OpenSky, in exchange for a 37% stake.⁴⁸¹ Indeed, even with large amount of capital investment and seemingly active overseas activities, the international retail and wholesale businesses have only accounted for a small amount of Alibaba's annual revenue – 9.2% in fiscal year of 2014 and 8.5% in 2015.⁴⁸²

The limited success of Alibaba's overseas activities has another implication – even with a historical IPO on the New York capital market, a highly transnationalized corporate ownership structure, and extensive ties with global financial networks, the company still has to rely heavily – if not exclusively – on its home market for revenue and profit. The central role of the Chinese market in Alibaba's profit strategy, in turn, has translated into some maneuvering power of the state that continued to structure the company's adventures in both the domestic and overseas markets. In other words, it has become *both* more international and much closer to the Chinese state.

On one side, riding the tide of the "Belt and Road" initiative – an updated version of the "going out" policies in the early 2000s – Alibaba has anchored itself firmly in the international

⁴⁸⁰ Loretta Chao, "China's Alibaba Draws Brazilian Bargain Shoppers," *The Wall Street Journal*, September 12, 2014, <http://www.wsj.com/articles/chinas-alibaba-draws-brazilian-bargain-shoppers-1410555882>.

⁴⁸¹ Ingrid Lunden, "Alibaba Rethinks Its US E-Commerce Strategy, Folds 11 Main, Other U.S. Holdings into OpenSky," *TechCrunch*, June 22, 2015, <https://techcrunch.com/2015/06/22/alibaba-rethinks-its-us-e-commerce-strategy-folds-11-main-other-u-s-holdings-into-opensky>.

⁴⁸² Alibaba Group, Form 20-F, 2015, <http://ar.alibabagroup.com/2015/assets/pdf/20-F.PDF>.

agenda of the Chinese state. In 2016, speaking at the St. Petersburg International Economic Forum in Russia, Jack Ma proposed the idea of “e-commerce silk road” and claimed that the key areas for Alibaba to construct this “e-commerce silk road” are the regions along the “Belt and Road” initiative, including Southeast Asia, Russia and the EU.⁴⁸³ Probably as a manifestation of this “e-commerce silk road,” in April 2016, Alibaba completed its largest overseas deal so far – spending \$1 billion for a controlling stake of Lazada, an e-commerce company that operates across six countries in Southeast Asia, including Singapore and Indonesia.⁴⁸⁴ To further emphasize its role in the state’s international strategy of “going out in groups,” or promoting an unified “Chinese team” in the global market, Alibaba has branded itself as a vehicle to help other Chinese firms in their ventures abroad. For example, in August 2016, the CEO of Aliyun, Alibaba’s cloud computing arm, suggested that the overseas expansion of Aliyun, including launching data centers in the US, Singapore and Hong Kong, will serve the purpose of constructing a cloud infrastructure for other Chinese firms, especially Chinese software companies, when they go out.⁴⁸⁵ Alibaba, therefore, while continuing its globalization efforts driven by the capitalist logic of constant expansion, also served, or claimed to serve – at least part of – China’s international and diplomatic agenda.

⁴⁸³ Peng Tianxiao 彭天潇 and Zhang Jiye 张继业, “Yi Dai Yi Lu changyi cuisheng xinxing dianshang moshi,” 一带一路倡议催生新型电商模式 [One Belt One Road created new modes of e-commerce], *Xinhua Net* 新华网, June 18, 2016,

<http://finance.people.com.cn/n1/2016/0618/c1004-28455377.html>.

⁴⁸⁴ Newley Purnell and Alyssa Abkowitz, “Alibaba Thinks Outside the China Box,” *The Wall Street Journal*, August 12, 2016, http://www.wsj.com/articles/alibaba-thinks-outside-the-china-box-1470995037?cx_navSource=cx_picks&cx_tag=contextual&cx_artPos=5#cxrecs_s.

⁴⁸⁵ “Ali yun quanqiubushu, jiang daidong 100 jia Zhongguo ruanjian qiye chuhai,” 阿里云全球部署, 将带动 100 家中国软件企业出海 [Ali Cloud’s global arrangement would help 100 Chinese software companies to go abroad], August 10, 2016, <http://www.cnsoftnews.com/news/201608/51735.html>.

On the other side, the company's close ties with global financial networks, especially the deep entrenchment of foreign capital in its corporate ownership structure, has also prompted the Chinese state – under the territorial logic – to intervene into Alibaba's seemingly borderless expansion in its domestic political economy.

The aforementioned Alipay dispute among Alibaba, Yahoo and SoftBank indicated that in certain strategic industries such as finance and banking that are closely related with issue of national security, the Chinese state, leveraging its enormous domestic market, can force Alibaba to restructure its relationship with its major transnational shareholders.

In recent years, along with the rising importance of the Internet industry in both its domestic market and global capitalism, the state has also initiated a series of new regulations in an attempt to keep its native Internet services and applications companies in check. As we saw in Chapter 3, a new Foreign Investment Draft Law has been under discussion in China's Ministry of Commerce since 2015, which claimed that the "nationality" of a company under the VIE structure will be defined not based on its ownership structure, but based on who has ultimate control over the enterprise.⁴⁸⁶ Alibaba's "Alibaba Partnership," a specific corporate structure it developed in 2010 to secure the decision-making authority remaining with its management team in China – despite dominant foreign ownership in its parent company⁴⁸⁷ – might be useful in helping the company justify its "Chineseness" under the new regulation. The specific outcome of these new moves, however, remained to be seen.

⁴⁸⁶ Gillian Wong and Juro Osawa, "How China's Draft Rules May Affect Foreign Investors," *The Wall Street Journal*, January 28, 2015, <http://www.wsj.com/articles/how-chinas-draft-rules-may-affect-foreign-investors-1422412416>.

⁴⁸⁷ Prudence Ho, "Alibaba Details Partnership Structure," *The Wall Street Journal*, June 19, 2014, <http://blogs.wsj.com/moneybeat/2014/06/19/alibaba-details-partnership-structure>.

Conclusion

Before Alibaba's debut on the New York capital market, a *Wall Street Journal* article confusedly commented: "Alibaba may be associated with China and the Chinese market, but it is an oddly global company".⁴⁸⁸ Indeed, as this chapter has demonstrated, Alibaba started its "internationalization" at the inception: It was incorporated in the Cayman Islands just a few months after the launch of its first website, operating in China through a variety of onshore and offshore subsidiaries, listing its B2B subsidiary in Hong Kong in 2007 and the parent company on the New York Stock Exchange in 2014, and has been actively expanding overseas several months after its inauguration. It might be clear that Alibaba has started its global journey early, what remains little known, however, is how the state-capital dynamic has shaped its different routes toward "internationalization"?

This chapter investigated the origins, evolution and internationalization of Alibaba – one of China's most powerful Internet companies and one of the world's largest e-commerce companies – through the lens of state-capital interactions. This strategy was used to dig deeper into the evolution of China's Internet industry as well as its complex interactions with the structural transformation of the global Internet.

Drawing on a historical examination of Alibaba's business history, this chapter explored a succession of mutually constituting relationships between Alibaba's evolution and broader political-economic dynamics, and between the Chinese state and transnational capital. Rather than creating an oversimplified formula, it shows that Alibaba's global journey presents a specific

⁴⁸⁸ Stephen Grocer, "Alibaba's IPO Filing: Everything You Need to Know," *The Wall Street Journal*, May 6, 2014, <http://blogs.wsj.com/moneybeat/2014/05/06/alibabas-ipo-filing-everything-you-need-to-know>.

pattern of state-capital relation that includes both tension and collaboration: From the late 1990s, transnational capital has played a fundamental role in the construction of Alibaba, largely under the tacit endorsement of the Chinese state. The 2008 economic crisis, while shifting Alibaba's business focus more toward China's domestic market, also deepened the company's reliance on the home state both in its business model and in its power struggle with other units of transnational capital. Finally, toward its 2014 debut on the New York Stock Exchange, Alibaba has constructed a wide-ranging digital empire and greatly enhanced its overseas presence. The growing importance of the company in both China's political economy and global cyberspace, however, also propelled the state to exercise its disciplinary power, with many results remaining to be seen.

The main finding of the chapter is threefold. First and foremost, Alibaba has been an "international" company from the very beginning. It would never become the "symbol of China's new tech strength"⁴⁸⁹ without the state's implicit consent to allowing transnational capital to engage – as portfolio investors – in the formulation of China's internet services and applications industry. The deep and early articulation of transnational capital with Alibaba goes directly against the conventional wisdom that China has closed off its digital borders and has been consistently building an inward looking "intranet" that is sealed off by the "Great Firewall," a point that has been raised throughout this dissertation. Indeed, transnational capital has facilitated the incubation of Alibaba, as well as its later development, including the recent international expansion. Moreover, the evolution of Alibaba has also benefited from diverse forms of support from different levels of the Chinese government, from the early promotion of the development of e-commerce in China to the recent all-round policy shift to the initiatives of

⁴⁸⁹ McDonald, "Alibaba, Symbol of China's New Tech Giants".

“Internet Plus” and “One Belt One Road”. In other words, the rise of Alibaba in global cyberspace is a product of the joint efforts of both the Chinese state and transnational capital. The finding in this chapter therefore echoes other recent scholarly work on the interpenetration between transnational capital and the Chinese Internet.⁴⁹⁰

This state-capital relationship, however, should not be oversimplified. As Alibaba’s business history has shown, deep integration and engagement notwithstanding, the Chinese state – through its various level of government entities – has presented strenuous efforts to curb the influence of transnational capital in its homegrown Internet industry. Far from a unified monolithic force, this state power has nevertheless become increasingly significant, along with the progressive omnipresence of Alibaba in both China’s domestic and international Internet. The 2011’s Alipay dispute, as well as the recently drafted Foreign Investment Law, demonstrate both the will and the power of the Chinese government to keep disciplining its domestic Internet capital. On the other hand, transnational capitals, in continuing to fund Alibaba’s expansion projects, have also tried to maximize their interests through Alibaba’s journey. In this regard, Alibaba also embodies a battlefield where the state and transnational capital have wrestled for the mastery of China’s digital economy.

Finally, we should not overlook the role of Alibaba itself. With the state’s continuing push of Internet capital into almost every aspect of China’s political economy as well as its

⁴⁹⁰ Dan Schiller, *Digital Depression: Information Technology and Economic Crisis* (Urbana: University of Illinois Press, 2014); Yuezhi Zhao, “China’s Pursuits of Indigenous Innovations in Information Technology Developments: Hopes, Follies and Uncertainties,” *Chinese Journal of Communication* 3, no. 3 (2010): 266–89; Min Tang, “Tencent as a Nexus: The Political Economy of China’s Internet Industry” (PhD dissertation, University of Illinois at Urbana-Champaign, 2017); Hong, *Networking China*; ShinJoung Yeo, “Geopolitics of Search: Google versus China?,” *Media, Culture & Society* 38, no. 4 (2016): 591–605; Christian Fuchs, “Baidu, Weibo and Renren: The Global Political Economy of Social Media in China,” *Asian Journal of Communication* 26, no. 1 (2015): 14–41.

international Internet, Alibaba's tentacles have spread into myriad industries and have increasingly turned itself into a "national champion" of China's digital revolution. This growing influence of Alibaba – and China's now powerful Internet industry in general – has given rise to a formidable group of Internet corporate elites in China, represented by Jack Ma in the case of Alibaba. Is there a fraction of the transnational capitalist class in China that is rising around network technologies? How has it interacted with the Chinese party-state and other segments of the transnational capitalist class? The final chapter will dig deeper into these interactions between state, transnational capital and an emerging Internet capitalist class fraction in China.

CHAPTER 5

THE RISE OF THE INTERNET CAPITALIST CLASS FRACTION IN CHINA

In December 2014, three months after Alibaba's historic IPO on the New York Stock Exchange, its Founder and Executive Chairman Jack Ma was featured as a runner-up for *Time's* Person of the Year. The title was simple, "Jack Ma, the Capitalist".⁴⁹¹ Underneath this straightforward assertion, however, are many unanswered questions: Is there a fraction of a capitalist class rising in China around Internet-based accumulation strategies? Have its members – represented by Jack Ma here – actually successfully joined the "transnational capitalist class"? Is that resulting a pattern of common class behavior and political consciousness, which might disrupt the cohesion of a Chinese state-centered strategy? And how does the configuration of this particular capitalist class fraction in China interact with domestic state agencies?

Previous literature has paid due attention to the transformation of social class relations in the age of neoliberal globalization. Scholars have argued, on a macro level, that the transnationalization of capital accumulation has contributed to the rise of a transnational capitalist class whose class project of profit maximization has increasingly moved beyond the territorial logic of the nation-states.⁴⁹² Few studies, however, have investigated capitalist class fractions in specific industries, including the Internet industry. Scholars of communication and information technologies, on the other hand, have given important consideration to the changing

⁴⁹¹ Rana Foroohar, "Jack Ma, the Capitalist," *TIME*, December 8, 2014, <http://time.com/time-person-of-the-year-runner-up-jack-ma>.

⁴⁹² William K. Carroll, *The Making of a Transnational Capitalist Class: Corporate Power in the 21st Century* (London: Zed Books, 2010); William I. Robinson, *A Theory of Global Capitalism: Production Class, and State in a Transnational World* (Baltimore: Johns Hopkins University Press., 2004); Leslie Sklair, *The Transnational Capitalist Class* (Oxford: Blackwell, 2001).

social relations around new media technologies and offered valuable insights on the formation of a “network society.”⁴⁹³ The actions at the inner core of power of this society, however, have received relatively scant attention. What remains little known is how the chief power-holders sitting in the center of today’s global digital capitalism both interact with each other and interact with their home states. This chapter attempts to address – though not to fill – this gap, by looking at whether there is a specific capitalist class fraction that is growing around China’s Internet industry. It also opens up a new window on the social and class implications of the international expansion of the Chinese Internet, a vital pole of economic growth in today’s crisis-ridden transnational digital capitalism.⁴⁹⁴

This chapter begins by recognizing that political economy approaches the concept of class through three dimensions: the *structural* dimension that focuses on business and governmental institutions, the *formational* dimension that investigates how class makes or constitutes itself, and the *relational* dimension that understands class in relation with other social class categories.⁴⁹⁵ To keep the focus on state-capital interactions – the center of this dissertation – this chapter draws on all three dimensions while augmenting the complex and highly fluid relationship between a rising group of Chinese Internet elites, the state and other segments of the transnational capitalist class. Indeed, in the spirit of Dan Schiller’s conceptualization, this chapter understands “capital” not as thing – as money or investment – but a two-sided,

⁴⁹³ Manuel Castells, *The Rise of the Network Society. Vol. 1 of The Information Age: Economy, Society and Culture* (Massachusetts and Oxford: Blackwell, 1996).

⁴⁹⁴ Dan Schiller, *Digital Depression: Information Technology and Economic Crisis* (Urbana: University of Illinois Press, 2014).

⁴⁹⁵ Vincent Mosco, *The Political Economy of Communication: 2nd Edition* (New York: SAGE Publications, 2009), 16-17.

contradictory social relation that is built around wage labor.⁴⁹⁶ While previous literature on China's ICT industry foregrounds one pole of class relations by studying how China's working class articulates with the Internet,⁴⁹⁷ this chapter builds on and contributes to this emerging body of work by granting attention to the other pole – the capitalist class. It asks: How have Chinese Internet corporate elites interlocked with and differentiated from the transnational capitalist class – and how has this process interacted with the Chinese party-state? Looking specifically at the class fraction that is growing in China around network technologies and applications, and at its transnational interlocks, this chapter offers a new window onto the international Internet “with Chinese characteristics”. It likewise contributes to our understanding of the complex transnational class relations that animate contemporary digital capitalism.

This chapter is organized as follows: The next section introduces the methods data used in this study. Based on the biographical data of 190 executives and senior managers at 20 major Chinese Internet companies, Sections Three and Four offer a preliminary definition of the Internet capitalist class fraction in China and sketches out some of the multifaceted connections between this group, the state and other transnational capitalists. It also situates this macro-level examination in the interplay between the restructuring of China's domestic political economy and the changing dynamics of transnational capitalism. Sections Five further disaggregates the sample into the three different but deeply entangled industry subsectors, focusing on the chief executives in network equipment, operation, and services and applications. Relying on

⁴⁹⁶ Dan Schiller, “Rosa Luxemburg's Internet? For a Political Economy of State Mobilization and the Movement of Accumulation in Cyberspace,” *International Journal of Communication*, no. 8 (2014): 355–75.

