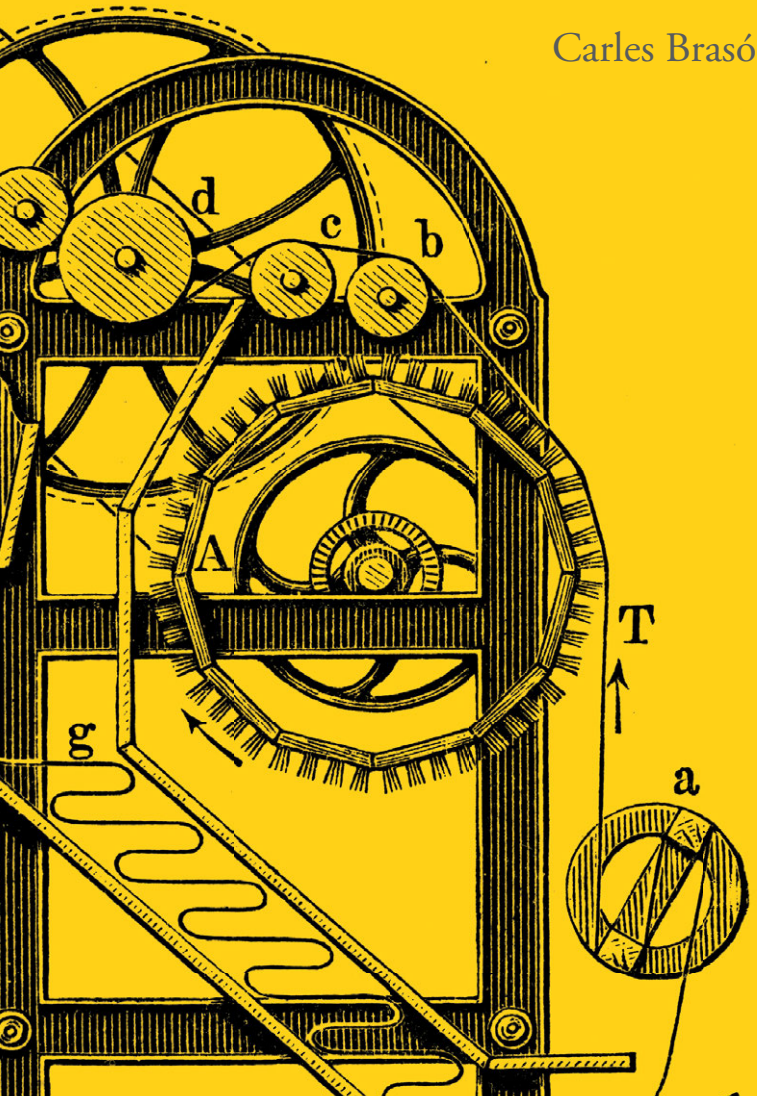
# TRADE AND TECHNOLOGY NETWORKS IN THE CHINESE TEXTILE INDUSTRY

## OPENING UP BEFORE THE REFORM

Carles Brasó Broggi



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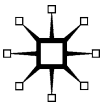

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# Pronunciation Guide

The names in this book appear in the pinyin system of transliteration, except some well-known names (like Chiang Kai-shek or Hong Kong). The names of the bibliographical references appear as it's shown in the publication. Some Chinese names that have English versions, such as Li Shuxiong (James H. Lee) appear in pinyin and in the English form in brackets. There is a final glossary with proper nouns in pinyin and Chinese characters, ordered according to the name in pinyin.

# List of Abbreviations

| | |
|---|---|
| CBHA | Chinese Business History Archives |
| CMA | Changzhou Municipal Archives |
| CMCHM | Second Historical Archives of China, Chinese Maritime Customs Historical Materials |
| HAMD | Changzhou Municipal Archives. *Historical Archive Materials of Dacheng* |
| HKD | Hong Kong Dollar |
| HKPRO | Hong Kong Public Records Office |
| HKT | Haikwan tael |
| HKULSC | Hong Kong University Library Special Collection |
| LGWJ | Historical Materials of Liu Guojun, see Li, *Liu guojun wenji* |
| NA | National Archives at Kew (London) |
| SMA | Shanghai Municipal Archives |
| WMA | Wuxi Municipal Archives |
| ZZGSG | *Zhongguo zibenzhuyi gongshangye de shehui zhuyi gaizao* |

# Introduction

## The Argument

The industrialization of China is an extraordinary event in human history. Since the start of the opening up and reform process in the late 1970s, the People's Republic of China (PRC) has become the world's biggest factory and is now the world's largest trading power while it maintains a unique structure of firm ownership and business organization. In 2013, China accounted for 43.1 percent of global clothing exports.[1] These facts contrast with the historical predominance of agriculture well until 1978, despite all efforts to promote industrialization.[2] However, there was a period before 1949 when private textile firms sprouted—especially in Shanghai and the Yangzi Delta—and led a process of industrialization, although this was confined to some cities and ports. This book identifies the trade and technology networks that link this first industrialization with the reform and opening up process that began 50 years later.

During the 1920s and 1930s, Shanghai and other surrounding cities like Wuxi and Changzhou took off and the Yangzi Delta became one of the most industrialized regions in Asia.[3] Some of these firms that survived Japanese occupation and the Civil War moved to Hong Kong, where they played a leading role in its industrialization. The textile industry, particularly the cotton sector, was predominant in Shanghai during the 1920s and 1930s, as well as in Hong Kong during the Cold War. Furthermore, the textile industry became a staple sector under Deng Xiaoping's regime, when Hong Kong firms were taken as models of technologically advanced capitalist companies.[4] This book identifies common networks in these three processes of industrialization.

This book talks about the trade and technology networks that "opened up" the Chinese textile industry to the world markets well before the reform started in the late 1970s. It defends the hypothesis of continuity of a business network based on industrial and trading firms that first imported technology and finally exported finished goods, a model that was shaped by the historical experiences of China's industrialization: the first stage being the 1920s

and 1930s, the second in the 1950s, and the third starting in the mid-1970s. However, as most research tends to be compartmentalized between Republican China, Mao China, and Deng China, this continuity has not yet been observed.[5]

These historical landmarks divide the study of Chinese business history. The Cold War paradigm tends to emphasize the existence of two separated worlds of inner and outer China that evolved in parallel without contact.[6] However, this book aims to dispel this paradigm and break with the idea of isolation and compartmentalization, while analyzing the continuity of private networks that transitioned between both sides. By analyzing the evolution of the companies and networks that moved from Shanghai and the Yangzi Delta to Hong Kong—and back from Hong Kong to Shanghai and other Chinese cities—this book studies the complexities of inner and outer China during the twentieth century.

Dafeng, Lixin, and Dacheng were three private industrial firms that appeared in the Yangzi Delta during the 1920s and 1930s. They pioneered in manufacturing finished (dyed and printed) cotton cloth in China and combined this production with spinning and weaving.[7] Therefore, they consolidated the entire cotton production process from the spinning of coarse and fine yarns to the cloth finishing. By becoming vertically integrated, they had the potential to climb up the value-added ladder, from the cotton yarn to the dyed cloth, and from the coarser products to the more sophisticated goods. But this process was dependent on regular technology imported from other countries, mainly Great Britain and Japan. Dafeng and Lixin relied on a trading company named China Engineers Limited, which participated in the industrialization processes of Shanghai and Hong Kong. As is common in the cotton industry, merchants like the founder of this company, William Charles Gomersall (1895–1960), played a key role in the development of the textile industry; however, the relationship between machinery traders and Chinese industrialists has not been thoroughly researched.[8]

Dafeng, Lixin, and Dacheng had the capacity to emancipate the Chinese consumer from the dependency on foreign imports. As a matter of fact, the development of vertically integrated textile mills during the 1930s drove cotton imports into decline. Following the theory of the "flying geese" pattern—that applies to the 1930s cotton sector of Japan—China was entering a more advanced stage of development, where machinery would finally be produced locally.[9] However, the country did not surpass this stage, as Japan did in the 1930s, and Chinese textile firms were still dependent on foreign trade for machinery supplies and basic necessities, such as raw cotton.

Different studies have tried to answer to the question of why China did not surpass this stage of development. Most of the research has focused on the Chinese institutions, searching for a negative factor that hindered

industrial growth: lack of capital, poor management, low productivity, confusion between family and firm, bureaucratic intrusion, state monopolies, unprofessional accounting, et cetera.[10] All these factors have been analyzed and discussed, and it seems that the burden of China's failure to industrialize is to be found in the so-called institutional constraints, hidden inside the structure of the government or the private firm.[11] The institutional economic theory is dominant in explaining the industrial and economic performance of Republican China.[12]

This book suggests an alternative theory: that the fragmentation of the Chinese market was the determinant institutional constraint. It demonstrates how the fragmentation of the Chinese territory drove Chinese firms to strengthen their links with transnational networks at the expense of domestic distribution. During the Republican period, China's infrastructure and transport facilities were not only backward, but often totally blocked by the country's instability. The fragmentation of the Chinese market (the "inner" China) created difficulties for modern industries, which turned into transnational networks (the "outer" China), to find supplies—mainly raw cotton and machineries—and a sales channel for their products. This was a natural reaction that began to take shape during the warlord conflicts of 1923–1924 and the closure of the Northeast market after the Japanese invasion of Manchuria in 1931. But this tendency was aggravated in the next two decades.

China's domestic trade came to a standstill during the turbulent years of war. From the summer of 1937 onwards, the textile companies that survived the full-scale Japanese invasion were obliged to operate, while they could, with international suppliers and customers.[13] Some of the textile firms of the Yangzi Delta moved their machinery to the International Concession of Shanghai, seeking better conditions and security.[14] Between 1938 and 1941 Shanghai became an "isolated island," open to foreign trade but officially shut off from the rest of China. This situation favored the adoption of transnational strategies.

Furthermore, with the Civil War and the collapse of the Chinese economy at the end of the 1940s, these firms encountered new difficulties with operations in China's domestic market. Inflation, social unrest, and the extension of the Civil War disrupted the plans for a national economic recovery. Thus, some of these firms moved part of their business to Hong Kong, and also to Taiwan, where they used their previously acquired know-how to lead a process of industrialization that mainly looked outward, to the relative security of foreign markets.[15]

With the outbreak of the Cold War in Asia, China was divided in two, with one block remaining in the communist side and the other in the capitalist special territories of Hong Kong, Taiwan, and Macao. The companies

that stayed in the PRC entered a process of socialist transition where domestic distribution and foreign trade were monopolized by the state. Meanwhile, an export-led textile industry prospered in Hong Kong due to the previous experience gained in China. These Chinese Hong Kong textile firms traded with the rest of the world and secured raw cotton supplies, technology transfers, and sales channels thanks to the strong trading networks developed before.

Hong Kong Spinners Limited, China Dyeing Works, and South Textiles Limited appeared in Hong Kong in the late 1940s.[16] They were managed by the sons of the major founders of Dafeng, Lixin and Dacheng. At first, they depended on the mother firms, but soon drew away from continental China, especially after the outbreak of the Korean War. During the two decades of trade blockade between China and the capitalist world, a big divergence between both sides appeared, especially in the technological aspect of the textile business. In Hong Kong, industries were updated and had access to the latest innovations, while China lagged behind in textile technology. Meanwhile, in Hong Kong, China Engineers Limited continued to deliver technology and raw cotton to the managers of Hong Kong Spinners Limited, China Dyeing Works, and South Textiles Limited, as it had done in the Yangzi Delta in the previous decades. Thus, during the Cold War, trade and technology networks were transferred from the Yangzi Delta to Hong Kong.

Not only were industrial firms separated, but families were also divided by the so-called bamboo curtain. Chinese entrepreneurs such as Wang Qiyu (1883–1965), founder of Dafeng, Tang Xiangting (1879–1960), founder of Lixin, and Liu Guojun (1887–1978), founder of Dacheng, kept travelling between Hong Kong and Shanghai until major communications were cut. Having been active since the 1920s, or even before, they retired, assigning their sons different responsibilities in Shanghai and Hong Kong. As a result, families and firms were split by the antagonisms of the Cold War, with several consequences, such as the strengthening of family links in business firms and the integration of the members who stayed in continental China into the new bureaucracy. This new complex network would be an important transmission belt of the Chinese economic reforms as it facilitated the first technological transfers between Hong Kong industrial owners and China's provincial governments. The encounter of relatives and business acquaintances who had been separated by the bamboo curtain was determinant in the opening up and the reestablishment of trade and technology networks in the late 1970s.

During the 1970s, business families such as the Tangs, the Wangs, the Lius, and of course the most famous Rongs, shared with Deng Xiaoping and other reformist cadres the humiliations of the Cultural Revolution, an interest to develop industrial technology, a will to open China to foreign trade, and an ideological pragmatism focused on the growth of the economy and the

improvement of technology. This book aims to investigate the first joint ownership companies that were formed between the Hong Kong industrial groups and the municipal governments for importing textile technology. The son of Tang Xiangting, Tang Junyuan (1902–1992) and Liu Jingji (1902–1997) in Shanghai; and the son-in-law of Liu Guojun, Cha Jimin (1914–2007) and the son of Tang Junyuan, Tang Xiangqian (1923) in Hong Kong, among other people, played a leading role in the first joint ventures of the reform era. During the historic encounter between the Hong Kong governor Murray MacLehose and Deng Xiaoping in March 1979, the Chinese leader suggested that Shanghai could be developed following the Hong Kong model.[17] He encouraged the investment of Hong Kong capitalists and coined the "one country two systems" theory, where capitalism and socialism would develop in parallel to pursue the common goals of economic growth and national unification.[18]

This book aims to understand the origins of the reform era. It uses archive materials, business documents, and articles from textile journals, as well as biographies and other private sources. One of its main objectives is to understand the point of view of these industrial entrepreneurs by looking at their writings and the meetings of shareholders and boards of directors. It tries to gather opinions of the founders and leaders of these trade and technology networks through private sources and biographies. Besides, instead of dealing with a single company or a family business, it sheds light on the technological transfers that were carried out horizontally between companies. It is only through the analysis of networks that links appear between different periods and spaces in Republican China, Maoist China, postwar Hong Kong and the beginnings of the reform and opening up process.

## Theoretical Framework

One of the main characteristics of industrialization is that it creates a sustained and visible growth in per capita income. In the cotton industry, this growth is caused by technological innovations that allow higher productivity at lower cost and lower final price of such a basic necessity as cloth. However, this growth also creates new necessities such as a big investment in machines, a regular supply of raw cotton, and sale channels solid enough to be able to allocate the stocks produced by the new factory system.[19] This book analyzes the trade in machinery and raw cotton and the sales channels of the Chinese textile mills from 1920 to 1980.

Another main characteristic of industrialization is technology and the use of nonhuman energy.[20] It changes the way humans assign value to objects because it modifies the factors of production endowed in a given society.

New machines challenge the distribution of labor, energy, raw materials, and consumption, while transforming the relative price of things. Therefore, innovations create new needs and also new costs: private costs for the purchasers of technology, and public costs for the society impacted by it.[21] China has a unique distribution of factor endowments. The particularities of the rice-producing and densely populated regions of East Asia, such as comparatively lower salaries, influenced the way of adopting new technologies and facing industrialization.[22] Therefore the labor factor and the relationship between capital and labor have been the focus of studies of the Chinese textile industry. This book does not address the labor issue in the Chinese cotton industry, which has already received thorough academic attention.[23] Instead, it focuses on the trade in technology and other staple industry needs.

In China, if the purchase of machinery was the main investment when a cotton manufacturing company was created, raw cotton was the main regular production cost, covering eight-tenths of the total production costs of spinning mills in the 1920s.[24] However, despite the importance of these two factors, the purchase of machineries and raw cotton by the Chinese textile firms has received scant academic attention. For instance, in the Industrial Revolution of Great Britain, the import of raw cotton from the American continent sustained the growth of production of the spinning and weaving machines.[25] The textile industries of Great Britain and Japan, the two countries that led the world's textile production before China, relied on foreign trade to obtain raw materials.[26]

Cotton manufacture, whether domestic or industrial, needs a regular supply of raw cotton. But China, in contrast to Great Britain and Japan, is among the top cotton-producing countries in the world. However, in traditional China, the supply of raw cotton depended on food cultivation because peasants cultivate cotton only after having secured a basic basket of food provisions. The margins of benefits of the cotton industry come from the different relative prices between rice, raw cotton, yarn, and cloth. But these same conditions also determine whether peasant families will produce rice, raw cotton, yarn, or cloth.[27] Therefore, their decisions affect their relationship *vis-à-vis* modern industry, as they can be providers of raw cotton, competitors if they also produce cotton yarn and cloth, or consumers of industrial goods. Therefore, the factor endowments of China made the process of industrialization a unique experiment with new impacts and consequences that are analyzed from the perspective of the textile industrialists.

Finally, this book analyzes the situation of consumption of cloth as perceived by the textile industrial owners. In China, and especially in the Yangzi Delta, domestic cotton has been used to produce textile goods since the Yuan dynasty.[28] Peasant women manufactured cotton yarn and cloth by using

manual labor and simple technology. In the eighteenth century, these goods were distributed inside China and also exported around the world. During the 1930s, eight-tenths of the cloth consumed by China's 400 million people were made of cotton, and two-thirds of them were handmade.[29] This huge traditional manufacture not only resisted the competition of foreign goods and the industrialization of the Yangzi Delta, but also continued while the Communist regime forbade all private markets and domestic production.[30] Therefore, in contrast to Great Britain and Japan, China was one of the world's biggest cotton producers and textile consumers. Before the Japanese occupation, China did not succeed in industrializing as measured by a sustained growth in per capita income. Only the province of the Yangzi Delta had grown and developed industrial cities, while the rest of the country remained rural and poor.

In the 1930s, when industrialization was happening in the Yangzi Delta, relevant intellectuals such as Fang Xianting (H. D. Fong) and Fei Xiaotong worried about a growing divergence between an overwhelming agricultural population (that maintained its traditional methods of living) and the urban sector that was raising modern mills.[31] They felt that China was becoming more unequal, and that the Western model of capital-intensive industrialization should be adapted to suit particular characteristics of the country.[32] This idea somehow coincided with the importance given to the peasant population and rural industrialization by Mao Zedong, who stood against urban Marxist orthodoxy. The dual character of China's economy has been assessed by numerous economic historians.[33] It certifies the compatibility of an urban industrial growth with stagnation or even impoverishment in the countryside.[34] The argument of a dual economy also explains the growth of Shanghai's cotton sector during the 1930s and 1940s, while the rest of China suffered the worst period of war, turmoil, and impoverishment.

The success and failure of China's industrialization is one of the key issues of world economic history. This book looks at the empirical bases of China's technology transfers during the twentieth century and at how the members of these trade and technology networks perceived the situation of the textile business. Technology can be defined as an empirical phenomenon that applies human knowledge to the production of goods. Its transformation only occurs when an invention—usually an individual and lonely act—is put into practice and transmitted socially, becoming a public innovation.[35] Therefore, it is only through the different and complex relations between humans that technology exists and works. Thus, the network is a pertinent concept to address the study of technological transfers.

According to Henry Wai-Chung Yeung, a business network is "an integrated and coordinated set of ongoing economic and non-economic relations

embedded within, among and outside business firms."[36] The complexity of the human factor makes the analysis of networks a complex and fascinating endeavor. Culture and psychology, rational and irrational actions, market and nonmarket factors need to be taken into account, broadening the scope of the economic rationalist orthodoxy.

This book sheds light on the motivations and preoccupations of the people that were involved in these networks. It is rather a qualitative investigation that seeks to understand how industrialization was undertaken by trade and technology networks. Hoping that future research will prove or refute this theory, it states that the fragmentation of the Chinese market was the main obstacle for industrialization to take off. It is not local history, nor is it a case study of a diaspora of people. Instead, it shows how trade and technology networks adapted in the difficult environments of twentieth-century China. The horizontal ties that developed between merchants and firms are one of the main characteristics of networks, as opposed to the vertical relations of corporations.[37] This feature enabled unexpected alliances, such as the mergers between Chinese and foreign firms or the joint ventures between cadres of the Communist Party and the Hong Kong capitalists.

These networks survived the turbulences of the twentieth century, while the names of the companies and the people changed. Any company is in permanent transformation: the firm's name may change, subsidiary companies may appear, mergers can occur. . . but beyond these changes this book intends to draw a coherent storyline that links its founders, its partners, its engineers, its fixed capital, its suppliers, and its products. All these elements create a network—or an "integument," using a Marxist word—that forms the axis of any business.[38] Following the definition above, there are three main layers of a network analysis: the intrafirm, the interfirm, and the extrafirm.[39] This book focuses on the interfirm analysis, which is at the core of the concept of network and, in particular, on the role of technology transfers and trade relations, an aspect that has been less attended by previous research on China's business history.[40]

Human transactions that drive technological progress are regulated by a set of rules and institutions such as the private firm, which participates in the process of technology adoption and in the production of goods. For instance, it is possible to establish a mechanical analogy between a machine and a business firm.[41] Technology transforms different products into finished goods by using machines, tools, gears, and connections. At the same time, a business firm manages production by means of contracts and formalized relations with investors, suppliers, workers, and customers.

At the same time, a firm avoids frictions by negotiating every transaction in the open market or by using contracts and other regulations. Following the institutional theory of the firm—systematized by Ronald Coase in the 1930s— a firm is an institution that internalizes some economic processes and externalizes others, with the goal of minimizing the frictions (costs) implicit in production.[42] Therefore, machines deal with the physical transformation of the product, while firms and networks manage the human factor of the same process. Business firms and corporations are an important part of this book, but only as basic particles that make up a network.

Numerous scholars who have examined Chinese networks and corporations in Hong Kong and Southeast Asia pointed out that Chinese firms seemed to rely less on rational corporate and hierarchical structures than American firms, and more on private informal networks, such as family ties, regional origins, and Confucian values.[43] However, other researchers focusing on mainland China have found no evidence of a particular difference between the rationality of Chinese and Western business networks.[44] One of the difficulties arising from such debate is that these networks are based in different historical periods and distant spaces. Therefore, comparisons are difficult to establish.

Chinese networks are not immutable and have evolved in modern times. For instance, the importance of family in the structure of different companies that conformed Dafeng, Lixin, and Dacheng changed from the Republican period, when they were based in Shanghai and the Yangzi Delta, to the Cold War, when families were separated by the bamboo curtain. The Japanese occupation also changed the balance between shareholders and boards of directors in the textile firms, as the war provoked a dispersion of the population. Therefore, this book analyzes networks from a historical perspective.

From a methodological perspective, business records and the documentation of private firms tend to be scarcer in Hong Kong while this kind of material is very rich in the PRC, due to the transition to socialism of all private companies during the 1950s. Therefore, studies in outer China tend to rely more on personal interviews and testimonies while research in inner China is more based on business documents. Recognizing that networks are not immutable is an important step to disentangle the "Orientalist enigma" of Chinese business networks.[45] At the same time, from a short-term historical perspective, it is difficult to state whether these networks were a hindrance or an advantage in the process of China's industrialization. By taking a longer-term perspective, even if this kind of viewpoint prevents one from looking at the micro data of every firm, the functions of these networks will be clearer.

This book focuses mainly on trade and technology networks; however other institutions, such as the firm or the state, cannot be left out of the analysis. The Chinese state was radically transformed between the 1920s and the 1970s. In every period it settled the "rules of the game" to which private firms and networks had to adapt.[46] For instance, the laws that were enforced from the Nanjing Decade favored the registration of industrial undertakings as modern private firms. However, the difficulties of the Republican state in performing its basics functions—such as the most important one, according to Max Weber, to monopolize violence in a delimited territory—explains the lack of an integrated market and the difficulties of the penetration of industrial products into China's domestic market.[47]

By contrast, Mao Zedong unified the country and ended a century of fragmentation. But, at the same time, all trade and technology networks suspended their operations when trade was monopolized by the state and all private firms officially entered socialism during the 1950s. Meanwhile, some of these networks, which were already transnational and cosmopolitan, moved to Hong Kong, where British authorities encouraged their progress, facilitating all kinds of deals between British, Chinese, and other merchants, regardless of their nationalities. Given its special status and size, Hong Kong was able to industrialize while keeping its economy totally open to foreign trade.

When technology and goods are exchanged between countries, it is also necessary to consider the relationships between nations and the debate over imperialism. The classical theory of imperialism states that whenever a country develops industrial growth (such as Great Britain and Japan did before China), output grows faster than domestic consumption, and thus private companies need to allocate their surplus products in the foreign markets.[48] While investment returns vanish as the process of industrialization develops and competition gets fiercer, the theory concludes that industrial countries—such as England or Japan in the first half of the twentieth century—looked for new underdeveloped markets, like China, for better investment opportunities.[49]

Great Britain and Japan had big business interests in the Chinese textile market, both for export and investment.[50] Japan's imperialism directly affected the performance of private firms and networks, which suffered huge losses from cut-throat Japanese competition and from the occupation and open war.[51] Japanese occupation was a turning point for the Chinese textile sector that accelerated the fragmentation of its market and the enhancement of transnational operations, especially in technology, raw cotton, and finished goods.

But while analyzing these operations that took place between different countries—in the technology trade, China, Japan, and Great Britain were

predominant—we discover another possible side to the relationship between nations. Trade and technology networks were not always determined by the logic of international relations, even though they had to adapt to every political circumstance. For instance, the nationality of a firm could be negotiated in certain circumstances and networks were usually transnational, without a clear domination of one country over another. The business partnerships and agreements that were closed privately between people from different countries and different firms were, for the most part, *quid pro quo* and *bona fide* agreements. The level of reciprocal trust needed for undertaking a machinery deal between Great Britain and China created very strong networks based upon mutual trust.

