1

Why Is Huawei So Strange?

Chinese Private Firms and "Stakeholder Communities"

1.1 Introduction

As one of China's most successful business firms, Huawei Technologies is a good case to begin our examination of the Chinese corporate ecosystem. In the previous chapter, we noted that Huawei Technologies claims to be a private corporation controlled by its employees and running its operations in a purely commercial way; it also claims that it has no ties to the Chinese military and that the Chinese government does not influence its management except in a normal regulatory fashion.[1] By contrast, the US Congressional Intelligence Committee has expressed "deep concerns" that Huawei Technologies "appears simply unwilling to provide greater details that would explain its relationships with the Chinese government in a way that would alleviate security concerns."[2] Indeed, one of the few issues that has received bipartisan agreement among US lawmakers is that Huawei allegedly poses an actual or potential threat to US national security, because of its "close links" to the Chinese Communist Party (CCP) and/or Chinese military.[3] Many other governments have followed the lead of the United States in expressing their suspicions about the company, banning it from bidding on network infrastructure contracts, and warning private telecom firms about the risks of purchasing Huawei's internet and telecom hardware.[4] The attacks on Huawei became especially vociferous under the Trump administration, with export bans and restrictions on US technology firms supplying components to Huawei, because of Huawei allegedly being a "security threat."[5] There is no sign that these sanctions will be relaxed under the Biden administration.

Interestingly, however, a remarkably detailed April 2019 investigation of the company by the *Los Angeles Times* concluded:

> None of the U.S. intelligence officials interviewed over several months for this story have made information public that supports the most damning

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> assertions about China's control over Huawei and about Ren's early ties to Chinese military intelligence. They have yet to provide hard evidence and, privately, these officials *admit they don't have any*.[6]

Yet despite this admission, and even without any concrete public evidence to support their claims, many lawmakers in the United States and elsewhere still cannot shake off their suspicions that Huawei is a covert tool of a "hostile" Chinese regime. They are perplexed by Huawei's strange structure, an awkward hybrid between a corporation and an employee collective with no simple connection between ownership and control. They also cannot understand why Huawei is unable to provide more details about the role of its internal Communist Party Committee and the ways that the company interacts with different levels of the Chinese government.[7]

It is not just politicians who are perplexed by Huawei's ownership structure: Even established China law specialists have been flummoxed. Balding and Clarke, in a recent article entitled "Who Owns Huawei?," tentatively suggest that, on the one hand, Huawei is not owned by its employees but possibly "state-owned," as 98.86 percent of its shares are held by the Huawei Investment and Holding Trade Union Committee, which they claim is technically a Chinese government organization; on the other hand, they state that the board of directors of Huawei is elected by an employee representative committee and also that Huawei's founder and CEO, Ren Zhengfei, holds a veto over board resolutions, which implies that in fact at least some of the employees and/or Ren do collectively control the company.[8] We will resolve this apparent paradox below.

Huawei is certainly not alone among large multinationals in setting up a complex hybrid ownership structure. And the bold suggestion by US lawmakers that Huawei needs to meet "American" or "international best practice" standards of corporate legality in order to gain the right to sell its products there is disingenuous, to say the least.[9]

Despite these important caveats, it is true that examining Huawei's ownership and behavior without a thorough understanding of its political and historical context raises more questions than it answers. By contrast, when we view Huawei as a coevolving corporate organism within a rapidly changing Chinese sociopolitical and legal ecosystem over three decades, we can answer most of those questions and in the process debunk some of the more lurid myths that have stoked Western governments' fears about Huawei's motives.

At the same time, this contextual analysis will also reveal why Huawei's on-the-fly, sometimes slapdash, innovations in corporate governance and incentive systems, and its attempts to negotiate the shifting sands of Chinese regulatory and political requirements, while essential to ensure its growth and protection from predation in the past, have become serious liabilities threatening its continued flourishing within the global political ecosystem.

Section 1.2 will first clarify Huawei's ownership structure, placing it within the broader context of Chinese corporate law reforms since the 1990s and explaining why Huawei has chosen to retain its unusual system of indirect employee ownership of shares right down to the present. While Section 1.2 concludes that there is no evidence of state ownership or control through its shares or through appointment of managers, this is not sufficient to prove the firm's independence from the government. Section 1.3 addresses the thorny question of why Huawei has a Communist Party branch and whether it also has links to the Chinese military. Interestingly, it appears that Huawei's Communist Party branch has effectively been co-opted by the company's management, and the evidence for the firm's military links is incredibly thin. Rather than looking for covert control in places where it cannot be found, we should focus on the direct and indirect benefits that Huawei has brought to the Chinese government as a private firm. Section 1.4 argues that Huawei's meteoric rise during the 1990s in large part stemmed from its ability to build strategic alliances and share profits with the employees and managers of Chinese state-owned telecom firms and with Chinese government/Party officials. It was then able to become a market leader and piggyback on the Chinese government's diplomatic and trade missions to expand its business to a broad range of developing countries, including some nations hostile to the United States and its allies, such as Iran. Section 1.5 explains how this behavior that was essential for Huawei to flourish as a leading private firm within the difficult Chinese corporate-political ecosystem became a liability as it entered more advanced telecom markets. Even if there is no evidence that Huawei is controlled or secretly exploited by the CCP, the fact that it is a Chinese firm producing critical communications technology is enough to cast suspicion on its motives among Western policymakers, who are already primed to view China as a threat. Owing to Huawei's heavy reliance on foreign technology and markets, this seriously threatens its very survival.

1.2 If Huawei Is Employee-Owned, Why Don't the Employees Own Huawei's Shares?

Going back to its origins, most sources state that Huawei was formed in 1987 by six investors including Ren who together invested RMB 21,000 (around $3,000) as Huawei's initial capital, but Ren bought out the other five investors during the first decade, and he has clearly remained the leading figure in the firm ever since.[10]

The late 1980s were early days for private firms in China. A national company law statute was not introduced until 1994, but the PRC Temporary Provisions for Private Enterprises were approved in 1988, permitting private firms (*siying qiye*) to be established with more than seven employees. Smaller private businesses (*getihu*, roughly equivalent to sole proprietorships) had been encouraged as early as 1981, to provide a path for unemployed youth to make a living. In special economic zones such as Huawei's home base of Shenzhen, local experiments with shareholding companies had been ongoing since the mid-1980s.[11]

However, as a small private business, Huawei experienced difficulties collecting payment from its customers, mainly hotels and other larger corporations that required its automated telephone exchange machines. To reduce this risk, Ren followed a common practice at the time by registering the firm as a "red cap" collectively owned enterprise (*jiti suoyouzhi qiye*). In other words, Ren and his partners paid a state enterprise, the Shenzhen Science and Technology Office Innovation Center, to register Huawei as one of its "collective subsidiaries" so that those who dealt with the firm would assume Huawei was connected to the Shenzhen municipal government and pay their bills.[12]

The sale of such "red cap" business licenses by state enterprises occurred all over China during the 1980s and the 1990s. Various surveys conducted in the early 1990s found that between 50 and 80 percent of Chinese "collective enterprises" were actually private firms.[13] Reasons given for putting on a "red cap" included tax benefits, overcoming regulatory limits on private firms' business scope, seeking political protection, enhancing access to credit, facilitating transactions, and promoting their products.[14] The "red cap" phenomenon was a major peculiarity of the Chinese corporate ecosystem – one of many situations in China where surface appearances and underlying realities differ – and it led to serious confusion and disputes in subsequent years about who actually owned these business firms.[15] Huawei managed to avoid disputes with its nominal state parent enterprise, but its official designation as a Shenzhen municipal collective enterprise rather than a private firm did strongly influence the structure of its employee shareholder system and led to a messy restructuring in the late 1990s.