⁴⁹⁷ Yu Hong, *Labor, Class Formation and China's Informationized Policy of Economic Development* (Lanham: Lexington Books, 2011); Jack Linchuan Qiu, *Working-Class Network Society: Communication Technology and the Information Have-Less in Urban China* (Cambridge: The MIT Press, 2009).

documentation collected from media reports, it looks at how their connections with both the state and transnational capitalists have played out in shaping these tech leaders' political behaviors and class consciousness, in the context of the continuing global expansion of the Chinese Internet.

This chapter concludes by presenting a multifaceted picture of the rise of China's Internet capitalist class fraction in global digital capitalism. On the one hand, while these tech leaders have become notably transnational, they have nevertheless demonstrated a considerable level of engagement with their home state, to different degrees and for reasons varying for each industry subsector. If "a common political and economic project of the TCC [transnational capitalist class] is to re-engineer the state and economy to facilitate transnationalization,"⁴⁹⁸ then Chinese Internet capitalists, contained by the still powerful territorial logic of the Chinese state, and – to a limited extent – its socialist legacy, have not yet successfully joined this group. On the other hand, such close ties with the home government should not be mistaken as an almighty Chinese state taking full control of its domestic Internet capitalists – rather, the state, far from a unified monolithic entity, has both sought control of and courted partnership with this emerging and progressively influential class fraction. Animated by the "dialectic of the territorial and capitalistic logics of power,"⁴⁹⁹ the character and complexity of China's Internet capitalists, and their rapidly evolving relations with both the state and other transnational capitalists, require continuing attention.

⁴⁹⁸ Jerry Harris, "Outward Bound: Transnational Capitalism in China," *Race & Class* 54, no. 1 (2012): 13–32, 15.

⁴⁹⁹ David Harvey, *Spaces of Global Capitalism: Towards a Theory of Uneven Geographical Development* (London and New York: Verso, 2006), 107.

It is worth noting that the reconstitution of the capitalist class in China is by no means contained by the Internet capitalist class fraction studied in this chapter, as the process of capitalist development is much broader and extensive than the development of the Internet industry alone. China's "digital revolution," however, has been at the center of the country's unfinished and much-contested reintegration into the global capitalist system.⁵⁰⁰ As we saw in previous chapters, with the further promulgation of the "Internet Plus" and "One Belt One Road" initiatives, the Internet industry would likely become even more important across the broader structure of China's political economy, including not only network equipment, operation, and services and applications highlighted in this study, but also big business users and specialized suppliers. While studying the rise of China's Internet capitalist class fraction does not exhaust all the possible forms of social class formation, it has nevertheless offered a window on the overall process by which class power has been reconstituted in contemporary China.

Methods and Data

To explore the emergence of the Internet capitalist class fraction in China and its relations both with the state and with other transnational capitalists, both quantitative and qualitative data were used.

The quantitative data were obtained by compiling a sample for 20 major Internet companies in China in 2015, and by studying/coding the biographies of all the mainland-based

⁵⁰⁰ Dan Schiller, "Poles of Market Growth?: Open Questions about China, Information and the World Economy," *Global Media and Communication* 1, no. 1 (2005): 79–103; Yuezhi Zhao, "After Mobile Phones, What? Re-Embedding the Social in China's 'Digital Revolution,'" *International Journal of Communication* 1, no. 1 (2007): 92–120; Yu Hong, *Networking China: The Digital Transformation of the Chinese Economy* (Urbana: University of Illinois Press, 2017).

board members and senior managers of the companies in the sample. To compile this sample, I first identified a list of 20 major Chinese Internet companies, based both on their market capitalization and revenue in fiscal year 2015. Both rankings were used because they help us to understand different things: Market capitalization gets us the financial dimensions – especially the transnational/domestic dimension – of their identities as leading Internet companies, while revenues give us some benchmark sense of their significance in the product markets that they serve. The market capitalization of four companies on the list are not available for different reasons. China Electronic Technology Corporation (CETC) and China Electronics Corporation (CEC) are the two largest state-owned IT hardware conglomerates, each coordinating a complex group of public and private companies. The large number of the companies under their wings make the market capitalization of the two parent companies hard to calculate.⁵⁰¹ Huawei and Xiaomi are privately held firms as the time of this study. Huawei, in particular, has chosen to stay private since its establishment in 1987, despite the company’s growing international presence. However, their significance to the overall Chinese Internet economy should be acknowledged. One critical indicator of their importance is their annual revenues: In 2015, CEC’s revenue reached \$31.5 billion, CETC \$26.4 billion, Huawei \$62.8 billion and Xiaomi \$12.5 billion.⁵⁰² To put it into a comparative perspective, the same year, Cisco’s revenue was \$49.2 billion and Apple’s iPhone revenue came to a total of \$151 billion.⁵⁰³ The 20 Internet firms

⁵⁰¹ For example, according to their official websites, in October 2016, CEC controls 61 second level subsidiaries, including 13 public listed companies while CEIC controls 66 second level subsidiaries and 8 of them have gone public. One estimate puts CEC’s market value at \$36.7 billion while CEIC at \$35.6 billion. See, <http://finance.sina.com/gb/tech/sinacn/20150924/02001340226.html>.

⁵⁰² Fortune Global 500, <http://beta.fortune.com/global500/list>; Scott Cendrowski, “Xiaomi Revenues Were Flat in 2015,” *Fortune*, May 23, 2016, <http://fortune.com/2016/05/23/xiaomi-revenues-flat-2015>.

⁵⁰³ Fortune Global 500; Virendra Singh Chauhan, “iPhone Revenue to add \$151 Billion to Apple 2015 Revenue,” <http://amigobulls.com/articles/iphone-revenue-to-add-151-billion-to-apple-2015-revenue>.

in my sample, therefore, carry disproportionate weight in both the Chinese and global digital political economy (see Table 5.1 for the full list).

Based on the list of the 20 major Chinese Internet companies, I then compiled a sample of all the directors and executive officers for each corporation using their 2015 annual reports. After a general examination of the composition of the corporate board of each company, I singled out all the mainland-based Chinese leaders as a sample for the study. To keep consistency with major international business data such as the UNCTAD's *World Investment Report*, this step excludes members from Hong Kong, Macau and Taiwan. After de-duplicating the executives that appear in multiple boards, the finalized sample contains a total of 190 Chinese Internet elites (see Appendix B).

To foreground the relationship between this class fraction, the state and other capitalists, I obtained the biographical information of all the members from each companies' annual reports, supplemented by public information available on specific organizations' websites, such as the National People's Congress. Four different measurements were used to code the biographical data: transnational board connections, overseas schooling, government occupation, and political affiliation. The first two measurements, foregrounding international linkages, have been confirmed by other scholars as related to forging class consciousness.⁵⁰⁴ The third and fourth measurements were also proved to be useful for scholars who are interested in studying state-business interactions in China.⁵⁰⁵ In particular, a board member or senior manager was coded

⁵⁰⁴ Robinson, *A Theory of Global Capitalism: Production Class, and State in a Transnational World*; Sklair, *The Transnational Capitalist Class*; William G. Domhoff, *Who Rules America?: Challenges to Corporate and Class Dominance*, 6th ed. (New York: McGraw-Hill, 2009); Carroll, *The Making of a Transnational Capitalist Class: Corporate Power in the 21st Century*.

⁵⁰⁵ Yuhua Wang, "Beyond Local Protectionism: China's State-Business Relations in the Last Two Decades," *The China Quarterly* 226, no. June (2016): 319–41.

four times in the database – as “Yes” or “No” – according to each of the four measurements: (1) Is he or she sitting on the same board with directors from other transnational corporation; (2) Did he or she go to college or graduate school overseas; (3) Is he or she a current or former employee in national or local government agencies; (4) Is he or she previously (or currently) serving as a member of major party-state organizations, such as the national or local branch of People’s Congress (PC), the People’s Political Consultative Conference (PPCC), or the national or local congress of the Chinese communist party (CCP)? I zoomed in at the chief executives or the de facto controllers of these companies when information on other members was incomplete or not publicly available. Instead of exhausting the range of possible factors in class formation, those measurements were taken to illuminate the multifaceted connections between Chinese Internet capitalists, the state, and their transnational counterparts.

Finally, to further our understanding on how these connections have played out in shaping those members’ class consciousness and political actions, qualitative data were collected through a systematic examination of media reports in both English and Chinese languages, focusing on speeches, interviews and policy proposals of the most significant executives in the sample. Those discursive traces were then disaggregated and discussed separately according to the three industry subsectors those executives have served – equipment, operation, and services and applications – since there are different levels of state involvement in each subsector, as we saw in chapter 3. While quantitative data helped us gain a macro understanding of this class fraction, qualitative data offered both examples for illustrations and identified the locus of decision making power that is constituted in China.

Table 5.1: 20 major Chinese Internet companies (2015)

	Company	Sector	Market Cap	Revenue	Capital Expenditure	Numbers of employees
1	China Mobile	Network operator	\$241B	\$107.8B	RMB 195.6B (US \$30.2B)	438,645
2	Alibaba	Applications provider	\$200.7B	\$14.96B	RMB 7,705M (US \$1,243M)	36,446
3	Tencent	Applications provider	\$197.4B	\$16.3B	RMB 7,709M (US \$1,116M)	30,641
4	Baidu	Applications provider	\$66.1B	\$10.5B	RMB 5,230M (US \$807.3M)	41,467
5	China Telecom	Network operator	\$41B	\$52.7B	RMB 109B (US \$15.8B)	291,526
6	JD.com	Applications provider	\$38.8B	\$28.8B	RMB 5,300M (US \$818M)	105,963
7	China Unicom	Network operator	\$29.1B	\$43B	RMB 133.88B (US \$19.4B)	268,887
8	Ctrip	Applications provider	\$21.2B	\$1.7B	RMB 658.13M (US \$95.58M)	31,000
9	Netease	Applications provider	\$17.5B	\$3.6B	RMB 866.3M (US \$133.7M)	12,919
10	Leshi	Applications provider	\$16.8B	\$2.4B	N/A	4,885
11	Lenovo	Equipment manufacturer	\$9.1B	\$47.1B	\$935M	60,000
12	ZTE	Equipment manufacturer	\$8.87B	\$13.1B	RMB 3,132M (US \$453M)	91,452
13	VIPshop	Applications provider	\$7.8B	\$6.3B	RMB 4.18B (US \$644.5M)	8,544

Table 5.1 (cont.)

	Company	Sector	Market Cap	Revenue	Capital Expenditure	Numbers of employees
14	Qihoo 360	Applications provider	\$7.54B	\$1.4B	\$156.3M	4,200
15	Sina	Applications provider	\$2.79B	\$0.88B	\$45.47M	76,000
16	Sohu	Applications provider	\$1.85B	\$1.9B	\$243.29M	106,000
17	Huawei	Equipment manufacturer	N/A	\$62.8B	N/A	170,000
18	CEC	Equipment manufacturer	N/A	\$31.5B	N/A	130,000
19	CETC	Equipment manufacturer	N/A	\$26.4B	N/A	110,000
20	Xiaomi	Equipment manufacturer	N/A	\$12.5B	\$133.5M	8,100

Source: Google Finance; Forbes global 2000 (2015); companies' annual reports (2015);

Note: B=billion, M=million.

Defining Internet Capitalists in China

In 2016, *Forbes* released its second annual list of the world's "100 Richest Tech Billionaires". Corporate elites from mainland China accounted for a substantial one-fifth of the total. The 19 Chinese tycoons, with a combined net worth of \$132.7 billion, occupied key positions on the list, including two among the top 10 – Alibaba's Jack Ma ranked 8th (with a net

worth of \$28.7 billion) and Tencent's Pony Ma 9th (net worth \$22 billion).⁵⁰⁶ To put it in a comparative perspective, China is second on the list in terms of numbers of billionaires. The US – probably not surprisingly – has a dominant 51, Canada 5, and Germany 4. The other 11 countries or regions on the list each only have three or fewer members. Indeed, with the continuing expansion of China's Internet industry, Chinese tech leaders – as a group – have become increasingly visible in global digital capitalism, sharing the stage with familiar Internet capitalists like Microsoft's Bill Gates, Amazon's Jeff Bezos, Alphabet/Google's Larry Page and Sergey Brin, and Facebook's Mark Zuckerberg.

Despite the high visibility of China's newly emerged Internet elites, there is little knowledge about them in the existing literature.⁵⁰⁷ Indeed, a crucial question remains unresolved: What defines these people as capitalists? This question is especially perplexing in the Chinese context since the term "capitalist class" has not yet been recognized in official discourse or documented in national statistics. In his study, Chen An distinguishes between the bourgeois class and the middle class in China, and refers to the former as "owners of relatively large capital, namely the wealthiest private entrepreneurs," but he also tends to be ambiguous on how to define "large capital" or "wealthiest".⁵⁰⁸ In sum, there seems to be neither settled definition nor clear threshold in terms of how much wealth would qualify a person as a "capitalist" in China.

⁵⁰⁶ Kate Vinton, "The 100 Richest Tech Billionaires in the world in 2016," *Forbes*, August 10, 2016, <http://www.forbes.com/sites/katevinton/2016/08/10/the-100-richest-tech-billionaires-in-the-world-in-2016/#76a27d6b6b3f>. Forbes chose to exclude telecom and media in its definition of the technology industry.

⁵⁰⁷ For an important case study on Chinese capitalists in communication industries, see Yun Wen, "From Margin to Center: The Remaking of the Capitalist Class in China's Communication Industries," Paper presented at the International Association for Media and Communication Research, Montreal, Canada, 2015.

⁵⁰⁸ An Chen, "Capitalist Development, Entrepreneurial Class, and Democratization in China," *Political Science Quarterly* 177, no. 3 (2002): 401–22, 409.

Previous literature has pointed out that two types of attributes are vital in defining a capitalist: The ownership of personal wealth and/or the control of productive capital. Given the significant ambiguity in the Chinese case, I used both to get a rough idea of the sample in this study. For the ownership of personal wealth, I relied on the annually distributed *Hurun list of richest Chinese*, which profiles and ranks China's richest citizens – those net worth exceeds RMB 2 billion (almost US \$300 million).⁵⁰⁹ In 2016, Hurun had 1,877 people on its list. I cross-checked the members of my sample with the list and found out a significant overlap – for example, Alibaba Group contributes eight billionaires – but the result remains far from complete (see Appendix 2).

Admittedly, even as one of the most authoritative sources on economic elites in China, Hurun's list has its limitations. For this study, on the one hand, many relatively not-so-prominent managers were not on the list, for various reasons. It might simply because they were not in the same league with those billionaires, or the information on their wealth was not public available, especially if they work in private companies. On the other hand, all SOE managers – 36 in total in my sample – were missing from the list given the fact that it is almost impossible to find out how much wealth the SOE managers have accumulated – as party members and government officials, they tend to keep their wealth hidden.⁵¹⁰

In order to complement the first attribute, I turned to the second one: the control of productive capital.⁵¹¹ To investigate how much productive capital these Internet elites actually

⁵⁰⁹ For the full list, see “2015 Hurun baifu bang,” 2015 胡润百富榜 [2015 Hurun's list of richest Chinese], <http://www.hurun.net/CN/HuList.aspx?nid=1031>.

⁵¹⁰ David S. G. Goodman, *Class in Contemporary China* (Malden: Polity Press, 2014), 76.

⁵¹¹ Marx uses “production capital” to encompass both constant and variable capital. Constant capital refers to capital invested in the means of production (raw materials, machinery, etc.), while variable capital refers to labor costs. In this study, I use companies' annual capital expenditures as a proxy for

command, I collected data of both the capital expenditure and the number of employees of each of the 20 companies in 2015. It is worth noting that for this study, these two measurements are to a large extent derived from these people's ownership/management role in one or more Internet corporations. It is these companies – not the capitalists themselves – which in turn mobilize labor power and make capital investments. In other words, their identity as members of the capitalist class is mediated by the corporations they control and/or direct.

The data shows that their capital expenditures are massive. For example, web application provider Alibaba spent \$1,243 million in 2015, equipment and hardware manufacturer Lenovo \$935 million, and network operator China Mobile RMB195.6 billion (US \$30.2 billion). Their ability to mobilize labor power through ownership or management role is equally impressive. In fact, although the wealth of all SOE managers remains unknown, these elites actually control a large quantity of labor power: In 2015, China Mobile had 438,645 employees, China Telecom 291,526, China Unicom 268,887, CEC 130,000 and CETC 110, 000 (see Table 5.1).