Both Japan and British Hong Kong inspired Deng Xiaoping's economic reforms. During the Cold War, export-driven industrialization was a common factor that drove the Northeast Asian economies to catch up with Europe and the United States. Meanwhile, the Chinese economy lagged behind and was stuck in backwardness and radicalism during the Cultural Revolution. Starting in the early 1970s (with the large-scale industrial projects on artificial fibers and chemical fertilizers) the Chinese textile industry marked a gradual comeback of China to the international machinery trade. Artificial fibers liberated the agricultural sector from the necessity of combining cotton and food crops. Meanwhile, in the late 1970s, some reformist cadres opened negotiations with Hong Kong capitalists to reopen the trade networks after 20 years of forced blockade.

The idea of creating separate zones to experiment with capitalism and foreign direct investment—under the condition that this investment had to be placed in exporting industries—was an important part of the reform process. The companies that engaged in export would have more freedom, while other companies focusing on the inner market would have to accept a tighter state control. Therefore, a dual track system of prices and joint ownership was established. This dualistic theory that mixed private and public interest, while clearly distinguishing the inner and outer markets, was influenced by the past experiences of the Chinese private networks.[52]

This book searches the historical roots of the reform and opening up, especially considering the reestablishment of trade and technology networks that previously existed in Shanghai and Hong Kong. Political leaders had firsthand information about Hong Kong's economic growth, as the city was the main bridge between Communist China and the capitalist world. Besides, the business families that were divided between Shanghai and Hong Kong also accumulated a profound understanding of the complexities of the Cold War and the realities of both sides. Thus, the thaw between the two sides of the Cold War was carried out not only by political leaders, but also through

networks and economic issues, like the technology and trading factor, which played a key role. However, while the political actors have received most of the academic attention, the details of the trade and technology networks that took part in the industrialization of China have remained relatively unknown.

## The Chapters

Chapter 1 deals with the origins of Dafeng, Lixin, and Dacheng. It studies the diverse background of the partners that founded these companies and the innovations they brought in the finishing and dyeing of cotton goods. In contrast to other companies, mainly based on spinning and weaving, these firms started as workshops and progressively evolved from traditional forms of production to modern industry. This process was led by a network of traders, producers, compradores, and investors who accumulated capital and know-how during the first decades of the twentieth century. Then, in the context of World War I, they decided to start up industrial undertakings. Tang Xianting, Wang Qiyu, and Liu Guojun belong to this generation of entrepreneurs who built strong private industries with the help of other partners. The chapter introduces the biographies of these men, their context, and how they managed to build these companies.

Chapter 2 focuses on the technology transfers that enabled Dafeng, Lixin, and Dacheng to modernize and climb up the ladder of high-quality textile goods. By analyzing the case of China Engineers Limited—a service firm and machine supplier in China registered as a British firm in 1928—the chapter deepens the study of the relationship between the three textile companies and the transnational firms that supplied machineries in the Yangzi Delta during the 1920s and 1930s. It aims to discover how Western technology was incorporated into Chinese textile firms and how this trade created inter-firm network ties. Technology transfers were followed by the recruitment of foreign experts and the implementation of apprentice programs inside the factories to educate young workers. These operations allowed Dafeng, Lixin, and Dacheng to compete successfully against the colored and printed cloth of foreign origins.

Chapter 3 discusses the dualistic character of the Chinese economy during the 1930s and its impact in the performance of Dafeng, Lixin, and Dacheng. These companies grew thanks to the urban consumer markets, the constant technology upgrading, and boycotts against foreign goods, while China entered a process of market fragmentation and crisis. Technology and trade networks were consolidated not only for fulfilling the demand for machinery but also to secure regular supplies of raw cotton, tools, chemical dyes, and other supplies. This was a reaction to the fragmentation of the

Chinese domestic markets. Dafeng, Lixin, and Dacheng became paramount to the Chinese vertically integrated cotton industry and also dependant on transnational networks. Following this strategy, they became examples of a successful economic performance in a period of crisis and instability.

Chapter 4 analyzes how trade and technology networks were transformed during the Japanese occupation of China. Companies operating out of Shanghai, such as Dacheng or Lixin, were divided and one of their parts moved to the city's International Concession, seeking security, shelter, and better business opportunities. China Engineers Limited and other foreign companies helped them to establish operations in the city and continue trading in raw cotton and machinery. Oddly enough, between 1938 and 1941, the dyeing and finishing industries of Shanghai prospered despite the destruction caused by war. Because the city kept an open door to foreign markets—when it became a "lonely island" apart from the rest of China—the textile industries grew until the end of 1941. These companies enhanced their transnational ties, while changing their nationality according to the circumstances. As a result of the war period, these three textile companies changed their structure and sometimes even their names, but the trade and technology networks remained.

Chapter 5 describes the key period of 1945–1949, when private companies continued to rely on foreign trade despite the end of the Japanese occupation. While the Chinese market was again blocked and fragmented, this time due to the Chinese Civil War, Shanghai cotton firms had to rely on barter agreements between imports of raw cotton and exports of yarn and cloth to foreign markets. Most of the foreign transactions in raw cotton and machinery ended up in Hong Kong due to the difficulty in getting import licenses and the lack of foreign currency available in Shanghai. In this period, the second generation of industrial entrepreneurs in Dafeng (Wang Tongyuan), Lixin (Tang Xiangqian), and Dacheng (Liu Hankun) decided to create new textile companies in Hong Kong. Again, China Engineers Limited played a key role. Meanwhile, in Shanghai, relevant industrialists and traders from this network envisaged a model for an overall strategy for China's economic development based on foreign trade. But these projects were not implemented.

Chapter 6 studies the transformation of the private textile companies under the Communist regime. The new government aimed to end China's dependency on imports and tried to rationalize the distribution of staple products, through state-owned enterprises and planning programs. Private textile companies of the Yangzi Delta were cut off from the transnational networks and became socialist working units. During the 1950s, they were transformed into "joint private and public companies" (*gongsi heying*) and the machinery investment, as well as the provision of raw cotton, became

a monopoly of the state. Meanwhile, the private owners and managers that stayed in China, after the restructuring of the firms, were integrated as experts into bureaucratic organizations such as the United Front and the Textile Bureau of Shanghai. Most of them, carrying the stigma of the bourgeoisie, suffered the humiliation of the mass political campaigns.

Chapter 7 explains the rapid development of Hong Kong's textile industry during the Cold War. The contribution of Shanghai capitalists in Hong Kong's industrialization was overwhelming and the Tang, Wang, and Liu families played an important role. Following the transnational strategy of their predecessors, China Engineers Limited helped Hong Kong's new companies to import machinery, get access to raw cotton supplies, and export manufactured goods. This export-oriented strategy was fundamental to the industrialization of Hong Kong. In the early 1970s, the city became the world's most important exporter of garments. Big industrial corporations such as the Winsor Group, lead by Tang Xiangqian, integrated all textile production, while Cha Jimin, the son-in-law of Liu Guojun, pioneered in the investment of Chinese capital to Africa, Europe, and the United States.

Chapter 8 analyzes the technological divergence between Shanghai and Hong Kong during the 1970s, and the first movements that were made to change this situation. The obsolescence of Shanghai's textile technology, compared to Hong Kong's "brother" companies, drove Deng Xiaoping and the rehabilitated cadres of the Textile Ministry to allow technology imports and joint ventures with Hong Kong's capitalistic companies. At the same time, industrial entrepreneurs in Hong Kong like Tang Xiangqian and Cha Jimin were ready to engage in joint ventures with the local governments of China in order to establish textile industries. This convergence was greatly facilitated by the trade and technology networks and family links that were maintained despite the Cold War difficulties between Hong Kong, Shanghai, and the cities of the Yangzi Delta. This chapter explains how the first collaboration projects between Hong Kong private companies and the Chinese local governments were implemented.

## The Sources

This book aims to understand how Chinese entrepreneurs and private firms participated in networks to secure technology and access to foreign trade. First, it aims to discover how these links and ties were created. The study uses primary sources from the three Chinese companies that were established in Shanghai and the Yangzi Delta during the Republican times. Shanghai Municipal Archives has a very complete collection of private business documents at the Dafeng archives (Q199–3, 1919–1956), Lixin archives (Q195,

1919–1957), and Anda archives (Q196, 1926–1961). Complete minutes of shareholder meetings and boards of directors have been studied to analyze how decisions were made. Meanwhile, in Changzhou, the documentation and evolution of Dacheng has been thoroughly compiled in different publications (*Changzhou fangzhi shiliao, neipu ziliao, Historical Archive Materials of Dacheng [HAMD],* and Gao, *Changzhou guomian yichangzhi*). These archives contain contracts and purchase orders of machinery, offering a rich material base to study how trade was undertaken. The author has also searched for private archives in Changzhou and Wuxi. In the municipal archives of both cities, other primary sources of Lixin and Dacheng are available: reports and gazettes of the evolution of the firms, transcriptions of oral testimonies of the managers of these firms, as well as other meetings of shareholders and boards of directors.

When all these firms were socialized during the 1950s, the private archives were confiscated and later on filed, creating a treasure trove for any business history researcher. In fact the author has not been able to examine all the documents that are kept in the Shanghai Municipal Archive, as the volume of material is huge (Lixin has more than 900 folders of private documents). Hopefully, later researches will fill in the blanks and correct the mistakes that may appear in this investigation. This important source covers the Republican period (although documents from the early 1920s are less abundant than the ones of the 1930s and 1940s) and the early 1950s. For obvious reasons, there is no private business documentation after 1956.

This material is completed with other sources such as official reports. Regarding the transition to socialism, this research looks at documents of the Shanghai Industrial Bureau Committee (Shanghai Municipal Archives, A38), the Textile Bureau (B133 and B134), the Shanghai Cotton Textile Industry Association (S30), and the Shanghai Textile Industry and Commercial Association (C48) available at the Shanghai Municipal Archives. Meanwhile, the author also used the gazettes and oral transcriptions available at the Changzhou Municipal Archive and Wuxi Municipal Archive and other published materials regarding the socialist transition (see ZZGSG).

On the other hand, the rich archive of textile journals kept in the East China Textile University of Shanghai is adequate for the objective of this book and has barely been researched by Western scholars. The cotton sector published dozens of journals from the 1920s to the 1980s defining the state of the market and reporting the situation of the companies.[53] This material shows the different stages of the cotton market and the main problems that the industry had to face during every period. The subjects of these journals are very diverse (ranging from fashion to engineering) and it is possible to find detailed information of the sector for almost all the periods covered by this

book. Finally, in these journals, there are articles written by the entrepreneurs of Dafeng, Lixin, and Dacheng that give valuable information about their perspective of the business. In the case of Liu Guojun, the most prolific of them and the founder of Dacheng, several compilations, biographies, and books have been published, like the complete Historical Materials of Liu Guojun, including letters, business documents, biographies, conferences, and other materials, compiled by Li Wenrui (see *Liu Guojun wenji*, LGWJ), as well as other material compiled by Gao Jinyong.[54]

Two other important sources are the History Department Materials and the China Business History Archive (CBHA) at the Shanghai Academy of Social Sciences (SASS), with rare book publications and private unpublished compilations of companies from different sources: private documents not available in the archives, accounting information of firms including Lixin, China Engineers Limited, and Anda, academic reports, and news clippings divided by economic sector. These sources have relevant material on the finishing sector of Shanghai and the Yangzi Delta. Besides, the CBHA compiled private documents of big companies such as Shenxin, the firms of Liu Hongsheng, British American Tobacco or Swire, which have received more academic attention than the rest.

The CBHA also has private documents of China Engineers Limited, a key company for the present research. Luckily, this firm published a quarterly review for its customers (*China Engineers Quarterly Review*), which included news and market reports. This review was published from the 1930s to the 1960s and has not been researched at all. The author has found copies of the magazine in different archives: at the Special Collection of the Hong Kong University Library Special Collection (HKULSC), at the Shanghai Municipal Archives or the Archives from the British Foreign Office, the US State Department Files, et cetera. During the 1950s, China Engineers Limited and its director, William Charles Gomersall, played a key role not only in the cotton business but also in the political relationship between Great Britain and the PRC.[55] Besides, his partner, Li Shuxiong (James H. Lee), was also involved in important events during the Cold War. This research uses biographical information on both of them from the family of Gomersall and from the autobiography of Li Shuxiong.[56]

Unfortunately, it is difficult to find documents of private firms in Hong Kong. Thus, the chapter that deals with the development of the cotton industry here will rely less on them. Instead, it takes information from the Hong Kong Cotton Spinning Association, as well as other chambers of commerce, and also benefits from some market reports kept in the Hong Kong Public Records Office (HKPRO). However, by using journals—such as the excellent *Far Eastern Economic Review*—the present book studies the growth

of the cotton sector and of the networks under study in Hong Kong. It also relies on personal interviews published by scholars who researched these companies when they were active.[57] The reports of China Engineers Limited are used as a primary source for the Hong Kong period due to the rich information available on networks. Other rare publications about Hong Kong's textile industry are used and can be found mainly at the Hong Kong University Special Collection.

This book also includes some family materials, such as the record of Eleanor Wong, granddaughter of Wang Qiyu and daughter of Wang Tongyuan, who participated in the industrialization of Hong Kong.[58] It also uses a report of Wang Fuyuan, son of Wang Qiyu, that was published by the Zhoushan Government.[59] This research also includes family-published books of the Tangs, written by one of its members, biographies of Cha Jimin and Tang Xiangqian, besides the already quoted Liu Guojun materials and the transcriptions of oral records compiled in the 1960s.[60]

Finally, the chapter about the beginnings of the reform era is based on official documentation around the visits of Hong Kong's capitalists to continental China by Tang Junyuan and Liu Jingji, available at the Shanghai Municipal Archives, in the United Front Work Department (A33), the Shanghai Textile Bureau (B134), and the Shanghai Textile Industrial and Commercial Association (C48). Luckily, some of the leaders of these first technology transfers wrote articles in the press, such as Tang Xiangqian. Finally, the author relies on primary materials and sources kept in the textile and private museums now opened in China, such as the Shanghai Textile Museum and the Ningbo Textile Museum.

# CHAPTER 1

# The Origins of Dafeng, Lixin, and Dacheng

## Introduction

The Yangzi Delta was the first Chinese region to start industrialization. Having been one of the world's textile production centers, its economy remained pre-industrial until the twentieth century: cotton yarns and clothes were produced domestically while the finishing of fabrics was done in private workshops that used human labor force.[1] Even though the cotton sector is central to the controversy of Chinese industrialization, most of the research has focused on spinning and weaving and scarce attention has been paid to the finishing part of the textile processing. The finishing sector accumulated thousands of years of crafting tradition when foreign goods and modern technology posed them their biggest challenge. The dyeing and finishing workshops of the Yangzi Delta faced this by finding a mix of traditional methods and new imported techniques that suited the Chinese taste. Therefore, the industrialization of the finishing sector in China did not start as a blank slate.[2]

The first Chinese cotton finishing mills were built by networks of traditional producers who were not only experienced in the traditional trade but had also adopted modern imported technologies. Dafeng in Shanghai, Lixin in Wuxi, and Dacheng in Changzhou were pioneers in the Chinese finishing sector and are examples of these networks.[3] Compradores, traders, producers, and traditional bankers collaborated in the new adventure of modern industry when they felt they could compete with foreign goods during the First World War. But how was this engagement? Why did people from different backgrounds decide to partner and start up textile mills? It was not a fast or easy process, and these societies were first set up informally until they were registered as shareholding firms. However, the registration of a private

company did not mean that the founders ended their previous activities, as they retained their interests in the traditional and modern sectors. These networks were characterized by their horizontal structure and by maintaining old traditions, such as the regional associations, even after its members became industrial entrepreneurs.[4]

When examining the background of the founding partners of Dafeng, Lixin, and Dacheng, four social categories can be defined. First there were the compradores, Chinese merchants who specialized in foreign trade and worked with foreign goods or in foreign companies. Foreign firms operating in China hired Chinese merchants who could speak English to manage trade and sales. These compradores came from maritime regions that had developed historical ties with the outside world, such as Ningbo and Guangdong. They earned a salary, a commission, and some of them even owned shares of the foreign firms.[5] This social class thrived in the city of Shanghai, where most of the foreign trade was undertaken, especially in the purchase of foreign consumer goods and modern technology. The emerging class of compradores pioneered in the know-how of modern manufactures, endorsing a strategy of import substitution, as they evolved from importers of foreign goods to industrial entrepreneurs.

While the compradores worked with foreign companies, the second group refers to traders and distributors who were focused on the domestic markets of China. Even though the Yangzi Delta was not industrialized before the twentieth century, the economy was highly commercialized, to the extent that different thinkers have defined it as a Smithian economy: this kind of economy is intensive in labor (instead of capital) but with a strong commercial activity. As the old saying goes, during the Ming and Qing dynasties, the Yangzi Delta was famous for "clothing the whole Chinese empire," and the cotton and silks produced in Zhejiang and Jiangsu found their way not only inside China but also to Guangzhou, from where they were exported all over the world.[6] Chinese traditional commercial firms were organized according to their size and regional origin. For instance, while the Ningbo merchants specialized in maritime trade and were more outward looking, the merchants from Jiangsu, especially from Wuxi, Changzhou, and Jiangyin—in the coast of the Yangzi—specialized in China's domestic market and were active in the fluvial inner trade of textiles and grain, which were sent to the north through the Grand Canal and to the West through the Yangzi River.

The third group comprising the workshop producers of finished cloth played a prominent role in the creation of industrial firms. It was through the last steps of textile production that traditional workshops transitioned to modern industries. Chinese economic historians have long been studying the "sprouts of capitalism" that existed in China before the Opium Wars

in the dyeing and calendaring workshops of the Yangzi Delta. These workshops were built by private capital and could employ hundreds of salaried workers under a complex relationship between trade firms, capital, and craft work. Dyeing workshops had an intimate link with trade companies because they made the final stages of production and had direct contact with the Chinese final consumer and his/her tastes. According to an investigation in 1897 by textile experts from Blackburn (Lancashire), nine-tenths of the foreign cloth imported to China was dyed in traditional workshops before being sold to the final consumer.[7] Traditional dyers started to use imported chemical dyes when these products were made available, but they stuck to traditional motifs and colors such as the blue indigo. Finally, some of them became industrial entrepreneurs and acquired the know-how of industrial dyeing and printing.

The fourth category are the bankers and capital holders. A pool of capital is necessary to create modern industries as machinery is expensive. Traditional banks, profits from other businesses, and inherited wealth were the usual sources of capital that helped to finance the purchase of the first sets of technology. In the Yangzi Delta, the traditional banks of Ningbo—the so-called *qianzhuang*—had a prominent role in financing these pioneering industrial firms. Traditional bankers invested in shares of these ventures and also gave loans against the stocks of the company, a practice that would become the norm with industrial firms.[8] Another important source of capital were the wealthy families of the Yangzi Delta region. Some families from the gentry turned to industry during the First World War when they saw the chance to compete with foreign companies.

Dafeng, Lixin, and Dacheng was built in this complex environment that shaped the economy of the Yangzi Delta. These horizontal networks were not destroyed with the process of industrialization. In fact, they were determinant in the distribution and transport of final industrial goods to consumer markets. In the 1930s, the dyeing and printing sector still had an image of crafting that differed from the cotton spinning and weaving companies. The market for clothes in China was mainly divided between traditional fabrics made only for domestic use, standardized products made in cotton mills, and the finished fabrics made in workshops and dyeing industries.[9] Therefore, the finishing industry played an intermediary role between China's traditional textile production and the new spinning and weaving mills.

## Wang Qiyu and the Ningbo Network

The competition from foreign goods was one of the main motivations that drove these traditional networks to invest in industrial production.[10] Imports

to China of cotton yarns and cloths boomed at the end of the nineteenth century. In 1890, cotton goods represented 35 percent of China's total imports (20 percent of piece goods and 15 percent of yarn) and were valued at HKT 45 million, surpassing the value of opium for the first time.[11] The British trade in Asia derived from exporting manufactures directly from Britain—a market that was under Lancashire's dominance until 1870s—to the transportation of Asian-made products. Because Japanese and Indian yarns soon became more competitive than the British, except for the highest count, Lancashire specialized in providing textile machinery, trade services, and high valued cloth instead of yarn.[12] Meanwhile, in the market for cloths, British importers competed against other European, American, and Japanese firms. The competition was fierce and foreign firms sold to Chinese merchants by payments in cash or in auctions, so they could not anticipate the profitability of their enterprise.[13]

The Chinese market was not easy for foreigners. In practice, foreign firms rarely went beyond the most important concessions of Shanghai, Tianjin, and Hankou, where the products were downloaded from the ships and sold in auctions. Language barriers and the complexity of the Chinese business practices drove foreign companies to hire Chinese merchants (earlier mentioned compradores) for a salary and a commission on sales. Cotton goods were sold near the harbors and were bought by Chinese wholesale distributors who specialized in dealing with "foreign cloth." In Shanghai, by far the most important market, these distributors were highly organized in the association of foreign cloth sellers created as early as in 1858, named Zhenhuatang. Fifty years later, this association would be an important source of capital for the foundation of Dafeng.[14]

However, once the foreign goods were in the hands of Chinese traders it was difficult to trade those goods inward to the interior of China: political and social turmoil, natural disasters, regional taxing, and lack of infrastructure were impediments that hindered China's domestic trade. Thus, Shanghai emerged as the main market for exchange of foreign goods, while Chinese compradores and foreign firms were engaged in a situation of mutual interdependence. The compradores sold a diversified portfolio of foreign products to other Chinese traders who came to Shanghai from the rest of China without engaging in long-distance trading. Thus, Shanghai traders earned the fame of speculators.

For instance, while most of the Ningbo compradores developed their business in Shanghai, the foreign trade of Ningbo declined and the foreign concession of Ningbo was even abandoned in 1907.[15] The compradores were more involved in foreign trade than in regional trade within China. Some of them interchanged silks and teas for export against imported textiles and

chemical dyes. Others speculated with the exchange rate between foreign currencies and the myriad of silver currencies that circulated in China.[16] Besides cotton yarns and cloth, the compradores soon integrated other products related to textile, such as aniline dyes, machinery, mechanical tools, high-end quality fabrics, and even imported raw cotton that was lengthier than Chinese cotton. Besides providing for traders from the rest of China, they started to specialize in selling to workshops and industrial entrepreneurs of Shanghai and the surrounding regions of the Yangzi Delta.

The compradores from Ningbo gathered at the port of Shanghai managing cargoes of imported products and gained importance due to their control over shipping and banking. They were strongly organized in regional networks located in the old city of Shanghai as well as in the International Concession.[17] Following their merchant tradition that goes back to the Ming dynasty, they were part of merchant associations such as the Siming gongsuo that appeared during the Qing dynasty, and the Ningbo Merchants Association of Shanghai that gained predominance in Republican times.[18] The latter was a horizontal network that assembled the compradores, bankers, and traders of the city who specialized in all kinds of products.

The founder of Dafeng belonged to this network. Wang Qiyu (1883–1965) was born in the Zhoushan archipelago, in the easternmost part of China, near Ningbo. This maritime region was traditionally opened to foreign trade, especially with Japan due to its geographical position.[19] According to the family's oral records, his father, Wang Zhaokang, was a merchant who owned a drugstore of traditional Chinese medicine in the port of Dinghai.[20] Supposedly, he healed a foreign merchant en route to Shanghai when he went ashore feeling very ill. The foreigner was so grateful that he helped his son enter the prestigious university of St. John's in Shanghai, where suitable Ningbo compradores were sent to study Western culture.[21]

Once in Shanghai, Wang Qiyu learnt English and how to conduct foreign trade in textiles and chemicals.[22] Many biographies of Ningbo compradores of his generation repeat this theme: they migrated to Shanghai and were hired or promoted in foreign companies after having helped a foreigner.[23] With no brothers, Wang Qiyu was able to attend the university for a year and, before turning 30, he worked as a clerk in the Chinese Maritime Customs and as a compradore for another company of Dutch or British origin.[24] Later on, he became a member of the associations of merchants from Ningbo and Zhoushan origin that lived in Shanghai. Wang Qiyu would always be connected both to the local network of Ningbo merchants and to the transnational world of the foreign companies.

Ningbo compradores were also engaged in the trade of chemical dyes, one of the products that grew in importance from 1900 onward along with the

development of finishing workshops.[25] Chemical dyes were a staple product in the initial stages of Chinese industrialization and were related to the trade in cloths, because foreign cloth was dyed and printed to be adapted to Chinese taste.[26] When dye imports suddenly stopped during the First World War—the main producer of chemical dyes was Germany—the price of these products skyrocketed, creating huge profits that could reach 500,000 *tael* per year for the Chinese compradores with stocks of dyes.[27] Aniline compradores also participated in the formation of Dafeng.[28]

## Cui Fuzhuang and the modernization of workshops

Before the Opium Wars, textile workshops were located in the main cities of the Yangzi Delta such as Nanjing, Changzhou, Shaoxing, Songjiang, and Suzhou.[29] They produced high-quality cloths that were printed and dyed for the court in Beijing, the Chinese gentry, and for the national and international markets.[30] It was in the dyeing and calendaring workshops that the Chinese textile industry gained its fame for quality and luxury.[31] Natural dyes have been well known since ancient times, and constituted an artisan profession with a lot of symbolism.[32] Some dyeing workshops specialized in particular colors (blue, red, white, black, and gray) while others focused on printing with wooden blocks.[33] However, the most common dye of the Yangzi Delta was blue, extracted from indigo and applied to tight clothing in order to make the "indigo blue fabric" (*qinglanbu*), so famous in China and in other parts of the world where it was exported. In the West, it was known as *nankeen*, in reference to the region's military capital, and was exported continuously from ancient times until the mid-twentieth century.[34]

Traditional dyeing workshops required access to running water for dyeing and large sunny surfaces for drying. Cloth was submerged under water, dyed, and laid out to dry under the sun; this operation was repeated several times.[35] The dyeing processes required a crew of specialized workers (that could reach 200 people in the biggest workshops) who had undergone three to five years of training before receiving a title that recognized them as artisans.[36] Artisans paid a fee for their license and participated in the shop's management with a share of the business as "stock" (*gudong*).[37] However, in the structure of these workshops it is difficult to distinguish what corresponds to capital and what derives from work.