1.2.1 The Chinese Employee Shareholding Ecosystem: 1980s to 1990s

Experiments with employee shareholding had taken place among Chinese collective enterprises during the mid-1980s. The objective was to give employees a sense of ownership, a chance to participate in management, and a share in the profits of the business, which would in theory help to maximize their efficiency and performance while still upholding the Communist ideal of equality.[16] However, until 1993 there was little regulation of the practice and various abuses emerged, including firms issuing excessive amounts of shares or advertising their so-called "employee shares" to investors throughout the country and employees secretly trading their shares with outsiders, creating a chaotic unauthorized and unregulated public share market.[17]

The State Council then set strict limits on the kinds of rights that could be attached to employee shares: They could not be transferred to anyone outside the firm. Firms were not permitted to print actual share certificates (*gupiao*); instead, they should create "equity rights certificates" (*guquan zheng*) listing the names of every employee shareholder, and these certificates must be "strictly kept" within the firm.[18]

This regulation made it very clear that during the 1990s the Chinese government viewed "internal employee shares" within nonlisted enterprises very differently from typical voting shares in Anglo-American corporations. They were designed as a vehicle for employees to share in the firm's profits but without the kind of property rights that are generally bundled up with shares in common law jurisdictions. It may therefore be more accurate to call them "employee equity certificates."

Yet if employees are aware of these restrictions on their rights, there is nothing intrinsically misleading about calling them "shareholders." Many common law jurisdictions have also created various kinds of nonvoting share classes, or hybrid securities such as "phantom shares" and "stock appreciation rights" that may be just as restrictive, allowing the controllers of corporations to share profits with employees or other designated investors without giving them voting rights or permitting unrestricted transfers. Despite their restrictions, these variations still tend to be categorized under the rubric of "employee ownership."[19]

Highly relevant for Huawei, the State Council also directed local governments to issue detailed rules to properly regulate employee shareholding systems. Shenzhen's local rules for employee ownership (the 1997 Shenzhen Rules) required firms to set up an "employee shareholding committee" (*yuangong chiguhui*) to act as "custodian" of all the employee shares within the firm.[20] Shenzhen's rules also stated that because this committee did not have the status of a "legal person," the trade union (*gonghui*) within the firm – which was a "legal person" – should register as the "nominee" shareholder with the State Administration for Industry and Commerce (SAIC), using the name "trade union shareholding committee" (*gonghui chiguhui*). But the rules made it clear that the union was only holding those shares "on behalf of" the employees and had no decision-making powers of its own. In other words, it was a shareholder in name only, not in substance.[21]

What we see here, in other words, is a pragmatic fudge by regulators aimed at reducing the "abuses" of the previous free-for-all system, where employees tended to sell off their shares on the black market at the earliest possible moment for a quick profit, removing the incentive for employees to work in the firm's long-term interests, which was, in the government's eyes, the whole purpose of employee shareholding systems. Yet the practical result was to create a mutant hybrid governance structure with vague rules and limited employee rights that did not integrate smoothly with the PRC Company Law.

This should not be surprising, as the first PRC Company Law did not become effective until 1994, and as Donald Clarke has argued, it was designed more with state-owned enterprises (SOEs) in mind than private firms.[22] In 2006, a major Company Law amendment introduced some ownership flexibility for smaller firms with fewer than fifty shareholders and clearer provisions on directors' duties and shareholder remedies, but for large private firms, even today the Company Law provides little room for the kinds of innovative shareholding systems that are available in other countries, such as super-voting shares and nonvoting share classes, which would allow a similar level of employee ownership while maintaining management control.[23]

This was the evolving corporate ecosystem that Shenzhen companies such as Huawei had to try and fit into. It was a time of experimentation and fluid rules when businesses could easily fall through the gaps of regulation.[24] Understanding this context goes a long way toward explaining why Huawei's ownership system is so strange. It originated with the company adapting to a rapidly changing regulatory framework while at the same time taking advantage of the idiosyncrasies and gaps in that system to maximize the company's performance and profits. Importantly, an examination of Huawei's hybrid employee ownership system within this broader context also directly challenges claims that the company is owned by the state or that Huawei is seeking to conceal some form of covert state/military control behind its "restricted phantom shares."[25]

1.2.2 Huawei's Employee Shareholding System: 1990s

According to early Chinese accounts of Huawei's development, in its initial years Huawei's employees were all given the opportunity to buy "shares" in the firm. After several lean years, the dividends became remarkably generous by the mid-1990s as Huawei expanded rapidly, soon making its employees the highest paid in the telecom industry.[26] However, Huawei's initial "employee shares" never had full share rights: Those who worked at Huawei during the 1990s stated that their "shares" were not transferable, carried no votes, and could not be retained if employees ceased to work at the firm.[27] In fact, except for two years from 1995 to 1996, the company did not even issue any share certificates to employees: It just told them each year how much "equity" they had and what their profit distribution was at the end of the year.[28] Control of Huawei's management and finances remained with the incumbent CEO (Ren Zhengfei) and a small circle of senior managers, and there was no formal board of directors or supervisors or shareholders' meetings.[29]

In other words, Huawei's initial employee "shareholding" system in the early 1990s was more of an internal (and informal) profit-sharing incentive and employee retention system rather than a form of personal property ownership.[30] If employees worked hard and helped Huawei increase its profits, they would receive generous rewards through "dividend" payments and opportunities to buy more "shares." If employees decided to leave the company, Huawei would redeem their "shares" at relatively low prices and they would lose the chance to participate in any future profits. Ren did not refer to it as an employee ownership system either but simply as an attempt to create a highly motivated "stakeholder community" within the firm:[31]

> Huawei advocates setting up a stakeholder community with its customers, partners and employees. We are working hard experimenting with dynamic internal mechanisms ... that will rationalize the connection

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> between the creation of wealth and distribution of wealth, creating a strong force that motivates everyone. . . . We are transforming what would normally be opposing forces into collaborative partnerships.

Many Huawei employees referred to these “shares” in less complimentary fashion as “golden handcuffs,” making them rich but tying them to the firm. Yet the annual returns were exceptionally high, around 70 percent per year. This is why Huawei was able to attract thousands of excellent graduates from China’s top universities each year.[32] It is important to emphasize this point, as it contrasts starkly with the tendency of many privatizing SOEs during that period to reward only their manager/owners while exploiting rank-and-file employees, and it partly explains Huawei’s rapid growth and consistent profitability.[33]

By contrast, when they left Huawei during this first decade, many employees were dissatisfied with the low redemption price on their “shares.” Yet logically, this one yuan per share redemption rule was another part of the firm’s “motivating” mechanism, making it economically unattractive to leave.[34] In fact, Huawei went further by actively interfering with departing employees’ attempts to set up their own competing technology firms, doubtless because they were no longer part of the “stakeholder community.”[35]

In 1997, after the Shenzhen Rules came into force, Huawei somewhat formalized the structure of its employee shareholding system by setting up an employee shareholding committee and registering the Huawei Technologies Corporation Trade Union as the main registered shareholder.[36] This was also when Huawei finally removed its “red cap” and registered with SAIC as a private limited liability company (LLC: *youxian gongsi*) under the PRC Company Law, as opposed to a collective enterprise.[37]

1.2.3 Huawei’s Current Ownership Structure

In 2001, the Shenzhen government issued a new set of rules for all employee shareholding schemes that allowed firms greater flexibility in choosing how to register these shares but at the same time required more formal governance structures, greater transparency toward employees, and a clearer formula for share redemptions when employees left the firm.[38] Huawei’s previous system was slapdash: Former employees have even claimed that they were told to sign blank sheets of paper, to which the firm later added the texts of shareholder resolutions.[39] This opaque system was causing numerous employee complaints and negative media attention, which would come to a head when two former Huawei executives sued the firm in 2003.[40]