These two attributes, instead of offering detailed statistics of the capitalist class fraction in China's Internet sector, give us a rough idea of both the wealth these elites have accumulated and the productive capital they are able to command. The data are indicative rather than comprehensive, but they have nevertheless helped sketch out a preliminary picture of this class fraction in China's digital economy.

constant capital and the number of their employees as an indication for variable capital. For a detailed discussion on constant and variable capital, see, David Harvey, *A Companion to Marx's Capital* (New York: Verso, 2010), 128-129.

The “Making” of China’s Internet Capitalist Class Fraction

A comprehensive review of the general biographical data of all the 190 Internet executives in the sample reveals a complex and even contradictory picture. On the one hand, they seemed to have cultivated expansive transnational ties both through corporate board membership and overseas schooling. Among the 190 high-ranking managers, almost one-third – 61 of them – have received education outside mainland China, many of them at elite schools in the US. Approximately 62 percent – 118 of them – are sitting on the same board with directors from other transnational corporations. Moreover, as more Chinese Internet firms set up overseas subsidiaries, no transnational members sitting on their Headquarters’ corporate board does not necessarily mean that they lack global connections – those firms might have recruited foreign executives in their local branches, as in the case of Huawei, which will be discussed later. If, as William Domhoff argues, “schools play a large role in transmitting the class structure,” and corporate boards represent the “intersection between corporations and the upper class,”⁵¹² a considerable portion of China’s Internet elites seemed to have – at least partially – linked with other transnational capitalists through education and corporate board associations.

On the other hand, despite substantial transnational linkages, government connections, measured by occupational and organizational affiliations, have also been well-represented in the sample. Almost 38 percent – 72 out of 190 – are working, or have previously worked in local or central government entities. More than 43 percent – 82 out of them – have participated in local or national level party-state organizations. It is worth noting that information on political affiliations are not always publicly available. To take a closer look at this issue, I investigated

⁵¹² Domhoff, *Who Rules America*. 25, 51.

specifically into the 20 chief directors of the companies in question. The results have shown that 16 out of 20 Chairmen/CEOs of these firms have infiltrated into the party-state apparatus by currently or previously serving a position in central or local party-state organizations such as the government-run All-China Federation of Industry and Commerce (ACFIC), China Cultural Industry Association (CCIA), the People's Congress (PC) and People's Political Consultative Conference (PPCC) (see Table 5.2).

The biographical data seems to provide both supporting and contradictory evidence to the proposition that the rise of transnational capital gives rise to a transnational capitalist class.⁵¹³ How has China's Internet capitalist class fraction cultivated and preserved dense connections both with the state and with their transnational peers? This seemingly contradictory character needs to be understood within China's unsettled reintegration into global capitalism. As a self-proclaimed socialist country led by a party that is still – at least on paper – communist and anti-capitalist, the making of the Chinese capitalist class, including its Internet fraction, presents some unique attributes.

⁵¹³ Robinson, *A Theory of Global Capitalism*; Sklair, *The Transnational Capitalist Class*.

Table 5.2: Political connections at 20 major Chinese Internet companies (2015)

	Company	Board Chairman or CEO	Party-state affiliation
1	China Mobile	Bing SHANG 尚冰	CPC National Delegate
2	Alibaba	Jack Yun MA 马云	Zhejiang Prov. PPCC; CCIA
3	Tencent	Pony Huateng MA 马化腾	NPC; Shenzhen City PC; CCIA
4	Baidu	Robin Yanhong LI 李彦宏	CPPCC
5	China Telecom	Jie YANG 杨杰	CPC National Delegate
6	JD.com	Qiangdong LIU 刘强东	Shanghai City PPCC
7	China Unicom	Xiaochu WANG 王晓初	CCP's Central Committee
8	Ctrip	Jianzhang LIANG 梁建章	CPPCC
9	Netease	Lei DING 丁磊	Guangdong Prov. PC
10	Leshi	Yueting JIA 贾跃亭	CCIA
11	Lenovo	Chuanzhi LIU 柳传志	CPC National Delegate; NPC
12	ZTE	Weigui HOU 侯为贵	N/A
13	VIPshop	Eric Ya SHEN 沈亚	N/A
14	Qihoo 360	Hongyi ZHOU 周鸿祎	N/A
15	Sina	Charles CHAO 曹国伟	N/A
16	Sohu	Charles ZHANG 张朝阳	ACFIC
17	Huawei	Zhengfei REN 任正非	CPC National Delegate
18	CEC	Xiaowu RUI 芮晓武	CPC National Delegate
19	CETC	Qunli XIONG 熊群力	NPC

Table 5.2 (cont.)

	Company	Board Chairman or CEO	Party-state affiliation
20	Xiaomi	Jun LEI 雷军	NPC

Source: The party-state affiliations are gathered primarily from the annual reports of the companies. When official company information is not available, I used information collected from news articles in both Chinese and English.

Note: The abbreviations used in this table: CPPCC (China People's Political Consultative Conference); NPC (National People's Congress); ACFIC (All-China Federation of Industry and Commerce); CCIA (China Cultural Industry Association); PPCC (People's Political Consultative Conference); PC (People's Congress); and CPC (Chinese Communist Party).

On the one hand, although government interventions have always been vital in the construction of markets,⁵¹⁴ the role of the Chinese state – a self-described socialist one – in the making of its domestic capitalist economy deserves particular attention. As Chen An observes, since China's socialist transformation in the 1950s had almost eliminated its private sector, the reemergence of capitalist enterprises and private entrepreneurs in the late 1970s was largely an “artifact” by the post-Mao state.⁵¹⁵ In the words of Lin Chun, “the Chinese novelty lay in the phenomenon where the Communist Party enabled private profit seekers to grow from within its own ranks and apparatus.”⁵¹⁶ This exceptionally omnipresent and contradictory role of the party-state in the construction of China's homegrown capitalist class has manifested itself in the Internet sector.

First, China's state-steered economic privatization in the past three decades – first through the development of town and village enterprises under the purview of local governments

⁵¹⁴ Karl Polanyi, *The Great Transformation: The Political and Economic Origins of Our Time* (Boston: Beacon Press, 1944).

⁵¹⁵ Chen, “Capitalist Development, Entrepreneurial Class, and Democratization in China,” 405.

⁵¹⁶ Chun Lin, *The Transformation of Chinese Socialism* (Durham: Duke University Press, 2006), 254.

in the 1980s and then through the restructuring and privatizing of the state-owned enterprise sector in the 1990s – have resulted in a large number of nominally private firms with deep and uncut roots in the state sector.⁵¹⁷ Due to the conflict-ridden and unfinished nature of this process, the ownership structures of many Chinese corporations are often mixed and ambiguous.⁵¹⁸ For example, private firms may choose to wear “red hats” and claim to be state-owned to take advantage of policy support or entrenched managerial elites may take control of and in fact privatize previously state-owned enterprises. Among the 20 major Internet companies sampled in this chapter, both ZTE and Lenovo can be considered as “mixed ownership”. Lenovo was started as a spin-off from the state-owned Chinese Academy of Sciences, and the latter still holds a 36% stake of Legend Holdings Ltd., Lenovo’s major shareholder.⁵¹⁹ ZTE also retained its status as “state owned, privately managed” – meaning the state shareholders, which still control 51% of the company, authorize the operational rights to the private shareholders, i.e., the managers.⁵²⁰ This murky ownership structure and these firms’ state-sector origins have bred a special closeness between these corporate elites and the government. For example, Lenovo’s founder Liu Chuanzhi, not only has previously worked in the Chinese Academy of Sciences, but also maintained these connections ever after – he has been a delegate to the National Congress of CCP and a deputy to several sessions of National People’s Congress (NPC) – China’s highest legislative body – at least symbolically.

⁵¹⁷ David S. G. Goodman, *Class in Contemporary China* (Malden: Polity Press, 2014), 78-82.

⁵¹⁸ Curtis J. Milhaupt and Wentong Zheng, “Beyond Ownership: State Capitalism and the Chinese Firm,” *Georgetown Law Journal* 103, no. 3 (2015): 665–722.

⁵¹⁹ Juro Osawa and Lorraine Luk, “How Lenovo Built a Chinese Tech Giant,” *The Wall Street Journal*, January 30, 2014, <http://www.wsj.com/articles/SB10001424052702303973704579352263128996836>.

⁵²⁰ Milhaupt and Zheng, “Beyond Ownership: State Capitalism and the Chinese Firm”.

Second, the influential role of the state has also manifested itself in taking control of the “commanding heights” of China’s strategic communication industry, including the Internet sector.⁵²¹ This has translated into the fact that all the three network operators – China Telecom, Unicom and Mobile, and two of the large equipment vendors – CEC and CETC – on the list have all remained as central State-owned Enterprises (SOEs) and are jointly managed by both the National Development and Reform Commission (NDRC) and the State-Owned Assets Supervision and Administration Commission (SASAC). In particular, the state has retained its rights of selecting and appointing the leadership team of these companies. This peculiar state-capital relationship has given rise to a group of bureaucratic managerial elites who are often wearing different hats throughout their career development – as corporate executives, government officials and party cadres.⁵²² A revolving door for personnel has further strengthened their tripartite roles. For example, Shang Bing, the Chairman and Party Secretary of China Mobile, has served as a vice minister at China’s Ministry of Industry and Information Technology before taking the job at China Mobile.

Finally, the Chinese state has also extended its arms to the more recently founded Internet companies that had no previous roots in the state sector by actively incorporating their leaders into the party-state apparatus. One prominent example of this effort is the “three represents” doctrine proposed by the then-president Jiang Zemin in 2001. As Yuezhi Zhao argues, through this new doctrine, the Chinese Communist Party has repositioned itself from a “working-class vanguard to a party of ‘the Chinese people and the Chinese nation,’ including China’s rising

⁵²¹ Yuezhi Zhao, *Communication in China: Political Economy, Power, and Conflict* (Lanham: Rowman & Littlefield, 2008).

⁵²² KE Kjeld Erik Brødsgaard, “Politics and Business Group Formation in China: The Party in Control?,” *The China Quarterly* 211 (2012): 624–48.

capitalist, technocratic, managerial, and professional strata.”⁵²³ This paradoxical reconstruction of a supposedly anti-capitalist party into a party that counts capitalists as its primary constituency seemed to have received warm welcome from its newly re-emerged business community. By 2006, about a third of private entrepreneurs were members of the CCP, a significant increase from a fifth in 2000.⁵²⁴ It is also reported that at the 2016 National People’s Congress, among around 3,000 delegates, there were 114 people – almost 4 percent – that are on the *Hurun list of richest Chinese*.⁵²⁵ In the Internet sector, as we saw in table 5.2, a weighty group of Chinese Internet leaders – regardless of the ownership types of their respective firms – are holding or previously held a position in China’s political system. In particular, Jack Ma of Alibaba, Pony Ma of Tencent and Robin Li of Baidu – the founders of the three most powerful Internet applications and services firms in China – are all involved, or previously involved, in the work of national or local organizations of the PC and PPCC.

On the other hand, as we saw in previous chapters, the rise of China’s Internet industry has also been greatly influenced by transnational forces, which in turn has fostered an extensive network between domestic Internet elites and other segments of transnational capitalists.

First, as Dariusz Wojcik and James Camilleri have showed, global financial networks have been instrumental in the incorporation and internationalization of China’s “national champions”.⁵²⁶ Starting from the late 1990s, the Chinese state has allowed both its “national teams,” as well as its private firms, to float – at least partially – on overseas stock markets to

⁵²³ Zhao, *Communication in China*, 14.

⁵²⁴ Bruce Dickson, *Wealth into Power: The Communist Party’s Embrace of China’s Private Sector* (New York: Cambridge University Press, 2008), 70.

⁵²⁵ Matthias Stepan and Lea Shin, “These Are the Super-Rich People Shaping China,” *Fortune*, March 3, 2016, <http://fortune.com/2016/03/03/china-national-peoples-congress-alibaba>.

⁵²⁶ Dariusz Wojcik and James Camilleri, “‘Capitalist Tools in Socialist Hands’? China Mobile in Global Financial Networks,” *Transactions of the Institute of British Geographers* 40, no. 4 (2015): 464–78.

generate capital inflows. The listing process, which relied almost exclusively on global business services firms as auditors, legal advisors and IPO underwriters, has created a dense network between Chinese corporate managers and transnational financial elites. A quick survey of the corporate boards in the sample confirms that 18 out of 20 companies have at least one senior manager or executive on board who has previously worked in transnational financial companies, such as Goldman Sachs and Morgan Stanley. Indeed, a *Wall Street Journal* article even claims that previous senior positions at Goldman Sachs have become the “new qualification for China’s tech elite”.⁵²⁷

Second, for Chinese Internet companies that have built from scratch with the help of overseas venture capital – as in the case of many China’s web applications and services companies – the different rounds of external fundraising in their business history often means a greater involvement of transnational capitalists both in their ownership structure and corporate management. As we saw previously in the case of Alibaba, both SoftBank’s Son Masayoshi and Yahoo’s Jerry Yang secured executive positions on its board, in exchange for their significant capital contribution. Tencent, China’s social media and online gaming giant, likewise reserved two positions on its board for senior directors of its major shareholder, Naspers, a South Africa-based Internet and media group.⁵²⁸ Sometimes, this relationship is reciprocal. For example, Alibaba’s Jack Ma also serves as an executive on SoftBank’s board. It is worth noting, however, such reciprocal interlocks of boards of directors on a transnational level have been rare in the sample surveyed in this study. Apart from Jack Ma, only China Unicom’s CEO Wang Xiaochu

⁵²⁷ Wei Gu, “The New Qualification for China’s Tech Elite: Goldman Sachs,” *The Wall Street Journal*, May 3, 2016, <http://www.wsj.com/articles/ant-financial-close-to-hiring-former-goldman-sachs-banker-feagin-1462256460>.

⁵²⁸ For a detailed discussion on Tencent, see Min Tang, “Tencent as a Nexus: The Political Economy of China’s Internet Industry” (PhD dissertation, University of Illinois at Urbana-Champaign, 2017).

keeps a reciprocal board position in Spain's operator Telefonica, in which Unicom holds a minority share. This finding seems to echo what Peter Nolan has observed on China's rise in transnational capitalism, that while transnational firms have deeply entrenched in China, Chinese firms have not yet penetrated into the heart of global capitalism – in his words, “‘we’ are inside ‘them,’ but ‘they’ are not inside ‘us’”.⁵²⁹

Third, the aggressive overseas expansion of China's Internet industry has also introduced new members of transnational capitalists into their corporate management, with an aim to better position the firms in the global market. Indeed, recent years have witnessed a growing involvement of foreign corporate elites into China's top Internet firms. For example, in 2011, Tencent hired former Goldman Sachs' senior manager James Mitchell to direct its investment strategy.⁵³⁰ In 2014, Baidu recruited Andrew Ng, a former Google executive, to lead its newly developed artificial-intelligence arm.⁵³¹ Alibaba also recently hired Michael Evans, a retired Goldman Sachs partner, as its President to oversee the company's ambitious international expansion.⁵³² Even companies with no transnational members on their Headquarters' Board of Directors could be globally connected through overseas offices. It is reported that Huawei, despite keeping all the executives in its Shenzhen Headquarter Chinese, has started to enlist local political economic elites on board to its overseas subsidiaries – in 2011, for example, it

⁵²⁹ Peter Nolan, *Is China Buying the World?* (Cambridge: Polity Press, 2012), 141.

⁵³⁰ Gu, “The New Qualification for China's Tech Elite: Goldman Sachs”.

⁵³¹ Alyssa Abkowitz, “The ‘Crazy’ Pace of Chinese Tech Company Baidu,” *The Wall Street Journal*, June 28, 2016, <http://blogs.wsj.com/chinarealtime/2016/06/28/the-crazy-pace-of-chinese-tech-company-baidu>.