Dyeing workshops integrated the new technologies that came from the West and Japan into their production process. The typical indigo blue was substituted by the chemical indanthrene blue that was patented by German Rene Bohn in 1901. A full range of new colors appeared thanks to the

invention of aniline dyes during the second industrial revolution that transformed the world's dyeing industry forever.[38] Whitening, bleaching, and printing also expanded with the applications of caustic soda and other chemicals. These new products soon reached the coasts of China with sales concentrated in Shanghai.[39] Chemical dyes provided an alternative to natural pigments such as indigo, enabling the workshops to dye at a much lower cost and with better results.

Meanwhile, wooden and iron gear looms that came from the West and Japan enabled workshops to weave and dye, releasing the weaving process from the domestic units. Ningbo compradores who had been active since ancient times in Japan imported this know-how to China at the end of the nineteenth century. These new imported looms were too expensive for an average family budget, but were suitable for medium-sized workshops. So in practice the weaving process was displaced from the domestic sphere to weaving workshops and small industries.[40] Between 1900 and 1910, the import of Japanese looms increased and new types of cloth hit the markets of the Yangzi Delta.[41] They were a hybrid between foreign and local styles and became popular among modern urbanites, creating a new demand in Shanghai. These technologies spilled over to the Yangzi Delta and workshops started to experiment with new techniques making innovations in the production of cloth.

One of the founders of Dafeng came from this world of experimentation. Cui Fuzhuang (1878–1949) was a traditional dyer from Jiangyin, in the Jiangsu province, just beside Changzhou and the Yangzi River. When the revolution of 1911 broke out, Cui Fuzhuang went to Shanghai and stayed several years to know more about the new techniques of dyeing and mercerizing. He met Wang Qiyu and they both learnt the secrets of applying caustic soda and high pressure to cotton yarns in order to bring silkiness, brightness, and resistance.[42] Cui Fuzhuang considered that a modern manufacturer not only had to counter the growing imports of foreign fabrics, but also had to reach the Chinese consumer who aimed for modern products, which were a mix of foreign and Chinese styles.[43] In fact, he was not only a dyer but also an innovator, as he constantly tried to adapt to the desires of the Chinese consumer. He opined that innovation was the only way to face the growing competition from foreign products.[44]

The cities of Jiangyin, Changzhou, and Wuxi were centers of dyeing workshops and cloth distribution. From one side they benefited from the proximity to Shanghai, where chemical dyes and machinery were available. From the other, these cities had historically been distribution centers of Chinese-made cloth through the Grand Canal and the Yangzi River. In the first decades of the twentieth century, dozens of workshops in Jiangyin installed diesel

motors and looms of different kinds: the most common were the *shoulaji* loom (that could weave more rudimentary semi-industrial cloth) and the iron gear loom (that was more industrial and could weave "big machine cloth," *dajibu*).[45] These workshops hired people like Cui Fuzhuang to go regularly to Shanghai specifically to purchase machineries, high-count yarns, foreign cloths, and chemical dyes. Therefore, strong ties developed between the dyeing workshops of the Yangzi Delta and the Ningbo compradores of Shanghai.

Wang Qiyu and Cui Fuzhuang partnered just after the Republican Revolution and decided to learn the process of mercerization through an English book that Cui had discovered in Shanghai.[46] With an application of caustic soda to high-count cotton yarns and a process of tensioning, the cotton yarn could become brighter and more resistant. Then, it could be dyed and with a shinier aspect, it could compete with silk at a very competitive price. Mercerized yarns were mostly imported through foreign companies, but tailors and weaving workshops of Shanghai had to wait around six months to get the orders. Normally the product was not exactly what the customer wanted, or what the Chinese consumer was demanding. Therefore, Wang Qiyu and Cui Fuzhuang found a niche and they decided to partner with Yang Xingdi (1883–1944), a man from Jiangsu province who had studied one year of industrial engineering in Japan.[47] These three partners would be the founders of Dafeng.

In 1911, the three partners bought a small plot of huts in the Tangshan road area, in the outskirts of Shanghai, a zone that was integrated to the International Concession in 1899. Known as Yangshupu, it would be totally transformed by the establishment of numerous private textile mills. The industrialization of the district was enhanced by the Shanghai Municipal Council, which extended facilities such as electricity, roads, coal, and access to water. Then, Wang Qiyu asked the Shanghai Municipal Council for an extension of the electrical grid. In September 1919, the workshop received a visit from the municipal staff and was allowed to receive electricity.[48]

Meanwhile, Cui Fuzhuang recruited dyeing workers from his hometown in Jiangyin and established three rooms, one for mercerizing, another for dyeing, and the third for bleaching.[49] A modest capital was invested through a traditional bank from Ningbo (the Dongyangzhuang), in order to import from Japan caustic soda, sulfuric acid, calcium carbonate, and dyeing vats.[50] With this capital they started mercerizing imported high-count yarns and sold them to other weaving workshops, especially those specializing in stockings and muslins. They also sought the collaboration of a German engineer who helped them in their first experiments, probably with the use of German dyes and chemicals.[51]

## The Foundation of Lixin in Wuxi

From the times of Ming dynasty, the long-distance trade of Chinese cloth was dominated by private firms that could operate as distributors (the *buhao* or *zihao*) or retailers (the *buzhuang* or *budian*).[52] According to Coase, a firm is, above all, a social technique to minimize contract costs.[53] Chinese cloth retailers and distributors could own dyeing workshops, according to their size and capital. Therefore, these firms were in charge of both providing the supplies (capital, cloth, workers, and tools) to workshops and the market sales of the finished goods.[54] The link between distribution and production, the capitalist conjunction between trade and capital, and the idea of vertical integration already existed in the Yangzi Delta from the times of the Ming dynasty. Of course, the main difference with the mills of the twentieth century was their use of human resources and energy, which limited their capacity and growth.

Since the Ming dynasty, Wuxi was a "cloth port" (*bumatou*) that produced and traded all kinds of textile goods. The region between Wuxi, Changzhou, and Jiangyin was a main spot of the traditional trade that crisscrossed the Grand Canal and the Yangzi River. Furthermore, Wuxi became one of the most important industrial centers of China in the first half of the twentieth century, when it was known as the "small Shanghai."[55] It was the native place of the Rong brothers, who built the largest private industrial group of the 1930s. Other families, such as the Tangs, also contributed to the industrialization of the city. Tang Maoxun, a member of a well-known family of Changzhou, was born in Wuxi in 1800. After working as an apprentice in a cloth store, he opened his own cloth trading business in 1821 called "Hengsheng."[56] When the Taiping wars endangered the cities of the Yangzi Delta, he moved to a small village and continued with the textile business. In the town of Yanjiaqiao he bought a small cloth shop that sold domestic-made cotton goods. He changed the name of the firm to include his surname (it was called Tang chunyuan buzhuang), and he increased its operations exporting products to Anhui and to the northern markets. The firm acquired good fame and the eight sons of Tang Maoxun were able to enlarge the business and diversify into silks for export, real estate, and wood.[57] Two of them, Hongpei (1837–1904) and Fupei, prospered in Wuxi with the textile business.

The eldest son of Hongpei studied and became a reformist during the last years of the Qing dynasty. After visiting Japan, he was convinced that China had to embrace industrialization in order to compete with the foreign countries.[58] The other sons of Hongpei would take the advice of the elder. The second one, Tang Baoqian, studied finance in a traditional Ningbo bank

(a *qianzhuang*) and took charge of the his father's cloth business, expanding it by opening a new store in the city of Wuxi. In 1909, Baoqian founded a semi-industrial workshop, a flour mill named Jiufeng mianfenchang. According to family records, when the elder brother returned to China impressed by how the Japanese were managing textile mills, he advised Baoqian to produce goods to satisfy not only the peasant masses but also the urban consumer as well as the international markets.[59] These words were prophetic and the son of Tang Baoqian, Tang Xinghai, would become a famous exporter of textile products during the 1950s in Hong Kong.

The other branch of Tang Maoxun's descendants that continued with the textile business consisted of the sons of Fupei, who also worked at the old familiar cloth shop. In 1898, his fourth son, the young Tang Xianting (1879–1960), founded a silk and cloth shop in Wuxi, with other partners, called "Jiuyu choubuzhuang." This would be the first step toward the creation of Lixin industrial group. In Wuxi, this kind of stores sold modern imported clothes, regional clothes, and Chinese traditional silks, being a mix of foreign goods and Chinese traditions.[60] Jiuyu became the biggest cloth store in Wuxi selling silks and traditional garments along with silks and woolens that came from Europe.[61] The traditional background and the social capital of the family were two important factors that determined the foundations of the two branches of the Tang textile business in Wuxi: the Qingfeng (or the Tang Cai Group) and the Lixin (or the Tang Cheng Group). In the 1930s they became two of the major six business groups of Wuxi, along with the Rong brothers.[62] Both branches of the same family had a prominent role in the industrialization of the Yangzi Delta, especially in the textile sector, and were mainly competitors. The partnership of Lixin was not familiar and, like in Dafeng's case, it assembled traders and producers. No doubt the background of the family in the traditional textile trade influenced the evolution of Lixin. However, at the beginning, the firm was not family oriented.

The main partners of Tang Xiangting were a traditional banker named Zou Songdan and a loyal trader and worker called Cheng Jingtang (1884–1951). Cheng Jintang came from a family of wood traders from Wuyuan, in Anhui province, who migrated during the Taiping War to settle down in the Yangzi Delta. At the time Cheng Jingtang was born, Jingtang's father was poor and worked in several wood trading firms between Changshu and Wuxi. Jingtang started to work at ten and received some education in classical Chinese texts from his uncle. After his first job, he was employed by a cloth retailer and was put in charge of a cloth shop. When he was 19, he partnered with other traders and opened a new cloth shop, but the association did not work and he then joined Tang Xiangting in his firm, Jiuyu.[63]

Cheng Jingtang dealt directly with the customers but he often travelled to Hangzhou and Shanghai to look for products and possible sales. After several years of good performance, he was promoted to become a partner of the shop. It was the period of the Republican revolution and some partners had left the company that had a very limited capital of 5,000 yuan. In the following two years, he expanded the business travelling to Shanghai and profiting from the low price of imported cloths, which he later sold for good margins. However, this strategy provoked a response from the traditional guilds that controlled the pricing of cloths in Wuxi, forcing the split of the silk store.[64]

After the outbreak of the First World War, the price tendency was reverted and foreign goods became more expensive. In 1916, the partners of Jiuyu invested 10,000 *tael* in the purchase of an old weaving workshop. They added 30 wooden looms and the renamed it Lihua Cloth Factory.[65] The first years were very profitable because they made a kind of cloth that imitated Western goods, which were in high demand in China's domestic markets. Lihua delivered cloths to the old silk and cloth stores like Jiuyu and also to wholesalers and regional traders. That would be the beginning of Lixin. In 1919, they doubled the capital and Cheng Jingtang and Tang Xianting opened Lihua number two, another weaving factory with 332 looms.[66] Finally, they realized that they needed to integrate both workshops under one management and upgrade the equipment. Only then, they created a shareholding society that would be registered in 1920 under the name of Lixin.

## The Modernization of the Textile Tradition: Liu Guojun

Dafeng and Lixin were registered as private companies in 1920, but it took more time to consolidate Dacheng. In fact, the three of them (Dafeng, Lixin, and Dacheng) transitioned from semi-traditional and semi-industrial workshops to big industrial groups. However, the original workshops were kept and continued to produce traditionally, even after the big industrial mills were in full operation. Normally, there would be two sites in every company, the "old factory" (*laochang*)—that undertook the finishing process—and the "new factory" (*xinchang*)—with all the new technology available. Somehow, the new mills substituted the foreign goods that still needed a final touch of finishing before being distributed to the final retailers. In contrast to other industrial firms, Dafeng, Lixin, and Dacheng did not start with the spinning process that required a big initial investment, but transitioned from the old workshops gradually. In contrast to the big spinners, this business started traditionally and was in close contact with the final consumer who demanded a mix of foreign and Chinese styles. Therefore, the founders were among the

Chinese textile entrepreneurs who knew more about China's textile traditions and consumption habits.

Liu Guojun (1887–1978) was born near the city of Changzhou, in the town of Shengcitang (district of Jingjiang, Jiangsu province). His grandfather owned a small store of traditional cloth and he was able to pay for the education of Liu Guojun's father, although the traditional examination system was in a deep crisis at the end of the Qing dynasty. Although Liu Guojun's father was trained in Confucian classics, he failed to organize a private Confucian school and died young. The economic situation of the family worsened. After receiving a short training in Confucian classics, Liu Guojun worked in all kinds of businesses as a street peddler. He even became a Daoist monk for a while and helped his mother to spin cotton with the single spindles that were used by the poor families of the Yangzi Delta.[67]

He finally left Jingjiang to work as an apprentice in several cloth shops, first in one that produced hats, and finally at a retail store that had three partners and seven workers in Benniu, on the outskirts of Changhzou, where the railway crossed the Grand Canal.[68] Through a common friend, he met the traditional dyer Jiang Panfa (1871–1941), and Jiang decided to employ Liu Guojun.[69] Until 1904, Jiang Panfa, who also came from a poor family, worked as an accountant in a cloth shop of Changzhou, which had a traditional dyeing workshop attached. In 1906, he established a weaving and dyeing workshop on his own, also attached to a cotton firm and in the same city. He then went to Shanghai to meet the Ningbo merchants who were importing new technologies for workshops.[70] While Dafeng was experimenting with the mercerization process in Shanghai, Jiang Panfa imported new machines from Japan, which dyed the cotton yarn before weaving it.[71] He became famous in town for the quality of his "five poison clothes" (*wudubu*), a semi-industrial colored cloth that was used for children, especially in the dragon boat festivals.[72] The workshop of Jiang Panfa was expanded and modernized: it pioneered in introducing Western tailoring techniques to modernize the regional traditional garments. The clothes were still made in the traditional style (*tubu*) with wooden looms and human energy but were cut in a different style.[73]

From 1907 to 1912, Liu Guojun worked at Jiang Panfa's cloth firm with the cutting workshop attached, attending customers and dealing with the stocks and warehouse. He finally founded his own cloth shop in 1912 named Tongfeng jinghuodian.[74] The store sold a kind of clothes that were typical of China's Northern markets; it was a "Beijing style" (*jinghuodian*) cloth shop. These clothes often imitated the Manchu style and found a good market in the Yangzi Delta, curiously just when the Manchu dynasty came to an end. Actually, they were a mix between the Manchu aristocratic clothes and

the modern styles that were being imported.[75] These shops often appeared just beside the modern tailors who learnt the cutting techniques from the West. The *qipao*, the most famous women's dress of the Republican period, was originally a Manchu cloth adapted to the close-fit fashion that spread due to Western fashion and the rise of new tailoring techniques.[76]

Liu Guojun found an opportunity to grow during the revolution of October 1911, when cloth shops closed fearing revolution and turmoil. That year tax collectors did not come to town, so the local population had plenty of cash to spend while foreigners kept demanding silk cocoons and other products. He ventured to take stocks to Changzhou city, where he could sell them at a better price. Due to the increasing volume of sales, he became so rich that he had to change copper coins for silver *taels* in the traditional banks of the city.[77] It would be the beginning of a brilliant career for Liu Guojun, which would culminate with the creation of Dacheng. In contrast to the Tang family business, he raised his own capital from scratch. But like them, Liu Guojun also started in the traditional sector of the cotton trading firms until they evolved into modern industry.

Liu Guojun opened another store in Changzhou and all the clothes he sold came from Jiang Panfa's workshop. Liu Guojun asked Jiang, who had by then become a very close friend, to update the products and modernize the old wooden looms. They both decided to jointly invest in a new factory that would weave better and faster by using imported looms.[78] They researched about modern methods of production by reading books and visiting factories in Shanghai. Finally, Jiang, Liu, and four other partners raised 90,000 *taels* to build a small industrial spinning and weaving mill called "Dalun Weaving Mill."[79] Jiang Panfa went to Japan with a compradore to buy automatic looms and steaming machines that were added to the workshop. It became the first modern equipped mill in Changzhou, whose operations started in 1916.[80] That was the beginning of the Dacheng group.

Besides Dalun, in 1918, Liu Guojun opened the Guangyi Cloth Factory with 80 wooden looms and a dyeing workshop attached.[81] The workshop was managed by Liu's mother, and it worked pretty well because it benefited from the fall in yarn prices that came after the First World War. Liu Guojun was well aware of the market trends of the moment and he offered different kinds of printed cloths that were manufactured following traditional methods. The specialties of Guangyi were the *lanbu* (the traditional indigo blue cloth, dyed in artificial indigo), the *rongbu* (a kind of flannelette), and the *zhoubu* (a kind of crepe). Because Liu Guojun knew about China's market preferences, his products reached high sales competing with foreign goods and other Chinese clothes that imitated foreign styles. In 1922, he increased the capital adding more wooden and iron looms, and finally integrated the

first automatic looms to the production of Guangyi.[82] In 1924, Liu Guojun travelled to Japan to learn about new technologies and to buy several dyeing machines. In 1930, Guangyi had increased its capital reaching 300,000 yuan, from a start-up capital of 6,000, a total success, especially compared to the poor performance of Dalun.[83] In 1930, Liu Guojun merged both companies and created Dacheng.

## Workshops and the Low Institutional Constraint

The Qing dynasty did not have a specific jurisdiction for workshops. But this did not mean that private firms were inexistent. Workshops operated without a formal legal structure owned by cloth trading firms and under the authority of the regional and professional associations. Despite the fact that in Suzhou, Hangzhou, and Nanjing there existed bureaus (called *zhiranju*) of the Manchu government for the purchase of dyeing fabrics, the structure of private firms was clearly market oriented and constituted the basis of the rich commercial life of the Yangzi Delta.[84] Therefore, it is difficult to state when Dafeng, Lixin, and Dacheng exactly started because they were active well before being registered as private companies. Besides, the life of workshops is not easy to track due to the lack of private documentation. It is only through the biographies and histories of the companies written a posteriori that it is possible to discover their evolution. The scarcity of documentation is another reason why workshops have received scant academic attention compared to the big industrial mills. Only when these workshops decided to invest a big amount of capital in purchasing machinery, they created a shareholding firm structure with limited liability and a legal register. But this transition took several years.

Meanwhile, in the International Concessions of Shanghai a special legal framework was established for foreign firms that would later be the norm for industrial endeavors. At first, the foreign companies that were registered in the countries of origin informed their consulates of their intention to engage in business operations in China. Only then could they operate under the country's law, following the rules of extraterritoriality, even though the legal framework was not clear for companies. Shipping companies were among the first to establish repair workshops and subsidiaries in China, like the American Russell & Co., which in 1862 created a new firm in China, the Shanghai Steam Navigation Company Limited.[85]

The interest of foreign companies to create subsidiaries in China was also to attract capital from the compradore class that was willing to invest in these new modern ventures. With the opening of the Suez Canal in 1869, the shipping business boomed and more Chinese capital from the compradores was

attracted to the foreign firms. They were registered in Chinese and English and were known as foreign companies (*yanghang*), while the subsidiary delegations were called Chinese "delegations" (*gongsi*). The latter concept would be taken as the general name to be applied to all private companies, after the first general company law was promulgated in 1904. This concept was used by a compradore in 1867, when he stressed the need to create a steamship company with 100 percent Chinese capital.[86] This steamship company would be the first Chinese industrial firm, created by Li Hongzhang and Sheng Xuanhuai, under the legal form that shared merchant capital with official supervision (*guandu shangban*). Other industrial companies appeared during the late Qing dynasty, following the model of the steamship company, such as the "Bureau of Machine Spinning and Weaving of Shanghai" (Shanghai Jiqi Zhibuju). This was the first cotton spinning and weaving mill that opened in China in 1890.[87] After 1895, with the Shimonoseki Treaty, foreign companies were allowed to establish by themselves industrial companies and mills in Chinese territory.

In 1904, a new law codified the establishment and registration of private companies. Accordingly, private entrepreneurs could establish partnership companies (*hezi gongsi*), partnership companies with limited responsibility (*hezi youxian gongsi*), shareholding companies (*gufen gongsi*), and shareholding companies with limited responsibility (*gufen youxian gongsi*).[88] This last form of legal enterprise would become dominant among industrial firms, despite the limited extent of industrialization during the earlier years. In 1908, there were only 229 private registered firms in the whole of China, and 153 of them were shareholding companies with limited liability.[89] The other forms of private entrepreneurship, such as the dyeing workshops or the trading firms, followed the traditional methods of organization and were not regulated. This law was not modified substantially during the revolution of 1911, even though in 1914 there was a new regulation for private companies that enhanced the establishment of private firms, especially in the industrial sector.

In the banking sector, the situation was similar. The merchants from Ningbo have a long tradition of commercial banking. Even though there existed previous forms of banking since the Song dynasty, the *qianzhuang* banks appeared in the eighteenth century to manage transactions in the long-distance trade and all kinds of money transfers and exchanges from different standards of silver.[90] Because there was no monetary regulator in China, the local banks needed a solid associative network in order to regulate their operations. With the opening of Shanghai as a treaty port, Ningbo bankers prospered by participating in the exchange of Chinese goods (such as silks and teas) against Western products (technology, dyes, etc.), just like the Ningbo

compradores.[91] Traditional bankers were an important part of the Ningbo network and were in charge of major associations.

Before 1911, almost all the industrial companies adopted a legal form (called *guandu shangban*) by which the merchant capital was put under the supervision of the government. Since the Republican Revolution, however, the capital that was invested in industry was mainly private and came from different sources: the merchant community, the traditional banks, and, finally, the modern banks.[92] For instance, in Wuxi there were around ten traditional banks in the 1910s that played a key role in financing the first industrial undertakings.[93] Ningbo banker Li Yucheng gave loans to the Tang family and other merchants of the city.[94] Another banker, Chen Zixun, owned a traditional *qianzhuang* (called Henglong) that helped Wang Qiyu and Cui Fuzhuang to set up the Dafeng workshop in Shanghai in 1912. Later, he participated in the creation of the Shanghai Commercial & Savings Bank, a modern bank founded by Chen Guangfu (K. P. Chen, 1880–1976) in 1915.[95] This bank would help Liu Guojun to finance Dacheng in 1930.

The credits of the Henglong *qianzhuang* for industrial undertakings could reach 300,000 *taels*. Normally these credits meant that the banker would have a seat on the board of directors. This happened when Dafeng was registered as a private shareholding company in 1920.[96] In Lixin, the founding member Zou Songdan was also a traditional banker.[97] Ningbo banks also helped traders and producers to balance their accounts and make payments without carrying heavy silver *taels*. They provided an accounting office (*zhangfang*) that sometimes would become a kind of "in house" bank inside industrial groups and corporations. In fact, recent research has identified this particular department, with a long tradition among the Ningbo merchants, as "the nucleus of Chinese business."[98] Therefore, modern textile industries of the Yangzi Delta were raised with a flow of capital and an institutional framework that mostly came from old traditional institutions.

# CHAPTER 2

# Technology Networks in the Yangzi Delta

## Introduction

When the first ocean-going steamer crossed the globe to defeat the Qing navy fleet during the first Opium War, British technology showed off its superiority. Steam engines and modern machines soon appeared in the shipyards of Hong Kong and Shanghai.[1] The Qing administration tried to ban private industries and monopolize the adoption of foreign technology, perceiving it as a foreign threat.[2] Once China bought the first set of machines from the West, Qing officials argued that they were "keeping Chinese learning as essence and developing Western learning for utilitarian reasons."[3] This precept meant that some Chinese reformers recognized the superiority of modern technology and the need to embrace it, in order to avoid the collapse of the Qing dynasty. But, because machines were symbols of foreign imperialism, they were adopted with reservations and suspicion. It was not until the twentieth century that industrialization was progressively accepted as the path for the modernization and re-emergence of China.

First, the modernization of the army became an urgent matter for the Qing generals who had built the first arsenals and shipyards in the 1860s to fight against the Taiping rebels.[4] Chinese generals sought the mediation of Guangdong compradores to buy, from foreign firms, weapons and machines, as well as to seek advice from the foreign engineers. The first set of machinery was officially acquired in 1864 by the Guangdong compradore Rong Yong (Yung Wing, 1828–1912) in the United States, following the orders of Chinese General Zeng Guofan.[5] After the defeat of the Taiping rebels, the Qing officials planned other industrial undertakings with the collaboration of the compradores.

This first effort of industrialization, the onset of which coincided with the end of the Taiping Rebellion and the Second Opium War, was based on the

principle of using barbarian technology in order to fight against the barbarians or "using barbarians to check barbarians."[6] The first utility of foreign machinery was thus applied in the military, which became the avant-garde of modernity.[7] However, the first promoters of industrialization—Generals Li Hongzhang and Zeng Guofan, and compradores such as Zheng Guanying and Rong Hong—soon realized that this process had to be extended beyond the military war frame to reach the competition or, using their own words, the "commercial war" (*shangzhan*) that was taking place in the market of consumer goods.[8] Therefore, they soon considered establishing textile mills or "using machines to produce cloths of the foreign type."[9] Of course, all industrial products were called "foreign" because they all came from abroad.