To deal with these various issues, and to make it clear that their employee shareholder rights were different from those attached to ordinary shares in the PRC Company Law, Huawei introduced a new "employee stock ownership program" (ESOP) in 2003. Initially the company referred to the rights allocated to employees under this program as "restricted phantom shares" (*xuni shouxian gu*).[41] "Restricted" was clearly intended to alert employees to the limited rights attached to their shares, and "phantom" indicated that the employees were not actually the registered owners of the company's shares but owned units in the employee shareholding fund that held those shares on their behalf.[42]

Based on the evidence provided by Huawei to the US Congressional Committee in 2012, there is a detailed set of Articles that govern the Restricted Phantom Shares (RPS Articles). The shares cannot be transferred or sold, but the company will redeem them when the employee leaves.[43] They are administered by an employee shareholder "Representatives' Commission" (the Rep Com). This initially consisted of 51 elected employee representatives, but since January 2019, the number has been increased to 115 representatives. Reps are elected for five-year terms by Huawei's 86,000-plus active employee shareholders, with a voting system based on one vote per "phantom share."[44]

The 2003 ESOP is much more transparent toward Huawei's employee shareholders than the previous system and gives them a voice in how the governing bodies of the company are appointed. However, some features of the system are clearly designed to entrench control with more senior managers. First, among the 115 positions, 32 are "default," which presumably means that senior managers of the firm are automatically appointed to the Rep Com.[45] Second, one can assume that Huawei's senior employees own a greater proportion of the shares, as shares are partly allotted based on seniority, and therefore they will have more votes to cast for themselves or their favored candidates.[46] Third, as mentioned earlier, Ren has a veto over certain "material" decisions of the Rep Com, the shareholders' meeting, and the board of directors, giving him potentially ultimate control over the company.[47] The result is that the Rep Com itself is heavily weighted toward the more senior managers in the company.

Once the Rep Com is elected, its 115 members then attend the company's shareholder meetings and make decisions on behalf of the

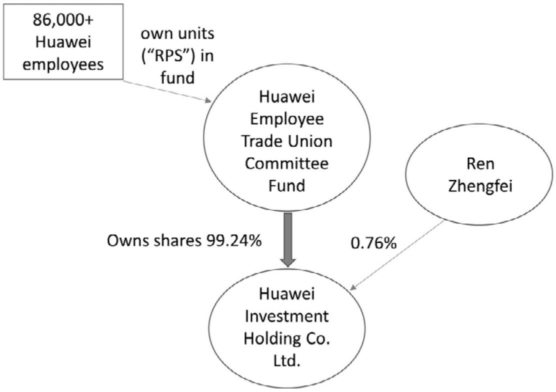

Figure 1.1 Huawei Technologies: basic ownership structure

employee shareholders and elect the board of directors and the supervisory board. Members of these two boards serve for five-year renewable terms.[48] All board members of Huawei are long-serving employees, having joined the organization during the 1980s or 1990s.[49] There has never been any credible evidence of involvement by external parties, whether government or otherwise, in the selection of Huawei's senior management or board members, although as discussed below, there are other ways in which the Chinese government may have influenced the firm.

From this analysis, it is clear that while Huawei has only two formally registered shareholders, namely the Huawei Investment and Holding Corporation Trade Union Committee (Huawei TUC, with approximately 99 percent of the equity) and Ren (with around 1 percent). The TUC is merely a nominee shareholder holding those shares on behalf of Huawei's employee shareholders, who exercise their powers through the Rep Com. Indeed, the TUC has no members and no concrete existence except as a legal fiction conduit – in Chinese, a "community legal person" (*shetuan faren*) – whose sole purpose is to hold shares on behalf of others (see Figure 1.1).[50]

For reasons that are not clear, some foreign lawmakers and legal commentators criticize the strong powers given to Huawei's management under this system – as if it somehow goes against Huawei's claim to be employee owned and controlled.[51] Yet this criticism is misleading, as it ignores the fact that Huawei's managers are themselves full-time employees and are also generally the largest shareholders in the company, so

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there is no reason why they should not have greater influence over the company's decision-making, especially if the voting rules are clearly set out in the RPS Articles. The criticism also seems to be based on an incorrect assumption that "employee-owned company" means every single Huawei employee must hold shares, whereas what Huawei means is that every shareholder of Huawei is either a current or retired Huawei employee and only current Huawei employees have the right to buy RPS and vote for representatives.[52]

In fact, there is less contradiction in Huawei between the rights of the shareholders and employees than in most publicly listed international companies that only have a tiny proportion of employee shares. Likewise, many private companies internationally, and some publicly listed ones, have set up structures that entrench management control among a minority of shareholders – or even one or two founders – for all time, through nomination powers or super-voting shares. To give just two high-profile examples, Mark Zuckerberg controls Facebook with over 57 percent of the voting power by means of his Class B super-voting shares carrying 10 votes per share, and Larry Page and Sergey Brin together control Google through super-voting shares in its parent company, Alphabet Inc., giving them 51.3 percent of the votes, despite only owning 14 percent of the company's equity.[53]

Huawei does appear to be gradually reducing the influence of Ren over company decision-making. In 2013, the company introduced another veto power in its RPS Articles allowing employee shareholders with a combined 15 percent of votes to veto decisions relating to their RPS and other "material" decisions made by the Rep Com, the shareholders' meeting, and the board of directors.[54] This provision, assuming it has been implemented as planned, gives a lot more influence to Huawei's minority shareholders than many overseas companies, where special resolutions can be blocked only with 25 percent or sometimes even 33 percent of the votes.[55]

Perhaps the most important question is not so much whether Huawei's ESOP gives certain rights to employee shareholders on paper, which it clearly does, but whether it allows them to exercise those rights in reality. There is plenty of evidence that prior to 2003 Huawei's employee shareholder committee was simply a rubber stamp body with no influence over the composition of Huawei's senior management or over important company decisions affecting employee shareholders. More recently, especially since 2010, increased public scrutiny has put pressure on the company to ensure that decision-making is opened up to a broader range of its employee stakeholders.[56]

In conclusion, the company is owned by its employees as a collective group, with those employees who have reached the level of senior management, and especially Ren, exerting the most influence over decision-making. Allegations of some other external locus of control over Huawei's ownership, such as the Chinese government, lack any evidential basis.[57]

1.2.4 Why Does Huawei Maintain This Unique Indirect Shareholding Structure?

The reason Huawei still maintains this system today is that the current PRC Company Law is quite inflexible when it comes to different share classes and employee shareholding schemes.[58]

If Huawei wishes to continue as an LLC rather than listing as a joint stock company (equivalent to a public listed company), the PRC Company Law places an upper limit of fifty shareholders. There are also limits on the proportion of shares that can be directly owned by employees in an LLC or joint stock company.[59] By registering the trade union as a single nominal shareholder on behalf of thousands of Huawei employees, this limitation is overcome. In fact, it allows for future exponential increases in the numbers of employee "shareholders" – more accurately, employee RPS holders – without any need to go through the burdensome process of registering each new shareholder with the corporate regulators.

Without its hybrid ESOP structure, it is not clear how Huawei could create a "stakeholder community" sharing profits with its employees unless it set up an even more complicated offshore listed structure, such as the variable interest entities (VIEs) utilized by Alibaba and numerous other private Chinese technology firms. And the VIE structure has its own highly problematic issues relating to the legality and enforceability of its underlying contracts, as we discuss in Chapter 2.[60]

Huawei has found its ESOP to be highly effective as both an incentive system, aligning employees' interests with those of the company, and a fundraising vehicle, allowing the company to avoid relying too much on external investors for its capital needs. The amount of money Huawei has raised internally from its employees continues to be remarkable: Cheng and Liu calculate that from 2004 to 2016 alone, the amount of capital raised from employees who purchased RPS amounted to RMB 30 billion ($4.25 billion), which is an average of around RMB 357,000 ($50,500) per shareholding employee.[61]

What is even more interesting is that Chinese regulators have been pragmatic enough to allow this kind of corporate governance experiment to continue even though it goes against the strict letter of the law. We discuss the reasons for this government pragmatism further in Chapter 2, in relation to Alibaba/Ant Group and other internet platform firms.