⁵³² Michael J. de la Merced, “Alibaba Names Former Goldman Sachs Executive as President,” *The New York Times*, August 5, 2015, <http://www.nytimes.com/2015/08/05/business/dealbook/alibaba-names-former-goldman-sachs-executive-as-president.html>.

appointed Alexander Downer, the former Foreign Minister of Australia, to the Board of Directors of its Australian subsidiary.⁵³³

Apart from transnational board linkage established through cross-border IPOs, foreign capital absorption and outward expansion, overseas education has also played a role in formulating connections between Chinese tech leaders and transnational capitalists. Although widely-shared among leaders in all the 20 major companies, this factor is relatively more prominent among the recently emerged tech elites in the web applications and services sector – over 37 percent of them were educated overseas. For a given company – as in the case of Baidu – this percentage could be as high as 70 percent. Overseas schooling has helped cultivate and strengthen transnational ties. For example, Sohu’s CEO Charles Zhang, an MIT graduate, received his first round of venture capital from Nicolas NegroPonte and Edward Robert, both of whom are also professors at MIT.⁵³⁴

In sum, relying on biographical data of 190 tech leaders in China’s major 20 Internet companies, this sector delineates the multifaceted connections between a rising Chinese Internet capitalist class fraction both with the Chinese state and with other transnational capitalists. It also offers possible explanations to this seemingly contradictory characteristic by situating these dense networks at the interplay between China’s domestic political-economic transformation and the changing dynamics of global digital capitalism. How have these factors influenced the constitution of the Chinese Internet class fraction? Have these Internet elites come to an awareness of shared identity and interests with their transnational counterparts, if so, to what

⁵³³ Liu Qing 刘琼, “Zhongguo gongsi laile waiguo dongshi,” 中国公司来了外国董事[Foreign board members joined Chinese companies], *China Business News* 第一财经日报, December 12, 2014, <http://www.yicai.com/news/4051273.html>.

⁵³⁴ Sohu, com., “Company Milestones,” <http://corp.sohu.com/companymilestones-en.shtml>.

extent? Based on discursive evidences collected from media reports, the next section looks at the issue on a sector-by-sector basis.

China's Internet Capitalist Class Fraction, the State, and Transnational Capitalists

Before moving on to a disaggregated analysis within the Internet sector, it is important to note that there have been serious outbreaks between this newly emerged Internet capitalist class and other segments of capitalist class in China's policymaking arena. This echoes what previous scholars have observed that "different [capitalist class] sectors have their own priorities and preference in policy."⁵³⁵ For example, when the current Chinese leadership, under the influenced of its newly emerged Internet power bloc, tried to push out an Internet-based developmental strategy, traditional manufacturers raised open concerns toward this policy reorientation – as one leading sports good manufacturer claimed that "if there is no real economy, the Internet economy is empty".⁵³⁶

Recognizing that there are conflicts and divergent aims of different capitalist class fractions in China, this section focuses on the Internet sector by zooming in and investigating how the connections with state and transnational capital have shaped these capitalists' behaviors in three separate but also deeply entangled industry subsectors – equipment manufacturing, network operation, and Internet services and applications. The rationale for disaggregating the group is that there are different levels of state power in these subsectors, as we saw in chapter 3,

⁵³⁵ Harris, "Outward Bound: Transnational Capitalism in China,"15.

⁵³⁶ Zhao Jingzhu 赵婧姝, "Ding Shizhong: Meiyou shitijingji de chengzhang, hulianwang yiding shi kong de," 丁世忠：没有实体经济的成长，互联网一定是空的 [Ding Shizhong: If there is no real economy, the Internet economy is empty], *Beijing Youth Daily* 北京青年报, March 10, 2016, A11.

which might disrupt – in varying degrees – the configuration of a transnational class fraction around China’s Internet industry. Extensive international linkages notwithstanding, the following analysis demonstrates that despite sectoral variance, the territorial logic of the Chinese state has still held considerable influence in curbing and interfering with the formation of an Internet-based transnational capitalist class fraction in China.

Equipment manufacturers

A quick survey of the biographic data seems to suggest that the managerial elites in China’s networking equipment sector have a relatively more intimate relationship to the state than to their transnational counterparts. Among all the 73 executives and senior managers in the subsector, 17 are sitting on the same board with other transnational capitalists, 12 have received overseas education; while 32 have previously worked in government entities and 37 have held various affiliations with the party-state. A zoomed-in look at all the five de facto controllers in the sample also confirms that four of them – except ZTE’s Hou Weigui – are taking (or have previously taken) a seat either at the National People’s Congress or at the CCP’s National Congress (see Table 5.2). Hou’s lack of apparent political affiliation, however, does not mean that he is detached from the state. As mentioned above, despite being publicly traded, ZTE remains its ambiguous status of “state owned, privately managed”. Moreover, Hou might purposely choose to keep his political connections informal to ease the national security concerns from other foreign states. Indeed, after the US House released a report on ZTE’s government background, Hou gave an interview to *Forbes*, carefully explaining that despite the existence of a

Communist party cell in ZTE, “it has no bearing on management,” and Hou himself “isn’t a party member and is not on the committee”.⁵³⁷

As discussed in Chapter 1, among all the three Internet subsectors, network equipment manufacturing is the one that was deeply rooted in China’s military and research apparatus. As Roselyn Hsueh points out, because of the “complex technologies that run communications networks”, networking equipment sector is considered by the state as strategic to its national security.⁵³⁸ This strategic importance has manifested itself in the biographic data. Both CEC and CETC are still centrally-controlled SOEs and many of their senior managers have previously worked or currently hold positions in China’s national defense system. Rui Xiaowu, the chairman of CEC, for instance, has previously served as the chief executive at China Aerospace Science and Technology Corporation, the main contractor for China’s space program. This phenomenon is prominent in private companies as well. For example, Huawei’s founder Ren Zhengfei was a former director of the People’s Liberation Army (PLA) and Lenovo’s founder Liu Chuanzhi was also trained as a military engineer in the PLA’s Xi’an Communications Engineering College.

Given their extensive and complex linkages with the state apparatus and substantial military background, it is probably not surprising to observe a consistent pattern in their public discourses – in many case, they have closely associated themselves with the state’s official agenda. For example, as discussed in chapter 1, after the 2013 Snowden revelations intensified China’s long-standing concerns over its lack of mastery of key Internet technologies (e.g., micro-

⁵³⁷ Simon Montlake, “Crossed Lines: ZTE Gets Tangled in U.S.-China Telecom-Gear ‘Cold War’,” *Forbes*, November 29, 2012, <http://www.forbes.com/sites/simonmontlake/2012/11/29/crossed-lines-zte-gets-tangled-in-u-s-china-telecom-gear-cold-war/2/#6f651b6cecdf>.

⁵³⁸ Roselyn Hsueh, “Nations or Sectors in the Age of Globalization: China’s Policy Toward Foreign Direct Investment in Telecommunications,” *Review of Policy Research* 32, no. 6 (2015): 627–48, 635.

computer chips), the newly inaugurated Xi-Li administration has taken the issue of cyber security to the top of agenda. Corporate elites in China's networking equipment sector have applauded this move enthusiastically. Rui Xiaowu, for example, pointed out the responsibility of CEC is – exactly – to “build a ‘national team’ for China's information security industry” and to develop “secure and self-controllable networking equipment”.⁵³⁹ Even Lei Jun, whose company Xiaomi has so far largely focused on consumer electronics, also submitted a policy proposal to the 2014 National People's Congress, advocating that the state develop a top level initiative for Big Data technologies. Part of the aim is to maintain China's “data sovereignty” by employing “safe, controllable large-scale key equipment”.⁵⁴⁰

Moreover, China's socialist experience and its official ideology of nation building, which have been closely intertwined throughout its revolutionary history,⁵⁴¹ have also played a role in shaping these corporate leaders' political identity and class consciousness. As Yun Wen has demonstrated in her case study of Huawei, Maoist thoughts of “self-reliance” (meaning developing indigenous technologies) and “encircling the cities from the countryside” (starting from rural areas and less-developed countries and then expanding into cities and developed countries) have held a profound influence over Ren Zhenfei's capitalist corporate strategies.⁵⁴² Liu Chuanzhi, the founder of Lenovo, similarly, has incorporated nationalist discourses into

⁵³⁹ Cui Li 崔丽, “Rui Xiaowu: Wangluo anquan guojiadui ruhe chushou” 芮晓武: 网络信息安全国家队如何出手 [Rui Xiaowu: How the national team plays in China's Internet and information security plan], *Xinhua Net* 新华网, May 9, 2016, http://news.xinhuanet.com/newmedia/2016-05/09/c_135345200.htm

⁵⁴⁰ “Lei Jun renda jianyi: Jiakuai shishi dashuju guojia anquan,” 雷军人大建议: 加快实施大数据国家战略 [Lei Jun proposed to the National People's Congress: Speed up the implementation of the state plan for Big Data technologies], <http://tech.sina.com.cn/it/2014-03-06/11589217412.shtml>.

⁵⁴¹ Lin, *The Transformation of Chinese Socialism*, 61-74.

⁵⁴² Yun Wen, “The Transnationalization of Chinese ICT Corporations: A Case Study of Huawei,” Paper presented at the International Communication Association Annual Convention, Seattle, 2014.

Lenovo's "vision statement," such as "serving the country through industrial development".⁵⁴³ Liu reportedly removed this nationalist goal from Lenovo's official website after its 2005 IBM deal, which had significantly internationalized the company's management team; this sentence, however, has remained as the first item in the "vision statement" of its parent company, Legend Holdings.⁵⁴⁴ As might be expected, the Chinese leadership endorses such initiatives. Indeed, after Lenovo took over IBM's PC division in 2005, the then-Premier Wen Jiabao visited the company and told its CEO Yang Yuanqing that "you carry the hopes of China on your shoulders."⁵⁴⁵

The close ties between China's equipment manufacturers and the state, however, should not be overestimated. Despite relatively limited foreign involvement in their corporate management – as shown in the biographical data, the revenue structure of these companies has been internationally diversified. As discussed in chapter 3, with the continuing outward expansion of China's hardware vendors, the importance of international markets for their profit strategies has grown considerably. For these corporate leaders, this means that they are not merely national entrepreneurs defined by the state's territorial logic and influenced by its official ideologies, but are also increasingly subject to the pressure of global market and the influence of "Western style" corporate practices.

First, facing accusations and suspicions from foreign governments of their state military background, and probably more importantly, the related foreign market restrictions, Chinese

⁵⁴³ Yang Yongxin 赵永新, "Lianxiang konggu: Chanye baoguo, chuanxinyuanmeng," 联想控股: 产业报国, 创新圆梦 [Legend Holdings: Serving the country through industrial development, fulfilling the dream through innovation], *People's Daily* 人民日报, January 11, 2015, p.2.

⁵⁴⁴ Zhou Zhenhua 周政华, "Liu Chuanzhi: Qishi buhuo," 柳传志: 七十不惑 [Liu Chuanzhi: At 70, one begins to understand the world], *China Newsweek* 中国新闻周刊, June, 6, 2014, <http://news.inewsweek.cn/detail-175-8.html>

⁵⁴⁵ Steve Hamm and Dexter Roberts, "China's First Global Capitalist," *Bloomberg*, December 10, 2006, <http://www.bloomberg.com/news/articles/2006-12-10/chinas-first-global-capitalist>.

corporate elites in the networking equipment sector have been eager to shed their “Chineseness” and to rebrand themselves as global capitalists. The aforementioned case of ZTE’s Hou Weigui offers an example. Lenovo’s Yang Yuanqing, featured as “China’s First Global Capitalist” by *Bloomberg* in 2006, was also quoted in saying that “we are not a government-controlled company,” and “the Chinese PC market used to be dominated by state-owned enterprises. We beat them all.”⁵⁴⁶ Indeed, Yang was not only keen to transform himself into a truly “global capitalist,” but also asked all the Chinese managers at Lenovo to comport themselves in an appropriately “globalized” manner by following Western style dress codes and calling each other by their given names, in other words, to “think and act like techies in Silicon Valley, Boston, or Berlin”.⁵⁴⁷

Second, it is also worth noting that under certain circumstances, Chinese equipment makers may choose to collaborate with their transnational peers to advance their shared “class project of capitalist globalization,”⁵⁴⁸ sometimes at the expense of a Chinese state-centered strategy. The complex battle behind China’s recent national security initiatives offers an illuminating example in this regard. As previously mentioned, after the Snowden revelations, the Xi-Li leadership has put forward a series of information security measures to fend off the threat of foreign cyber spying, including a potential data localization provision and the preferred use of domestic equipment in key industries.⁵⁴⁹ Foreign governments and transnational capitalists, as might be expected, have lobbied strenuously against these new initiatives, fearing that they will

⁵⁴⁶ Steve Hamm and Dexter Roberts, “China’s First Global Capitalist”.

⁵⁴⁷ Ibid.

⁵⁴⁸ William I. Robinson and Jerry Harris, “Towards a Global Ruling Class? Globalization and the Transnational Capitalist Class,” *Science & Society* 64, no. 1 (2000): 11–54, 11.

⁵⁴⁹ Eva Dou, “Untangling China’s Cybersecurity Laws,” *The Wall Street Journal*, June 3, 2016, <http://blogs.wsj.com/chinarealtime/2016/06/03/untangling-chinas-cybersecurity-laws>.

limit opportunities for their own enterprises. China's networking equipment leaders, surprisingly, have also questioned these policies publicly. In an interview with *Reuters*, Huawei's rotating Chief Executive Eric Xu openly expressed his skepticism, "if the Chinese market is not open, then the European market won't be open, other markets won't be open, then what's the result? The result is everyone draws a line around their own territory".⁵⁵⁰ Xu also pointed out that Huawei's critical view "is recognized by some technical experts in the country".⁵⁵¹ Why did corporate leaders at Huawei, the supposedly largest beneficiary of these protective policies, stand out and openly question the direction of the Chinese government? One possible reason is that the importance of overseas markets has outweighed that of the domestic one in Huawei's profit strategy – indeed, in 2008, Huawei's overseas revenues accounted for a historical high of 75% of its total revenue⁵⁵² – and that has provided incentive for, or motivated, managerial elites to realign with their transnational counterparts in order to gain or retain access to external markets.

For all this, however, it might still be premature to conclude that Chinese elites in its networking equipment sector have successfully integrated into the transnational capitalist class. For one thing, in certain cases, these IT leaders may still turn to their home state for support by closely positioning themselves within China's geopolitical agenda. Indeed, when Huawei was labeled as a national security risk by the US House Intelligence Committee, Ren Zhengfei was quoted in saying "these actions were driven by the Sino-US competition. What the US tried to

⁵⁵⁰ Gerry Shih, "Huawei CEO says Chinese cybersecurity rules could backfire," *Reuters*, April 21, 2015, <http://www.reuters.com/article/us-huawei-cybersecurity-idUSKBN0NC1G920150421>.

⁵⁵¹ Ibid.

⁵⁵² Zhao Hejuan 赵何娟 and Zhang Yuzhe 张宇哲, "Dianxin zhan feizhou," 电信战非洲 [The Chinese telecommunications war in Africa], *Caixin New Century* 财新《新世纪》, January 16, 2012, <http://magazine.caixin.com/2012-01-13/100348416.html>.

suppress is not Huawei, but China.”⁵⁵³ For another, a nationalist ethos and – to a certain extent – also socialist legacies seem to still cast a long shadow over these corporate elites’ political consciousness. For example, Yun Wen has shown in her case study that Maoist idea of “self-criticism” and method of “mass movement” have been deeply incorporated into Huawei’s managerial practices.⁵⁵⁴ In a domestic interview, Ren Zhengfei also claims that his personal belief is in “our country”. In the words of Ren, “we once believed that capitalism can greatly liberate the productive forces, but then we found out the enlarged social gap also caused problems ... China is taking the right path ... the aim of development is the progress of the entire society.”⁵⁵⁵ Is this merely a rhetorical veneer that obscures the real and growing alignment between a rising capitalist class fraction and the party-state, or, does it also indicate that China’s revolutionary past has remained a palpable force in shaping and even containing the formation of a capitalist class fraction in its network equipment manufacturing sector?

Network operators

Among all the Internet capitalists in the sample, corporate executives in China’s network operating sector are the ones that are most directly controlled by the state. All the 21 executives in this sector are party members and have previously held relatively high ranking positions in central or local government entities. For example, Wang Xiaochu, the current Chairman of China Unicom, was previously served as the Director General of the Hangzhou Telecommunications

⁵⁵³ Wang Peng 王鹏, “Zhuanfang Ren Zhenfei: Meiguo daya de bushi Huawei ershi zhongguo,” 专访任正非: 美国打压的不是华为而是中国 [Interview with Ren Zhenfei: What the US tried to suppress is not Huawei, but China], *Phoenix New Media* 凤凰新媒体, June 16, 2014, http://tech.ifeng.com/telecom/detail_2014_06/16/36854212_0.shtml.