Just when the quantity of industrial cotton yarn entering China reached its peak in 1889 (2.7 million *piculs*), the first Chinese cotton mill began to operate in Shanghai with a huge infrastructure of 35,000 spindles and 530 looms.[10] This factory was called Bureau of Industrial Cloth of Shanghai (*Shanghai Jiqi Zhibuju*) and was organized according to a dual system (*guandu shangban*): A state supervision lead by Li Hongzhang and a merchant management entrusted to Sheng Xuanhuai. Its stated purpose, besides substituting the imports of cotton yarn and cloth imports, was to monopolize all the industrial textile production in China, without considering small and medium workshops that already existed. But the experiment did not work: in contrast to small workshops, these mills were not able to produce finished products massively due to lack of technical expertise. The first factory was destroyed in a fire three years after its inauguration. And although five more factories were built shortly afterwards, the industrialization did not spread.[11]

When China surrendered to Japan in 1895, the prohibition of building foreign-owned mills was lifted, and the Qing industrial monopoly came to an end. Subsequently, several spinning and weaving mills were opened by foreign firms and private Chinese entrepreneurs. They were chiefly concentrated in Shanghai, the main entrance of foreign cotton products, where they coexisted with the semi-industrial weaving and dyeing workshops. However, the majority of these large spinning and weaving mills closed down or were sold at the beginning of the twentieth century, no matter if they were Chinese or foreign-owned.[12] Therefore, the problem was not only technical expertise—the engineers of Jardine Matheson (the most important English trading company that built a cotton spinning and weaving company) came from Lancashire, England—but rather that the market was not ripe for industrial goods or that the industrial goods were not well adapted to the realities of the Chinese market. Meanwhile, textile workshops remained.

The industrialization of China only took off when industrial goods from the West decreased and became expensive due to the First World War.

Meanwhile, the country had already created a strong demand for modern industrial goods, especially in the urban markets, enabling industrial ventures to be profitable and worthwhile. The rise in prices of industrial goods brought profits to the Chinese merchants and compradores, thereby creating new opportunities to counter foreign competition by investing in textile machinery. Moreover, these entrepreneurs had also gained experience by observing the workshops and the first big mills of the previous decades, as well as learning from the difficulties they faced.

These merchants and compradores placed orders for textile machines that would only arrive after the First World War, when trade between Europe and China recovered. Between 1919 and 1922, the rhythm of industrialization accelerated and these new companies proved to be more resistant than the previous ones. In 1937, among the 122 cotton spinning mills that existed in China (mostly owned by Chinese and Japanese firms), 46 percent were built between 1919 and 1923, a period known as the "golden age of the Chinese bourgeoisie."[13] This process was highly concentrated in Shanghai and the Yangzi Delta: Two thirds of the spinning mills that were built before 1937 were located in the Yangzi Delta (including Shanghai). It then became the first Chinese region that entered the process of industrialization.[14]

China's imports of textile machinery increased, reaching two million HKT in 1914 and over 30 million in 1922, when import machinery achieved its zenith and all the orders accumulated during the First World War were being delivered.[15] Most of the imports were made by Chinese and Japanese private companies, while the proportion coming from Western firms was marginal. Meanwhile, the weakness of the state kept public investment out of the Yangzi Delta region and the textile business. Only a few cotton mills were founded by Yuan Shikai and the warlords in the northern regions. Japanese private firms took the lead in northern markets, controlling the purchase of cotton in Tianjin and the industrialization of Qingdao. At that time, Japan imposed a tight control over Shandong and the northern regions in the so called "21 demands." The interests of the Japanese cotton sector in North China and the imperialist expansion of the Tokyo government were intimately related.[16]

The machinery trade was controlled by foreign companies who acted as agents of Western or Japanese machinery manufacturers. These trading and engineering firms helped Chinese and the Japanese industrialists close deals with the machine producers and also organized the intercontinental transport of the machinery, which was usually made in several shipments. For instance, the Japanese trading firm Mitsui had the exclusive rights of Britain's most popular spinning machines' manufacturer, the Platt Brothers.[17] In China, the machinery trade created strong transnational ties between Chinese, Japanese,

and Western firms, in contrast to other networks of machinery trade that were mainly oriented nationally, such as in the United States.[18]

The imported technology spilled over the the city of Shanghai, where it was mainly imported, and started reaching the outskirts and over the Yangzi Delta in areas such as Nantong, Wuxi, Suzhou, Changzhou, Hangzhou, and Ningbo. The economic growth that was driven by the textile industry in this region was both unprecedented and one of the fastest growing cotton sectors in the world.[19] In aggregate terms, the Chinese industrial capacity turned from 860,000 spindles in 1913 to 3.6 million in 1922—an unparalleled annual growth rate of 15 percent.[20] The increase in the number of industrial looms was similar, although it started from a lower base. However, these figures don't take into account the workshops or the small and medium mills that integrated weaving and/or dyeing departments without spinning. In Shanghai, workshops still represented the 60 percent of all industries, according to the most extensive research that was done during the 1930s.[21] Thus, in the whole trade and technology network that developed in the Yangzi Delta, spinning mills were only the tip of the iceberg.

The textile machinery trade was dominated by Great Britain and, to a minor extent, by Japan and the United States—all major producers and exporters of cotton goods to China. Between 1911 and 1930, almost half of the total textile machinery that was imported came from Great Britain, and seven tenths of these imports had Shanghai as destination.[22] The machine manufacturers used to work with exclusive agents in China, some of whom, such as Andersen & Meyer, started as importers of cotton cloth from Europe, but changed into machinery trade when they saw the transformation of the Yangzi Delta just after the First World War.[23]

These companies took charge of the machinery importation and the layouts, charging service fees for assisting the Chinese firms besides the commission on sales. When the Chinese company received the machinery, it usually employed a foreign engineer to take charge of the preparation and overhauling of the production plants as well as the formation of skilled workers. These kind of relationships extended the transnational ties of the networks, making them more stable and durable. After years of working together, it was natural for the foreign engineers to become close to their Chinese merchants. They also established mutual trust, between the foreign company that acquired the machinery abroad in the name of the Chinese firm, and the Chinese firm itself, which would entrust most of its initial capital to purchase those machines. Trust is a major determinant in horizontal networks such as the machinery trade and cannot be adequately analyzed by only using quantitative methodologies.[24] It is also through these horizontal

relationship that companies from different nationalities collaborated despite the general ambient of imperialism and nationalism.

## The Transformation of Dafeng

Dafeng was the first Chinese company that dyed cloth using industrial methods in Shanghai. It was also the second in China, after a Shandong pioneer appeared in 1908 and was mechanized in 1918 following a Dafeng-like evolution from a traditional workshop to a modern factory.[25] Dafeng's great transformation took place between 1919 and 1921 when two new factories were built along the banks of the Suzhou creek in Shanghai. They were placed in Caojiadu, out of the border of the International Concessions (the Suzhou creek was the limit) but facing St. John's University, where the founder, compradore Wang Qiyu, studied years before. The two factories—a spinning mill named Zhentai and a weaving and dyeing mill called Dafeng—were opened together in a public inauguration in November of 1922. They both became the first vertically integrated Chinese cotton group.[26]

The transformation started by selling a piece of land that belonged to the old workshop for a high price, leaving only a small portion that was renamed "old factory" (*laochang*). This one kept mercerizing high end cotton yarns, a process that was successful in the period of scarcity during the First World War.[27] In 1920, the shareholders sent all the necessary documents to turn Dafeng into a legal, limited-liability partnership, which could funnel the necessary capital to build the whole mill. Soon, the business was registered under the name of Dafeng Weaving and Dyeing Company, declaring dyeing and mercerizing cotton yarn and cloth as its main economic activities.[28] The company succeeded in raising a capital of 500,000 Shanghai taels (divided into 25,000 shares)—an enormous amount for a workshop, but an average one for a large spinning and weaving mill.[29] This, contrary to traditional dyeing workshops, which operated with a capital of only a few thousand taels, moved Dafeng away from the traditional economy.[30]

Dafeng was located in Caojiadu, an outlying district of Shanghai that had recently been urbanized due to an influx of new industries. Since 1895, when the first factory was established, about 6,000 workers from Subei, Ningbo, Wuxi, and Hubei settled in cheap houses and slums near the old town where about 2,000 people lived.[31] In 1919, there were already eight industrial plants that had been established in the area. The factories were taking advantage of the recent establishment of basic modern facilities such as gas in 1907, electricity in 1908, postal service in 1911, and a train station in 1914.[32] The opening of Dafeng and Zhentai sped up the industrialization of the district of Caojiadu.

Between 1920 and 1921, Dafeng and Zhentai invested the majority of their capital in foreign machinery. The dyeing company purchased all the machines for the finishing process of textile fabrics (yarns and cloths) from several British companies. These included machines for scorching, mercerizing, dyeing vats, drying sets, steel tanks, calendaring cylinders, and other secondary devices. They also bought water pumps; steam engines; and a full set of rollers, cables, and pipes in order to channel electricity, steam, and water.[33] The textile machinery was acquired through the mediation of the British firm Calder Marshall & Co., which was the China agent of the manufacturer Sir James Farmer & Sons from Lancashire, England. Adding the cost of land, the construction of facilities and housing (130,000 taels), and the total cost of machinery (195,000 taels), the factory cost a total of 325,000 taels.[34]

The same group of investors raised a spinning mill just beside Dafeng, with 20,000 spindles of different counts that were bought from the British manufacturers Dobson & Barlow.[35] The spinning mill was a separate company, named Zhentai Spinning and Weaving Company, with a capital of 800,000 taels. Compared to the traditional workshops, this integrated apparatus of spinning, weaving, and dyeing consumed huge amounts of nonhuman energy, mainly electricity and coal, which were essential elements for the functioning of an integrated industrial group.[36] The two mills had access to the electrical grid, but they also erected an energy generating plant between them, with autonomous steam motors that were contracted to a Swiss firm.[37] Dafeng used the motors to pump water from the Suzhou River and also profited from the steamed water for its use in the dyeing process. Besides, Zhentai and Dafeng employed more than 2,000 workers, mostly in the spinning industry. However, the major part of the investment was put into machinery, the layout of the machines, and the energy motors.

The first shareholder meeting of Dafeng took place in June 1921 and elected a board of directors that constituted of the major investors. Yu Baosan, the major investor, was a compradore and member of the Zhenhuatang network; Chen Zixun, the second investor, was a traditional banker from Ningbo; Bao Fengsheng was the third; Xu Chengxun, a cloth trader and compradore;[38] Zhou Xingbo, another foreign and local cloth trader, was the fifth investor; Wu Linshu, an industrial entrepreneur who had founded other spinning and weaving mills, was the sixth; and, finally, Wang Qiyu was the last to be included in the board.[39] Most of the capitalist partners came from the association of foreign cloth and yarn merchants named Zhenhuatang, whose members profited from the rise of real estate prices in the Nanjing Road area, as well as prices of cotton products during the First World War.[40] It is noteworthy that the founder, Wang Qiyu, owned less than 10 percent of

the shares of the company, while the other two founders, Cui Fuzhuang and Yang Xingdi, had even less. The lack of familial links is also remarkable.

Dafeng's first board of directors met several days later with seven members and two financial supervisors. Wang Qiyu was named general manager and the dyer Cui Fuzhuang second manager. The other founder, Yang Xingdi, was kept in the position of mill director, even though the dimensions of the new mill and the new role he would play in the production chain were totally different from the old workshop.[41] Dafeng hired J. Tomlinson, a British engineer from Jardine Matheson & Co. , who worked for Dafeng for five years.[42] The company recruited new personnel that learned from the British engineer. Meanwhile, the dyers who came with Cui Fuzhuang and trained in the old workshop were promoted to managers and account managers.[43]

Because Dafeng was a pioneer in the Chinese cloth finishing, later on its skilled workers changed to other companies spreading the know-how of the dyeing and finishing industries into the Yangzi Delta region. Such was the case of Gu Jisheng (1886–1963), a man from Jiading who had worked in Dafeng since the beginning and then moved to Changzhou before opening his own dyeing mill in 1934.[44] Most of the future dyeing and finishing companies recognized the pioneering role of Dafeng in the production of finished fabrics.[45] Thus, the high turnover of skilled workers helped in spreading industrialization regionally and also helped extend private networks.

## Industrial Experiments in Changzhou: Dalun and Guangyi

The first textile industrial endeavor in Changzhou was Dalun, a company that was founded by Jiang Panfa and Liu Guojun with a modest capital of 90,000 taels. In Changzhou, contacts with the compradores of Shanghai were less direct and the purchase of machinery was, thus, not as straightforward as in Dafeng. In 1915, Jiang Panfa, acting as general manager of Dalun, went directly to Japan to buy machinery for weaving. Six months later, the workshop started to produce with 600 workers and a machinery set consisting of 110 iron looms and 180 old looms of the *shoulaji* type.[46] At the beginning, the cloth quality was not good, and the rumors pointed toward the machines: either they (Dalun) had been cheated by the Japanese or its personnel did not know how to use them. Finally, they had to seek help from the more experienced workers from Jardine & Matheson, who brought better yarns and know-how to improve the textile production. [47]

However, regular production problems persisted at Dalun and started raising concerns among other partners who criticized the leadership of Jiang Panfa and Liu Guojun. While Jiang took care of the management, Liu was responsible for sales; his contact network absorbed an important part of

Dalun's production in its retail shops and also in the wholesale trade of twills to Shanghai and Nanjing urban markets.[48] The workshop launched commercial brands such as "Flying Beard" and "Big Lion," which would later on became famous only after this first period of experimentation. Under pressure from his partners, Liu Guojun quit the company and sold his shares to some investors from Shanghai. Meanwhile, Jiang Panfa stayed on as general manager.[49] Dalun was not registered as a private company until 1919, although there seemed to be an agreement between the parties over the mechanism of buying and selling private equity.

Dalun was registered as a private company in 1919, with the name of Dalun Spinning and Weaving Company, after a capital increase allowed the firm to purchase 10,000 industrial spindles.[50] The machinery was bought through the British agent Calder Marshall, and two Chinese engineers were recruited from the Nantong Textile School (the first education center focused on textile industrial engineering) to overhaul the plant.[51] Dalun started producing yarn in November of 1921, at a time when the market situation had deteriorated in comparison with the First World War and its immediate aftermath. The increase in foreign imports and the boom in spinning factories made cotton yarn cheap, while raw cotton became more expensive, thus, diminishing the margins. Besides, the company encountered administrative and fiscal problems with the local government of Changzhou, which was not used to dealing with industrial undertakings: the land rent contract of the mill and the recruitment of 400 additional workers caused a conflict in the fiscal bureau of the city government. Finally, the spinning mill had to close down due to conflicts with the local government, and the situation worsened in 1924 because of the warlord wars that were spreading through the Yangzi Delta region. In order to save the company, Dalun hired a skilled engineer from Dafeng, Gu Jisheng, who managed to avoid the bankruptcy of the firm.[52] Another spinning company that existed in Changzhou was liquidated during the crisis of 1923 and 1924.[53] The price differentials between raw cotton and yarn, and the political instability in Changzhou were direct causes of these closures—more than labor productivity or other institutional constraints.

Meanwhile, Liu Guojun had started a family workshop named Guangyi in 1918. Compared to Dalun, the dyeing workshop performed better. Guangyi experienced a more positive market situation with cheap yarn prices and expensive cloths, due to the blockage of European and Japanese imports. Therefore, weaving and dyeing workshops received better profits than spinning mills, while the spinning mills that were built in 1919–20 without weaving departments suffered from the crisis in 1923.[54] Guangyi increased its weaving capacity by adding 112 wooden looms in 1923, 36 iron gear looms

in 1924, and the factory gained access to electrical power in 1925. Finally, 18 automatic looms and a dyeing set were added in 1927.[55] Guangyi copied Japanese printed, dyed, and finished cloths but adapted them to the local consumer taste. According to Liu Guojun, the success of Japanese printed fabrics was only due to the weakness of the Chinese firms. Therefore, Liu Guojun profited from the low prices of yarn and made a good profit selling high-end colored cloths made in China that imitated Japanese products.[56]

Since Dalun's financial position was weak, Liu Guojun approached Jiang Panfa's elder brother, who was heavily in debt due to the company's problems and the engineer Gu Jisheng, who was ready to sell his participation, and establish for himself.[57] However, for Liu Guojun, the main weakness of the Chinese textile industry was that factories lacked dyeing departments. If only he could manage to buy Dalun and create a new vertically integrated group, the problems for Dalun would disappear. Finally, Liu Guojun made a down payment of 50,000 yuan to Dalun's shareholders, knowing that he would need ten times more to make the business solvent and became a major shareholder.[58] After a long process of negotiation with the old shareholders, he merged Guangyi and Dalun into a single company which was called Dacheng Spinning, Weaving and Dyeing Company and was registered in May 1930 in Shanghai.[59]

## The Role of Mediators: China Engineers Limited

The machinery trade in China was marginal until the twentieth century. The first Chinese mills purchased the machinery directly from manufacturers in Europe and the United States, and foreign-owned mills were not tolerated until 1895. Foreign trade firms had their own engineering departments for shipyards and warehouses, but they did not develop the machinery trade.[60] However, as the industrialization of China progressed, the machinery trade grew along with the role of mediators. First, this trade was undertaken by the engineering departments of big trading companies, but soon independent firms emerged in Shanghai offering all kinds of engineering services and ready to act as agents of foreign manufacturers, sometimes with exclusivity.

The mediators played a key role in the importation of machinery and in the overhauling of industrial plants. These trading companies offered engineering services not only to private firms, but also to the Chinese central and local governments and to the municipal councils of the International Concessions. They were transnational firms that employed Western engineers, travelers, merchants, as well as Chinese compradores and international Chinese students. For instance, Andersen & Meyer was a company founded

by a Danish merchant who arrived at Shanghai in 1902. However, it was registered as an American business in New York because it had an important entry of capital from that city. In 1931, the company employed around a hundred skilled Chinese workers and collaborated with Chinese industrial owners in textile machines and the Chinese government in railways, telegraphy, and steam engines. In 1931, according to the company's records, it had sold one fifth of all the industrial spindles that were working in China.[61]

Foreign engineers who worked on site established some of the first informal technical schools at the factories, like in Dafeng with the dyeing production.[62] Charles Bronson Rea was an American engineer, journalist, and adventurer who had worked with Sun Yatsen's bureau for railway construction after participating in the wars against Spain in Cuba and the Philippines.[63] In 1922, he did an in-depth research of the machinery sector and compiled detailed information about every cotton mill and weaving workshop in China, including the foreign engineers that were working with them.[64] These engineers trained the first skilled personnel in factories until the creation of technical schools and colleges such as the Nantong Textile School, which was founded in 1912.[65]

According to Rea´s investigations, in 1922, Dafeng, Dalun, and Lixin (discussed later) all had foreign engineering advisors in their plants, despite the lack of references of this engagement in the minutes of shareholders or in the board-of-directors meetings. Dafeng had hired J. Tomlinson and a mill director called A. D. Young, while the spinning company Zhentai had hired another engineer named J. W. Brierley.[66] In general, the foreign engineers lived separately from the rest of the staff and did not participate in the structure of the firms, which were kept Chinese. They were employed discreetly, as highly skilled workers, in charge of the machinery and training new engineers. They also earned a commission on machinery sales, as they were entrusted to close the deals with foreign importers and manufacturers.[67] Despite the discretion of this business, some of them developed strong ties with Chinese companies.

This is the case of the Sino-British company China Engineers Limited.[68] Although being a late-comer in the machine trade, it succeeded in finding a way through the market and in creating strong ties with Dafeng, Lixin, and other Chinese textile firms. Together, they faced the crisis of the 1930s, the war against Japan, the further migration to Hong Kong, and even the communist takeover. China Engineers was one of the last foreign companies that left China in the 1950s. The firm didn't share the imperialistic habits of the big trading firms and approached the Chinese merchants without the superiority of the old Western trading companies. Its founder, William Charles

Gomersall (1895–1960), said in 1959 that "my years in China created in me a profound respect for Chinese merchants."[69]

China Engineers Ltd. was founded in 1928 by a mix of British and Chinese partners.[70] In fact, its founder, William Charles Gomersall, had mixed Chinese and British blood. He was born to a Chinese father, Wong Funghow, who was also an engineer, and a British fine arts painter named Elisabeth Gomersall.[71] The then racial society of the British Empire forbade engagements between British women and Chinese citizens, and Elisabeth could have lost her British citizenship if the case had gone public in Shanghai.[72] Therefore, William Charles Gomersall was sent to Britain, where he studied mechanical engineering at the Polytechnic of Regent Street and at the Manchester College of Technology, before returning to China in 1919. After working 10 years in the engineering department of Jardine Matheson & Co., he created his own company in 1928.[73]

Another important partner of China Engineers was Li Shuxiong (James H. Lee, 1892–1987), born in the Zhoushan Islands, in the same region of Wang Qiyu. He came from a wealthy family of gentry and bankers. His father passed the Confucian examinations, but was also interested in English and other Western learning. His mother was the daughter of a rich traditional banker from Ningbo.[74] Li Shuxiong's maternal lineage played an important role in financing Sun Yatsen's revolution, and in creating China's first stock exchange and Ningbo's second cotton spinning mill.[75] Shuxiong's brother was sent to Britain and came back with one of the first Chinese airplanes in 1912, becoming one of the first Chinese air pilots. In 1915, Li Shuxiong was invited to the inauguration of the Panama Canal and to the world exposition of San Francisco.[76] Shortly afterward, he decided to study engineering at Columbia University in New York.[77] Later on, he moved back to China and took care of the family's real estate assets in Shanghai and also helped to extend the electricity grid in the Yangzi Delta region.[78]

Another partner of China Engineers Ltd. was Eric Shaftesbury Elliston, who had fought the First World War in the British army when he headed for China as a merchant, in 1919.[79] Gomersall, Elliston, and Li were the three founding partners of China Engineers Ltd., a private company registered in Shanghai, but under the ordinances of Hong Kong's company law.[80] However, other merchants too invested in the company from the beginning, like Wang Qiyu or Bejan Dadabhoy Tata (a distant relative of the founder of the Tata group, Jamsetji Tata).[81] The mission of the new company summarized the optimistic vision of industrial engineering. It embraced all kind of activities from public utilities to private business and aimed to mechanize every aspect of the production chain, no matter what primary material or product was considered. For instance, they were ready "to construct, execute, carry

out, equip, improve, work, develop, administer, manage or control in any part of the world public works and conveniences of any kinds."[82] In short, they were transnational carriers of industrialization.

Despite this optimism, their first years were hard as they had to struggle against the competition from the old firms in the context of the Great Depression. Under these circumstances, the first documented contact between China Engineers and Dafeng occurred in 1929, when Gomersall recommended Wang Qiyu to invest in a Shanghai hospital and a rubber plantation in the Straits Settlement.[83] Surely, the relationship between China Engineers and Dafeng was facilitated by the fact that both Wang Qiyu and Li Shuxiong came from the same origin, the Zhoushan Islands. They both participated in the Ningbo Residents Association of Shanghai and, later on, the Shanghai Chamber of Commerce.[84] These associations were determinant in the structure of the horizontal networks that were created between the compradores, the industrialists, and the traditional traders in the city of Shanghai.

During the 1930s, China Engineers worked for several private companies in the textile and public administration sector, becoming the sixth biggest engineering company that operated in China and the largest of the late comers.[85] Besides the textile mills, they also collaborated with the government and with the German firm Siemens in the first iron bridge that was constructed in the city of Ningbo. Both Li Shuxiong, from China Engineers, and Yu Baosan, from the board of Dafeng, participated in the board of the construction project.[86] China Engineers Limited would also publish a journal of engineering called *The China Engineers Quarterly Review*, which focused on promoting technological innovation in different Chinese industries.

## The Machinery Deals of Lixin

An important customer of China Engineers was Lixin. The company originated in Wuxi with the partnership of Tang Xianting and Cheng Jingtang. Although founded in 1920, it only started to produce officially two years later, when the machineries were imported and installed. In 1922, it had 100 automatic looms that worked on electricity, and a complete set of dyeing and mercerizing equipment, similar to the one used by Dafeng. The major goal of the firm, was to adopt modern technology in order to compete with foreign high-quality clothes.[87] The firm had also preserved more than 200 wooden looms of the old workshop, the Lihua Cloth Factory. As it happened with the old workshop of Dafeng, Lihua was not destroyed and it was even preserved as an independent company under the management of Lixin.[88] The new machinery, however, turned Lixin into a modern mill. And at first, it

was imported from Britain through Calder Marshall, the same manufacturer and agent that worked with Dafeng.

The private documentation of Lixin gives more details of how the process of importation and installation of machinery was undertaken. Lixin and Calder Marshall signed a contract in August of 1920 wherein Lixin agreed to pay 20,000 british pounds to the trading company in order to purchase a complete set of British dyeing, bleaching, and finishing machineries.[89] The price did not cover international insurance, which was around 15–20 percent of the cost of the machines. Although being high, it was cheaper than the insurance that covered the transportation inside China, that could reach one quarter of the price of the goods.[90] This percentage indicates the high risk of purchasing machineries beyond the relative security of the International Concessions of Shanghai and the necessity of trust between the machinery agent and the Chinese investors. It means that the insurance companies knew that there was an additional risk of one to four (25 percent) in the purchase of foreign machinery into China.

On the signature of the agreement, the manufacturer promised to deliver the goods in Britain six months after the order, after which the machinery would be shipped by the agent. The payment terms were settled in installments: Twenty five percent would be paid immediately after the signature of the agreement, forty percent together with the arrival of every shipment (in amounts proportionate to the freight value), and the final thirty five percent four months after the last arrival of goods in Shanghai.[91] Outstanding unpaid amounts would suffer an interest rate of seven percent per year, and the exchange rate would be fixed by the Hong Kong and Shanghai Banking Corporation (HSBC) at the day of the arrival of every shipment.[92] The agent would pay the custom duties in Shanghai, unless there is an unexpected increase in the customs tax.

In October of 1920, the inaugural shareholders session of Lixin was constituted with a capital of 300,000 yuan, which covered a 34 percent share of the total investment in machinery, aiming to increase it as long as they received notice of the first shipment.[93] Of course, such deals inevitably implied a strong mutual trust relationship and risk for both the parties. The agent had to pay for the machinery in Britain, and the Chinese investors had to wait for more than a year to see the machines they bought. Therefore, the capital of Lixin was raised while the process of purchasing machinery went on.