1.3 Is Huawei Controlled by, or Closely Linked to, the Communist Party or Chinese Military?

We have shown that Huawei's corporate governance system does not provide for any formal government control or direct influence over Huawei's business or management decisions and that no present or former government officials sit on Huawei's board or supervisory committee. And unlike Chinese SOEs, the selection of Huawei's senior managers does not go through the CCP's Central Organization Department.[62] However, we still need to address two other key issues relating to potential government or military control of private Chinese firms that are highly relevant to Huawei, influencing its current troubles in the United States and threatening its potential to expand to international markets in other developed countries.

The US Congressional Committee that investigated Huawei in 2012 expressed great concern about the Communist Party branch within Huawei, and its potential function as a conduit for Chinese government control, especially because Huawei failed to provide clear details of its membership and what the role of the Party branch entailed.[63] Huawei has downplayed its influence, both in its testimony to the Committee and more recently on its website, claiming that the Party branch has no involvement in operational or business decisions.[64]

Yet rather than just offering these vague denials, Huawei should explain more clearly what the Party branch actually does in the firm, who Huawei's leading Communist Party representatives are, and how they interact with the firm's senior management and employees. Presumably this information is not confidential. Other large private Chinese business firms include information about their CCP branches on their Chinese-language websites or in published profiles, including detailed descriptions of the CCP Committee's activities within the firm, and there is no reason why Huawei should not do likewise.[65] And it is easy to find detailed Chinese media interviews with present or former members of Huawei's CCP Committee describing its various activities within the firm, as we describe in more detail in Chapter 4.

The PRC Company Law and the CCP Charter require any private business in China to set up a Party branch where three or more CCP members who work at the business request it.[66] Huawei originally established its Party branch in 1995. One of Huawei's longstanding executives, Zhou Daiqi, has been acting as the firm's Communist Party secretary since 2009, in addition to his roles as chief ethics and compliance officer and member of Huawei's supervisory board. Zhou has been an employee of Huawei since 1994, starting as a product manager.[67] Prior to Zhou, Huawei's first Communist Party secretary was Mme. Chen Zhufang, who joined Huawei in 1995 as a human resources manager, and served as the firm's Party secretary until 2009. Though retired now, she is still active as one of Huawei's "thought mentors" (*sixiang daoshi*), an interesting Party branch program explained further in Chapter 4.[68] Ren is also a CCP member, but he does not lead Huawei's Party branch.[69]

The exact number of CCP members within Huawei is not certain, but one article published in Huawei's in-house magazine stated that in 2000, Huawei had over 1,800 Party members, divided into 7 main branches and 38 subbranches.[70] This would have been around 10 percent of Huawei's total workforce at that time. A 2007 report on Huawei's Party branch delegates meeting that year gave figures of 12,000 Party members, which was around 14 percent of Huawei's total workforce at that time.[71] More recent figures are not available, but with the current Chinese government emphasis on Party building in the private sector, we can assume that the proportions are similar today.

Despite the lack of information about the Party branch on Huawei's website, several interviews in the Chinese media and public presentations by Huawei's Party branch officials reveal that its Party branch is almost entirely focused on developing employees' ethical values and psychological resilience, to enable them to contribute better to Huawei's performance.[72] We provide evidence supporting this assertion in Chapter 4, so we will not repeat it here.

Beyond Huawei's Party branch, and in stark contrast with SOEs, there is no revolving door between Huawei's senior employees – those who effectively control the company through their shareholding – and government institutions that might lead to an inference of indirect control through personal relationships.[73] Looking at Huawei's management chart, all the current directors, senior executives, and supervisors of the firm have worked at Huawei since at least the 1990s, and most joined the firm when they were recent university graduates, with no discernable government connections.[74] However, there are much more obvious ways in which Huawei has built a cooperative relationship with Chinese government institutions and officials, a point that we will return to in the following section.

Before that, we must deal with a further controversial topic that has plagued Huawei for many years. One of the most frequently parroted claims about Huawei is that it has "close links" with the Chinese military, and even that the military is Huawei's "political patron."[75] This claim has very little factual basis and mainly results from a careless game of "Chinese whispers" among the media, influential thinktanks, and politicians.

It is true that Huawei's founder and CEO Ren was once in the People's Liberation Army (PLA). Ren has publicly stated that he served in the PLA's engineering corps from 1974 to 1983. He spent all those years working as part of the construction team on a major chemical fiber plant. This plant was purchased whole from a French company by the Chinese government in 1974, then imported to China and rebuilt in the Northeastern city of Liaoyang.[76] During the construction period, he rose to become a civilian officer in the engineering corps, but he was demobilized in 1983 as part of a major downsizing of the Chinese military.[77] Huawei has also stated that Ren's work in the army had no connection with communications technology.[78]

Ren did not start Huawei until 1987, four years after leaving the PLA, and the company clearly had no military links in its early years. Numerous accounts by Huawei's early employees confirm that it started off struggling to sell simple telephone exchange switches imported from Hong Kong to hotels and businesses in Shenzhen.[79] As we explain in the next section, the vast majority of Huawei's equipment sales since the early 1990s have been to civilian state-owned telecom firms in China and overseas private and state telecom firms. However, Huawei has consistently (and publicly) stated that it does sell some standardized communications equipment to the Chinese military, but this market has always been less than 1 percent of its total sales, and by 2012 it was 0.1 percent, according to Huawei's testimony to the US Congressional Committee.[80]

A very different narrative about Huawei's military ties has emerged among Western commentators and policymakers, but it is based on remarkably shaky foundations. It appears to have first been sparked by Bruce Gilley, then a reporter for the news magazine *Far Eastern Economic Review*, who visited Huawei's Shenzhen manufacturing facility back in 2000. He claimed to have come across three large telephone exchange switches in Huawei's "holding area for completed telecoms gear" addressed to the "Telecommunications Bureau: People's Liberation Army."[81] The only other hard evidence in Gilley's article was a comment by Huawei's senior vice president Fei Min that the company did sell standardized equipment to the Chinese military as one of its customers, but it made up "less than one percent" of the company's overall sales. Also, Gilley cited a Xinhua news article reporting that Liu Huaqing, "vice-chairman of China's Central Military Commission," had paid a short visit to Huawei back in 1996. The other sources quoted are unnamed "foreign analysts" and "company sources," as well as Alexei Shalaginov, Huawei's "deputy manager of sales in Russia," who stated that Huawei "received a contract in the early 1990s to provide key equipment for the PLA's first national telecoms network, which it continues to supply and upgrade. 'It is small in terms of our overall business but large in terms of our relationships.'" And, of course, Gilley trotted out Ren's prior military service, though he did note that Huawei was not set up until four years after Ren left the military.[82]

From this scattered and vaguely substantiated information, Gilley concluded that Huawei was a "military-backed company" and that the military touted Huawei as a "national champion."[83]

There are several problems with Gilley's article that make it unreliable as a source of intelligence on Huawei's military ties. The first is that Gilley did not provide any evidence that Huawei was actually "backed" or "supported" financially by the Chinese military. Selling telecom switches on a commercial basis to the telecoms network of the PLA is not the same as being backed by the military. This is because, from 1988 until the early 2000s, the PLA's telecoms network was a for-profit commercial venture servicing regular civilian customers. It was one of numerous commercial businesses run by the military during that period, an example of the "febrile business atmosphere" of the 1990s that was also evident among SOE telecom firms.[84] Without concrete evidence of the kind of equipment sold by Huawei, it would be speculative to assume that Huawei's gear was for military use rather than just off-the-shelf switches for the civilian network.