⁵⁵⁴ Wen, “The Transnationalization of Chinese ICT Corporations: A Case Study of Huawei.”

⁵⁵⁵ Wang, “Interview with Ren Zhenfei: What the US tried to suppress is not Huawei, but China”.

Bureau and was elected as an alternative member of 18th CCP's Central Committee – the innermost circle of the policymaking system in China.

As already noted, despite constant restructuring of China's telecommunications industry, all the three carriers – China Telecom, Mobile and Unicom – have retained their status as central SOEs, due to the high strategic importance they possess for China's political economy. Indeed, as network operators, they control the gateway to China's Internet system and all the other players, including both equipment vendors and web applications providers, are dependent on them for access to the Chinese digital market. In particular, all the three carriers belong to a small group of large companies – around 53 in 2012 – that are central to the existing SOE system, over which the state exercises an especially powerful instrument of control over their managerial elites: the party's personnel management system.⁵⁵⁶ Instead of being nominated by their respective corporate boards, all the senior managers in the three network operators are appointed, promoted and disciplined by the Party's Organization Department. One manifestation of this state power was the reshuffle of chief managers among the three companies in 2004 and most recently, also in 2015.⁵⁵⁷ In other words, all the leaders in this sector are essentially party-state bureaucrats – the CEOs are usually the heads of the party's cells in their respective companies and hold ministerial or vice-ministerial status in the government hierarchy, which enables them to directly communicate with related ministries and participate in the policymaking process.⁵⁵⁸

As an integrated part of the party-state apparatus, in many cases, these executives have closely aligned themselves with the strategic objectives of the Chinese state, sometimes even at

⁵⁵⁶ Brødsgaard, "Politics and Business Group Formation in China: The Party in Control?"

⁵⁵⁷ Charles Clover, "Leadership reshuffle at China's three biggest telecoms groups," *The Financial Times*, August 24, 2015, <https://www.ft.com/content/09b7296e-4a44-11e5-9b5d-89a026fda5c9>.

⁵⁵⁸ Ibid.

the expense of the profitability of their respective companies. For example, when the state determined to promote its indigenous third generation (3G) networking standard – TD-SCDMA, China Mobile was mandated by the MIIT as the single major carrier of this new standard. The compulsory assignment was by no means an easy one. For China Mobile, which had already adopted the European developed GMS standard in the 2G era, switching to the China-developed standard for 3G, instead of upgrading based on the existing system, required it to bear a significant transition cost.⁵⁵⁹ This financial burden notwithstanding, the executives at China Mobile still demonstrated their compliance with and even active support for – at least rhetorically – the state’s agenda. Wang Jianzhou, then China Mobile’s Chairman, declared during the company’s shareholder meeting that “TD-SCDMA is our country’s own 3G technology standard” and therefore “China Mobile will take the development of TD-SCDMA as our incumbent duty”.⁵⁶⁰

Government officials and party cadres, however, do not fully capture the complex roles played by these leaders. The economic reform introduced by the state in the late 1980s has – to a certain extent – fundamentally transformed the role and mentality of its bureaucratic-managerial elites by “shift[ing] their orientation toward profitability”.⁵⁶¹ This has become especially prominent on a personal level when the salary/compensation and career development of these leaders have been increasingly tied up with the profit performance of their respective

⁵⁵⁹ Yuezhi Zhao, “China’s Pursuits of Indigenous Innovations in Information Technology Developments: Hopes, Follies and Uncertainties,” *Chinese Journal of Communication* 3, no. 3 (2010): 266–89.

⁵⁶⁰ “Wang Jianzhou: Zhongguo yidong zhichi TD fazhan zewupangdai,” 王建国: 中国移动支持 TD 发展责无旁贷 [Wang Jianzhou: China Mobile will take the development of TD-SCDMA as our incumbent duty], *Xinhua Net* 新华网, May 9, 2008, http://news.xinhuanet.com/internet/2008-05/09/content_8135632.htm.

⁵⁶¹ Barry Naughton, *The Chinese Economy: Transitions and Growth* (Cambridge: MIT Press, 2006), 298.

companies.⁵⁶² From this perspective, they are no longer merely an extended arm of a bureaucratic system, but embedded in an emerging market logic. This contradictory position is probably best captured by Xi Guohua, China Mobile’s former Chairman, in his proposal to the 2016 National People’s Congress: “all the network operators are state-owned enterprises, which means we’re responsible for promoting the economic and social development of our country; however, [as corporations], we also need to improve efficiency and achieve steady profit growth”.⁵⁶³

In addition, the further “plugging” of these firms into global financial networks through overseas listings and the extensive involvement of transnational financial capitalists in the “modernization” of their corporate structure also means that the managers are no longer purely influenced by *domestic* market conditions, but also subjected to the pressure of shareholders and other financially self-interested organizing actors – though limited – on a *transnational* scale.⁵⁶⁴ China’s Mobile’s former CEO Wang Jianzhou once openly acknowledged that he was questioned by Western investment bankers for “overlooking the interests of shareholders” when he tried to extend the company’s coverage to rural China in 2006.⁵⁶⁵ The biographical data surveyed in this study also confirm that all the three carriers have recruited non-mainland based executives and all the CEOs have received education outside mainland China to adopt “modern”

⁵⁶² Barry Naughton, “SASAC and Rising Corporate Power in China,” *China Leadership Monitor*, no. 24 (2008): 1–9.

⁵⁶³ Guo Xiaofeng 郭晓峰, “Xi Guohua lianghui tian: Tisu jiangfei ying chutai kaohe cuoshi,” 奚国华两会提案: 提速降费应出台考核措施 [Xi Guohua’s proposal at the “two meetings”], <http://tech.qq.com/a/20160303/062912.htm>.

⁵⁶⁴ Wojcik and Camilleri, “‘Capitalist Tools in Socialist Hands’? China Mobile in Global Financial Networks.”

⁵⁶⁵ “Wang Jianzhou: Wo zai zhongguo yidong gan de sanjiashi,” 王建国: 我在中国移动干的三件事 [Wang Jianzhou: Three things I have done at China Mobile], July 15, 2015, <http://www.ckgsb.edu.cn/dba/article/detail/58/3853>.

management practices: Both China Mobile's Shang Bing and China Unicom's Wang Xiaochu got doctorate degrees in business administration from the Hong Kong Polytechnic University, and China Telecom's Yang Jie was trained at the ESC Rennes School of Business in France.

As party and government cadres as well as corporate executives, Chinese network operating capitalists are inherently contradictory entities defined by both the territorial logic of the state and the profit-maximization logic of capital. To add more complexity to the picture, the Chinese Communist Party, of which all the managers in this sector are still members, has not yet shed its socialist and egalitarian pretensions. To maintain its ruling legitimacy, this self-proclaimed "socialist" party must, in certain cases, intervene and try to restrain the profit imperatives of its bureaucratic capitalists. The state's "Telephone to every village" project in the mid-2000s, which forced its network operators to move from more lucrative urban markets to poor rural areas, offers a glimpse of this conflict zone.⁵⁶⁶

Web services and applications providers

Unlike the bureaucratic capitalists in the network operating sector that are directly controlled by the party-state or the corporate elites in the equipment manufacturing sector that had deep roots in the military state apparatus, Chinese web application providers seem to be the ones that are most closely connected to their transnational counterparts.

A quick look of the biographical data reveals that transnational corporate board linkages are almost ubiquitous in this sector, except the Shenzhen-listed Leshi International. Actually,

⁵⁶⁶ Yuezhi Zhao, "'Universal Service' and China's Telecommunications Miracle: Discourses, Practices, and Post-WTO Accession Challenges," *Info* 9, no. 2/3 (2007): 108–21.

even the relatively younger company Leshi recently announced that it has hired JD Howard, the previous vice president at Lenovo, to direct its overseas activities.⁵⁶⁷ This means almost all the Chinese web leaders are sitting on the same board with capitalists from other transnational corporations. Such close ties with transitional capitalists largely originated in the unique development path of China's Internet applications and services sector. As discussed in previous chapters, the state's complex and ambiguous attitude toward FDI in its domestic web application market has brought in a large amount of foreign venture capital – as portfolio investments – to jump-start its native enterprises. The various rounds of overseas funding raising, and the subsequent cross-border IPOs, both enmeshed these corporate elites deeply in transnational financial networks and established highly internationalized corporate boards early on.

On the other hand, growing with China's opening and reform process, this new group of Chinese entrepreneurs is relatively younger and has enjoyed easier access to overseas education than its peers in the hardware and network operating sectors. Among all the 96 executives studied in this sector, over 37 percent were educated overseas. This percent could be even higher for certain firms. For example, among all the 10 mainland directors on Sohu's board, six received education outside of China. Riding the wave of the dot.com fever in the late 1990s, many US-educated founders directly copied the Silicon Valley business models and transplanted them in China, often with Silicon Valley seed money obtained through their personal networks.⁵⁶⁸ For example, Baidu was co-founded by Robin Li and Eric Xu, both were Chinese

⁵⁶⁷ Aiwen 爱文, "Yuan Lianxing haiwai gaoguan jiameng Leshi, ren haiwei shiyebu zongjingli" 原联想海外高管加盟乐视 任海外事业部总经理 [Previous vice president at Lenovo joined Leshi as director of overseas activities], April 14, 2015, <http://tech.sina.com.cn/i/2015-04-14/doc-iavxeafs5424185.shtml>.

⁵⁶⁸ Jiang Qiping 姜奇平, "Jidang de shinian – zhongguo shangye hulianwang shinian fazhanbaogao," 激荡的十年 – 中国商业互联网十年发展报告 [The development of China's commercial Internet in the

nationals trained in the US. In 1999-2000, with \$1.2 million from Silicon Valley-based venture capital firms Integrity Partners and Peninsula Capital, the two went back to China and launched the Chinese-language search engine.⁵⁶⁹

These intensive transnational connections have profoundly shaped the class consciousness of Chinese web elites. First, compared with hardware manufacturers who still wanted to build a “Chinese national enterprise” and only started their outward expansion later on, Internet application providers have possessed global aspirations from the very beginning. For example, when Jack Ma founded Alibaba.com in 1999, he told his first group of employees that the corporate vision of Alibaba was to become an “international” company. A few months later, Ma opened up overseas offices in Hong Kong and London, an R&D center in California, and planned to expand Alibaba’s service to Japan and Korea by launching localized websites.⁵⁷⁰ This pattern is consistent with that followed by other tech leaders in the sector. For example, in 2000, only two years after launching their respective companies, the founders of Sina, Sohu and NetEase – the three most important Chinese portals in the early 2000s – had already listed their companies on the Nasdaq Stock Market and transformed their firms into “international” assets.

Second, different from tech leaders in the hardware or network operating sector that has still been affected by China’s fading – yet still lingering – socialist past, Chinese web elites have become increasingly savvy in adopting a neoliberal discourse of free market principles, which has given them a strong resemblance to their

past ten years], *China Internet Week* 互联网周刊, August 14, 2009, <http://www.ciweek.com/article/2009/0824/A20090824524697.shtml>

⁵⁶⁹ David Barboza, “The Rise of Baidu,” *New York Times*, September 17, 2006, <http://www.nytimes.com/2006/09/17/business/yourmoney/17baidu.html?pagewanted=all>.

⁵⁷⁰ Zheng Zuoshi 郑作时, *Alibaba: Rang Tianxia Meiyou Nanzuo de Shengyi* 阿里巴巴: 让天下没有难做的生意 [*Alibaba: To make it easy to do business everywhere*] (Hangzhou, China: Zhejiang People’s Publishing House, 2007), 96-97.

transnational counterparts – at least, rhetorically. Alibaba’s Jack Ma offers a prominent example in this regard. When *New York Times* raised questions over Alibaba’s potential political ties with some high-level Chinese politicians before its 2014 IPO, Ma firmly responded through the company’s Weibo account that “our only background is the (free) market”.⁵⁷¹ He also famously described his view toward state-business relationship at the 2015 World Economic Forum in Davos – “fall in love with the government, but don’t marry them”.⁵⁷² In domestic interviews, Ma insisted that “other Chinese private entrepreneurs want to wear ‘red hats’. Not me. I’m not interested in participating in NPC, CPPCC or CCP Congress.”⁵⁷³ It might be true that Ma has only served as a representative of ZheJiang Province’s People’s Political Consultative Conference in 2008 and has never participated in any nation-level PPCC or PC, but he is nevertheless well connected with political leaders through other channels, as will be discussed shortly.

Pervasive transnational linkages notwithstanding, relatively less widespread but still perhaps critical ties with state entities are also present in the biographical data. Among the 96 executives, 19 are working, or have previously worked, in government agencies and 24 have established various forms of affiliations with the party-state. As aforementioned, Jack Ma, Pony Ma and Robin Li – the controllers of the BATs – are all participating (or have previously participated) in the work of national or local parliament, which signals both their allegiance to

⁵⁷¹ “Alibaba: Women de beijing shi shichang,” 阿里巴巴：我们的背景是市场 [Alibaba: The market is our background], *International Business Times*, July 23, 2014, <http://www.ibtimes.com.cn/articles/38199/20140723/a-li-ba-ba-wo-men-de-bei-jing-shi-shi-chang.htm>

⁵⁷² Liu Zheng, “Jack Ma talks shop at Davos,” *China Daily*, January 23, 2015, http://usa.chinadaily.com.cn/china/2015-01/23/content_19409215.htm.

⁵⁷³ He Shi 何十, “Minying IT dalao linian lianghui zhongshengxiang, Ma Yun weishenme bu dai hongmao,” 民营 IT 大佬历年两会众生相, 马云为什么不戴红帽 [Private IT entrepreneurs at the “two meetings”, why Jack Ma doesn’t wear the “red hat”], March 5, 2013, <http://www.tmtpost.com/20122.html>.

and influence with the Chinese government. Moreover, these conferences are not the only venues through which they can exert impact over China's policymaking process. Indeed, along with the growing importance of the Internet in China's political economy, tech elites have become increasingly involved into the inner circle of state power. In 2013, Jack Ma, Pony Ma and JD's Richard Liu were all invited to Beijing to take part at internal conferences held by Premier Li Keqiang at Zhongnanhai, the center of political power in China.⁵⁷⁴

Why has this globally aspiring and transnationally linked group of Internet capitalists still actively cultivated and carefully maintained their relationship with the party-state? The qualitative data collected for this study suggest the reasons are threefold.

First, this extensively internationally connected group is also the one that has – at least so far – predominately relied on China's domestic market for their business development. As shown in Chapter 3, in 2014, domestic revenue still accounted for over 90% of the annual revenues of Baidu, Tencent and Alibaba – the three most powerful Internet applications companies in China.⁵⁷⁵ The outsized role of the Chinese market in these companies' profit strategies, in turn, has considerably impeded the full integration of their executives into the transnational capitalist class, given the fact that they are still dependent on and subject to the territorial power of the Chinese state to keep access to their most important revenue district. The aforementioned Alipay dispute, during which Jack Ma transferred the powerful online payment service out of Alibaba into a company that is fully controlled by Chinese nationals to comply with state regulations and elevate his own wealth and power, offers an example. It indicates, that under certain circumstances, China's web elites would offer strong support for state policies, even at the

⁵⁷⁴ Ibid.

⁵⁷⁵ “Hulianwang xingui BAT guojihua zhilu de deiyushi,” 互联网新贵 BAT 国际化之路的得与失 [The gains and losses of BAT's routes to globalization], <http://www.kanshangjie.com/article/58410-1.html>.

expense of their relationship with other transnational capitalists. Indeed, Ma was even quoted as saying “if the country needs, Alipay could be dedicated to the country at any time.”⁵⁷⁶

Second, apart from domestic market, they have also benefited from the state’s diplomatic power in expanding their reach in the international market. As discussed before, Robin Li launched Baidu’s Portuguese version during his visit with President Xi Jinping to Brazil, with an opening ceremony attended by both Xi and Brazilian President Dilma Rousseff.⁵⁷⁷ Tencent’s Pony Ma also submitted a proposal to the 2013 National People’s Congress, calling for supportive policies to help Chinese web companies to “go out,” including setting up related divisions in China’s embassies and consulates in foreign countries.⁵⁷⁸

Finally, the unfinished nature of China’s political economic transformation and the party’s not-yet-entirely-discarded socialist pretensions have also forced these recently emerged capitalists to both continually seek political protection and request new market openings from a nominally anti-capitalist party that still controls the “commanding heights” of China’s digital economy.⁵⁷⁹ In other words, China’s web capitalists still count on state power to offer them political legitimacy in a supposedly socialist society and to continually open up state-owned sectors for them to enter. A revealing example came in October, 2013. When Jack Ma was

⁵⁷⁶ “Zhifubao gongsi: ‘suishi xiangei guojia’ bei yanzhong wudule,” 支付宝公司: ‘随时献给国家’ 被严重误读了 [Alipay: It is a misunderstanding to say that “Alipay” can be dedicated to the country at any time], April 13, 2010, <http://tech.qq.com/a/20100413/000340.htm>.