When the first shipments arrived in 1921, Calder Marshall sent Lixin the bill of lading, the invoice of the shipment, and the arrival notice along with an order of payment and a contract for the parcel of goods that had arrived.[94] The whole machinery came packed in dozens of boxes and was transported in 20 different ships. In April 1921, while Lixin was waiting

for the machines, both companies signed another agreement in which Lixin purchased 100 automatic looms from the same agent that would later on help the company to consolidate its weaving department with a total of 400 looms.[95] The total amount of this purchase was 7,000 british pounds. In this way, Lixin was the first Chinese mill to integrate weaving and dyeing when it was inaugurated in October 1922.[96] The first company that had imported a complete set of textile finishing machinery was Dafeng, but it had not incorporated a complete weaving department and their looms were still traditional.

Finally, when all the machines arrived, Calder Marshall had to provide, at its own expense, a competent engineer to supervise the installation and the start up process. This common practice needed for the buyer to provide with competent staff to work under the command of the said engineer. Meanwhile, Lixin also provided Calder Marshall all the maps and layouts of the machineries in Wuxi.[97] According to the plan, the new looms produced 300 *pi* of cloth daily, while the old wooden looms had a capacity of only 60. However, the finishing plant produced 500 *pi* of finished cloth daily, so they could dye for other companies too for a fee, as Dafeng did at that time, making a profit. Their calculations estimated that they could make a yearly profit of more than 100,000 yuan, which would pay back the investment in a reasonable amount of time.[98]

Meanwhile, Tang Xiangting was elected president of the board of directors of Lixin. Even though the mill was in Wuxi, the company was registered in the Shanghai Municipal Council in March 1921.[99] The board agreed to pay insurance and to increase the capital amount, since the purchase of machinery had consumed 250,000 of the 300,000 yuan of initial capital.[100] The capital was doubled in the following year. This case exemplifies how industrial companies of the Yangzi Delta put most of their investment in the machineries, hoping to get current capital with sales. For instance, the board of Lixin also agreed that the second son of Tang Xiangting, Tang Junyuan (1901–1992), would be hired as engineer of the new dyeing department and would learn from the British engineer-in-charge of the plant, G. Thomas.[101]

Tang Junyuan had studied chemistry at Soochow University, a private Methodist university in Suzhou that became one of the most prestigious academic institutions of the Yangzi Delta region. Tang Junyuan demonstrated leadership and technical skills, and was appointed as the plant director in 1925. Under his leadership, Lixin kept investing in machinery, in a race against their competitors for technology, in order to fulfill the growing demand of the Chinese urban markets. In this way, Lixin pioneered in adopting the technology for mercerizing black aniline.[102] As Dafeng had pioneered the khaki cloth and the blue indanthrene, this was one of the colors that

boomed with the spread of Shanghai fashion. In contrast to other textile companies of Wuxi, Lixin was more consumer-oriented and conscious of the fashion phenomenon that was emerging in Shanghai and the Yangzi Delta region.[103] That's how Lixin and Dafeng invested in technologies and quickly dominated specific demands for cloths that no other Chinese company could produce.

China Engineers became the most important machinery provider for Lixin because offered better payment terms than Calder Marshall. According to the agreement between China Engineers and Lixin, payments started at the arrival of the goods in Shanghai: twenty five percent at the arrival of the first shipment and the last fifteen percent fifteen months after of the arrival of the last shipment.[104] These conditions allowed Lixin to start operating with the machineries and pay back the debt with the turnover of their manufactured goods. In the journal of China Engineers, Lixin was proudly presented as one of the most "successful, prosperous and progressive [mills] of all China." The firm was committed to adopting the most modern technology and, therefore, placed regular orders of machineries and accessories.[105]

In 1931, Lixin bought 17,000 spindles though China Engineers, who were an exclusive agent of British manufacturer Tweedales & Smalleys. The machines arrived in 16 shipments during the following year and China Engineers was paid only after the last cargo landed in Shanghai. Of course, this kind of deal was more risky for the machinery provider that needed a higher level of trust with their customers. The spinning machinery was a complex set that included different machines with very different sizes: a cotton bale breaker; bale openers with lattice and spikes; hopper and lattice feeders; scutchers; revolving flat carding machines; drawing, slubbing, and intermediate frames; roving frames; and finally, ring spinning frames with winding and doubling machines.[106] All these machines were very heavy and difficult to move, but structured the production chain where raw cotton was transformed into cloth and finally dyed.[107] As in the case of Dafeng, these machines needed a powerful supply of energy in the form of electricity, steam motors, or both. Once again, Lixin purchased motors through China Engineers for the new spinning department.[108] Therefore, the relationship between Lixin and China Engineers became stronger and brought mutual benefit to both the parties.

# CHAPTER 3

# Integrated Firms in a Dual Market

## Introduction

Between 1912 and 1937, the Yangzi Delta experienced a process of rapid industrialization. At the eve of the Japanese occupation, the regional economy of the Jiang-Zhe area (covering the provinces of Jiangsu, Zhejiang, and the city of Shanghai) was only comparable to Japan and was the second most industrialized region of East Asia.[1] However, the rest of China did not follow the same path and, despite the efforts of Republican China to modernize its economy, it remained rural and poor. In 1933, per capita GDP of China was USD 578 while Japan's was 2,129.[2] One of the most striking elements of this process of industrialization is that the largest contributor to China's industrial growth—a growth rate that averaged 8 percent annually between 1912 and 1936—was the textile sector of the Yangzi Delta.[3] Ironically, cloth consumption per capita for the Chinese population fell during this same period.[4] The fragmentation in the Chinese market explains this "dual economy," where regional industrialization contrasted with the rest of the country.[5]

The Chinese official history attributes this unequal development to speculation and the imperialistic character of the compradore class, while the rest of the country remained under a feudalistic yoke.[6] Other literature, however, tries to find institutional constraints in the state, or in the structure of Chinese firms, to explain the lack of development and the failure of strong spillover effects.[7] Surprisingly, interfirm relations and the situation of consumer markets have received scarcer attention, although both are fundamental to the economic performance of a modern industry. Industrial production requires regular supplies and expansive markets, so that costs of production and sales can be predicted. These conditions can be secured outside the country, as in the case of the British cotton industry, or by expanding domestic markets, as it happened in the United States.[8] But the existence of regular supplies and an expanding consumption market is a *sine qua non* condition for sustaining

economic growth that is driven by industrialization. However, in China it became very difficult for industrial entrepreneurs to consolidate supply chains and develop stable consumer markets. During this period they vacillated between a fragmented domestic market, foreign trade, and the urban consumers of the Yangzi Delta.

The fragmentation in the Chinese market hindered the penetration of all industrial goods to the interior of the country, where domestic traditional handicraft proved to be very flexible and adaptable. This explains why, in 1937, traditionally made yarn still represented one fourth of the total Chinese market—despite machine spinning being 44 times more efficient than manual spinning—whereas domestically made clothes still had a dominant share.[9] In the poorer areas, peasant families kept spinning and weaving for self consumption, whereas industrial goods were neither available nor competitive. The fragmentation in the Chinese market can also be assessed by the price divergence between regions of staple products, such as raw cotton or rice.[10] Therefore, industrial goods were concentrated in Shanghai and the Yangzi Delta region, while it was difficult to move them beyond the framework of the treaty ports and the Yangzi river basin.

Meanwhile, in the Yangzi Delta, the war on prices, raw cotton shortages, cut-throat competition, and speculation created recurrent crisis that affected margins, liquidity, and solvency of cotton firms during the 1920s and 1930s.[11] In 1920, imports of cotton goods to China reached their historical peak, coinciding with the rise of the machinery trade and the world's cotton industry climacteric.[12] Due to its geography, Shanghai and the Yangzi Delta had easy access to both foreign and domestic trade, so most of the industries, importers, and distributors were concentrated there, especially in Shanghai. Therefore, competition was fierce in highly volatile markets and the benefits were more the result of the changing conditions of the domestic and international markets than the outcome of productivity or of a long term rational strategy.

According to a foreign expert, the perspective of Chinese textile firms in the region was hazardous: "it will depend upon the luck or otherwise in the purchase of the raw material whether the mill makes a profit or a loss."[13] Despite being the world's third largest producer, the supplies of Chinese raw cotton to the Yangzi Delta region were uncertain and the short staple of the domestic cotton forced Chinese firms to combine local cotton with imported one. Raw cotton represented around 80 percent of the production cost of a cotton yarn.[14] The price of raw cotton almost doubled between 1913 and 1930, creating huge cost pressures upon textile companies. The price of yarn also doubled but not without strong fluctuations and setbacks.[15] Vertical integration was a way of avoiding the volatility of prices by producing more

sophisticated products with less competition and higher prices. The other way to thrive was through speculation.

The fragmentation in the Chinese market was due to several factors. First, the Treaty Port System—and the extension of the Concessions to major ports of interregional commerce—turned Chinese commercial transactions that traveled from one Concession to another into exports. In 1929, among exports registered by the customs, 66 percent of raw cotton, 87 percent of cotton yarn, and 80 percent of cotton cloth were, in fact, destined to other Chinese ports but were taxed with export or transit duties.[16] The Chinese Maritime Customs had alerted that China would never have the means to industrialize because Japanese companies had fiscal advantages in the Chinese market, not only in cotton yarns and clothes, but also in raw cotton that could be exported to Japan in a better condition rather being transported inside China instead.[17] As a result, Japanese trading firms took control of the northern markets and broke the traditional trade link between northern raw cotton producing regions and the Yangzi Delta region. Japanese economic interests in North China spurred its imperialistic ambitions and affected the economic performance of Chinese textile firms.[18]

The second factor responsible for fragmentation in Chinese markets was that, in sharp contrast with foreign trade and the traffic between open ports, domestic trading costs in China could not be anticipated. In particular, the establishment of the *lijin* tax and the arbitrariness that entailed its implementation froze interregional and intraregional trade of Chinese goods. The Chinese trader could not anticipate the inland transportation costs for carrying merchandise beyond the Concessions. The inner China transport cost could be estimated by using the price of international insurance, which was set at 25 percent of the price of the goods. Security costs became another key factor, since banditry endangered communication routes after the disintegration of the state and the extension of the warlord period, just when the Chinese industrialization was taking off.

Industrial products from the Yangzi Delta were sold to wholesale and retail traders from the region, and also to distributors who transported the goods to other distant regions.[19] But, the long distance trade within China depended on fortuitous factors, such as the political situation, arbitrary taxes, road insecurity, climatic conditions, and the state of infrastructures. Meanwhile, the urban consumer markets of Shanghai and, to a minor extent, Wuxi, Changzhou, and Hangzhou boomed with the emerging modern urban classes. The population of Shanghai grew from half million people in 1890 to more than three million in the 1930s, and a modern fashion emerged with the new products that were sold in the department stores of Shanghai.[20] At the same time, Chinese exports of cotton yarns to other countries grew at

an amazing rate of 60 percent annually between 1913 and 1924, while cotton piece goods found a way in distant markets, reaching as far as Turkey, Aden, and Egypt in the late 1920s.[21] The growth of exports outpaced the growth of the industrialization itself.

The third factor was that climatic conditions and natural disasters made traditional trading routes, such as the Grand Canal, impassable barriers causing deep poverty and high mortality rates in the affected areas. Major floods and droughts have affected the Huanghe, Yangzi, and Huaihe rivers since the mid-nineteenth century until the 1930s, when three of the five deadliest floods ever recorded took place: the Yangzi floods of 1931 and 1935, and the Huanghe river flood of 1938.[22] According to John Lossing Buck, some localities of the upper Grand Canal area suffered an average of almost one natural disaster per year during the first decades of the twentieth century.[23] As a consequence of these disasters, traditional routes and networks that gave structure to the continental inner trade of China—mainly through fluvial channels—collapsed, creating social unrest and a deep economic crisis in the countryside. The ambitious plans of Sun Yatsen for railway construction, steamship vessels, and railways proved insufficient and did not replace the traditional trade routes. Actually, they only linked the most important ports that were administered by the Chinese Maritime Customs, without penetrating beyond the Concessions.[24]

Of course, these Chinese companies benefited from the boycott movements against foreign goods that were generalized during the 1920s and 1930s. Because imports of British and American yarns and cloths had already been damaged by earlier boycotts and by Asian competition, the major rivalry was between Chinese and Japanese goods. In this sense, with the generalization of boycotts, cloth distributors and retailers stopped buying Japanese cloth to rely on Chinese workshops and mills. As these firms had evolved from finishing to spinning, they had stronger links with local retailers and a better knowledge of the final consumer markets. Therefore, their financial situation was more solid than the companies that only spun coarse yarns for the rural markets.

The fragmentation in the Chinese market led to the strengthening of the transnational networks. The merchant community of Ningbo, which had traditionally been active in the foreign trade business, gained power in contrast to the trade networks of Jiangsu, Anhui, or Zhejiang, that were more focused on the domestic markets.[25] As for Dafeng, Lixin, and Dacheng, they all depended on foreign markets not only for imported products, but also for exporting goods abroad. The founder of Dafeng, Cui Fuzhuang, calculated that every year, Chinese cotton mills needed 50.4 million taels for imported machinery, 17.5 million for foreign raw cotton and 6 million for

dyes and other chemicals to keep working. According to him, textile companies were so dependent on foreign trade that if a specific "foreign nail" was lacking, the whole textile mill could be left without means to produce, before being obliged to close.[26] All these necessary supplies were controlled by foreign firms and by Chinese compradores. The fragmentation in the Chinese market drove textile firms to enhance these transnational networks.

## Dafeng and the Crisis of 1923

The vertical integration in Dafeng and Lixin was motivated by the goal of securing standardized supplies of high quality yarns and piece goods, and a regular market of sales, avoiding the fierce competition that took place in the market for cotton yarns and coarser cloth.[27] When these mills were not vertically integrated, they depended on the volatility of markets and, therefore, could not make a reliable estimate of their profits and losses, not even in the short term. In 1922, Wang Qiyu made it clear that in order to ensure the quality of their products, Dafeng had to become vertically integrated. Otherwise, they depended on unreliable suppliers and importers, with whom orders had to be placed six months in advance, without knowing exactly what kind of product would finally arrive.[28] Integrated mills gained control of the production chain, solving some of the bottlenecks because the cotton yarn they produced could be sold to the market or kept inside the factory to be further transformed, as they saw fit. However, these companies were still not totally liberated from the dependency of foreign markets.

Vertical integrated mills had another advantage: they were closer to the final consumer. The Shanghai retail market prospered at an amazing rate thanks to the urbanization of the region and the boom in Shanghai fashion, a mix of Western, Chinese, and Asian styles.[29] Innovations such as the *qipao* dress for woman and the Sun Yatsen's jacket for men became symbols of the Chinese nationalism and modernity. In contrast to the coarse yarns destined for the peasant population, cotton venetians could give a 35 percent margin at retail prices in Shanghai.[30] This was one of the motivations that drove Lixin to acquire new high-range technological equipment, copying Dafeng's strategy. Lixin aimed to excel in mercerization and dyeing, and to achieve this objective, Tang Xiangting believed that Lixin had to rely on technology and innovation.[31]

During the 1920s, Japanese trading companies changed their strategy. From coarser products they started to import high-end finished and colored fabrics (such as venetians, sateens, and drills).[32] Therefore, the main competition for Dafeng, Lixin, and Dacheng were imports from Japan that were being sold in the urban markets. These brands of higher quality were also

pioneers in exporting to the Southeast Asia. During the Japanese boycotts of the mid 1920s and early 1930s, Chinese brands came to dominate the market. That was the golden period of vertically integrated companies such as Dafeng, Lixin, Dacheng.

Vertical integration meant a continuous investment in machinery and technology. In November of 1922, just when Dafeng and Zhentai had started producing, the board of directors of Dafeng discussed the purchase of new automatic looms as they still relied on the semi-industrial looms of the *shoulaji* type, which came from the old workshop.[33] The new looms would use the mercerized yarns of Dafeng to weave high-quality products such as Italian sateens, drills, and venetians. In contrast, existing mills in China, except some Japanese-owned ones, did not have the capacity to produce such high quality products that in Shanghai were not only scarce and expensive but also fashionable. This situation secured high margins and turnover.

The Ningbo bankers who were present at the board of Dafeng, Xu Chengxun and Chen Zixun, calculated that the cost of the purchase would double the debt of the company, reaching 630,000 taels. But they also argued that the looms would bring a monthly profit of about 50,000 taels, proving that looms could be paid for in less than a year. After the first year, the looms would generate more capital to build extra space and, occasionally, to invest in more engines, such as the modern printing machines that were still absent in China.[34] In the spring of 1923, when the shareholders finally accepted the project, 200 automatic looms were ordered through the engineering department of Jardine Matheson & Company. That year, shareholders did not receive any dividends and all profits were reinvested in machinery; 50 additional looms were bought in 1924.[35] For Dafeng, the short-term return on investment was not the priority.

In the meantime, Cui Fuzhuang and the British engineer who worked with Dafeng went to Japan looking for scorching and bleaching machines to produce high-quality whitened cloths that Dafeng was still importing. Cui Fuzhuang was clearly impressed by the level of specialization in the Japanese industry. He took factories of umbrellas as models, where small workshops, big mills, assembly units, and distributors all worked in a network that was clearly integrated.[36] In 1924, Cui Fuzhuang visited Southeast Asia to study the potential demand for Dafeng's products among the Chinese overseas community.[37]

Dafeng and other vertically integrated factories avoided the crisis that affected the Chinese textile sector during 1923 and 1924, when many spinning and weaving mills went bankrupt. The crisis happened due to an increase in the price of raw cotton because of poor harvests in the Yangzi Delta region; Japanese control over cotton crops in the north; and a fall in the

price of cotton yarn.[38] Zhentai Spinning and Weaving Company could have also suffered from this crisis had it not have a vertically integrated structure. The yarns of Zhentai were kept inside the industrial group and were consumed in Dafeng's production process. Once mercerized and weaved, they were sold as finished cloth—ready to be tailored or sold in retail—while the yarns, which were most affected by the deflationary crisis, were not sold in the open market.[39] Because Dafeng was among the few companies that had the know-how of industrial finishing, it also dyed for other companies for a good margin. In 1925, Dafeng gave dividends to its shareholders for the first time, even though a minority still suggested reinvesting them into more machinery purchases.[40]

In short, Dafeng safeguarded itself from the volatility of intermediate goods and it also protected its main partner, Zhentai, its primary yarn supplier.[41] Following Dafeng's strategy, Zhentai kept investing in machinery and purchased 400 British looms from the firm Hattersley & Sons.[42] Meanwhile, it strengthened its transnational network to secure regular supplies of raw cotton. In 1925, the company was elected for the first committee of the Indian Cotton Importers Association, a transnational association that integrated 49 cotton mills, 29 cotton merchants, and shipping companies from Japan and Great Britain. The mission of this association was to secure regular supplies of raw cotton from India and saw participation by major British, Chinese, Japanese, Swiss, and Indian trading firms as well as Chinese industrialists. Wang Qiyu was elected for the board meeting that took place in Yokohama Specie Bank's headquarters in Shanghai.[43]

The crisis of 1923–1924 started after terrible floods affected the Yangzi River and the cotton crops that depended on it for irrigation, thereby increasing the price of Chinese raw cotton and putting into a standstill the fluvial trading networks that connected the Yangzi River with the interior of China. The biggest cotton producing regions in China were Jiangsu, Hubei, Hebei, and Shandong—although the crops collected in each region fluctuated according to climatic contingencies. For instance, in 1921, Jiangsu harvested 44.7 percent of the total output in China, while in 1930–1931, it was only 8.8 percent.[44] This regional variability made interregional trade imperative so as to balance supplies when a region collapsed because of a climate disaster.[45] However, due to fragmentation in the Chinese market and the gradual increase in control by Japanese trading companies of the northern markets, the price of raw cotton in the Yangzi Delta region became very volatile, creating panic and speculation in the market of cotton futures, as it happened in the crisis of 1923.[46]

This crisis was further aggravated by the extension of the conflict between warlords, creating a situation of chaos and violence. Furthermore, the collapse

of trading routes favored the emergence of criminal associations such as the Green Gang, which was originally an association of boatmen from the Grand Canal.[47] The Green Gang worked in the opium trade, but was also involved in recruiting workers from the countryside for cotton mills.[48] Social unrest emerged after several cotton mills had to close down due to their financial situation, leaving workers unemployed. This crisis came in the most decisive of moments, when most of the firms were just starting and were still under debt from their machinery purchases. Therefore, the financial problems of spinning companies were provoked by market circumstances and were intimately related to margins and raw materials. In a standard spinning company, four fifths of the fixed cost accounted for the raw material, especially cotton, so the price differential between the raw material and the price of yarn was the determinant factor for profits and losses. The remaining costs, such as the productivity of workers or the interest rates, were relatively unimportant to the outcome of the business.[49]

Meanwhile, the board of directors at Dafeng met in 1926 to discuss the recent popularity of printed cloth.[50] That year, a new fashion magazine, called *Liangyou*, appeared in Shanghai showing the latest fashion trends such as the famous *qipao*.[51] At Dafeng, they discussed the purchase of printing machines that would produce cotton copies of silk brocades from some of the most expensive *qipaos*, and decided to report this decision at the meeting of the shareholders. Printing machines were expensive (around 10,000 taels) but no other Chinese company had it, so profits looked promising. Finally, Dafeng increased its capital to 1 million taels and incorporated new shareholders. Dafeng had more than 300 shareholders, most of them being small retailers, tailors, shop owners, and distributors from Shanghai and its outskirts.[52] In May 1927, Dafeng put to work four printing machines that could make perfect flowers and other motives on cloth.[53] Companies that could produce high-quality goods were better protected from the fragmentation in the Chinese market, since they used imported raw cotton and were concentrated on the urban markets of the Yangzi Delta region and other big cities in China.

## The Vertical Integration of Lixin

Lixin copied from Dafeng the idea of vertically integrating the spinning, weaving, and dyeing units. Nevertheless, its first years were more problematic, primarily due to a scarcity of capital, weak sales during the first years, and the insecurity that spread in Wuxi and other cities that had suffered from the floods and the warlords. For instance, between 1924 and 1925, military troops were stationed in Wuxi and, as a result, the company had to close

for nine months.[54] The general manager, Cheng Jingtang, accused the military of burning and looting their sales department and other premises of the factory.[55] Due to this serious situation, he made a call to increase the capital and put off the payment of fixed dividends, causing deep concerns among shareholders who were not convinced about the idea of putting more money into the business.[56] Despite these setbacks, Cheng was optimistic because the machinery was not damaged and the price of cloth was rising, so they were gaining profits by storing stock in the warehouse.[57] However, Cheng Jingtang and Tang Xiangting had to go through difficulties and hardships during the first eight years of Lixin, which suffered annual losses until 1925.[58]

That year, an incident in a Japanese mill brought about serious consequences through the history of China. A worker was killed at the doors of a well-known Japanese spinning and weaving mill. The murder provoked a big demonstration in the International Concession of Shanghai that finished violently, when British colonial police opened fired on the demonstrators. Under the leadership of the trade unionist Li Lisan, a massive movement of the working class was mobilized and the Chinese Communist Party was transformed from a party of intellectuals to a mass political movement. Soon, a massive boycott against Japanese and British products ensued, creating huge losses for the foreign competitors. Therefore, even though Chinese textile firms such as Dafeng and Lixin had to close several weeks after the incident, especially due to the electricity cuts, they ultimately benefited from the situation, as the market of high-end clothes was suddenly cleared of Japanese and British goods.[59]

For Lixin, more than strikes or boycotts, its main problem was the transport blockades that, in the opinion of the shareholders and directors, hindered the business of the company.[60] Raw cotton in Wuxi was 60 percent domestic and 40 percent foreign; domestic raw cotton was carried by boat from Jiading or Suzhou and foreign raw cotton was normally delivered from Shanghai, although this trade was not regular.[61] The lack of security during transport made the textile firms of Wuxi to rely more on foreign cotton and to focus on the urban markets of the Yangzi Delta, instead of China's long-distance trade. Following the model of Dafeng, Lixin also tried to sell cotton goods to Southeast Asian markets.[62] In the 1930s, exports of Chinese textile goods to Southeast Asia increased due to fragmentation and instability in China's domestic markets and the support of the Chinese diaspora to the boycott movements.[63]

The boycotts of 1925 increased the demand of textile-finished goods made in China. However, only a few Chinese companies such as Dafeng or Lixin were able to produce the high- quality printed cloths that were in demand during the Chinese movement for the consumption of national products.