Gilley also provides no evidence that Huawei received any research money or other funding from the PLA, or that it was engaged in any coresearch projects or producing military equipment, or that the military had any shares or financial interest in Huawei's business. Later investigations of Huawei cited Gilley as their main source while making just these kinds of unsubstantiated claims.[85]

Third, Gilley pads out Ren's resume in the military to make it seem that he was engaged in intelligence-type work. He states, based on unnamed "company sources," that Ren was "a former director of the Information Engineering academy of the PLA's General Staff Department" and "the academy is responsible for telecoms research for the Chinese military."[86] This information contradicts the company's own testimony to the US Congressional Committee and Ren's public statements about his military career, which have remained consistent since at least 2001.[87]

Since Gilley's anonymous sources are not supported by any documentary evidence, and they contradict the sworn testimony of the company, it would be very unwise to rely on them as proof of Ren's precise military rank and service. But that is just what happened in subsequent investigations of Huawei, as we demonstrate below.

A final problem with Gilley's article relates to the importance of Huawei's early contract to supply the PLA's telecommunications network. Gilley relies heavily on a Russian sales manager, Alexei Shalaginov, who acknowledged at the time that the ongoing contract was "small in terms of [Huawei's] business," which fits with the statement of Huawei's then senior vice president Fei Min.[88] More recently, in 2019, the *Los Angeles Times* interviewed Shalaginov again in relation to this story, and he gave a crucial clarification: "The contract was an important marketing tool that helped Huawei sell to other companies but . . . it didn't imply close relationships with the military."[89]

The vagueness and lack of documented sources for Huawei's military "backing" in Gilley's article contrast starkly with the well-documented evidence that Gilley found for various loans and buyers' credit facilities provided to Huawei from Chinese banks from the mid-1990s onward. Below we discuss the joint ventures (JVs) that Huawei set up with Chinese state telecom firms that provided a vehicle for Huawei to access this credit. The growth of Huawei during the 1990s is much better explained by these commercial JV links with civilian telecom firms and the massive expansion of the telecom market rather than speculative claims about "powerful" military "backing" and "support."[90]

A weekly news magazine article would not normally require such detailed analysis, but Gilley's piece has fortuitously exerted an enormous impact on American and other Western governments' perceptions of Huawei's "military links." This is because it gained a whole new lease of life in 2005 as the key evidential source about Huawei in a report by the RAND Corporation, a US defense thinktank. The report's imposing title was "A New Direction for China's Defense Industry,"[91] and its authors claimed that Huawei was part of an emerging "digital triangle" between the Chinese state, the military, and the commercial IT industry with "deep military ties."

Incredibly, Gilley's article is the only written source about Huawei that the authors cite.[92] They then embroider the story further with their own imaginative speculation to fit it within their broader conspiratorial narrative. For example, where Gilley's article gave the figure of "less than 1 percent" of Huawei's sales to the military, the RAND Report "suggests" that it is more likely "between 5 and 6 percent," based purely on guesswork by their "industry experts in Beijing."[93] Where Gilley mentioned one "small" contract to supply the PLA telecoms network, the RAND Report now talks of "deep ties with the Chinese military, which serves a multi-faceted role as an important customer, as well as Huawei's political patron and research and development partner."[94] Their only source for these claims is Gilley's article, which even if taken at face value does not support such wide-ranging conclusions about "deep ties," military patronage, or R&D partnerships. They also repeat verbatim Gilley's claims that the military and Chinese government tout Huawei as a "national champion" and that Ren was formerly a "director" of the PLA's "information engineering academy" engaged in "telecom research for the Chinese military," yet without providing any other documentation to back up these dubious statements.[95]

By 2005, when the RAND Report was written, there was plenty of published Chinese material available about Huawei, including several books based on extensive interviews with current and former Huawei managers.[96] It is disturbing that the authors of the RAND Report did not consult any of these sources and instead preferred to spin an imaginary yarn loosely based on one short magazine piece.

Having massaged the account of Huawei's military connections, they then took it to a new level of fantasy by lumping Huawei together with three other Chinese companies and claiming that "each of the 'four tigers' of the Chinese telecommunications equipment market (Huawei, Zhongxing, Datang, and Julong) originated from a different part of the existing state telecommunications research and development infrastructure, often from the internal telecommunications apparatus of different ministries or the military."[97]

It may be true that those other three companies originated from state or military institutions, but there is no evidence that Huawei did so, and the RAND Report does not provide any such evidence.

Despite these serious evidential flaws, in a kind of snowballing effect, the RAND Report's claims about Huawei's "deep" military ties and "research partnerships" led to numerous attacks on Huawei by US and some other countries' politicians and were instrumental in the decision of the Committee on Foreign Investment in the United States (CFIUS) to block Huawei's proposed acquisition of two US firms.[98] The RAND Report was also the key source used by the US Permanent Select Committee on Intelligence (PSCI) to conclude that Huawei has close links with the Chinese military.[99] More recently, the Trump administration followed through with an export ban on US firms selling software or hardware components to Huawei, which, if strictly enforced, could cripple its business outside China.[100]

In fact, it is very clear from reading the whole PSCI Report that the Congressional Committee had already formed its opinion about Huawei being a "tool" of the Chinese government and military long before the investigation started. Where did this negative opinion come from? Based on their footnotes, it was entirely from unreliable sources such as the RAND Report and other commissioned US reports that also relied on the RAND Report.[101] Having already placed Huawei within this negative mental frame of "security threat," they then disbelieved or downplayed any testimony provided by Huawei that challenged it and instead uncritically embraced weak evidence that confirmed their opinions.[102] This is creating a house of cards on a highly unstable foundation.

If a well-funded US government committee assisted by the vast US intelligence organization could not dig out any more reliable evidence about Huawei's military ties than the dubious claims provided in a single weekly news magazine published twelve years earlier, the only logical conclusion is that those ties are much weaker than alleged.[103] There is certainly no convincing proof that Huawei's own evidence is false, and we are faced with the distinct possibility that the prevailing Western public narrative about the company is wrong.

However, while Huawei's Party branch is apparently not utilized as a conduit for government influence over management decisions, and the available evidence reveals no clear links between the firm and the Chinese military, this does not mean that Huawei can somehow avoid maintaining close relations with Chinese government institutions and officials. On the contrary, various nodes of the complex Chinese political ecosystem have continuously interacted with the company and significantly impacted the company's "business" in many and varied ways. This is a broader aspect of Huawei's corporate ecosystem to which we will now turn.

1.4 How Did Huawei Become So Successful as a Private Firm in China? Building a "Stakeholder Community" with State Enterprises and Government Officials

If Huawei's ownership structure, management, and Party branch are not conduits for Chinese government or military control, how did this private firm become one of the leading internet/telecom hardware producers in China and internationally? Certainly, a partial explanation comes from the exponential growth of the telecommunications and internet sectors since the 1990s. Between 1978 and 2008, the number of fixed line phone users in China grew from just 1.9 million to 340 million. During the 1990s, thousands of Chinese conurbations from county-level towns upward automated their telephone systems using exchange switches provided by firms like Huawei. Chinese mobile phone users also shot up from just 47,000 in 1991 to over 1.2 billion by late 2013, and the number of internet users grew from effectively zero in the early 1990s to around 854 million in 2019.[104]

The huge growth of global telecom and internet markets is also relevant, especially in the developing world where Huawei targeted most of its early international expansion efforts. For example, between 2005 and 2018, mobile phone users in developing countries jumped from around 1.2 billion to 6.5 billion people, and individual internet users rose from 407 million to 2.8 billion.[105] These immense and rapidly expanding new markets, both within China and overseas, provide a clear economic explanation for the correspondingly rapid growth of Chinese firms such as Huawei that have serviced these markets with their equipment.

Nevertheless, these external factors are not sufficient to explain why a private firm such as Huawei became the most successful telecom and internet hardware supplier in China despite fierce competition, including firms with partial state ownership such as ZTE, as well as SOE–foreign JVs such as Shanghai Bell and more technologically advanced foreign multinationals such as Cisco Systems.