⁵⁷⁷ Ministry of Foreign Affairs, “Xi Jinping Holds Talks with President Dilma Rousseff of Brazil, Inheriting the Past and Ushering in the Future to Forge More Splendid Future for China-Brazil Relations,” July 18, 2014, http://www.fmprc.gov.cn/mfa_eng/topics_665678/xjpxcxjzgjldrdlchwdxbxagtwnrjgbjxgswbcxzlldrhwt/176222.shtml.

⁵⁷⁸ “Ma Huateng lianghui sanxiang tianan: Chuangxin, guihua, zouchuqu,” 马化腾两会三项提案: 创新, 规划, 走出去 [Pony Ma’s three proposals at the “two meetings”: Innovation, planning and going-out], *Xinhua Net* 新华网, March 5, 2013, http://news.xinhuanet.com/info/2013-03/05/c_132208282.htm.

⁵⁷⁹ Zhao, *Communication in China*; Chen, “Capitalist Development, Entrepreneurial Class, and Democratization in China.”

invited to a national economic conference in Beijing, he openly called the party-state to put more trust on China's private entrepreneurs in the ongoing economic reform. In the words of Ma, "the future of the Chinese economy is largely dependent on the confidence of its entrepreneurs, while entrepreneurs, especially private ones, want more trust from the government."⁵⁸⁰ It is probably not a coincidence, then, to observe the Xi-Li leadership liberalizing market entry into many previously highly-regulated sectors, such as banking and finance, for private Internet capital – like Alibaba – to penetrate, as we saw in Chapter 4.

Managing a tangled web of relationships with both transnational capitalists and state officials, China's web leaders seem to have become *both* more international-oriented and – at the same time – closer to the "inner circle" of the party-state. Recently, with the rising importance of the Internet in China's new strategies of "Internet Plus" and "One Belt One Road," the profit maximization interests of these corporates elites have been increasingly allied and associated with the strategic consideration of the state. Indeed, adopting the name from a 2013 speech given by Pony Ma,⁵⁸¹ Premier Li's "Internet Plus" plan not only promised to deepen links between the Internet and almost all the sectors of the Chinese economy, but also committed the Government to active support for Chinese Internet companies as they expand their reach in global cyberspace – both of which will help China's web elites continue their capitalist expansion in the Chinese and global digital economy.

⁵⁸⁰ Chen Erhou 陈二厚, Bai Zhenzhi 白真智, and Zhao Yinan 赵逸男, "Li Keqiang zanxu xinjingji, nimen chuangzao le yige xiaofeishidian," 李克强赞许新经济, 你们创造了一个消费时点 [Li Keqiang praises the new economy: You have created a new consumer point], *Xinhua Net* 新华网, November 5, 2013, http://news.xinhuanet.com/info/2013-11/05/c_132859535.htm.

⁵⁸¹ Matthias Stepan and Lea Shin, "These Are the Super-Rich People Shaping China".

Conclusion

This chapter examined the rise of an Internet-based capitalist class fraction in China. By doing so, it foregrounded a social class dimension in China's engagement with the global Internet. The study was conducted by compiling a sample of 20 major Chinese Internet companies in 2015 that analyzed the biographies of a total of 190 mainland-based board members and senior managers. I found that these Internet corporate elites have cultivated and maintained intensive connections with *both* the Chinese state and other transnational capitalists. This multifaceted network has complicated these leader's class consciousness and political behaviors, which were then discussed on a sector-by-sector basis, relying mainly on discursive traces collected from both Chinese- and English-language media reports.

The major findings of this chapter are twofold. On the one hand, it sheds new light on the ongoing debate on the class ramifications of the transnationalization of capital accumulation. Drawing on new evidence from China, this chapter argues, if the defining feature of a transnational capitalist class is to pursue a shared "class project of capitalist globalization",⁵⁸² then Chinese Internet elites have not yet actually successfully joined this group. Intensive connections with their transnational counterparts notwithstanding, the territorial logic of the Chinese state, and – to a certain extent – its unfinished metamorphosis into a capitalist one, still hold considerable influence in containing the formation of a truly transnational capitalist class fraction around its Internet industry. Indeed, as Ellen Wood argues, "capital has always needed the support of territorial states; and while the wide-ranging expansion of capitalist appropriation

⁵⁸² William I. Robinson and Jerry Harris, "Towards a Global Ruling Class? Globalization and the Transnational Capitalist Class," *Science & Society* 64, no. 1 (2000): 11–54, 11.

has moved far beyond national borders, the national organization of capitalist economies has remained stubbornly persistent”.⁵⁸³

On the other hand, this chapter also reminds us that neither should we overestimate the regulatory and territorial power of the Chinese state. To which extent the state, itself remaining a fragmented and contradictory entity, is still in control is a question that requires continued attention. Rather, the findings in this chapter suggest that with the rising importance of the Internet in both China’s political economy and its international strategies – as exemplified in the newly released “Internet Plus” and “One Belt One Road” initiatives, there has been a growing alignment between the strategic objectives of the Chinese state and the capitalist imperatives of its Internet elites.

Moreover, as a self-claimed socialist state that has not yet shed its anti-capitalist and anti-imperialist pretensions, such alignment is by no means a friction-free process. It is precisely the contradictory and unfinished nature of China’s reintegration into global digital capitalism and the dialectical dynamics between the territorial logic of the state and the expansive logic of capital that have animated the construction of this Internet capitalist class fraction in China.

⁵⁸³ Ellen Meiksins Wood, *Empire of Capital* (New York: Verso, 2003), 23.

CONCLUSION

Today, popular media stories have largely shaped the conventional wisdom about China's relationship with the Internet. For many, China is building a national "intranet" that is sealed by the "Great Firewall," or a "giant cage" that is unplugged from the international network. This conventional wisdom creates a one-dimensional perception that because of the repressive Internet censorship practices, China's Internet *only* has a domestic facet. Its external dimension has received little, if any, attention.

This dissertation has shown that China's Internet is not the "giant cage" depicted in so many media stories. Based on intensive research into both primary and secondary data sources, this study examined the multifaceted interactions between China and the global Internet in the past three decades, especially China's outward cyber expansion, or the "going out" program that has gained momentum since the mid-2000s, and explores the changing social class relations that accompany and shape this evolution. It offered a political economic analysis of how units of Internet capital and state entities in China have impinged on the international Internet system. It also investigated both the structure and agency of Chinese Internet capital as they strike further into the global digital market. Often perceived only as a repressive authoritarian regime that aims at building an inward-looking national "intranet," China in fact is increasingly projecting power outward in this sphere. This process has made the understanding of the interactions between China and the global Internet – instead of its domestic one – both urgent and critical for the field of communications.

The major contributions of this dissertation are fourfold. First, it pushes the boundaries of China Internet studies by shifting the research focus from the previous concerns with "how the

Internet will change China” to “how China will change the global Internet”. Second, it specifically contributes to the growing literature on the political economy of the Internet by bringing to the forefront the complex interactions between capital and the state in endowing the global Internet system with “Chinese characteristics.” Third, it intervenes into the ongoing debate on the rise of China – and more generally, of the Global South – by moving beyond the well-documented extractive and agricultural sectors to the frontiers of the Internet industry, in order to compile new evidence and to assess both the nature and the implications of China’s growing participation in transnational capitalism. And finally, it sheds new light on the dynamic discussion on the class ramifications of the transnationalization of capital accumulation by investigating the rise of the Internet capitalist class fraction in China and its complex relationship with both the state and other transnational capitalists.

It is important to recognize that capitalism and capitalist class relations do not exhaust all the social formations in contemporary China. For example, labor of different members of the Chinese society, such as labor of peasants and labor of women, may not be directly covered by the wage relationship that is central to capitalist class relation, and each of which deserves a rich political economic and social analysis. In this regard, this dissertation is a starting point but not an ending point. A fuller social history of China’s Internet will take into account these social relations. Nevertheless, this study of the overseas development of the Chinese internet and its social class implications offers an often-overlooked and thus much-needed window. With all its necessary omissions, this dissertation provides a useful and valid simplification of an admittedly wider and complicated reality.

China and the Internet: The International Dimension

Previous literature on China's Internet has addressed many important facets of its domestic network, but few pays attention to its external dimension. This dissertation, first and foremost, fills this major gap in the existing literature by examining the multifaceted trajectory of China's engagement with the political economy of the global Internet, from its first international email in the late 1980s to the more recently minted "Internet Plus" and "One Belt One Road" strategies in the mid 2010s.

Taking an inclusive approach, this dissertation conceptualizes China's Internet sector as an expansive sector that includes not only hardware and equipment manufacturers like Lenovo and Huawei, but also network operators like China Telecom, web services and applications providers like Baidu, Alibaba and Tencent, and big government and business network users. Tracing the historical evolution of these industry segments at the intersection between the reconstitution of China's developmental path and the changing dynamics of transnational capitalism, Chapter 1 shows that foreign capital has been instrumental in the construction of the digital economy in China, and China's Internet sector is at the pivot of the restructuring of global digital capitalism.

This heavy involvement of transnational capital in China's Internet industry, however, should not be oversimplified. As we saw, China realized its full connection with the global Internet in the early 1990s and has been strategically engaging with transnational capital in the development of its domestic Internet industry ever since. For each subsector, the state has set various terms of market entry and exercised different forms of regulatory power to both actively engage and carefully manage foreign forces. In the more technologically advanced hardware and

equipment manufacturing sector, China adopted the “trading market for technology” strategy in the 1990s – which resulted in a significant degree of foreign market dominance and technological dependence – and then gradually reregulated its domestic market through various import substitution interventions, including developing and promoting its homegrown technical standards like the 3G TD-SCDMA. In the strategic network operating sector – a sector that literally controls the “entry point” of China’s network system – the state exercised strong ownership and personnel control through a complex institutional setup while simultaneously allowing carriers to list on the overseas stock markets to generate capital inflows. In the web services and applications sector, the Chinese state showed a more complex and ambiguous attitude toward transnational capital: impeding or even prohibiting foreign-operated Internet enterprises but tacitly allowing foreign *portfolio* investment to jump start its then nascent web companies. By the mid of 2010s, a large and diversified Internet industry was built out in China – as Chapter 1 has shown – in the context of its strategic engagement, and even encounters, with global digital capitalism.

China’s interpenetration with the global Internet has been further deepened as this increasingly powerful industry started to aggressively push its way into global cyberspace. Riding the wave of the state’s “going out” policies in the 2000s – with an updated version in the “One Belt One Road” plan in the 2010s – China’s hardware manufacturers, network carriers and web applications providers have all ventured abroad and conducted large scale cross-border mergers and acquisitions. As Chapter 3 has shown, from 2005 to 2015, Chinese Internet companies – across all the three subsectors – have initiated a total of 88 large outbound FDI projects that had a value of \$100 million or above, widely distributed both geographically and sectorally. Such large-scale capital projection from its Internet sector, reciprocally, has also

strengthened the position of the state – a more proactive and assertive China has started to emerge in global cyberspace. Indeed, by the mid of 2010s, China’s Internet has increasingly become a crucial actor animating the rhythms of contemporary digital capitalism, without which a complete understanding of the global Internet could not be achieved. And as this dissertation has shown, without a historical and structural understanding of China’s unfinished integration and unsettled position in transnational capitalism, the understanding of China’s Internet also remains incomplete.

A Political Economy of China’s External Internet

Apart from showing an external dimension of the Chinese Internet, this dissertation also contributes specifically to the growing literature on the political economy of the Internet by bringing to the forefront the complex interactions between capital and the state in the project of constructing an International Internet system with “Chinese characteristics.”⁵⁸⁴

Drawing on the critical political economy tradition, this study understands state-capital relations as a constantly changing and highly complicated dynamic encompassing both the territorial logic of the state and the expansive logic of capitalist accumulation.⁵⁸⁵ On the one hand, the Chinese state, as a territorially defined entity, aims to retain its control over China’s

⁵⁸⁴ Dan Schiller, *Digital Depression: Information Technology and Economic Crisis* (Urbana: University of Illinois Press, 2014); Yuezhi Zhao, “China’s Pursuits of Indigenous Innovations in Information Technology Developments: Hopes, Follies and Uncertainties”; Min Tang, “Tencent as a Nexus: The Political Economy of China’s Internet Industry” (PhD dissertation, University of Illinois at Urbana-Champaign, 2017); Yu Hong, *Networking China: The Digital Transformation of the Chinese Economy* (Urbana: University of Illinois Press, 2017); ShinJoung Yeo, “Behind the Search Box: The Political Economy of a Global Internet Industry” (PhD dissertation, University of Illinois at Urbana-Champaign, 2015); Christian Fuchs, “Baidu, Weibo and Renren: The Global Political Economy of Social Media in China,” *Asian Journal of Communication* 26, no. 1 (2015): 14–41.

⁵⁸⁵ David Harvey, *The New Imperialism* (Oxford; New York: Oxford University Press, 2003).

homegrown Internet companies and to keep them in line with the state's developmental and diplomatic agenda. On the other hand, Chinese Internet companies, propelled by the borderless logic of capital accumulation, have coordinated an increasingly powerful and expansive transnational capital network with an overarching aim of profit-maximization. State objectives and business initiatives sometimes collaborate, but are often in tension with each other. To add more complexity, neither the "Chinese state" nor "corporate China" is monolithic. Not only has the state itself been constrained by inter-department conflicts and center-local tensions, but the complex relationship between different units of Chinese Internet capital does not adhere to a single template.

This dissertation unpacks such complex state-capital relations in several cases along with China's growing participation in global cyberspace. Chapter 2 investigates China's changing approach toward the volatile field of governance Internet governance. By tracing how China's stance has evolved during the past three decades, it shows that the characterization of China's policymaking for the global Internet as monolithic and statist – and positioning it in direct opposition to the US-centric, market-oriented policy framework – underestimates both the growing power of China's Internet capital and the complex state-capital relations that actually have structured China's engagement. Indeed, as headquartered business units emerged as important players and as they are using their access to the state to further their own visions of global Internet governance, we cannot discount the possibility of a shared policy vision between the US and China in some areas, such as making room for Internet companies based in each country to operate transnationally. On the other hand, neither can we dismiss the growing conflict between forces within and without China over whose vision should structure the global Internet.

Chapter 3 looks into this state-capital relation in the context of the “going out” of China’s Internet industry. It has demonstrated that China’s Internet companies are not the expansionist tools of a monolithic authoritarian state nor do they constitute a unified “corporate China”. The complex interaction between different state entities and business units manifested itself across all the three sub-industry segments as they venture out into the international Internet. Equipment manufacturers, whose business scope and profit strategies have been internationally diversified, might choose to distance themselves from the state’s agenda in certain cases in order to keep or regain their access to other markets; however, the state has still kept a rein on them through generous financial investment and diplomatic support. Network operators, on the other hand, have been consistently disciplined by the state through ownership and executive control and in most cases, have allied themselves with China’s diplomatic and international objectives. As corporate entities, however, they are also subject to market pressure both in and outside of China due to their corporate reform and overseas listing, which sometimes pressed them to prioritize profit maximization over political aims. Finally, China’s web applications providers, born with extensive ties to transnational financial capital, have demonstrated significant proximity to transnational forces in their overseas adventures; however, the state has still maintained a discernible influence through its tight control over domestic online market, which is crucial because of the still-dominant role of the Chinese market in their profit strategies.

China’s effort of building “an international Internet with Chinese characteristics” is therefore, not only political, but also economic. This dissertation documented this political economic dimension on both its policy and business fronts, by clarifying how state strategies and capital’s imperatives on a transnational level cooperate (or not) with each other in particular cases and at specific historical moment.