Because printed and dyed cloth made in China was scarce, Chinese traders operating in the inner markets created fakes and mixes between foreign and Chinese goods. As a result, a new category, "bad quality products" (*liehuo*), appeared just besides the labels of national and foreign goods.[64] Dafeng, Lixin, and Dacheng had trademarks that were recognized as "national products" (*guohuo*) of these kind of cloths, and profits skyrocketed. According to the nationalist regime, the national goods movement was intended to free the markets of China from foreign competition.[65]

Since May 1925, when the Shanghai protest was on its height, Lixin reported regular production and profits after years of uncertainty and problems.[66] The company was confident that the boycotts would be a turning point and, following the example of Dafeng, they invested in machinery—ordering more looms through the British agent Calder Marshall.[67] Meanwhile, both Lixin and Dafeng entered the market of advertisements and publicity that boomed in the cities of the Yangzi Delta region, emphasizing the Chinese nationality of their products.[68]

In 1927, Dafeng had 14 different brands with the license of Chinese "national goods" (*guohuo*).[69] Meanwhile, Lixin also registered its own trademarks: "Double Carp" (shuangli) for mercerized yarns; "Sima Guang" (the name of a famous historian) for its famous venetians; "Fountain Hill" (huiquanshan) for white shirtings; "Victory King" (changsheng wang) for white and black poplins; "Always Satisfy" (wanqian ruyi) for grey and dyed sheetings; and more.[70] The advertisements were painted first in black and white and later with bright colors mainly depicting the symbols of animals that had good fortune attributions.[71]

In this period of expansion of fashionable Chinese textiles, Lixin again suffered from an absence of security and was affected by a larger strike and, later in 1927, it was attacked by nationalist troops, all of which lead to paralyzed production for months.[72] Comparing the evolution of Dafeng in Shanghai and Lixin in Wuxi, it seems that the Northern Campaign and the massacre of communists that took place in Shanghai in April 1927 affected the company of Cheng Jingtang and Tang Xiangting more than Wang Qiyu and Cui Fuzhuang's firm. In May 1927, the directors of Dafeng met and reported losses for the previous months, but it was mainly due to rise in the price of coal (40 percent) and electricity cuts. However, there were no problems with the workers, who accepted a general increase in wages at 10 percent, implying that they kept producing while electricity was available.[73]

Although Dafeng and Lixin produced the same type of goods, Dafeng was more optimistic than Lixin. While Lixin was complaining about the lack of transportation facilities, Dafeng was trying to build a bridge that

would connect the factory with the International Concession of Shanghai.[74] In short, it seems that Shanghai was a better place for running a textile mill, not only because of its institutional basis, but also because the city was safer—even in one of the worst moments of violence—and easier to secure a regular flow of supplies, such as foreign raw cotton.

At the same time, both companies decided to integrate the highest stage of textile production, the printing machines, hoping to attract the urban consumer. The machines for dyeing, bleaching and printing could massively produce the goods that were most in demand in the urban market but they were expensive and difficult to operate. Dafeng increased its capital and bought four printing machines from Japan in 1927, while Lixin still had to wait until it was transformed in 1931, increasing its capital and buying new spindles and printing machines.[75] Once it made this step further, the company changed its name and became Lixin Spinning, Weaving and Dyeing Company Limited, proudly announcing its vertical integration success.[76]

## Liu Guojun, Dacheng, and China's Dual Market

Compared to other textile entrepreneurs, Liu Guojun wrote extensively about the Chinese economy, history, and politics. People who knew him pointed out that he was an expert on market trends, and he believed that the most needed skill for running a company was psychology and not financial skills.[77] Because the market for textile goods was constantly changing, businessmen had to think about how to adapt to every new trend. Cui Fuzhuang also emphasized the need for adapting to the changing trends as the main secret of textile manufacturing.[78] When almost the whole sector felt the effects of the Great Depression, Dacheng grew at an unprecedented rate: increasing its capital by a factor of five in five years of its foundation. No doubt, the success of Dacheng can be attributed to its vertical integration strategy and to its constant effort in creating new products.

Liu Guojun was also a nationalist who knew that cotton factories faced fierce competition, not only from Chinese and foreign industrial goods, but also from hand-made clothes. According to him, in order to succeed in the textile business, it was absolutely necessary to adopt a strong emphasis on training and technology.[79] But he was also aware that in the poorest regions of China, it was almost impossible to distribute and sell industrial goods—the people were simply too poor to buy them. Therefore, he suggested enhancing the manual domestic spinning and weaving as a way of self consumption and as a solution to the extreme poverty that the Chinese countryside was suffering from. In fact, he admired Gandhi's nationalism, who supported manual

spinning as a form of boycott against foreign goods.[80] In contrast to other industrial entrepreneurs like Wang Qiyu and Tang Xiangting, Liu Guojun had experience in hand spinning when, as a young kid, he helped his mother to spin. He always had a personal vision of the textile business.

When Liu Guojun wrote this essay defending hand spinning, Japan had just invaded the northeast region of China and the sounds of war were omnipresent. He argued that despite the foreign investment and the fact that half of the industrial textile capital was in Japanese hands, still, there was only one industrial spindle for every 200 persons. Therefore, if Japanese mills were forced to shut down due to the boycotts against foreign goods, it would only create more unemployment and scarcity in China. The fact was that natural disasters and wars had isolated huge regions of China, where people could only make clothes with their own hands.[81] Therefore, he declared that the government should encourage manual spinning and weaving in the poorest provinces, especially in the areas most affected by natural calamities. Liu Guojun, one of the most successful entrepreneurs in the textile sector, was clear about the fact that poor people and isolated regions of China would not consume products of Dacheng.

Nevertheless, in the first year of Dacheng, the company earned a profit of 450,000 yuan, one of the highest in the Chinese business history of the Republican times.[82] An year before, in February 1930, Liu Guojun merged Dalun and Guangyi and created Dacheng with the help of a credit loan of 400,000 yuan, which was given by The Shanghai Commercial & Savings Bank.[83] He did not have a problem in obtaining the credit because Guangyi had been profitable in the past—in contrast to other textile firms, such as Dalun. He merged a spinning and weaving mill with a weaving and finishing company, creating a new vertically integrated group that was similar to Dafeng and Lixin.[84] He convinced the shareholders that he would invest the credit into buying more machinery and modernizing the installations, something that would ensure a secure turnover and profits.[85] Dacheng became the perfect model for a vertically integrated Chinese company and is often studied in Chinese business history.[86] He finally introduced a new generation into the management: Lu Shaoyun (1894–1988) at the spinning mill, Liu Jingji (1902–1997), and later on, Cha Jimin (1914–2007). Meanwhile, Jiang Panfa left active management, but became Liu Guojun's advisor during the transition.[87]

Lu Shaoyun was influenced by the educator and reformist Huang Yanpei (1878–1965), before studying textile engineering in Japan. He was a very serious engineer from Shanghai who reported every ten days to Liu Guojun about production and sales.[88] For his part, Huang Yanpei was a famous reformer who was educated in the Confucian tradition, but also opened

several modern "vocational" schools in Shanghai and the Yangzi Delta region, following the need to train for new skills required for industrial development. He was a reader of the pragmatist philosophy that had been translated into Chinese, a democrat, and a writer of essays about how to improve education and progress in China. Liu Guojun read Huang Yanpei's essays and was convinced about his modern method.[89] According to Liu Guojun, the main difference between Japan and China was the ability in promoting education and Western knowledge.[90] Liu Guojun selected people with good educational background in technical skills and also previous experience in the finishing sector. Furthermore, Dacheng established a technical school for workers teaching finishing skills that were far more complicated than spinning. Liu Guojun stressed the necessity that all workers become familiar with the machineries and the design of the productions chains.[91]

Liu Jingji studied in a mechanical school in Jiangsu, but had to quit at the age of 16 when his father passed away.[92] His life's trajectory was similar to Liu Guojun's, but the relationship between both of them was never easy. They came from the same town and shared the same surname, although their familial relation was distant at best. But more importantly, Liu Jingji was the son-in-law of the founding shareholder of Dalun, Wu Jingyuan, who had opposed to the purchase of Dalun by Liu Guojun.[93] Liu Jingji had previously worked in Dalun, and other companies, before being recruited by Liu Guojun in 1930 after Wu Jingyuan accepted the merger.[94] Liu Jingji worked in the head office and made the deals for raw cotton and other products in Shanghai. He took the train every week to report about prices and the state of the business to Liu Guojun and the rest of the board of directors.[95] The cotton mills of Wuxi and Changzhou needed one man permanently in Shanghai to control the prices of raw cotton, machineries, and other necessities.

Finally, Cha Jimin was born in a small village, not far from the city of Haining, in the neighboring province of Zhejiang. But the Cha family, like the Tang family, was well known in the region, with ancestors that were government officials and 81 generations that could be traced back to the earliest Chinese dynasties. In 1927, he studied dyeing engineering from a textile school that was founded in the city of Hangzhou under the patronage of Zhejiang University. He also worked as an apprentice in Shanghai at Dafeng, for a short period of time. As it happened with Gu Jisheng, Cha Jimin left Dafeng for Changzhou and enrolled in Liu Guojun's project.[96] Cha Jimin would be responsible for the modernization of the Dacheng mill number two, the old Guangyi, and his mission would be to transform the mill from a traditional dyeing workshop into a modern dyeing mill, similar to Dafeng or Lixin.[97] He became the right-hand man of Liu Guojun, especially after he married his daughter, Liu Biru, in 1936. Together, Liu Guojun and Cha

Jimin went to Japan three times in order to study the production of high-end fabrics.[98]

In 1931, Liu Guojun, Lu Shaoyun, and the young apprentice, Cha Jimin, traveled to Japan to analyze how cotton mills were run in that country. But the Japanese did not allow them to enter the factories of fine fabrics. Liu Guojun was especially interested in developing techniques for velvet and velveteen (corduroy), so he wanted to buy the machines in Japan and learn the know-how.[99] He finally succeeded in buying machines for making velvets and a printing machine that could use eight colors. With this purchase, Dacheng became one of the few Chinese companies that could do industrial printing, along with Dafeng and Lixin. Back in China, he pioneered the production of velvets for the high-end urban markets of the Yangzi Delta region.[100] In contrast to Lixin or Dafeng's way of buying machinery, Liu Guojun would personally travel to a foreign country and purchase the machinery directly for Dacheng.

In the years that followed, Dacheng invested heavily in machinery—importing a complete set of dyeing, mercerizing, and printing machine for plant number two and doubling the capacity of spinning and weaving for plant number one. Their most relevant success came with the original cloth they produced, such as the velvets and the printed cloth that were commercialized under well-known brands such as "Two Rabbits" (shuangtu); "World Butterfly" (dieqiu); "Cat and Bird" (maoqiao); "Flying Bear" (feixiong); and the main brand of cotton yarn, the famous "Six Cranes" (liuhe) that was later called "Flying Tiger" (feihu).[101] Dacheng was focused on the Chinese market, especially in the Yangzi Delta (comprising of Shanghai, Hankou, Hunan, Anhui, and Sichuan) and, to a minor extent, in the coastal regions (Tianjin, Shandong, and Guangdong).[102]

Like Lixin and Dafeng, Dacheng used chemical dyes derived from aniline formulas that were invented by the German chemical industry. Dacheng did a thorough research about the market of these products in China, including which companies could dye using aniline and what products they had placed in the market as well as the skills and the salary that the workers had to receive.[103] For instance, for "copper black," there were only four national (including Dafeng) and two foreign companies. Knowing the weak and strong points of each competing firm, the new finishing factory was totally transformed—from the original Guangyi to the new Dacheng—under the surveillance of Cha Jimin and the assistance of China United Engineers Ltd., a competitor of China Engineers Limited.[104]

Liu Guojun's management was very successful if we consider the profits that Dacheng collected during the first years of performance. In fact, his career is studied as a model of success in the history of Chinese management,

because he made the company grow by a factor of eight in eight years, evolving from 400,000 yuan in 1930 to four million yuan in 1936. The average profit for a Chinese textile company between 1931 and 1936 was 5.1 percent annually, while Dacheng had an average of 16 percent.[105] Liu Guojun summarized his management technique by giving short sentences in a style similar to modern businessmen. His technique consisted of four words, "loyalty, trust, sincerity and respect" (*zhong xin du jing*). And, with regard to sales, he often said that there were four secrets to Dacheng's success: produce high quality, be clean and hygienic, never disregard the useless, and always try to offer a better price.[106] In order to maintain these standards of quality, he constantly sought for improved technology and skilled personnel.[107]

In his meetings with the shareholders, Liu Guojun adopted a nationalistic and passionate tone that differed from the more pragmatic board of directors at Dafeng and Lixin. He often depicted the company as always struggling against foreign aggressions and intense competition. But he also deeply analyzed the markets, paying special attention to the Yangzi River, which was the main axis of trade.[108] In a long speech that he gave in a shareholder session of 1936, he stressed on the chaotic conditions in China and the trade blockages caused by banditry, political turbulences, or social strikes—all consequences of the deep economic and social crisis that China was suffering from. He was also critical to the political situation. He mentioned the fact that fluvial infrastructure had not been repaired after the natural disasters, impeding trade and agriculture. He then discussed about prices, domestic and foreign raw cotton, yarns and clothes in different markets, and from the recurrent panics of the Shanghai market to the most isolated areas—where consumers were too poor to buy industrial goods.[109] Even though Dacheng was an amazing success in the China's economy of the 1930s, Liu Guojun was not optimistic regarding the future of the Chinese economy.

In fact, he forecasted that the only choice for China, in order to abandon poverty, would be to reverse the trade balance that was prevailing since the Opium wars and to start to export, while keeping the boycotts against imported products in place. In particular, he defended the idea that, in the textile business, China would have to abandon its dependency on imports and start to export to other countries. This strategy would allow a surplus of foreign currency that would help the industry to grow and innovate, with a positive impact for the general economy.[110] Therefore, in order to strengthen the domestic economy, textile industries would have to embrace a process of opening up.

# CHAPTER 4

# War and Isolation

## Introduction

At the time of Japanese occupation, the economy of China was very unbalanced. Despite the industrialization in the Yangzi Delta region and the rapid development of Shanghai of the 1930s, China's average rate of urbanization remained stagnant at 6 percent and even diminished one or two points.[1] Such an evolution indicates that beyond Shanghai and the Yangzi Delta region, China was deurbanizing. In 1933, China's population reached 500 million, but the country was far away from reaching the stage of mass consumption of industrial goods, an indicator of a country's economic taking-off.[2] In fact, the share of domestic cloth produced for self-consumption had increased in the rural areas, threatening the penetration of textile industrial goods.[3] However, the textile industry of the Yangzi Delta kept growing and textile firms ordered new machineries to increase their production in 1936 and 1937.

Industrial textile firms were confident that they would progress in China through the urban markets of the Yangzi Delta, the inner provinces (especially through the Yangzi), and the foreign trade. But the Japanese occupation of China exacerbated the process of market fragmentation even further, to a point that trade between Chinese regions became impossible. The terrible war hit a severe blow to the Chinese industrial base in the Yangzi Delta, forcing private industries to move to Shanghai and, to a lesser extent, to Chongqing, where the Nationalist Regime had retreated. As a result, China's industrial sector was even more concentrated during the war.

The Japanese occupation of the Yangzi Delta destroyed almost half of the factories in the region.[4] The surviving ones were occupied by the military, and either moved to the interior in Chongqing or were transported to the International Concessions of Shanghai, which stood as a neutral territory until December 1941. Inside this city, consumption kept growing due to immigration of citizens and refugees, the mobilization of industries from the Yangzi Delta, and the possibility of foreign trade. Suddenly, the population of the

International Concessions of Shanghai skyrocketed from 1.7 to 4.7 million.[5] During the summer of 1937, the area surrounding Shanghai was consciously destroyed, especially industrial centers such as Zhabei, Baoshan, and Nantong, while the International Concessions remained as an "isolated island."[6]

Despite the generalization of war in the rest of the Chinese territory, industrial textile firms grew and prospered in Shanghai. This astonishing development seemed to prove the speculative character of the city and enhanced the perception of perverse compradore capitalism. But it was the impossibility of trading in China that left them with no alternative but to open themselves to foreign trade and collaborate with foreign companies. Seeking security, Chinese textile firms approached foreign suppliers, such as China Engineers. The alliance between both types of companies enhanced transnational ties in the Chinese textile sector and proved to be an important determinant in the survival of the factories.

The Japanese threat consolidated transnational ties that had developed earlier in the machinery trade. Some companies had payments pending for textile machines that had been ordered in 1936 and 1937. When these mills were threatened by the war, an alliance was forged between the machinery providers and their Chinese customers. In order to avoid the destruction of the factories or the occupation by the Japanese army, Chinese textile companies claimed that because they hadn't paid for the machineries their assets were in fact foreign owned. By following this strategy, the Chinese companies could raise foreign flags and declare themselves neutral in the war. This conflict motivated the participation of public administrations, such as the British consulate that tried to secure the machines, the Japanese consulate, and the Chinese government that moved from Nanjing to Chongqing in 1938 and called Chinese industrialists to move their machineries to the interior. Meanwhile, the transport of textile machines from one place to another was generally done clandestinely and under conditions of extreme risk.

## The Alliance of Dafeng and China Engineers

In the spring of 1937, the board of directors at Dafeng, Zhentai, and Baoxing met to discuss a common strategy for growth. During the 1930s, a new company named Baoxing Spinning and Weaving Company was founded by the same group of investors that created Dafeng and Zhentai.[7] The members of the three boards were Wang Qiyu, Cui Fuzhuang, Yu Baosan, two Chinese engineers, and the eldest son of Wang Qiyu: Wang Tongyuan (1908–1992). He gradually entered the management of the industrial group after studying

textile engineering and getting trained in another family-owned weaving company. In January of 1937, one of the founders of Zhentai, Zhou Xingbo, passed away and Wang Tongyuan entered the board.[8] He would later on gain more responsibilities during the war.

The board celebrated the success of its vertical integration strategy of the three companies: Dafeng could still finish more yarns and cloths than what the other two companies could produce, and it foresaw a production of 5,000 pieces daily to be achieved soon.[9] In October of 1936, Dafeng had hit a record in cloth sales: a total of 133,000 *pi* of dyed cloth, far more than the average cloth production of the biggest factories in Shanghai.[10] Under these circumstances, the directors decided to accelerate the vertical integration by increasing the spinning and weaving capacity of Zhentai and Baoxing.

With a capital of 300,000 taels, Baoxing purchased 200 looms and 12,000 spindles through China Engineers in 1929 and, one year later, the mill started to produce.[11] However, this investment was threatened by the Japanese bombings on the outskirts of Shanghai that took place in the first trimester of 1932. The mill was in danger and China Engineers had not been paid back for the machines, so the shareholders decided to turn the mill into a British property hanging British flags in order to dissuade any aggression. The strategy was successful and the mill was not affected by the conflict. Thanks to the collaboration with China Engineers, the British consulate extended notes saying that Dafeng, Zhentai, and Baoxing were all under British interests.[12]

With this security, Zhentai—with 25,500 spindles and 640 looms—bought 7,000 new spindles and 400 new looms through China Engineers. Baoxing, at the same time—with 14,400 spindles and 208 looms—increased its capacity by 3,200 more spindles and 250 looms.[13] In 1937, Dafeng, Zhentai, and Baoxing had already increased their capital, reaching a height of 40,000 spindles; 10,000 thread spindles; 1,200 looms; and a complete set of finishing (dyeing, mercerizing, bleaching, printing) machines, which could process almost 5,000 pieces of cloth daily.[14] The industrial group had the potential and ambition to reach international markets and to compete with the China's largest industrial groups, such as Shenxin and Yong'an. In May of 1937, this visible optimism was surely backed by the mutually beneficial collaboration with China Engineers.

However, in August of the same year (just after the Marco Polo Incident), the northern part of the Suzhou creek of Shanghai became the main battlefield of a full-scale war between the Japanese and the Nationalist armies. The three factories were in a clear danger as they were situated inside the war zone. With the risk of total destruction or occupation, they stopped all production from August 13th onward.[15] Then, with the help of William Charles Gomersall and China Engineers, the goodwill together with the land,

building, and machineries of Dafeng, Zhentai, and Baoxing were purchased by three joint Sino-British companies that were registered in Hong Kong in September.[16] This operation turned the properties of the three companies into British ownership and the board of directors, along with William Charles Gomersall, gained absolute power. The decision was taken without the approval of the shareholders, and later on, the board justified this operation because it was impossible to locate or to organize a shareholder meeting at that time.[17] This strategy sought the survival of the Chinese companies, as all the three mills stood outside the Concessions.

But this was not enough and, in October of 1937, the board of directors decided to transport the machinery from the original layout of the mills to the International Concession. One third of the machinery of Dafeng and the machinery that could be saved from Baoxing—after a fire destroyed most of the mill—were moved into the safety of the International Concessions.[18] In parallel, the spinning and weaving companies (Zhentai and Baoxing) disappeared as companies and were merged with China Cotton Mills Limited, a new *ad hoc* company created in Hong Kong in 1938.[19]

Meanwhile, two British engineers defended the mills that stood out of the Concessions, claiming its British nationality, even though the factories were closed. However, in December of 1937, the Japanese army and a Japanese company aimed to occupy the two mills under the argument that they were enemy properties that had been illegally passed on to a British company after the outbreak of the war. The British engineers extended the machinery contracts and the merger agreements stating that they were *bona fide* as a proof of British ownership but, finally, they had to abandon the mills that were subsequently occupied by the Japanese.[20]

In 1938, China Cotton Mills had no mills, only stocks and machineries that were stored in the International Concession—hidden in a warehouse. But they somehow managed to get profits by selling raw cotton and machinery to the newcomers that sought refuge in the Concessions. In fact, China Cotton Mills received large profits due to the rise in prices of yarn and cloth. Besides, investors were trapped in Shanghai along with their savings, and with inflation, they risked turning them worthless—this gave them an incentive to invest. Meanwhile, at the end of 1938, China Engineers received, at Shanghai, the spindles that were ordered by Zhentai. A new spinning, weaving and dyeing mill was built inside the Concessions, which started to operate in February 1939.[21]

Several months later, in May, thanks to the pressure of the British consulate and China Engineers, the two mills that were occupied by the Japanese were given back to their owners. Suddenly, China Cotton Mills became a big corporation that even surpassed pre-war production levels—reaching 50,000

spindles and more than 1,000 looms at the end of 1940. However, the composition of the company changed as well: The board of directors was now composed by Wang Qiyu, William Charles Gomersall, two sons of Wang Qiyu, two British traders, and engineers from China Engineers Limited.[22] In September of 1941, after two years of high profits, China Cotton Mills decided to increase its capital by announcing public purchase of its shares to the open market. They also received a bank loan from HSBC of five million yuan.[23] The operation attracted investors from ten different nationalities that came from both sides of the war. The call for share purchase was successful and hit a historical record according to Shanghai newspapers such as the *Shanghai Times* and *North China Daily News*.[24] The high demand for shares of China Cotton Mills was the result of its successful transnational strategy.[25]

## Lixin and China Engineers: From Wuxi to Shanghai

Lixin shared with Dafeng a similar experience of considerable pre-war growth. After buying a complete set of spinning machinery in 1931, the company kept investing and purchased dyeing machines in 1932. They also purchased 250 automatic looms in 1933 and a set of four printing machines in 1934.[26] Most of the machinery was bought through China Engineers, and was justified by the necessity of solving production bottlenecks and avoiding the effects of price volatility and speculation. Usually, integrated textile mills (such as Lixin and Dafeng) had more dyeing capacity than what their weaving departments could produce; this enabled them to decide for themselves if they wanted to dye cloths for other companies or invest in more spinning and weaving in order to increase capacity.[27] In the 1930s, Lixin and Dafeng clearly followed the second path, which involved more capital investment and also more autonomy.

When textile mills increased their capacity, they had to make sure that they get enough energy to sustain it. Wuxi was not a Concession, despite being one of the main industrial centers of China, and was not as electrified as Shanghai. In 1934, Cheng Jingtang and Tang Xiangting complained that energy was too expensive and suggested that they invest in steam motors in order to be self-sufficient. Therefore, the shareholders decided to buy motors from a Swiss company that had earlier supplied motors to Dafeng and Zhentai. According to Cheng Jingtang and Tang Xiangting's calculations, the motors would save 15,000 yuan a year in electricity and such an amount could be invested in two more printing machines. Lixin increased its registered capital twice, according to these new requirements. Finally, in 1935, Chen Jingtang and Tang Xianting suggested to increase the number of higher-count spindles

at Lixin, and ordered 20,000 more spindles in 1935.[28] By 1937, the company owned 40,000 spindles; 1,200 looms; and a dyeing department capable of producing 4,000 pieces daily.[29] This huge investment that took place in the years immediately before the war put Lixin and Dafeng in a similar position and demonstrated a kind of optimism and trust in the future.

However, the shareholders were aware of the droughts that had been devastating the Chinese population at the time; collapsing the economy of entire regions; and blocking the transport of coal, clothes, and raw cotton.[30] Therefore, Lixin had to diversify its sales channels, not only in the domestic markets, but also increase its exports to Southeast Asia.[31] Due to the volatility of prices and short term speculation, the margins of Lixin were meager in China and the company accumulated large stocks for better opportunities in future.[32] Therefore, despite the sense of territorial fragmentation that was very vivid in 1936, the vertical integration strategy of Lixin was accelerated. Of course, the technology provider, China Engineers, was enthusiastic and considered Lixin a model of good management.[33]

As it happened with Dafeng, China Engineers ensured the survival of Lixin during the war against Japan. Lixin and Dafeng had a similar size and altogether employed around 11,000 workers—including 1,000 technical workers in different mills (engineers, machine technicians, etc.). They both grew by continuously importing machinery to increase the value they added to their goods. Of course, the development of Dafeng and Lixin brought excellent results for China Engineers too, as the company saw an increased number of machinery orders from these customers. But during the war, this trade was endangered by the possibility of a default by these textile companies due to the Japanese occupation. Therefore, China Engineers provided Lixin and Dafeng with services, apart from machines, that helped Lixin and Dafeng keep themselves afloat. As a result, the ties of this network were enforced. In fact, during the long war that started in 1937, the machine trade business was paralyzed and China Engineers also had to reinvent itself in order to survive.[34]

After the shareholder meeting that took place in March 1937, Lixin fell under the control of the board of directors, lead by Chen Jingtang and Tang Xiangting, with 15 more partners.[35] The shareholders of Lixin would not meet again until five years later, in 1942, and no more dividends were paid. After the battle of Shanghai, the Japanese army headed for Nanjing, where they would cause one of the worst massacres of the Second World War. Following the strategy that had saved Baoxing in 1932, the board of directors decided to transform, albeit symbolically, Lixin into a British company. In fact, the bill of a big part of machines was still pending: Lixin owed 25,000 British pounds to China Engineers and the last of the installments was due

by the end of 1939.[36] Therefore, Lixin got a note from the British consulate in August 1937, stating that British interests were concerned in the mill.[37]

At first, the Japanese passed by Wuxi and only two bombs were dropped nearby the factory, without creating further damage. Meanwhile, Lixin had ordered 20,000 more spindles and the machinery was arriving in parcels. Some parts were in Shanghai; some already reached Wuxi; while the rest were on their way. More than 12 ships arrived in Shanghai in 1937 with hundreds of cargoes for Lixin.[38] In November 1937, a part of these machineries was stored at the International Concessions of Shanghai. Meanwhile, in Wuxi, the board of directors decided to move parts of the existing machinery out of the factory, to avoid a possible destruction or an occupation.[39] They tried to move the machines to Hankou, following the retreat of the nationalist government. However, the transport stopped in Zhenjiang, in the Jiangsu province, due to heavy bombings.[40]

Shortly afterward, the Japanese occupied the premises of the mill in Wuxi.[41] The board of Lixin was impelled to collaborate with the Japanese firm Dah Kang, to "jointly" manage the industrial mill. This measure was common under the Japanese occupation and it meant that the management would be put under Japanese control. In this way, and facing the threat of destruction, Chinese mills of the Yangzi Delta region were taken possession of by the Japanese.[42] However, the board of Lixin refused to collaborate. The Japanese army reacted by destroying the machines with hammers and fire, and established a military garrison that would stay in the premises for four years.[43] China Engineers claimed that all the property of Lixin was theirs, since the machinery was not paid for; Lixin couldn't pay anyway, and denounced to the British authorities that English properties were being destroyed and robbed by the Japanese.[44]

Lixin could not pay the rest of the bill to China Engineers because it did not have the means of producing, not to say to gain access to foreign currencies. However, part of the stock and some machinery that was saved was put under the management of Tang Junyuan in Shanghai.[45] Besides, the old workshop named Lihua, which stood beside Lixin in Wuxi, survived because it was not considered a mill.[46]

In January of 1938, Tang Xiangting and Cheng Jingtang decided to move the rest of the machineries that were saved to Shanghai, to be added to the recently arrived machinery boxes that were under the control of Tang Junyuan.[47] As a result, a new company was founded in Shanghai under the name of Changxing Spinning, Weaving and Dyeing Company.[48] This subsidiary of Lixin also received capital from the old workshop, Lihua, and three small factories were built in Shanghai with all these machineries: two in the International Concession of Shanghai and one in the French Concession.