To fully understand Huawei's success, we need to go back and trace how the company created a protected niche for itself within the broader corporate and government ecosystem, another crucial part of what Huawei's CEO Ren called building a "stakeholder community" or, more literally, a "community of mutual interests" (*liyi gongtongti*).[106]

Strangely, while the US and other governments have attempted without much success to find "covert" channels between the Chinese government/military and Huawei, they have ignored the open collaboration between the company and Chinese state-owned telecom firms and state officials in its early years. Huawei has made no secret of the fact that its massive growth during the 1990s and early 2000s was greatly assisted by forming mutually profitable JV relationships with employees and officials at these state-owned firms and at government telecommunication ministries.

How did this process of building "stakeholder communities" work and when did it start? In the late 1980s, Ren had managed to acquire from a Hong Kong company the license to sell a telephone exchange switch (called a PBX), but Huawei faced stiff competition and there was a very limited range of clients.[107] In fact, prior to 1994, the only major "clients" for this equipment were the provincial and municipal offices of China Telecom, an SOE under the Ministry of Post and Telecommunications (MPT), which had a monopoly over telecom services. From 1994 onward, a second SOE, China Unicom, was formed as part of a gradual move toward introducing competition into the telecom service provider market.[108]

This is where Ren came up with the idea of sharing profits with state telecom employees and their local government regulators.[109] The aim of this approach was twofold: It created a long-term incentive for these telecom firms and officials to approve the purchase of Huawei's equipment, and it also solved most of Huawei's cash flow and capital-raising difficulties. Rather than directly bribe state officials, which was too risky, the company set up numerous JV companies with tertiary production firms (*sanchan qiye*) established by provincial and local state telecom offices and governments all over China, and "shares" in these Huawei JVs were distributed to thousands of telecom industry employees and relevant government officials. The first of these JVs was Mobeike Power Supply Company, which was established in 1993.[110]

Huawei focused its attention mainly on poorer regions in western China and the northeast rustbelt, where SOEs and foreign competitors were reluctant to venture due to the difficult working conditions and where telecom employees and officials were more poorly paid. This was a Maoist-inspired strategy that Ren called "first taking the countryside, then laying siege to the cities."[111] Any profits from the installation or maintenance of Huawei's telecommunication equipment in these JV regions would be divided up between Huawei and the local JV shareholders through distributions from the relevant JV subsidiary.[112]

This experiment was so successful that Huawei expanded it, setting up other subsidiary JVs whenever it entered new domestic regional markets,

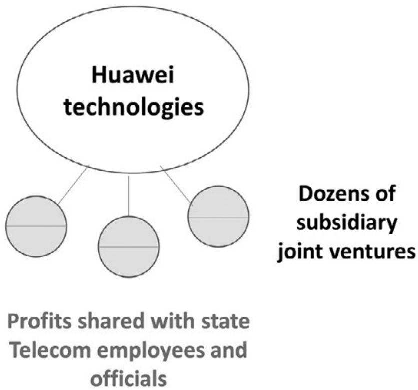

Figure 1.2 Huawei's JVs

allowing a broader range of telecom firm employees and local government ministry officials to invest. By the end of the 1990s, Huawei had established 27 different JV entities with groups of shareholders from over 170 telecom branches and local governments throughout China, with investors probably numbering in the tens of thousands (see Figure 1.2).[113]

Importantly, the officials and SOE employees never owned shares in Huawei's parent company; they only had ownership interests in the shareholding committees of JV companies set up by Huawei subsidiaries with relevant state enterprises. The JVs themselves were merely profit-sharing vehicles disguised as Huawei sales and servicing agencies, not separate businesses with their own decision-making organs.[114] This meant that Huawei could maintain control over its own management and business decisions.

Once they purchased these JV shares, the telecom officials, local Party officials, and employees obviously had a personal interest in assisting Huawei's business in their region over the long term by consistently buying Huawei's hardware products and upgrading them on a regular basis. Huawei's parent company would also guarantee to make up the difference if the JV subsidiaries did not earn a minimum rate of return for the investors, for example, 15 percent per year in the case of Huawei's Shenyang JV subsidiary.[115] This made it a low-risk, high-return investment for JV investors.

Huawei benefited from these arrangements in several ways: It received plenty of new business from the SOEs with little requirement of outlay of funds or bribes upfront. Moreover, it was paid promptly for its products and services – which was a major difficulty for privately controlled corporations dealing with bureaucratic state institutions.[116]

Perhaps most importantly, the JVs opened up Huawei's access to both indirect equity investment and credit financing from the state-owned telecom and banking systems, thus reducing its cash flow problems and allowing for massive investment in R&D of new technologies.[117] In other words, Huawei's JV partners, being state owned, were able to apply for buyers' credit financing from state banks at the lower interest rates charged to SOEs rather than the extortionate shadow banking rates that most private borrowers (including Huawei in its earlier years) had to pay.[118] The money was loaned from the banks to the state telecom firms, who funneled it through the JVs to purchase Huawei's products and installation services, and profits were then shared between Huawei and the other shareholders of the JVs, including the telecom firms' officials and employees.[119]

By all accounts, the returns on these JV investments during the 1990s were significantly higher than the minimum rates guaranteed by Huawei, reaching up to 70 percent in some years.[120] Such sky-high returns were sustainable due to the massive growth of telecom networks throughout China as noted above.

How did the state telecom officials and employees get away with what was essentially a conflict between their personal interests and the interests of their SOE firms? First, the newly established state-owned telecom corporations were supposed to be run on commercial profit-making principles. At the same time, the Chinese government also encouraged state institutions to reduce their excess employment – a legacy of the "iron rice bowl" – by helping their employees to set up so-called "tertiary production" (*sanchan*) service businesses and to spin off diverse "non-core" services in collaboration with external suppliers.[121] There was no explicit prohibition on officials and employees (or their family members) investing in these affiliated businesses. The number of these "tertiary" businesses established by local state officials and departments was huge, encompassing a broad range of industries. One 1992 survey cited by Duckett estimates that "in some areas of China as many as 70 percent of state and Party departments had set up such businesses, and that in Hunan province alone there were over 10,000 of them, employing over 40,000 people."[122]

Duckett argues that these businesses differed from corruption, as they generated "income for the state administration."[123] She calls the

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phenomenon "state entrepreneurialism" and notes that the central government tacitly permitted it to flourish for a few years, due to its positive function in providing employment and income for downsized public servants.[124] This "febrile business atmosphere" obviously left the door wide open for the kinds of JV experiments that we saw with Huawei.[125]

Thirdly, the government was anxious to rapidly modernize China's telecom system to provide the basic communications infrastructure for economic growth, so there was massive government spending channeled into expanding telecom networks nationwide, leading to demand for telecom hardware greatly outstripping supply.[126] The government was also keen to encourage qualified Chinese firms to compete with foreign telecom suppliers, for both economic and national security reasons.[127]

Finally, the fact that Huawei was a private firm made it much easier to disguise the ownership of JV shares by using a JV "trade union shareholding committee" as the registered owner of the shares – similar to that established by Huawei's parent company for its own employees, explained earlier. The telecom officials and employees who actually invested in those shares would only be recorded on an internal company list, not publicly disclosed to the SAIC, allowing for deniability if policies changed later.[128]

Why did Huawei call these arrangements "joint ventures," which was a term normally used only for Sino-foreign invested enterprises in China?[129] There was no foreign investment in Huawei's JVs, but fascinatingly it appears that Huawei got the idea from looking at competing JVs between foreign telecom equipment manufacturers and Chinese state institutions. These Sino-foreign JVs had been established in the 1980s to import and subsequently manufacture advanced telecom equipment to modernize China's primitive communications networks.