China's Internet Industry "Goes Out"

Not only having a large and diversified Internet industry, China now has a group of world-class Internet corporations that aggressively set their sights on the international market. This both poses new questions about, and provides new resources for engaging with, the ongoing debate on the rise of China within the transnational capitalist system. In 2012, Cambridge economist Peter Nolan wrote an illuminating book, *Is China Buying the World?* to counter the pervasive anxiety in the popular media about China's growing number of cross-border acquisitions, then mainly by its national oil companies.⁵⁸⁶ Fast-forward, and today China's growing Internet industry is vigorously expanding globally, empowered by the Xi Jinping-Li Keqiang leadership's flagship "One Belt One Road" roadmap and "Internet Plus" plan – both of which centered on expanding China's presence globally through its booming digital sector – and perhaps the time is right to once more pose the question: is China buying the world – now through its Internet companies?

This dissertation intervenes into this longstanding debate by focusing on the "going out" of China's Internet industry. Looking specifically into the large overseas capital projections of \$100 million or above from China Internet sector in the past ten years, Chapter 3 has shown that although growing enormously in quantity, the capitalist expansion of Chinese Internet companies in the external market still needs careful specification. Network operators only have a very limited market presence outside of China, with China Mobile the only one having a foreign market share - in the small Pakistan market. The international market share of web applications providers has also been quite limited as domestic market still accounted for over 90% of the

⁵⁸⁶ Peter Nolan, *Is China Buying the World?* (Cambridge: Polity Press, 2012).

annual revenues of Baidu, Tencent and Alibaba – the three most powerful Internet applications companies in China – in 2015. Hardware and equipment manufacturers – led by national champions like Huawei, ZTE and Lenovo – seem to be the ones that have mostly internationalized diversified. But even Huawei, the largest equipment vendor in the world, has faced consistent obstacles in the center of today’s digital capitalism, the US, and has been forced out of the US market for national security reasons. The global adventures of China’s Internet companies, in turn, have offered us a new yardstick for thinking about the obstructions that other countries from the global South may continue to face.

Moreover, as Chapter 4 continues to discuss in its case study of Alibaba, China’s early introduction of foreign investment capital into its digital economy has significantly complicated the corporate nationality of its web champions. A detailed analysis of Alibaba’s internationalization seems to echo what Peter Nolan pointed out four years ago – that China is not buying the world. In the case of Alibaba, not only has its international revenue been very limited so far, its corporate nationality also presents great ambiguity, as SoftBank of Japan and Yahoo of the US have controlled over 50% of its shares. Moreover, Alibaba’s buying spree has been subsidized by a complex group of financial funds, relying heavily on transnational capital.

This pattern is consistent for other Chinese web applications providers. As previous chapters have shown, foreign ownership, enabled by a highly convoluted business structure, Variable Interest Entity (VIE), in which foreign investors could inject capital into and receive interests from Chinese companies operating in the country’s highly regulated strategic industries, has been prevalent in China’s web sector. However, as this dissertation has demonstrated, we should not underestimate the capacity and determination of the Chinese state. As we saw, the state’s tight control over its domestic digital market, though the state-owned network operators

that guard the “entry point” of the Chinese web, can be converted into leverage over these companies, given the vital importance of the Chinese market in their profit strategies. Indeed, in recently years, the state started to implement various regulatory measurements to curb the influence of transnational capital in its web sector, such as the newly drafted Foreign Investment Law, with results remaining to be seen.

An Internet-Based Capitalist Class Fraction in China

Finally, this dissertation contributes to our knowledge of a social-class dimension of China’s growing engagement with the global Internet by looking at the rise of an Internet-based capitalist class fraction in China. Scholars have argued, on a macro level, that the transnationalization of capital accumulation has given rise to a transnational capitalist class whose class project of profit maximization has increasingly moved beyond the territorial logic of the nation-states.⁵⁸⁷ Studying a sample of all the mainland-based board members and senior managers from 20 major Chinese Internet companies across all the three subsectors, this dissertation offered new evidence to test this macro-level theorization. By bringing the agency aspect to the foreground, it also complements the previous structural analysis of the outward expansion of China’s Internet capital.

As we saw in Chapter 5, one prominent feature of China’s Internet capitalists is that they have been both disciplined and courted by a strong party-state which has not yet entirely shed its socialist and anti-capitalist pretensions. This has translated into the fact that despite their

⁵⁸⁷ William K. Carroll, *The Making of a Transnational Capitalist Class: Corporate Power in the 21st Century* (London: Zed Books, 2010); William I. Robinson, *A Theory of Global Capitalism: Production Class, and State in a Transnational World* (Baltimore: Johns Hopkins University Press., 2004); Leslie Sklair, *The Transnational Capitalist Class* (Oxford: Blackwell, 2001).

extensive transnational connections – through corporate broad membership and overseas education, two features highlighted in this study – they still have to cultivate and maintain intensive connections with the party-state to seek political protection, diplomatic and financial support and further entry into the highly regulated domestic market. This two-pronged strategy has significantly complicated their class consciousness and political behaviors and contained the formation of a truly transnational capitalist class fraction around China’s Internet industry, albeit to a varying degree across different industry subsectors. Originating in the state-owned research institutions and military apparatus, corporate elites in the equipment making sector have been strongly influenced by China’s nationalist ethos and – to a certain extent – its socialist legacies while simultaneously subject to the external market pressure because of their international diversified revenue structure. As party and government cadres as well as corporate executives, Chinese network operating capitalists are inherently contradictory entities defined by both the nationalist and developmental agenda of the state and the profit-maximization logic of capitalist accumulation. Web applications leaders, while becoming increasingly savvy in adopting neoliberal discourse of free market and enmeshing deeply in the transnational capitalist network, have nevertheless need to turn to the state for political protections and market entrances. Recently, with the rising importance of the Internet in both China’s political economy and its international strategies – as exemplified in the newly released “Internet Plus” and “One Belt One Road” initiatives – there has been a growing alignment between the strategic objectives of the Chinese state and the capitalist imperatives of its Internet elites.

The process of constructing an International Internet “with Chinese characteristics” is, however, an unfinished process, as the complex interplay between the territorial logic of the state and the expansive logic of capitalist accumulation, and between the structure and agency of

Chinese Internet capital, continue to create unpredictability and uncertainty. Historical contingency and agency matter greatly in this process. As we saw, there were divergent visions inside the Chinese political economic elite in terms of how to build an International Internet system, as exemplified by the different, sometimes competing, policy initiatives along the historical track. In more recent years, there have also been growing social class struggles and collective actions against the corporate and exploitative nature of the existing Internet system both in and outside of China. Indeed, when workers at Foxconn who are making the iPhone and iPad we are using everyday cried out for a more just and humane working environment, their demand posed a serious question for what still claimed to be a socialist state. If, as this dissertation has shown, Chinese Internet companies have increasingly elbowed their way into transnational capitalism, what may this portend for the overall process of capital accumulation? What role, moreover, will the “socialist” and “anti-imperialist” party-state play in shaping the future of the international Internet? As transnational capitalist class formation as a historical process is by no means finished, what impacts may it entail on both the Chinese and the global Internet? Finally, when China and the Internet have increasingly constituted “two poles of growth” in today’s crisis-ridden transnational digital capitalism, who will command those poles of growth, for whom, and for what purposes?⁵⁸⁸ These questions will remain relevant for future research not only because the Internet sector is central to China’s developmental scheme but also because a complete understanding of the future of the international Internet now cannot be realized without taking China into consideration.

⁵⁸⁸ Schiller, *Digital Depression*.

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APPENDIX A: OFDI BY CHINESE INTERNET FIRMS (2005-2015)

Completed Transactions

Year	Month	Chinese Entity	Sector	Quantity in Millions	Share Size	Transaction Party	Country/Region	Green field
2005	Jan.	Lenovo	equipment	\$1,740		IBM	USA	
2006	Sept.	ZTE & Huawei & China Communications Construction	equipment	\$2,400		Ethiopia Telecom	Ethiopia	
2007	Jan.	China Mobile	operation	\$280	89%	Paktel	Pakistan	
2007	May	China Mobile	operation	\$180	11%	Paktel	Pakistan	
2007	Sept.	Huawei	equipment	\$150		Bharti Airtel	Sri Lanka	
2007	Oct.	CETC	equipment	\$100	50%	IDC: Pakistan Infrastructure	Jordan	
2008	Oct.	ZTE	equipment	\$400		Aircel	India	
2009	Jan.	Huawei	equipment	\$240		Costa Rican Electricity	Costa Rica	
2009	May	Huawei	equipment	\$200		Unitech	India	
2009	Sept.	Huawei	equipment	\$490	70%	Nucleus Connect	Singapore	
2009	Sept.	China Unicom	operation	\$1,000	1%	Telefonica	Spain	
2009	Nov.	Huawei	equipment	\$180		Telenor	Norway	
2009	Dec.	China Mobile	operation	\$500			Pakistan	

2010	Jan.	ZTE		equipment	\$380				Cell C	South Africa	
2010	March	Huawei		equipment	\$200				Mobitel	Cambodia	
2010	April	Tencent		services & applications	\$300	10%			Digital Sky Technologies	Russia Federation	
2010	Sept.	Shanda Interactive		services and applications	\$100	100%			Eyedentity Games	South Korea	
2010	Oct.	Huawei		equipment	\$970				Vodafone Italia	Italy	
2010	Dec.	ZTE		equipment	\$400					Nigeria	
2010	Dec.	Sinomach / CMEC		others	\$220				Teletalk	Bangladesh	
2011	Jan.	China Unicom		operation	\$500	1%			Telefonica	Spain	
2011	Jan.	Huawei		equipment	\$260				Camtel	Cameroon	
2011	Jan.	Lenovo		equipment	\$180	51%			NEC	Japan	
2011	Feb.	Tencent		services & applications	\$400	84%			Riot Games	USA	
2011	April	ZTE		equipment	\$200					Brazil	G
2011	June	Lenovo		equipment	\$670	82%			Medion	Germany	
2011	Nov.	Huawei		equipment	\$130					Italy	G
2012	Jan.	CEC		equipment	\$100					Sri Lanka	
2012	Feb.	Huawei		equipment	\$350				Globe Telecom	Philippines	
2012	May	Huawei		equipment	\$1,500					Hungary	G
2012	June	Tencent		services & applications	\$330	40%			Epic Games	USA	
2012	June	CIC		others	\$490	7%			Eutelsat	France	
2012	Sept.	Lenovo		equipment	\$150	100%			Digitbras and Dual	Brazil	
2012	Sept.	Xinwei		equipment	\$300					Nicaragua	G

2012	Nov.	Huawei	equipment	\$500		Vimpelcom	Pakistan	
2013	April	Huawei	equipment	\$1,300		VimpelCom	Italy	
2013	April	Huawei	equipment	\$750		Globacom	Nigeria	
2013	April	ZTE	equipment	\$500		Globacom	Nigeria	
2013	May	CDH	others	\$110	20%	Mobile World	Vietnam	
2013	May	Sinomach/ CMEC	others	\$130			Bangladesh	
2013	July	Tencent	services & applications	\$350	6%	Activision	USA	
2013	July	Huawei	equipment	\$200		Telikom PNG	Papua New Guinea	
2013	Aug.	Huawei	equipment	\$800			Ethiopia	
2013	Oct.	Alibaba	services & applications	\$110	18%	Shopper	USA	
2013	Oct.	Huawei	equipment	\$200			Britain	G
2013	Oct.	Huawei	equipment	\$700		TDC	Denmark	
2013	Oct.	China Aerospace Science and Technology	equipment	\$300		Tupac Katari	Bolivia	
2013	Nov.	Sinomach/ CMEC	others	\$180		Pacific Bangladesh Telecom	Bangladesh	
2014	Jan.	Lenovo	equipment	\$2,910	100%	Motorola Mobility	USA	
2014	Jan.	Lenovo	equipment	\$2,140		IBM	USA	
2014	Feb.	Huaxin	others	\$310	85%	Alcatel-Lucent	France	
2014	March	Tencent	services & applications	\$500	28%	CJ Games	South Korea	
2014	March	Alibaba	services & applications	\$220	20%	TangoMe	USA	
2014	April	China Mobile	operation	\$520	100%	Spectrum	Pakistan	

2014	May	Baidu	services & applications	\$300				USA	G
2014	May	Alibaba	services & applications	\$250	10%	Singapore Post	Singapore		
2014	June	Leshi	services & applications	\$200			USA	G	
2014	June	China Mobile	operation	\$880	18%	True Corp	Thailand		
2014	July	Alibaba	services & applications	\$120		Kabam	USA		
2014	July	SAFE	others	\$520	2%	Telecom Italia	Italy		
2014	July	SAFE	others	\$110	2%	Prysiam	Italy		
2014	July	ZTE	equipment	\$100			Brazil		
2014	July	Lenovo	equipment	\$1,540	100%	PizzaExpress	Britain		
2014	Oct.	Huawei	equipment	\$180			Canada	G	
2014	Dec.	Sinomach/ CMEC	others	\$120		Win Win Net	Thailand		
2014	Dec.	Baidu	services & applications	\$600		Uber	USA		
2015	Jan.	Alibaba	services & applications	\$200	25%	One 97	India		
2015	Jan.	Jiangsu Changjiang	equipment	\$1,660	100%	STATS ChipPac	Singapore		
2015	Jan.	Tencent & Renren	services & applications	\$100		Singulariteam	Israel		
2015	Jan.	Ctrip	services & applications	\$160	100%	Travelfusion	Britain		
2015	Feb	Huawei	equipment	\$170			India	G	
2015	March	Alibaba	services & applications	\$200		Snapchat	USA		
2015	April	Tencent	services & applications	\$130	15%	Glu Mobile	USA		

2015	April	Hua Capital & CITIC	applications	\$1,900	100%	Omnivision Technologies	USA	
2015	April	Cybernaut	others	\$200		Skolkovo Foundation	Russian Federation	
2015	May	CEC	equipment	\$100			Brazil	
2015	May	CIC	others	\$1,800	100%	RF Power Units	Netherlands	
2015	June	Alibaba	services & applications	\$120	20%	SoftBank & FoxConn	Japan	
2015	June	Uphill Investment	others	\$730	100%	Integrated Silicon Solution Inc.	USA	
2015	July	Huawei	equipment	\$240			Guinea	
2015	July	NetDragon	Services & applications	\$130	100%	Promethean World	Britain	
2015	Aug.	ZTE	equipment	\$1,500			Pakistan	
2015	Aug.	Alibaba	services & applications	\$200	4%	Snapdeal	India	
2015	Aug.	CITIC	others	\$100		Uber	USA	
2015	Aug.	Phicomm	equipment	\$100			India	G
2015	Oct.	CIC & Didi Kuaidi	services & applications	\$100		Grab Taxi	Singapore	
2015	Oct.	China Mobile	operation	\$280	40%	KTNet	South Korea	
2015	Oct.	China Unicom	operation	\$490		Camtel	Cameroon	
2015	Oct.	Tsinghua Unigroup	equipment	\$600	25%	Powertech Technology	Taiwan	
2015	Nov.	ZTE	equipment	\$200		Zimbabwe Power	Zimbabwe	
2015	Nov.	Lenovo	equipment	\$490	8%	Santos	Australia	
2015	Dec.	Luxshare Precision	equipment	\$120	25%	Merry Electronics	Taiwan	

Troubled Transactions (including both failed and incomplete ones)

Year	Month	Chinese Entity	Sector	Quantity in Millions	Share Size	Transaction Party	Country/Region	Green field
2006	July	China Mobile	operation	\$5,300		Millicom	Luxembourg	
2008	Feb	ZTE	equipment	\$300			Philippines	
2008	March	Huawei	equipment	\$600	17%	3Com	USA	
2008	April	Great Wall Technology	equipment	\$300	43%	Iomega	USA	
2010	July	Huawei	equipment	\$480		2Wire	USA	
2010	Aug	Huawei	equipment	\$1,300		Motorola	USA	
2010	Nov	Huawei & ZTE	equipment	\$5,000		Sprint	USA	
2013	April	China Mobile	operation	\$600	12%	Fareastone	Taiwan	
2014	Dec	ZTE	equipment	\$800		Ericsson	Ethiopia	
2015	Sept	Tsinghua holdings	equipment	\$3,780	15%	Western Digital	USA	

Source: This dataset is based on the “China Global Investment Tracker (2005-2015)” compiled by the American Enterprise Institute-Heritage Foundation (<https://www.aei.org/china-global-investment-tracker>) and supplemented by knowledge gained from news reports and companies’ annual reports.

Note: Only deals over 100 million are included in the dataset.