China Engineers helped in renting the space for one of them.[49] In 1940, thanks to the pressure of China Engineers, Changxing recovered machineries that were still unpaid for from the Wuxi mill and they were transported to Shanghai, adding more capital to the new venture. The three mills started operations in 1940.[50] In this way, Lixin moved to Shanghai while the rest of the assets of Wuxi were destroyed or occupied by the Japanese army. China Engineers helped Lixin resume operations in Shanghai but, in contrast to Dafeng, did not merge with the Chinese company.

However, the network of Lixin and China Engineers was solid. Gomersall showed admiration for Lixin, a company that had been able to recover from destruction and restart in a different city. Gomersall praised Mr. Tang's (Tang Xiangting) courage because he could have decided not to continue with the business and retire in Shanghai, or become a speculator, but he decided to carry on with the textile business despite all the adversities.[51] The relationship between Lixin and China Engineers ceased to be based exclusively on the machine trade—It became more complex and sophisticated. China Engineers turned into a kind of a banker for Lixin. According to Gomersall, the only way Lixin could repay its debts in foreign currencies was by exporting its products to Southeast Asian markets. According to China Engineers, there seemed to be little prospect of any improvement unless export markets were developed.[52]

Because the trade in machines had come to a standstill, the British company diversified its portfolio. In September 1939, the war in Europe created a sudden demand for dyes, as Germany was still the main producer. China Engineers was an agent for a Swiss producer of dyestuffs, and made huge profits selling it in the International Concessions of Shanghai.[53] The members of China Engineers were also involved in the trade of Indian raw cotton from 1939 onward. William Charles Gomersall and other traders, such as Indian trader R. C. Umrigar, created a new company called Raw Cotton Traders especially dedicated to this trade, since the cotton mills that stood in Shanghai now needed all the raw cotton from abroad. Gomersall also explored the raw cotton of Burma in 1941, just before the Pacific War.[54] Finally, China Engineers Limited also financed "large shipments of cotton yarns" from Shanghai to Hong Kong and to the British War Supplies Board.[55]

However, foreign trade in the midst of the Second World War was not an easy task: In 1939, a cargo of 60,000 pounds of wool tops was traveling from Australia to Italy when the war in Europe began. The ship stopped at Suez and China Engineers bought its cargo for a good price, aiming to ship it to Shanghai, where worsted and woolen factories needed wool tops to operate. The wool tops then traveled from Suez to Colombo and, after several months, to Singapore. After Singapore another ship took them to Hong Kong, where

they were stored. From there, they should have traveled to Shanghai, but when they were on their way, the Pacific War broke out and the ship was ordered to turn back south, to Singapore, again. Ultimately, the wool tops were lost in Singapore and China Engineers had to accept it as a loss.[56] China Engineers complained that the shipping companies dumped the cargo to the "nearest" safe port around Shanghai, which could have been Hong Kong or even Singapore.

In December 1939, Gomersall went to Hong Kong, where he met Chinese merchants who had planned to invest back in China from the British colony. China Engineers had accumulated large stocks of goods in Hong Kong and Singapore that were destined for Shanghai but were blocked due to the war situation. In April 1938, China Engineers had more than 1,300 tons of goods destined for Shanghai that had been deviated to Hong Kong instead.[57] For the first time, the city of Hong Kong had amassed huge quantities of Chinese capital and products that were waiting to enter China. And, for the first time, the British city funneled foreign direct investment from Chinese investors who wanted to invest back in China.

Some Chinese merchants invested in Chongqing and Yunnan from other regions of China via Hong Kong, even though industrial investments were difficult and dangerous because of the lack of skilled workers and the difficulties in transportation. China Engineers reported an amazing adventure of 6,000 spindles that were transported from Haiphong (in Vietnam) to distant Xi'an—a route that took more than a year to complete with a fleet of motor trucks crossing the battlefront.[58] Hong Kong and China Engineers became intermediaries between British organizations (such as British banks and shipping companies), Chinese entrepreneurs, the territories occupied by Japan, Chongqing's Free China, and the International Concessions of Shanghai. Therefore, China Engineers specialized in providing not only capital and machinery, but also raw materials, dyestuffs, insurance, sales of finished products, transport, and all kind of services and advises.

## Dacheng: Between Changzhou, Shanghai, Chongqing, and Hong Kong

Dacheng also experienced high growth rates before and during the war, despite the fact that it did not have a reliable foreign partner. When Liu Guojun noticed that Dafeng and Lixin had already purchased printing machines, he urged Dacheng to buy them too.[59] In 1934, he made his second visit to Japan with Cha Jimin; Lu Shaoyun; and one of his sons, Liu Hankun (1911–1958), with the mission of purchasing printing machines. Like his father, Liu Hankun was educated in a Confucian tradition, by a private tutor,

and had an early integration in Dacheng.[60] While in Japan, they found that printing machines were expensive and difficult to use.

Liu Guojun went to Japan with a letter of invitation of a Chinese trading firm, as if he was a merchant of Japanese cloth. Before becoming an industrialist, Liu Guojun was indeed a retailer. The Japanese showed him all kind of the most advanced satins, poplins, venetians, and other fashion cloths. In the end, however, they suspected that he was not there for the cloth business, especially when he showed more interest in the most advanced machines for manufacturing. The Japanese tried to impede Liu Guojun from visiting the most advanced vertically integrated mills with printing machines. This indicated that the Japanese did not want to transfer this technology to China and that it was uncommon for a Chinese entrepreneur to go directly to Japan to buy machinery. At last, Lu Shaoyun succeeded in purchasing a set of eight color printing machines for Dacheng.[61]

The direct purchase of machinery from the manufacturer was a cheaper, but also riskier, business. Back in Changzhou, Liu Guojun was not sure how to install the equipment and faced the same problem that had affected Dalun at the beginning. He recruited a Chinese engineer from China Printing & Finishing Ltd., a well-known British company established in Shanghai. However, when the printing machine arrived at Changzhou, the engineer spent half a year trying to install it but without any success.[62] Finally, the engineer abandoned Dacheng, putting them in an embarrassing, and desperate, situation. Cha Jimin went to Shanghai looking for engineers, while Liu Guojun stood day and night trying to understand how the machine worked. Finally, Dacheng succeeded and the machine started to print.

In the late 1930s, the market for high-end cloths in the Yangzi Delta region, excluding Shanghai, was mainly controlled by three firms: Dacheng, owned by Liu Guojun; Lixin, owned by the Tang-Cheng partnership; and finally, Qingfeng, under the ownership of Tang Xinghai (Tang Xiangting's cousin) and his partner, Cai Jiansan.[63] Liu knew that he could not compete on quality with these companies, which had foreign engineers and Chinese educated in the best foreign universities. He did not want to compete in the Shanghai market. Therefore, he produced colored cloths that were not too expensive but not too cheap, and the firm marketed these goods in the urban markets of the interior, distributing the products by train and boat to the big cities in Nanjing, Hankou, Chengdu, and also Qingdao.[64]

Liu Guojun was a declared nationalist and Dacheng looked more at the interior of China, whereas Dafeng and Lixin were more embedded in the transnational networks. However, at a shareholders meeting in 1935, Liu Guojun emphasized the weakness of the Chinese market and the need to be always upgrading the quality of goods. He also stressed on the fact that

American raw cotton was surpassing domestic cotton as the main source for Chinese cotton mills.[65] To avoid this dependency, Dacheng sent Liu Jingji to examine the cotton crops in Shandong, Henan, Shaanxi, and Hubei as well as to look for possibilities of selling consumer goods there.[66]

Dacheng increased its registered capital eight times during the 1930s, bringing to China one of the most successful business performances. Republican economist, Ma Yinchu, believed that this company was the only one that reached this kind of growth before the war.[67] With the purchase of the printing machinery in Japan, and 15 more looms that were added (reaching a total of 900 looms in the two factories), the registered capital of Dacheng reached 2 million yuan in 1934.[68]

Interestingly, like Dafeng and Lixin, Dacheng had also planned a big investment in 1936, just a year before the full-scale Japanese occupation. Dacheng ordered 32,000 spindles from the best manufacturer in Europe, the Swiss brand Rieter, for a price of 75,000 British pounds that were paid in five installments. The contract was signed with the Shanghai Commercial and Savings Bank, which at that time was the most successful Chinese private bank, run by Chen Guangfu (K. P. Chen, 1880–1976). The payment terms of the deal were stricter than the conditions given by China Engineers, as 20 percent of the value had to be paid up front at the time of signing the agreement.[69] As it happened with Lixin, this order was in the process of being delivered in the summer of 1937 when the war started: part of the spindles (10,000) had already arrived at Changzhou, while another part was in Shanghai and the third one had not arrived.

This purchase forced Dacheng to increase its capital, reaching four million yuan in 1936, which was the same capital that was registered by Lixin in 1937 and a little less than the capital registered by Dafeng, Zhentai, and Baoxing together just before the merger.[70] Therefore, it is safe to assume that the Dafeng group (including Dafeng, Zhentai, and Baoxing); Lixin; and Dacheng had a similar size and capital at the time of Japanese invasion: four million yuan; around 40,000 working spindles (and more ordered); around 1,000 automatic looms (and more semiautomatic looms); and a complete set of dyeing and printing equipment. Besides purchasing cotton spindles in Switzerland, Dacheng bought a spinning mill in the city of Hankou with 20,000 spindles and 240 looms. Dacheng had started building a new mill in Changzhou where the new Swiss spindles were to be placed. In fact, Dafeng and Dacheng—and to a minor extent, Lixin—were planning to double their size when the war broke out, demonstrating that vertically integrated textile firms were growing at the same pace just before the Japanese occupation.

In the last months of 1937, Dacheng's main factory in Changzhou was put under Japanese control after several bombings destroyed parts of it, while the

second mill, the old Guangyi, was totally destroyed.[71] Facing the disaster, Liu Guojun left Changzhou for Chongqing where he had good relations with the government, mainly through Huang Yanpei and the nationalist merchant Lu Zuofu (1893–1952). Together, they prepared the evacuation of their recently acquired mill from Hankou by ship. In Chongqing, they created a joint venture called Daming Spinning, Weaving and Finishing Company that grouped 2,500 looms and 5,000 spindles from Hankou.[72] The director was Lu Zuofu; the general manager, Liu Guojun; and the factory director, Cha Jimin, who would take the first important position.[73] Liu Guojun was a nationalist and he might have thought that moving to Chongqing was the best option. But, in contrast to Lixin and Dafeng, the machinery was also owned by the Shanghai Commercial and Savings Bank, so he might have been pressured by the bank into moving it to Chonqging. Besides, in August 1938, all the industrial companies at Hankou were impelled to be relocated to Chongqing; otherwise, the Nationalist government would destroy them, before leaving the city to the Japanese occupiers.[74] The decision of moving the machinery to Chongqing was taken considering all these factors in mind.

But Liu Guojun's position was not dominant in Dacheng's board of directors. Some members, like Liu Jingji, preferred Shanghai over Chongqing. Liu Jingji stayed in Shanghai and in the spring of 1938 started negotiating with the machinery provider Calder Marshall. Dacheng had a set of machinery that was hidden in a warehouse of Shanghai, while the remaining Swiss spindles had already arrived at the port. The alliance between Liu Jingji, Calder Marshall, and the powerful Arnhold family meant to establish a new company in Shanghai under the name of Anda Spinning and Weaving Company (in English, Oriental Textile Manufacturing Company) that would be registered as a British company, following the model of China Cotton Mills.[75] Despite an initial opposition, Liu Guojun finally accepted the creation of Anda and the fact that some of the best machines would stay in Shanghai. Meanwhile, British merchants knew that textile companies were very profitable in Shanghai, so they were pleased with the possibility of investing in one. In August 1938, more than 200 cases of new Swiss textile machinery was put into production at a building in Shanghai's Bubbling Well Road.[76]

Because Anda started with the spindles that were originally ordered by Dacheng, the company was indebted to Dacheng and the Shanghai Commercial and Savings Bank.[77] Liu Guojun, in his memoirs, said that the British presence was only a cover and insisted that they (the British) never had real control of the business.[78] The board of directors met with meeting minutes written in English and a feeling of cultural shock when the new mill was inaugurated by Charles Herbert Arnhold in the International Concessions.[79]

In his inaugural address, Arnhold said that Chinese industries sought the cooperation of foreign firms, seeking for security and common prosperity. He encouraged communication between British and Chinese counterparts, and the Chinese managing director answered that all the Chinese staff should be obedient to the British management.[80] However, it seems that communication between the British managers and the Chinese staff was not fluent. But the British pressure on Japanese authorities succeeded in bringing several thousands of spindles, which were given to Anda by Dacheng in Changzhou, just before the end of the year. They arrived in five lots from August through December of 1938, reaching 15,000 spindles by the beginning of 1939.[81]

In May 1939, Liu Jingji contacted the newly made company of William Charles Gomersall, Raw Cotton Traders Limited, and suggested Anda's board to buy shares of the firm in order to get imported raw cotton from them. Liu Jingji said that this new company was registered in Hong Kong as a British firm and only supplied raw cotton to specific mills in Shanghai.[82] Meanwhile, Liu Guojun traveled between Chongqing, Hong Kong, the Southeast Asia and Shanghai and built his own network to buy dyestuffs and other supplies for Chongqing.[83] In fact, Anda originally sold manufactured goods to Free China through the westward route that started in Hong Kong; entering China via Guangdong, Yunnan; and finally, Chongqing. But after the fall of Guangzhou, this trade was closed and the stock produced by Anda was transported to Hong Kong and to the Vietnamese port of Haiphong.[84]

Like China Cotton Mills, Anda earned high profits in the isolated world of the International Concessions of Shanghai.[85] In Chongqing, Daming also experienced a profitable performance and the shareholders of Dacheng, Daming, and Anda received decent benefits before the clash of the Pacific War. Anda planned to use the profits of 1940 to purchase a small spinning mill of 10,000 spindles, which was for sale in Shanghai. The only concern for Anda was the electricity cuts that were announced due to a shortage of coal.[86] Anda asked for another loan from the Shanghai Commercial & Savings Bank, and the bank accepted as long as the company had stocks of yarn and cloth as security.[87]

## The Pacific War and the Struggle for Survival

After the attacks at Pearl Harbour, the lonely island of Shanghai was occupied by Japanese troops who had crossed the Suzhou Creek on the night of December 7th, 1941, taking control of the city's administration. Two weeks later, Hong Kong also fell under pressure of the Japanese army. At the end of the year, trade between Shanghai, Hong Kong, and the Southeast reached a

standstill as the two cities fell under Japanese forces. The transnational networks that were built with the alliance between Chinese and British firms were dismantled and all trade was dominated by Japanese companies and by the Japanese navy.

The neutrality of the International Concession ended rather abruptly. The Japanese army sealed the factories that had sought refuge in the International Concessions (such as China Cotton Mills, Lixin, and Anda) and took over the stock of yarns and cloths.[88] The fact that the companies were British, it made them enemies for the Japanese. William Charles Gomersall and most of the British partners were arrested and, later on, imprisoned in concentration camps. Gomersall was imprisoned for almost three years. The companies that had not merged with the British, like Lixin, continued a little longer but closed all operations in 1942 due to the lack of supplies and the impossibility of selling finished products.[89]

Although China Cotton Mills was asked to collaborate with the Japanese army, Wang Qiyu refused and the company was kept closed. However, the board of directors and a small representation of the shareholders kept meeting, even though there was no production happening. But the company managed to make some profits by buying and selling stocks, second hand machines, shares, and real estate.[90] The principal concern was to exchange products such as food, cash, and textile at a good barter rate. Inflation and scarcity had left the normal monetary exchange worthless.[91] Textile production, if any, took place clandestinely in small workshops.[92]

Anda resumed production at a small scale, but the relationship between Liu Guojun and Liu Jingji went sour after the former took all the company foreign reserves out of Shanghai to Chongqing.[93] In Changzhou, Dacheng also resumed production at a small scale and under a very insecure climate. A courageous Liu Guojun went back to his hometown to supervise his lost mills, but had to abandon the trip after being kidnapped, along with other members of Dacheng who were in Changzhou, and liberated shortly afterward. In January 1941, Liu Guojun met his master Jiang Panfa just before he passed away in Shanghai.[94] During the wartime, Liu Guojun moved extensively between Changzhou, Chongqing, Shanghai, and Hong Kong despite the dangers of war.

In the spring of 1943, the collaborationist government of Wang Jingwei tried to improve the agonizing economy of the Yangzi Delta region by allowing some Chinese private firms to resume production, but only if they registered themselves in Nanjing. A new association called Cotton Mills Association of Anhui, Jiangsu and Zhejiang was founded and Wang Qiyu, Cheng Jingtang, and Liu Jingji were registered to allow Dafeng, Lixin, and Anda to restart production.[95] In contrast to the previous period, they had to claim that

their ownership was totally Chinese and so they declared that the majority of the shareholders were, in fact, Chinese. Several companies started producing textile goods at a capacity that was approximately 10 percent of the pre-war levels. Raw cotton was so scarce that the companies had to adapt the spindles to ramie fibers and other different blends of coarse fibers that they could find in nearby fields. Some spindles were transported out of the city, near the fields, where the Japanese control was not very strict. Therefore, the Chinese textile industry moved back to the workshop style of working, with small production capacities and irregular electricity, if any.

In the same year, Chen Jingtang and Tang Xiangting met in Wuxi with the surviving shareholders of Lixin, although there was no business to speak of. The machinery of Lixin was in a very bad condition and in Shanghai it was very difficult to sell anything.[96] At that time, most of the companies that were still open kept their production in small workshops and factories to avoid Japanese controls. The main problem was the state of the machinery that needed urgent repairs, but it was impossible to repair it or to hire an engineer at the time. However, despite all these deprivations, Lixin kept producing at a minimum level until the Liberation.[97] In 1945, an international visitor came to visit the factory and was astonished to see the level of repairs that had already taken place in Lixin; where, they had built a new repair shop for the machineries and also a power plant, which was bringing a constant source of energy to the mill.[98]

Meanwhile, Liu Guojun traveled from Chongqing to India to learn about the textile industry, and to Southeast Asia in order to research the market possibilities of the region. In Calcutta, he discovered that the Indian textile industry was actually underdeveloped and the quality of the products was very poor. He discovered that the local industry over there only produced coarser products and that the Japanese were selling printed sarongs to the Indians for a good profit.[99] According to Liu Guojun, the British government tried to block Indian industrialization by selling motors and machinery at higher prices. Finally, he looked at the markets in Southeast Asia and compared the products of Indian, Japanese, and Chinese origin. He concluded that the Chinese industry had a wonderful opportunity to develop by exporting their goods to these markets.[100] Finally, when the Japanese surrendered in August 1945, he left for the United States and Canada to buy more textile machinery.[101]

# CHAPTER 5

# The Great Leap Outwards

## Introduction

When Japan surrendered in August 1945, the economy of China and the textile industry of the Yangzi Delta region were in a very precarious situation. In Shanghai, only 16 spinning mills were active and the majority of the machinery was damaged by the war or inoperative due to lack of electricity. All surviving factories in the occupied territories ran at a maximum of 10 percent of their pre-war levels.[1] Some machines were moved to small villages, where they got raw cotton directly from the fields. But production was very weak, and sales were limited to the areas of production. Among the companies that survived, Dafeng, Lixin, and Dacheng stood as examples of resilience and gained fame in the post-war reconstruction period, together with Shenxin and Yong'an.

Meanwhile, the citizens struggled for food, shelter, and fuel. The scarcities of war had created an inflationary wave that would not stop in the upcoming years, making cash relatively useless compared to staple products. Besides, the weakness of the industrial sector left thousands of people unemployed, who took shelter in the factories even though they were closed.[2] After the Japanese surrendered, thousands of workers from the Japanese factories were also abandoned. It was also difficult to bring together shareholders to discuss common strategies—most of them were dispersed or had disappeared—so, the decisions were taken by the board of directors.[3] Their main concerns were food, fiber, and coal reserves that were needed for production and avoid the shutdown of factories.[4] While textile mills kept producing, industrial goods were smuggled out of the city and bartered for other staple products.

All surviving textile companies of the Yangzi Delta were registered in an association called Cotton Mills Association of Anhui, Jiangsu and Zhejiang. When Japan surrendered, this association integrated a total of 45 textile companies and was accused of collaborationism.[5] Meanwhile, in Free China,

there were 55 industrial textile mills—mostly in Sichuan and Yunnan—but their size was notably smaller than those of the Yangzi Delta. Free China's textile mills had a spinning capacity of 250,000 working spindles in total, while Shanghai alone had 1.2 million in the hands of Chinese private companies.[6] By 1945, despite the wartime policy of moving factories to the interior regions, the concentration of the cotton sector in Shanghai and Jiangsu was even higher than before the war.[7] Given the economic weight of the industrial base of the Yangzi Delta region, the collaborationist association was dismantled but a majority of their members were never accused of collaborationism.[8]

The private sector demanded for Japanese capital to be transferred to them as war reparations for the damages to their machinery and other capital. But after showing an initial interest, the Guomindang finally rejected the idea. Therefore, in September 1945, all assets owned by Japanese firms were merged into one public corporation that was named China Textile Reconstruction Company.[9] In 1947, China Textile Reconstruction Company owned 38 factories with 1.7 million spindles, which represented around 40 percent of the total spinning capital that was put to work at that time.[10] The corporation became one of the biggest textile companies in the world, with access to the public credit, distribution facilities inside China, and raw cotton supplies from the domestic market.[11]

After the war, the Guomindang tried to counter inflation by fixing prices of raw cotton, yarn and cloth. In Chongqing, there was a heated debate between the government and the textile owners about the Nationalist regime's control over the textile market. The government wanted to counter inflation by establishing price ceilings for raw cotton and yarn, but these measures hurt the profits of textile producers as well as peasants who sold the raw cotton.[12] The government made an independent valuation of the capital that was taken from the Japanese. William Charles Gomersall, after being liberated from detention, participated and certified that the machinery was in a very good shape—much more updated than the machineries of private Chinese companies, which were mostly bought in the 1920s and 1930s and had suffered severe damages.[13] Cha Jimin, at nationalist regime's request, also inspected the dyeing and finishing industries and reached at a similar conclusion.[14] In this way, China Textile Reconstruction Company became a big competitor for the private sector with a more updated and modern technology.

In November 1945, a new association was created to defend the interests of private textile companies. The association was officially registered in 1946, with 127 private textile industrialists, under the name of Sixth Region Association of Textile Manufacturers.[15] It integrated almost all existing spinning and weaving companies, no matter if they came from Chongqing or

the Yangzi Delta. Wang Qiyu from China Cotton Mills was elected to be the director of the board along with Guo Shun (of the Yong'an group) and Rong Hongyuan (of Shenxin). Liu Guojun (from Dacheng and Anda), Tang Junyuan, and Cheng Jingtang (both from Lixin) were also elected for different responsibilities in the board.[16] Acting as director, Wang Qiyu stated that the Chinese textile industry should embrace international markets and avoid autarky.[17] This kind of discourse was not common before the war, where most associations of producers claimed for boycotts and protectionism.

The main objectives of the association were to obtain war reparations, to facilitate bank loans, and to request the opening of international trade for importing raw cotton and machinery and exporting manufactured goods.[18] This strategy—to find foreign markets and supplies—became more appealing when the Civil War broke out between the Nationalist regime and the Communists in 1946. As it happened in 1923 and 1931, the trade routes between the raw cotton producing regions of the North and the textile center of the Yangzi Delta were cut again. Therefore, textile companies became dependent on foreign raw cotton that came from the United States, via the United Nations Relief and Rehabilitation Administration (UNRRA).[19] Due to the inflation in prices of yarn and cloth and the general scarcity, when the raw cotton came to Shanghai from the United States, the margins of the textile sector suddenly skyrocketed.