By 1990, there were three Sino-foreign JVs producing telecom switches in China.[130] Various government ministries and municipal corporations held shares in all these JVs, and therefore received profits from the sales of equipment to their affiliated telecom service providers.[131] As one Shanghai Bell official happily put it, "the Chinese [state-owned] partner was effectively the joint venture's customer."[132] Put another way, there were already extremely close links between foreign telecom corporations and the Chinese government, with both sides profiting from the arrangement.

Clearly, in this public–private business free-for-all, Huawei would not have survived its early years without setting up similar kinds of profit-sharing JV investment vehicles with state-owned customers and government officials.

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This strategy of forming "stakeholder communities" with telecom firms and officials was immensely successful for Huawei while it lasted. The company's revenues grew from around RMB 100 million in 1992 to RMB 4.1 billion in 1997 and then RMB 25.5 billion in 2001, by which time Huawei had become the most profitable electronics firm in China.[133]

However, in the late 1990s, the government restructured the state telecom firms once again, prohibiting telecom officials from running tertiary businesses on the side and requiring open competitive tendering for supply contracts, so Huawei had to buy out or divest itself of all the telecom JVs and find more orthodox ways to attract customers. Most Chinese sources agree that from the early 2000s onward, there were no longer any new shares issued by Huawei's JV subsidiaries, and the company was well on the way to buying out all the JVs and redeeming the outstanding shares.[134]

Fortunately, though it had suffered discrimination from state banks in its earlier years,[135] by the late 1990s Huawei's products were now advanced enough to find buyers among both the new Chinese telecom firms and overseas clients, without the need to offer any more JV shares to customers and regulators. The buy-out of the JVs also greatly reduced the pressure on Huawei to maintain an unsustainably high level of profit distribution to such an eclectic range of state-led investors/stakeholders.[136]

1.5 Sowing Seeds of Geopolitical Conflict: Huawei's International Expansion and Firm/Government Stakeholder Communities

With the maturing of the Chinese telecom market in the late 1990s, Huawei began to expand overseas to continue increasing market returns. Since 2005, approximately half of Huawei's revenues have come from international sales.[137] Though the JV approach was not feasible overseas, Huawei adapted two other aspects from its Chinese strategy to build "stakeholder communities" with international telecom clients.

The first was to focus on poorer or less developed countries that could not afford higher priced telecom and internet hardware offered by multinationals such as Cisco and Lucent-Alcatel. This was similar to Huawei's initial focus on rural and rustbelt regions in China. The second aspect was to take advantage of its relationships with Chinese banks to offer buyers' credit and loan guarantees to potential customers, so that little or no upfront payment was required. Huawei would send its employees overseas to install its equipment for the international client, and one or more Chinese banks would then transfer the loan funds directly to Huawei to pay for it. The international telecom firms would repay the bank loans using their operating revenues once the equipment was up and running.[138]

Huawei's willingness to seek out international clients dovetailed nicely with Chinese government efforts to encourage Chinese firms to "go abroad" and become internationally competitive, as well as China's need to engage in diplomacy and gain political support from less developed nations in Africa, Asia, and Central/South America. From the late 1990s, the state-owned commercial banks began to offer loans and guarantees to qualified Chinese firms for investing abroad, especially in developing countries with which China wished to cultivate relations.[139] Huawei initially benefited greatly from this convergence of interests, as the state-owned commercial banks provided the required credit for its overseas commercial customers. Because of its willingness to provide low-cost telecom equipment to developing countries, Huawei also became one of the first private firms to receive substantial lines of credit from the China Development Bank and China Exim Bank, whose mandate was to support infrastructure projects that aligned with the government's economic development policies, both domestically and overseas.[140] This combination of low-cost products, commercial bank credit, and policy loans allowed Huawei to rapidly expand its overseas markets. By the early 2000s, Huawei already had customers in over 80 countries, and by 2012, this had grown to 140 countries, assisted by banking relationships with ten Chinese banks and twenty-three international banks.[141]

US lawmakers have frowned on Chinese state banks providing loans or guarantees to support companies like Huawei expanding overseas, viewing it as further evidence of Chinese "government influence" over the firm.[142] Yet the US government provides billions of dollars each year in low-interest loans, guarantees, and other generous subsidies through the US Exim Bank and other channels, to promote US private industries and manufacturers – especially Boeing Corporation – both domestically and abroad.[143] The US government also heavily subsidizes its military contractors through military aid funding to allies, which is conditional on purchasing US arms products made by private US firms.[144] Many other countries have set up export development banks subsidizing their own industries, such as France, Canada, Japan, and Australia.[145] This has included "soft loans" for firms such as Alcatel in China (French government) and Ericsson in Africa (Swedish government), both direct competitors of Huawei.[146]

Moreover, Huawei's ability to compete with international competitors was not primarily based on bank financing – which its competitors could also access on international markets – but on significantly cheaper labor costs in China, coupled with its awareness that developing countries could not afford the most sophisticated telecom hardware, and a reputation for providing extremely efficient and ongoing customer service even in remote locations.[147] There was also a huge demand overseas for the cheaper, simpler, and more robust equipment that Huawei had perfected in the domestic Chinese market. These basic economic facts are sufficient to explain Huawei's price advantage over international competitors, especially in its first ten years of international expansion from 1996 onward. There is no convincing evidence that Huawei has received a higher proportion of government subsidies, bank loans, or tax breaks than its foreign competitors.[148]

However, Huawei's willingness to take advantage of Chinese state bank and diplomatic support and to sell its telecom hardware in several countries that have regularly been on US watch lists and subject to international sanctions, such as Iran, Sudan, Syria, North Korea, and Libya from the late 1990s onward, have come back to haunt the company years later, including the recent US criminal allegations against Huawei and its CFO Meng Wanzhou.[149] Though Huawei's own interests may have been commercial, they were naïve about future political repercussions. The convergence between Huawei's commercial interests and the diplomatic interests of the Chinese government meant that Huawei's CEO was often invited to join CCP leaders and other leading Chinese SOE and private firm executives on "team China" overseas trade missions.[150] This piggybacking gave Huawei market leverage in many developing countries, but it reinforced suspicion in the minds of US Congressmen that the company was just a tool of the Chinese government, seeking to undermine US national interests.[151]

What we see here is a clash between the demands of the Chinese corporate ecosystem and the international political ecosystem with its most vocal gatekeeper, the United States. The former required a pragmatic ability to build alliances with state institutions and officials – "stakeholder communities" – to create hybrid legal forms in gray areas for mutual benefit and to harmonize with and take advantage of broader, constantly shifting, Chinese government policy goals, while somehow maintaining management autonomy and avoiding charges of corruption. By contrast, the latter tends to view China's rise as a threat, expects Chinese firms to prove their independence from the government, and assumes that any lack of transparency is evidence of covert collaboration with the CCP and military, aimed at undermining the United States and its allies. We will conclude with a broader analysis of this geopolitical clash and its likely impact on the future development of private Chinese technology firms such as Huawei.

1.6 Conclusion: Incompatibilities between the Chinese Corporate Ecosystem and Western Political Ecosystems

Viewing Huawei as a living organism coevolving within a rapidly changing Chinese corporate and political ecosystem solves most of the riddles about its strange ownership structure and explains its remarkable rise as a private firm during a period when the economy was dominated by SOEs. In particular, Huawei's ingenious incentive systems for employees, and its JVs with state telecom managers and government officials, leveled the playing field with better funded state-owned and Sino-foreign competitors, without giving up management control over its own business.

There is a clear convergence of interests between the policy goals of the Central Chinese leadership in seeking to roll out telecom and internet networks to every Chinese citizen as efficiently and cost effectively as possible and Huawei's desire to maximize profits by selling as much of its hardware as it can. This has been demonstrated once again recently, with the government's selection of several private Chinese firms, including Huawei, as members of a national "AI Team," tasked with rapidly developing China's artificial intelligence infrastructure, which will likely mean receiving generous government subsidies.[152] Likewise, the central government's diplomatic interests in gaining broad support within the United Nations and securing natural resources from developing nations around the world provided Huawei with enormous opportunities to expand its business overseas.