APPENDIX B: INTERNET ELITES IN 20 MAJOR CHINESE INTERNET FIRMS (2015)

	Company	Board members & Senior managers	Net wealth RMB, Billion	Transnational linkages		State connections	
				Corporate board	Overseas education	Government occupations	Political affiliations
1	China Mobile	Bing SHANG 尚冰		Y	Y	Y	Y
	China Mobile	Yue LI 李跃		Y	Y	Y	Y
	China Mobile	Taohai XUE 薛涛海		Y	N	Y	Y
	China Mobile	Yuejia SHA 沙跃家		Y	Y	Y	Y
	China Mobile	Aili LIU 刘爱力		Y	Y	Y	Y
2	Alibaba	Jack Yun MA 马云	205B	Y	N	Y	Y
	Alibaba	Jonathan Zhaoxi LU 陆兆禧	95B	Y	N	N	N
	Alibaba	Daniel Yong ZHANG 张勇	5.5B	Y	N	N	N
	Alibaba	Lucy Lei PENG 彭蕾	95B	Y	N	N	N
	Alibaba	Maggie Wei WU 武卫	4B	Y	N	N	N
	Alibaba	Zhenfei LIU 刘振飞		Y	N	N	N
	Alibaba	Trudy Shan DAI 戴珊	5.5B	Y	N	N	N
	Alibaba	Jianhang JIN 金建杭	5.5B	Y	N	Y	N
	Alibaba	Jian WANG 王坚	5.5B	Y	N	N	Y
	Alibaba	Jeff Jianfeng ZHANG 张建锋		Y	N	N	N
	Alibaba	Yongfu YU 俞永福		Y	N	N	N
	Alibaba	Simon Xiaoming HU 胡晓明		Y	N	Y	N
	Alibaba	Sophie Minzhi WU 吴敏芝		Y	N	N	N
	Alibaba	Peng JIANG 姜鹏	5.5B	Y	N	N	N
3	Tencent	Huateng MA 马化腾	165B	Y	N	Y	Y
	Tencent	Dongsheng LI 李东生	2.9B	Y	N	Y	Y

	Tencent	Chenye XU 许晨晔	3B	Y		N	Y	N	N
	Tencent	Yuxin REN 任宇昕		Y		N	N	N	N
	Tencent	Xiaolong ZHANG 张小龙		Y		N	Y	N	N
	Tencent	Shan LU 卢山		Y		N	N	N	N
	Tencent	Xiaoyi MA 马晓轶		Y		N	N	N	N
	Tencent	Kaitian GUO 郭凯天		Y		N	N	N	Y
	Tencent	Dan XI 奚丹		Y		N	N	N	Y
4	Baidu	Robin Yanhong LI 李彦宏	98B	Y		Y	N	Y	Y
	Baidu	Jennifer Xinzhe LI 李昕晢		Y		Y	N	N	N
	Baidu	Ya-Qin ZHANG 张亚勤		Y		Y	N	Y	Y
	Baidu	Jing WANG 王劲		Y		Y	N	N	N
	Baidu	Hailong XIANG 向海龙		Y		N	N	N	N
	Baidu	Mingyuan LI 李明远		Y		N	N	Y	Y
	Baidu	James DING 丁健		Y		Y	N	N	N
5	China Telecom	Jie YANG 杨杰		Y		Y	Y	Y	Y
	China Telecom	Jiping ZHANG 张继平		Y		Y	Y	Y	Y
	China Telecom	Xiaowei YANG 杨小伟		Y		N	Y	Y	Y
	China Telecom	Kangmin SUN 孙康敏		Y		N	Y	Y	Y
	China Telecom	Ruiwen KE 柯瑞文		Y		Y	Y	Y	Y
	China Telecom	Wei ZHU 朱伟		Y		N	Y	Y	Y
	China Telecom	Ermeng XU 徐二明		Y		N	Y	Y	Y
	China Telecom	Tongqing GAO 高同庆		Y		Y	Y	Y	Y
	China Telecom	Zhongyue CHEN 陈忠岳		Y		N	Y	Y	Y
6	JD.com	Qiangdong LIU 刘强东	45.5B	Y		Y	N	Y	Y
	JD.com	Ming HUANG 黄明		Y		Y	N	N	N
	JD.com	David Daokui LI 李稻葵		Y		Y	N	N	Y

	JD.com	Haoyu SHEN 沈浩瑜			Y	Y	N	N	N
	JD.com	Ye LAN 蓝烨			Y	N	N	N	N
	JD.com	Yu LONG 隆雨			Y	N	N	N	N
	JD.com	Xuande HUANG 黄宣德			Y	Y	N	N	N
	JD.com	Shengqiang CHEN 陈生强			Y	N	N	N	N
	JD.com	Chen ZHANG 张晨			Y	Y	N	N	N
7	China Unicom	Xiaochu WANG 王晓初			Y	Y	Y	Y	Y
	China Unicom	Yimin LU 陆益民			Y	Y	Y	Y	Y
	China Unicom	Fushen LI 李福申			Y	Y	Y	Y	Y
	China Unicom	Jun'an ZHANG 张钧安			Y	Y	Y	Y	Y
	China Unicom	Zhengxin JIANG 姜正新			Y	N	Y	Y	Y
	China Unicom	GuangLu SHAO 邵广禄			Y	Y	Y	Y	Y
	China Unicom	Xiong YU 熊昱			Y	N	Y	Y	Y
8	Crip	Jianzhang LIANG 梁建章	2.2B		Y	Y	N	Y	Y
	Crip	Min FAN 范敏	2.5B		Y	Y	Y	N	N
	Crip	Jane Jie SUN 孙洁	2.5B		Y	Y	N	N	N
	Crip	Jenny Wenjie WU			Y	Y	N	N	N
	Crip	Xiaofan WANG			Y	Y	N	N	N
	Crip	Nei Nanneng SHEN 沈南鹏	15B		Y	Y	N	Y	Y
	Crip	Qi Ji 季琦	5.2B		Y	N	N	N	N
9	Netease	William Lei DING 丁磊	100B		Y	N	Y	Y	Y
	Netease	Lun FENG 冯仑	2B		Y	N	Y	Y	Y
10	Leshi	Yueting JIA 贾跃亭	42B		N	N	Y	Y	Y
	Leshi	Hong LIU 刘弘	3B		N	N	Y	N	N
	Leshi	Fangmin HAN 韩方明			N	Y	N	Y	Y
	Leshi	Ning ZHU 朱宁			N	Y	N	N	N

Leshi	Bing CAO 曹彬		N	Y	N	N	N
Leshi	Jun LIANG 梁军		N	N	N	N	N
Leshi	Fei GAO 高飞		N	N	N	N	N
Leshi	Minhui ZHANG 张旻翬		N	N	N	N	N
Leshi	Bin YUAN 袁斌		N	N	N	N	N
Leshi	Yongqiang YANG 杨永强		N	N	N	N	N
Leshi	Yazhou WU 吴亚洲		N	N	N	N	N
Leshi	Xiaolin JIANG 蒋晓琳		N	N	N	N	N
Leshi	Shu TANG 谭殊		N	N	N	N	N
Leshi	Jie JIN 金杰		N	N	N	N	N
Leshi	Lijie YANG 杨丽杰		N	N	N	N	N
Leshi	Kai ZHAO 赵凯		N	N	N	N	N
11	Lenovo	Chuanzhi LIU 柳传志	2B	N	Y	Y	Y
	Lenovo	Yuanqing YANG 杨元庆	3.4B	N	Y	N	Y
	Lenovo	Linan ZHU 朱立南		N	Y	N	N
	Lenovo	John Huan ZHAO 赵令欢	2B	Y	Y	Y	N
	Lenovo	Suning TIAN 田溯宁		Y	Y	Y	Y
	Lenovo	Xuezheng MA 马雪征		Y	Y	Y	Y
	Lenovo	Xudong CHEN 陈旭东		Y	N	N	N
	Lenovo	Zhiqiang HE 贺志强		Y	N	N	Y
	Lenovo	Jian QIAO 乔健		Y	N	N	N
	ZTE	Weigui HOU 侯为贵		N	N	Y	N
12	ZTE	Xianming ZHAO 赵先明		N	N	N	N
	ZTE	Jianheng ZHANG 张健恒		N	N	Y	Y
	ZTE	Jubao LUAN 栾聚宝		N	N	Y	Y
	ZTE	Lirong SHI 史立荣		N	N	N	N

ZTE	Yawen WANG 王亚文		N	N	N	N	Y	Y	Y
ZTE	Dongfang TIAN 田东方		N	N	N	N	Y	Y	Y
ZTE	Yichao ZHAN 詹毅超		N	N	N	Y	Y	Y	Y
ZTE	Yimin YIN 殷一民		N	N	N	N	N	N	N
ZTE	Zaisheng WEI 韦在胜		N	N	N	N	N	N	Y
ZTE	Weiliang XIE 谢伟良		N	N	N	N	Y	Y	Y
ZTE	Zhanchen WANG 王占臣		N	N	N	N	Y	Y	Y
ZTE	Junchao ZHANG 张俊超		N	N	N	N	Y	Y	Y
ZTE	Lianbo DONG 董联波		N	N	N	N	Y	Y	Y
ZTE	Shiyou HE 何士友		N	N	N	N	N	N	N
ZTE	Zhenhui TAN 谈振辉		N	N	N	N	N	N	Y
ZTE	Xike ZHANG 张曦轲		N	N	Y	N	N	N	N
ZTE	Shaohua CHEN 陈少华		N	N	Y	Y	N	N	Y
ZTE	Hongbin LV 吕红兵		N	N	N	N	N	N	Y
ZTE	Bingsheng TENG 滕斌圣		N	N	Y	Y	N	N	N
ZTE	Wuxiang ZHU 朱武祥		N	N	N	N	N	N	N
ZTE	Xiaohui QU 曲晓辉		N	N	N	N	N	N	N
ZTE	Wei WEI 魏炜		N	N	N	N	N	N	N
ZTE	Naiwei CHEN 陈乃蔚		N	N	Y	Y	N	N	Y
13	VIPshop	Eric Ya SHEN 沈亚	89B	Y	N	N	N	N	N
	VIPshop	Bin WU 吴彬		Y	Y	N	N	N	N
	VIPshop	Jacky Yu Xu 徐宇		Y	Y	N	N	N	N
	VIPshop	Xing LIU 刘星		Y	Y	Y	N	N	N
	VIPshop	Nanyan ZHENG 郑南雁		Y	Y	N	Y	Y	Y
	VIPshop	Chun LIU 刘春		Y	Y	N	Y	Y	Y
	VIPshop	Donghao YANG 杨东皓		Y	Y	Y	N	N	N

	VIPshop	Yizhi Tang 唐倚智		Y	N	N	N	N	N
14	Qihoo360	Hongyi ZHOU 周鸿祎	18B	Y	N	N	N	N	N
	Qihoo361	Xiangdong QI 齐向东	6.5B	Y	N	Y	Y	Y	Y
	Qihoo362	Shu CAO 曹曙	4.5B	Y	N	N	N	N	N
	Qihoo366	Jianwen LIAO 廖建文		Y	Y	N	N	N	N
	Qihoo367	Zuoli XU 徐祚立		Y	Y	N	N	N	N
	Qihoo368	Jue YAO 姚瑀		Y	N	N	N	N	N
	Qihoo369	Jie CHEN 陈杰		Y	N	N	N	N	N
15	Sina	Charles CHAO 曹国伟	4B	Y	Y	Y	Y	Y	N
	Sina	Hong DU 杜红		Y	Y	N	N	N	N
	Sina	Arthur Jianglei WEI 魏江雷		Y	Y	N	N	N	N
	Sina	Bin ZHENG 郑彬		Y	N	N	N	N	N
	Sina	Yan WANG 汪延		Y	Y	N	N	N	Y
	Sina	Yichen ZHANG 张懿宸		Y	Y	N	N	N	Y
	Sina	Song-yi ZHANG 张颂义		Y	Y	N	N	N	N
16	Sohu	Charles ZHANG 张朝阳	5B	Y	Y	Y	Y	Y	Y
	Sohu	Dave QI 齐大庆		Y	Y	Y	Y	Y	N
	Sohu	Shi WANG 王石		Y	Y	Y	Y	Y	N
	Sohu	Zhonghan DENG 邓中翰		Y	Y	Y	Y	Y	Y
	Sohu	Xiaochuan WANG 王小川		Y	N	N	N	N	N
	Sohu	Gongchen FAN		Y	N	N	N	N	N
	Sohu	Lili CUI 崔莉莉		Y	Y	N	N	N	N
	Sohu	Xuemei ZHANG 张雪梅		Y	Y	N	N	N	N
	Sohu	Yi ZENG 曾怿		Y	N	N	N	N	N
	Sohu	Chaohua CHEN 陈朝华		Y	N	Y	Y	Y	N
17	Huawei	Zhengfei REN 任正非	12.5B	N	N	N	Y	Y	Y

	Huawei	Yafang SUN 孙亚芳		N	N	N	Y	N
	Huawei	Ping GUO 郭平		N	N	N	N	N
	Huawei	Eric Zhijun XU 徐直军		N	N	N	N	N
	Huawei	Ken Houkun HU 胡厚昆		N	N	N	N	N
	Huawei	William Wenwei XU 徐文伟		N	N	N	N	N
	Huawei	Jason Jie LI 李杰		N	N	N	N	N
	Huawei	Ryan Yun DING 丁耘		N	N	N	N	N
	Huawei	Wanzhou MENG 孟晚舟		N	N	N	N	N
	Huawei	Lifang CHEN 陈黎芳		N	N	N	N	N
	Huawei	Biao WAN 万飏		N	N	N	N	N
	Huawei	Alex Ping'an ZHANG 张平安		N	N	N	N	N
	Huawei	Chengdong YU 余承东		N	N	N	N	N
	Huawei	Yingtao LI 李英涛		N	N	N	N	N
	Huawei	Jin'ge LI 李今歌		N	N	N	N	N
	Huawei	Teresa Tingbo HE 何庭波		N	N	N	N	N
	Huawei	Shengli WANG 王胜利		N	N	N	N	N
18	CEC	Xiaowu RUI 芮晓武		Y.	N	N	Y	Y
	CEC	Liehong LIU 刘烈宏		Y.	N	N	Y	Y
	CEC	Zuoran WANG 王作然		Y.	N	N	Y	Y
	CEC	Ning SONG 宋宁		Y.	N	N	Y	Y
	CEC	Jie CHEN 陈杰		Y.	N	N	Y	Y
	CEC	Zhoming LI 李兆明		Y.	N	N	Y	Y
19	CETC	Qunli XIONG 熊群力		N	N	N	Y	Y
	CETC	Youshan FAN 樊友山		N	N	N	Y	Y
	CETC	Qunsheng ZUO 左群声		N	N	N	Y	Y
	CETC	Dongchen ZHANG 张冬辰		N	N	N	Y	Y

	CETC	Aimin HU 胡爱民		N	N	N	Y	Y	Y
	CETC	Yuanjian MAO 毛远建		N	N	N	Y	Y	Y
	CETC	Dengzhou ZHANG 张登洲		N	N	N	Y	Y	Y
	CETC	Zheng WANG 王政		N	N	N	Y	Y	Y
	CETC	Manqing WU 吴曼青		N	N	N	Y	Y	Y
20	Xiaomi	Jun LEI 雷军	65B	Y	N	N	N	N	Y
	Xiaomi	Bin LIN 林斌	2.2B	Y	Y	N	N	N	N
	Xiaomi	Wangqiang LI 黎萬強		Y	N	N	N	N	N
	Xiaomi	Guangping ZHOU 周光平		Y	Y	N	N	N	N
	Xiaomi	Feng HONG 洪鋒		Y	Y	N	N	N	N
	Xiaomi	Chuan WANG 王川		Y	N	N	N	N	N
	Xiaomi	De LIU 劉德		Y	Y	N	N	N	N
	Xiaomi	Tong CHEN 陳彤		Y	N	N	N	N	N

Note: The 20 major Internet companies were selected according to both their market capitalization and revenue in fiscal year 2015. The biographical data of their mainland executives were obtained through reading those companies' annual reports, which were then coded binarily according to four measurements: transnational board connections, overseas schooling, government occupation, and political affiliation. The net wealth of those leaders were collected from 2015 Hurun list of richest Chinese, which profiles and ranks China's richest citizens whose net worth exceeds RMB 2 billion (<http://www.hurun.net/CN/HuList.aspx?mid=1031>).