In this sense, Huawei's interests and those of the central government have converged, and there is no doubt that its business decisions have been influenced by the government's priorities. In the process it has clearly built close links with Chinese state entities and institutions and benefited from them.

But this is very far from proving that Huawei is a state-controlled entity, and there are important areas where its own interests diverge sharply from certain elements of the Chinese state apparatus. For example, it would not be in Huawei's interest to allow so-called "back doors" for espionage in its equipment sold overseas, as the inevitable discovery of these would destroy its international market, which makes up around half of its total revenues, not to mention jeopardizing its supply of crucial advanced components such as semiconductors.[153]

This is not to say that Huawei could refuse to assist China's security forces or secret services to improve their espionage capabilities, if directly ordered to do so.[154] Neither is it to deny that Huawei's equipment may be currently used by Chinese public security, the military, and the Party to engage in surveillance and suppress dissent among the Chinese populace.[155] It is simply to note that the company would risk self-destruction if it knowingly assisted the Chinese government to undermine the security of foreign powers, corporations, or individuals – hence there is a strong potential tension between its own interests and those of the Chinese security establishment.

Moreover, a crucial point generally ignored by Western policymakers is that there are also fiercely competing interests within the complex and multilayered Chinese state apparatus, with numerous conflicts among rival ministries and political factions even at the central government level, as we describe in detail in Chapter 4.[156]

Private firms such as Huawei have learned to cooperate with, or simply co-opt, those elements of the state that benefit them, while neutralizing or even attacking those elements that threaten their corporate interests and survival. It is a tricky balancing act that requires constant adjustment as state institutions evolve and different priorities emerge at different levels of the political ecosystem. Milhaupt and Zheng call this phenomenon, which is common to many large privately controlled Chinese enterprises, "capture" of the state through "growth potential," contrasting it with the kinds of capture through bribery that were more typical of private firms in postsocialist Europe and Russia.[157]

The diversity within the government and the CCP itself also means that one group within the Party "system" might actively work to destroy a competing group rather than everyone working collectively in the national interest.

For example, Huawei's success through its subsidiary JV alliances with telecom firms and regulatory officials led almost inexorably to the total failure or anemic performance of several competing state-owned telecom equipment manufacturers. Of the four "major players" in the Chinese telecom equipment sector identified in the 2005 RAND Corporation Report as members of an alleged well-coordinated "digital triangle" between the Chinese government, military, and IT firms, two are now defunct or struggling to survive. One of them, Julong (Great Dragon) Group, was already on its way out when that report was published, and its assets had a market value of only RMB 4500 ($695) when it collapsed in 2006.[158] Another firm, Datang Telecom Technology, has only survived due to its status as an SOE receiving government contracts to build China's internet networks supported by massive loans from Chinese state banks. For the past several years it has made a net loss.[159]

As for Huawei's main Chinese competitor, ZTE Corporation, which is a mixed ownership firm – or more accurately, a privately operated firm with partial state ownership – the ruthless competition between these two companies has become legendary in China, including numerous lawsuits and countersuits, with Huawei so far maintaining its market supremacy. Each of these firms would clearly be delighted to see the end of the other one, apparently preferring to destroy it first rather than any foreign competitors.[160]

This kind of vicious commercial conflict among domestic Chinese firms leading to the collapse of SOEs such as Julong does not fit the prevailing narrative of a coordinated "Chinese" digital triangle working hand in glove to undermine Western national security. Instead, it demonstrates that the corporate and political ecosystem in China is highly complex and fragmented, driven not by shared "Chinese government" values but by narrow personal and departmental/corporate interests that are often mutually destructive. This is why the metaphor of an ecosystem is much more appropriate to describe this environment rather than a single integrated organism – still less a simplified geometrical shape like a triangle.

Milhaupt and Zheng, in their account of Chinese "State capitalism," correctly acknowledge that local governments have a great deal of autonomy and mutual competition and that capture of state resources by privately controlled firms like Huawei is a core feature of the Chinese form of capitalism – and that even SOEs are surprisingly autonomous from the central government.[161] However, they do not follow this argument through to its logical conclusions, which are that there is no single "state" guiding this process with unified aims and no monolithic Chinese government that "controls" business enterprises and their strategic decision-making.

Instead, we see a decentered corporate-political ecosystem involving constant internal struggles for survival, within a habitat where the boundaries are fluid and disparate organisms sometimes work together in mutually beneficial symbiosis, while other times they behave like parasites or simply destroy their rivals. Though individual organisms make decisions throughout the ecosystem, there is no clear central control mechanism, because what appears to be the center is itself internally divided into numerous subcenters with their own competing interests. This means that individual organisms within the ecosystem, such as private business firms, can carve out a niche for themselves to flourish, as long as they find ways to channel the energy controlled by other more powerful organisms to their own benefit while neutralizing threats to their existence.

At the same time, Huawei has not been satisfied with selling to the domestic Chinese market and developing nations. Since the early 2000s, it has expanded to richer nations in Europe and the Americas with remarkable success, selling network equipment to numerous leading telecom firms and increasing its global market share of the network equipment market to double that of its closest competitors, Ericsson and Nokia.[162] This is where the backlash started, as Huawei came up against a powerful political ecosystem with very different expectations and assumptions.

The United States has a longstanding bipartisan ideological opposition to Communism, especially the suppression of human rights by the CCP, and a fear that China's rise will undermine the American way of life.[163] It also has historical and ongoing tensions with countries like Iran, to the extent that most of its policymakers would view any trade with Iran as a betrayal of American interests.[164] This preexisting fear overwhelms counterevidence that China's rise has actually been greatly beneficial to many aspects of the American economy;[165] moreover, for all its continuing major faults, the Chinese government has since the 1970s significantly increased the standard of living of over a billion Chinese people, including transforming the obsolete physical and technological infrastructure that prevented them from improving their economic status.[166] A major part of this transformation occurred because the Chinese government was willing to allow private firms like Huawei to fill the gaps that SOEs were ill-equipped to cover, especially in the areas of innovation and technology development.[167]

The preexisting negative mind frame toward China within the US political ecosystem meant that when American security analysts and policymakers started investigating the background and rise to prominence of Huawei, they were predisposed to view any "hidden links" with the Chinese government as evidence of Huawei's aim to undermine US national security. In this respect, it is interesting that many European

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governments appear to be much less willing to institute wholesale bans on Huawei, despite the United States having shared its information and fears about the company, doubtless because there is not such a powerful in-built psychological tendency within the mainstream European political ecosystem to view China as a threat.[168]

This negative fixation on the Chinese threat is not just harmful for Huawei's international expansion. More seriously, the bans and sanctions that have resulted may give a false sense of security to American and international consumers by focusing their attention away from the actual behavior of cyberhackers and spies.[169] Chinese and numerous other cyberhackers have managed to infiltrate foreign government and corporate networks at the user end rather than the manufacturing end, despite the fact that the victims were not using Huawei's or ZTE's equipment or networks.[170]

What this clash of ecosystems means for Huawei, however, is that the adaptations and hybrid structures that were necessary for it to thrive within the Chinese corporate ecosystem have become maladaptive in some key markets overseas. Unfortunately, the solution to this problem can only come from changes to the broader Chinese political ecosystem. In other words, fear of China (and Huawei) among the United States and its allies will only subside if the Chinese government introduces some fundamental political changes itself. We offer some suggestions on how this could happen in the concluding chapter of this book.

First, however, in Chapter 2 we explore another central feature of the Chinese corporate ecosystem, the online platform economy, and its leading representative Alibaba/Ant Group. In the process, we confront another controversial question that has increasingly been raised by commentators in recent years: Is the state (or Party) "striking back" against the private sector?