The textile sector of the Yangzi Delta was in desperate need of machinery and complements. Therefore, the Sixth Region Association of Textile Manufacturers encouraged export of manufactured goods in order to receive foreign currencies, which could be used to pay for the raw cotton and the machines. The association, led by Wang Qiyu, studied the demand in Southeast Asian countries and sent an envoy to Singapore to make market prospects and trade deals.[20] In 1947, China became the first exporter of textiles to Singapore, taking almost 50 percent of the market share of that city.[21] Significant quantities were also exported not only in Asian countries such as India, Philippines, Siam, Straits Settlements (future Malaysia), and Dutch Indies (future Indonesia), but also to Australia, Middle East, and Central America.[22]

During the war against Japan, direct intercourse between the free zones and the occupied territories of China was difficult and dangerous.[23] Meanwhile, the city of Hong Kong became an *entrepôt* that connected different parts of China. Therefore, the role of the city was transformed in the eyes of Chinese entrepreneurs, making Hong Kong a key enclave for foreign trade and investment. In 1937, exports of cotton cloth to Hong Kong were nil, but in 1948 almost 100,000 quintals of Chinese *sheetings and shirtings* type, which meant 37 percent of total Chinese exports of this product, went to

Hong Kong.[24] The share of Hong Kong in the cotton yarn segment was even greater, reaching 40 percent of total Chinese exports.[25] Meanwhile, six pioneering Chinese textile mills invested around 100 million HKD in Hong Kong, representing an important outflow of capital from Republican China to the British city.[26] These investments were lead by Wang Qiyu, who made the biggest investment in Hong Kong before 1949, and also included members of Lixin, Dacheng, Shenxin, and Yong'an—the companies that had recovered better from the war.

## The Post-war Recovery

In September of 1945, William Charles Gomersall and other foreigners were liberated after almost three years of imprisonment. A big party was held at the headquarters of China Cotton Mills where they toasted for the victory of Nationalist China and Great Britain. Gomersall had great expectations from Chinese textile mills due to scarcity of industrial goods available in the market—not only in China, but also worldwide.[27] He predicted that the prospect of a fast economic recovery would bring existing companies into a race for growth. Therefore, Gomersall advised that the capacity of China Cotton Mills be raised immediately. The company had no stocks to sell and only some Indian raw cotton remained in the warehouse. However, the feeling of optimism and hope was generalized and the future looked bright.[28]

China Cotton Mills and Dafeng's recovery came fast. By February 1945—before the end of the war—China Cotton Mills worked at 13 percent of its pre-war production levels, which was a record among Shanghai textile firms. By the end of the year, it had put 85 percent of its spindles in full working order. The cotton yarn was sold quickly and for a very good margin in the domestic markets.[29] China Cotton Mills became famous in Shanghai for its fast recovery, superseding other important companies such as Shenxin or Yong'an. Surely, this performance helped Wang Qiyu climb the leadership ladder of the Chinese private industrial sector.

In September 1945, William Charles Gomersall departed for Europe to purchase new machinery. China Cotton Mills wanted to buy 20,000 spindles from the British firm, Tweedales & Smalleys, and another 30,000 from Swiss firm, Rieter—a big investment that was backed by HSBC bank under the mediation of China Engineers.[30] The correspondence between Gomersall and the British bank certified that this kind of investment in the immediate post-war period was very profitable. In early 1946, Gomersall claimed that 10,000 spindles in Shanghai could make a monthly profit of USD 120,000. Therefore, the cost of the machinery could be paid for in about two months.[31] Of course, this was an exceptional situation that justified the urgency of

action. China's biggest firms, such as Yong'an and Shenxin, which had thousands of spindles, accumulated huge profits during the immediate post-war period.

But companies (such as China Cotton Mills) that were used to investing continuously in machinery were also looking for a very positive performance. However, the shipment of machines suffered from long delays due to the industrial situation of Great Britain and the bureaucratic obstacles by the Nationalist government in importing goods.[32] These delays, which happened between 1946 and 1947, were a determinant factor that pushed the industrialization of Hong Kong.

In continental China, hyperinflation made accounting and payment of salaries a very troublesome task. According to Gomersall, in post-war Shanghai, inflation could even reach 1 percent a minute.[33] In the beginning of 1946, Dafeng had assets valued at 563 million yuan; but by the end of the year, the company's capital rose to 241 billion.[34] Luckily, China Cotton Mills and Dafeng had access to foreign currencies, notably the British Sterling and the Indian Rupee, which were used to buy machinery and raw cotton in the international markets. From 1946, China Cotton Mills owned accounts in eight banks from different nationalities.[35]

Meanwhile, the economy of Wuxi had recovered after the war, but not as fast as in Shanghai. Senior Manager Cheng Jingtang prepared the first report to Lixin shareholders in December 1945. He remarked that the staff was working on repairing the machineries in order to resume production as soon as possible.[36] Lixin had around 40,000 spindles in 1937; but by the end of 1945, there were only 9,000 working.[37] After two years, Lixin couldn't improve this situation and 15,000 spindles were considered to be beyond repair.[38] The Japanese army had poured water over all the carding machines, rendering them useless. In the finishing department, the equipment was in a better condition because it was difficult to break; but it was useless without sufficient input of cloths and yarns. Therefore, Lixin's situation was more complicated than China Cotton Mills and Dafeng in Shanghai.

Lixin had asked for war reparations because most of its machinery had been consciously destroyed by the Japanese army after the board refused to collaborate.[39] Meanwhile, Cheng Jingtang suggested a merger between Lixin and Changxing that was approved by the rest of shareholders who had not voted for the separation earlier. It was also agreed that part of the machinery in Shanghai would be moved back to Wuxi.[40] In 1947, Changxing was merged with Lixin and Cheng Jingtang was confirmed as the director.[41]

In summer of 1945, Lixin purchased a complete set of 10,000 spindles from the Swiss firm Rieter, for a value of over 1.5 million Swiss francs.[42] It did not have the means to pay for this machinery but the company found a way to

make the purchase through the mediation of China Engineers. The machinery was purchased by an intermediate company, named Union Textile Mills, Ltd., which was registered in Hong Kong in October 1941. This company was made by Tang Junyuan and China Engineers Limited for the purpose of ordering machines safely in times of war.[43] But there was no chance of making any business through it because the Pacific War had blocked all transactions two months after the creation of the firm. When the war ended, this trading company purchased machineries using foreign currency, until Lixin would had the means to pay for them. The assets of this company included only machines, and its accounts were in foreign banks. The first shipment arrived at the beginning of 1947, but the rest of the shipments were delayed due to bureaucratic reasons.[44] Because the shipment did not arrive on time, Lixin could not reach pre-war production capacity before 1949.[45]

But not all Chinese companies depended on foreign intermediaries to buy their machinery. The strong personality of Liu Guojun made Dacheng and Anda an exceptional case. When Japan surrendered in 1945, Liu Guojun was in the United States buying all kind of machinery (spindles, motors, a dyeing set, and machines for spinning wool) and raw cotton for China. However, in Shanghai, Liu Jingji reacted against this operation.[46] Liu Guojun wanted to reconstruct the mills that were destroyed in Changzhou, while Liu Jingji had planned a major development in Shanghai. It is possible that Liu Jingji was seeking financial independence from the Shanghai bank, which had given credit loans to Dacheng for machinery purchase. By November 1946, Dacheng was heavily laden with debt—to the point that the famous banker, Chen Guangfu, entered its board of directors. Anda, on the other hand, was planning to invest in a mill in Pudong island (eastern Shanghai), which would open in 1948.[47] Meanwhile, Liu Guojun's son, Liu Handong, went to the United States to continue the purchase of machineries for Changzhou.[48]

These different strategies drove Anda and Dacheng to a divergence. Liu Jingji stayed in Shanghai, while Dacheng was managed by Liu Guojun in Changzhou—even though both companies shared the same ownership. During the war, Liu Jingji had contacted people from the British community of Shanghai and the Collaborationist regime, while Liu Guojun had important contacts in the Nationalist government from his sojourn in Chongqing.[49] Thus, in 1947, a common meeting of shareholders decided to divide Dacheng and Anda in two different accounts: Value shares of Liu Guojun were to be divided by assigning 60 percent to Dacheng and 40 percent to Anda, while Liu Jingji's shares would be divided in the opposite way.[50] Therefore, the shareholders of the two companies were the same, but the post-war period would separate Liu Jingji (who took control of Anda) and Liu Guojun (who kept a majority equity in Dacheng).[51]

## Civil War and Barter Trade

In early 1946, US General George Marshall came to China with the mission to avoid the Civil War between the communists and the nationalists. The US authorities were committed to the recovery of the Chinese economy and tried to help Chinese industries resume production by facilitating credits and raw materials. The main instrument of the US cooperation was the United Nations Relief and Rehabilitation Agency (UNRRA). In March, the Central Bank of China published instructions for textile companies on how to get American raw cotton, after the US government extended a credit of USD 33 million to China for the purchase of cotton.[52]

Thousands of bales of American cotton landed in Shanghai and private Chinese companies would soon purchase this cotton under different conditions that changed over time.[53] At first, the association lead by Wang Qiyu sought to secure credit conditions for payment of the cotton that was guaranteed by Chinese banks. But finally, the government decided to allocate the raw cotton according to quotas with preference given to state-owned companies and the biggest groups with political connections. In theory, quotas were assigned *pro rata* according to the size of every factory, but the quantity and price per bale was variable and cotton was not always of good quality.[54]

The lack of fluency between the Nationalist government, the Bank of China, and the textile companies impelled the Americans to seek direct contact with textile owners and try to directly barter foreign raw cotton for cotton yarn in Shanghai.[55] This measure increased the internationalization of textile companies that paid for raw cotton by trading exported finished goods. They tended to take standardized goods, such as one bale of 20-count yarn that was exchanged against 1.4 bales of American raw cotton.[56] However, this trade damaged the vertically integrated structure of some textile mills such as Lixin and Dacheng, which was involved in diverse kind of products, leaving spinning mills with meager profits, especially compared to the huge profits of 1945 and 1946. The price of yarn paid by the UNRRA was slightly above the production cost, and this exchange was made compulsory.

By the middle of 1947, the Nationalist government changed its policy and enforced strict controls over foreign exchanges. Textile companies affiliated to the Sixth Region Association were now allocated raw cotton officially only by the UNRRA. By fixing production quotas and price limits, the government aimed to control inflation. But this policy failed and textile companies were selling at a loss in China while hyperinflation exploded in the following months. Private firms purchased raw cotton from other private companies, while their accounts became absurd as the sequence of zeros multiplied.[57] Wang Qiyu, Guo Shun, and other leaders of the association resigned from

the Sixth Region Association of Textile Manufacturers in protest, and the famous gangster Du Yuesheng took control of the association, creating a climate of white terror that spread among merchants.[58] Finally, at the end of 1947, private companies were allowed to freely barter cotton yarn and cloth in exchange for raw cotton. The government gave permissions for export of yarns and cloths under the condition that no foreign currency should be used: At first, exports were limited to 20 percent of the output of a factory, but this limit was soon increased to 50 percent.[59]

In 1948, China's exports of common cotton cloths (defined as *shirtings and sheetings*) increased 300 percent from the previous year, and hit Hong Kong and the Southeast markets.[60] These products were bartered with Hong Kong and from that city they were sold normally, using Hong Kong Dollars or any other foreign currency that remained stable. This trade continued until the Communist victory of 1949 and was the only choice for private industrial firms to receive foreign currencies and keep the business going. Besides, direct trade between Shanghai and foreign markets was regularly blocked by the issuance of import licenses, which especially affected the machinery trade. As a result, increasing stocks of raw cotton, finished products, and machinery were stored in Hong Kong, waiting for permits to enter China.

From the times of the war against Japan, some Chinese companies had become well known in Southeast Asian markets, where Chinese sojourners liked to buy Chinese goods. For instance, Lixin received dozens of letters from foreign traders who wanted to be agents of their brands. From Australia, a trading company run by a Chinese wrote to Lixin saying that between 1939 and 1940, a good amount of Chinese cloths had landed in Australia and had a good impact among consumers.[61] Lixin also received letters from Iran, Iraq, South Africa, Pakistan, Bahrain, and Sri Lanka, besides other Southeast Asian countries.[62] Sadly, Lixin replied that direct export of cloths had to be accompanied by an import of raw cotton of equal value.[63] However, in order to skip this regulation, the company contracted an agent in Hong Kong with whom they made the barter, and the agent could then manage sales in the foreign markets.[64]

In 1948, barter contracts became a very common practice at China Cotton Mills. The company received raw cotton from India, Brazil, and the United States against cotton cloths that were exchanged in Hong Kong.[65] International trading companies, such as Swiss Volkart Brothers, specialized in this trade and made a million-dollar business bartering 68,000 pieces of cloth from China Cotton Mills; 51,000 from Dacheng; and 2,500 from Lixin, along with other companies.[66] In October 1948, the United States tried to save the textile sector of the Yangzi Delta from the economic crisis caused by

hyperinflation by trying to establish contacts directly with Chinese businessmen and raw cotton traders. The United States wanted to ensure that at least 50 percent of the yarn and cloth was exported against funds to buy more raw cotton. This was done in order to keep the cotton mills working and avoid a general strike in Shanghai.[67]

## Planning China's Future

In October of 1948, China Engineers wrote a letter to Mr. Roger Lapham, the chief of the US Economic Cooperation Administration Mission to China, asking for assistance to the Chinese textile industries of Shanghai and the Yangzi Delta region.[68] Given that the US administration was interested in promoting industrial development in China, Gomersall suggested that the textile industry should be the first sector to receive stronger economic support from Washington. He kept saying that China was a "natural centre for the textile industry" with skilled workers, potential for raw cotton crops, and a huge market, not only in China, but also in the neighboring countries. If China could reach seven million spindles and 330,000 looms, it would not only be self-sufficient but would also fill an important part of the market that the Japanese had left empty, after the surrender.

In post-war China, no less than 30 percent of all Chinese exports were textile products—mainly used for getting foreign currencies to import raw cotton and machinery. These currencies, besides the permanent need of raw cotton, were also invested in machineries. China Engineers had received orders amounting to 420,000 spindles with a value of 6 million pounds, without counting motors, gears, bobbins, et cetera. Of course, China Engineers envisaged a big business in an export-driven industrialization of China. But this plan met with bureaucratic problems of import licenses, or license denials, which had an immediate effect over the mills and the business of China Engineers. Some goods had already arrived in Hong Kong or had to be cancelled by textile firms, causing big losses to both the service company and the mill. To express the urgent need for help, China Engineers explained to Mr. Lapham the example of China Cotton Mills, which had a new building that was waiting for machinery.[69]

In a different context, Wang Qiyu, director of China Cotton Mills, expressed a similar point of view on the reality of the Chinese economy. According to him, China should aspire to reach 8 million spindles and solve three main outstanding problems: the provision of raw cotton (and development of communications inside China), the development of a national machinery production center, and the creation of a strong school of textile engineering.[70] Wang Qiyu was also concerned about short-term problems

such as electricity cuts and the payment for the new machines that had already been ordered.[71] According to him, if China does not solve these big problems, the economy would have to rely on foreign markets, or otherwise it would simply collapse. Wang Qiyu also complained about the production quotas and the price controls that had destroyed the incipient recovery and optimism of Chinese textile companies.

In a different way, Liu Guojun, director of Dacheng, shared similar preoccupations. The founder of Dacheng wrote in 1944 that China should reach an installed capacity of 10 million spindles in 15 years and dedicate a part of this capital to the export business, especially to the Southeast Asian markets.[72] The formula for enhancing the first step of industrialization was the same: to export manufactured goods in order to be able to pay for the technology and the raw cotton, at least until China reached a higher level of technological development. Liu Guojun also stressed on the necessity of establishing small and medium weaving workshops, which have constant access to the electricity grid, because weaving and finishing workshops were compatible with big industries and were often more flexible.

In June 1949, Liu Jingji, director of Anda, wrote an article for the Communist audience, explaining the main problems and challenges of the textile industry in China. The cotton textile industry had developed for over 60 years in China; during the first 30, the sector experienced rapid development; but afterward, it suffered from severe difficulties. Liu Jingji identified some of the major challenges that lay in front to the Chinese textile industry: to achieve security and self sufficiency (especially in raw cotton), to reach capacity to expand to foreign markets, and to improve the standard of living of the rural majority of the Chinese population and give them the capacity of buying industrial goods. According to Liu Jingji, at the eve of the communist takeover, the textile industry was condemned if these problems were not solved.[73]

Finally Tang Xinghai, the distant cousin of Tang Junyuan, also made an interesting plan for China's economic future. His engineers made a detailed report about artificial fibers and the latest knowledge about rayon, nylon, and artificial silks that were on the edge of technological innovations. There were only very limited factories that were able to produce these new fibers in the world. None of them were in China, although Japan (with 17 mills) was one of the top five countries. Like the mercerization process, first implemented by Wang Qiyu in China in 1913, artificial fibers were very interesting for producing in underwear, stockings, scarves, and also in the knitting industry, which was also undergoing a technological revolution in the production of garments. The document predicted a strong competition between foreign countries to reach the Chinese market of artificial fibers if the country did not start to produce artificial fibers for itself.[74] Therefore, they strongly

recommended investing in artificial fibers, as it would release the textile industry from the fetters of being dependant on the production of raw cotton. However, this report didn't have any impact and Tang Xinghai left for Hong Kong in 1948.[75]

These five propositions shared a common goal: to help China develop a textile industry with an international focus. First, they suggested developing an export-based strategy that consisted of exporting manufactured goods to be able to pay for the raw cotton and the machinery, since China lacked the capacity to provide itself with sufficient raw cotton and updated machinery. It was seen, by textile experts, as the fastest way to modernize China's economy and to improve the conditions of the country. Unfortunately, these ideas were lost in the chaos of the Civil War and China had to wait for three more decades until they were finally implemented.

## The Yangzi Delta Invests in Hong Kong

During the troubled years of the war against Japan, Shanghai entrepreneurs visited Hong Kong for trading purposes and found that the city was especially suited for trade. The contrast between the economic and political instability of China and the business-as-usual attitude of the colony drew business families to pay attention to Hong Kong. The city had a stable currency, a solid banking system, and trading facilities—making it a strategic enclave during the war. In 1938, the best-known mill owner, Rong Zongjing, died in the British city after having fled from Shanghai.[76] A community of residents from the Yangzi Delta appeared in Hong Kong in the early 1940s and established their own associations from Jiangsu and Zhejiang.[77] After the fall of Nanjing and Hankou, Hong Kong was full of Chinese merchants who were indecisive about staying in the Yangzi Delta, moving to Chongqing (via Hong Kong), or staying in the British colony.

Before the outbreak of the Pacific War, people could move quite freely between Shanghai, Hong Kong, and Chongqing. However, the machinery was more difficult to move.[78] During the war, the traders of Hong Kong purchased raw cotton from India to be sold to Shanghai or Chongqing, and cotton yarn and cotton cloth from Shanghai to be sold in Southeast Asian markets or in the regions of Free China.[79] Other supplies from the West were also transported via Hong Kong, like the Swiss dyestuff that reported high benefits when Germany started the war in Europe in September 1939. When the Japanese invaded the colony, all this trade came to a standstill but it recovered in 1945.

Shanghai capitalists began to investigate the possibility of investing in Hong Kong during the summer of 1946.[80] Despite being a British colony,

Hong Kong did not have industrial spinning textile capacity. However, there was a network of weaving and knitting workshops and small industries with generally less than 20 looms that had prospered in Hong Kong with imported yarns from Great Britain, India, and China. The weaving and knitting industries were the most important industrial sector of the economy of Hong Kong, apart from shipping, with 550 companies employing more than 40,000 workers.[81] However in 1945, the future of these workshops looked gloomy due to a global shortage of cotton yarn and the its high price.

The first spinning and weaving mills were founded in the late 1940s by Shanghai capitalists who saw the potentialities of this sector. The first company that built a spinning mill in Hong Kong was South China Textile Ltd., a firm founded by Shanghai's capitalist Li Zhenzhi (C. C. Lee).[82] Having previously acquired experience as a manager in Shanghai, he settled down in Hong Kong around 1945.[83] He started as a broker between both cities, buying and selling raw cotton and yarn, until he finally decided to open a factory in Kowloon. After, unsuccessfully, trying to train women workers from Guangdong, he brought 60 skilled workers from Shanghai. The shortage of skilled workers and the labor legislation of Hong Kong were the major concerns of these first undertakings. Finally, in early 1948, the firm started to produce cotton yarn with 5,000 spindles and a capacity of producing 12 bales of yarn per day.[84] By the Shanghai's standards, this was a very small mill.

The second company came about from an investment from the industrial group of Wang Qiyu and William Charles Gomersall. In 1947, China Cotton Mills managed two spinning factories in Shanghai and ordered more machinery from Europe. Wang Qiyu was now over 60 and left the new business of Hong Kong to his son, Wang Tongyuan (is known as T. Y. Wong in Hong Kong), who would become one of the most important spinners of Hong Kong. Wang Tongyuan began by operating a modest spinning mill in 1948, named Peninsula Spinners, in Kowloon.[85] At the beginning, the plant had a capacity of 8,000 spindles, but shortly after, the mill was enlarged—becoming the biggest textile company on the island.

A new company, Hong Kong Spinners Ltd., was registered in the same year.[86] In a meeting that took place in Shanghai, in 1948, between Gomersall; Cui Fuzhuang; Wang Qiyu; and his two sons, Wang Qinsun and Wang Tongyuan, they decided that the 30,000 British spindles that were due to Shanghai would be landed in Hong Kong, while the 20,000 Swiss spindles that had already arrived at Shanghai would remain.[87] After the war, the members of the board of directors were used to taking these kind of decisions. Besides, due to the blockage of machinery imports to China by the Nationalist government, there were no other alternatives. The shareholders of China Cotton Mills met in April 1948 and claimed that the blockage of

foreign trade was endangering the provision of raw cotton to the factories and the continuity of production.[88] The board of directors referred to the Hong Kong factory as a *fait accompli*, while in Shanghai the scarcity of raw materials, power outages, and social unrest were making production almost impossible.[89]

The decision to move to Hong Kong was not an easy one and some companies hesitated. Besides, the future of Hong Kong as a British colony could not be taken for granted. William Charles Gomersall and China Engineers played an important role as middlemen between the investment from Shanghai and Hong Kong's banking system, which was dominated by British businessmen who were not used to dealing with Chinese companies. Gomersall had access to credit loans from the most important banks and obtained them for Shanghai's spinners. He was also responsible for buying machinery in England for Chinese companies that did not have a clear financial backing, hoping that future benefits would pay back the investment. As it happened with China Cotton Mills, some of the machineries were ordered long before and were supposed to be placed in Shanghai. However, as the situation in mainland China worsened, this capital was finally placed in Hong Kong.[90] These new ventures found some difficulties in Hong Kong, such as the climate (hot and humid) and the lack of skilled workers. The first problem was solved by the introduction of air-conditioning machines; the latter, by bringing trained workers from Shanghai and recruiting them as trainers. Normally, it took more than a year for a textile company from Shanghai to start producing in Hong Kong.

The next company that settled in Hong Kong came from one of China's most important industrial groups. During the 1930s, Rong Zongjing (T. K. Yung), the boss of Shenxin Cotton Mills, owned 20 percent of all Chinese-owned spindles, and was one of the richest men in the country. He was one of the most important tycoons of the golden age of Shanghai's bourgeoisie; but, when the war broke out, he moved to Hong Kong.[91] After he passed away, there was a familiar struggle for the control of the business. A part of the company was moved to nationalist Chongqing, while other factories remained in occupied Shanghai. During the Civil War, the family (who owned a majority of the business) was dispersed between mainland China, Hong Kong, and Taiwan.[92]

In Hong Kong, one of the sons of Rong Zongjing built a spinning factory named Wyler Textile Limited. At the same time, a grandson of Rong Zongjing registered with another relative a new textile company called Nanyang Cotton Mills Limited, which was the first vertically integrated mill in the city.[93] The company found an enduring partner in Lord Lawrence Kadoorie, who led the board of directors from 1948 until his death in 1993.[94]

Finally, the other partner of Shenxin, Li Guowei, who managed Shenxin's business in Chongqing, founded Kowloon Textile Industries in 1948 with a relative and started a factory near Castle Peak Road.[95] The company started operating in the spring of 1949. These three firms that appeared at the same time came from the same family origin (the Rongs) and shared the same business legacy (Shenxin).[96] However, they represented different factions of the same family and their relationship was, therefore, complex.

Then it was time for Tang Xinghai's turn. In March 1948, he founded the South Sea Textile Manufacturing Co. Ltd. in the New Territories.[97] His sons were educated at some of the best universities in the United States and, soon, also took up part of the business. Tang Xinghai ordered 30,000 spindles from abroad that were originally due to China but he finally put the machinery to work in Hong Kong.[98]

During the Civil War, Liu Guojun travelled between Changzhou, Shanghai, Hong Kong, Macao, and Taiwan. He established a small workshop in Taiwan but finally stayed in Hong Kong for most part of the Civil War, where he made plans for the future. During the Japanese occupation, Liu Guojun extended his trade network in Hong Kong, where he landed in February 1941 with one of his sons, Liu Hankun. Together, they created a trading company that would operate with cotton yarns and cloths in the city.[99] After the war, Liu Guojun was already 60 years old and started handing over a part of the business to his younger generations. Liu Guojun allowed his son to open a new spinning mill in Hong Kong and kept the investment in Taiwan to a minimum.[100] However, he did not identify himself with the people who were investing heavily in Hong Kong, like Wang Qiyu. After meeting him in Hong Kong, he would say that these investors in Hong Kong were the "anglo-american band" (*yingmeipai*).[101]

Meanwhile, Dacheng factory's director, Zhu Xiwu, traveled to Southeast Asia to investigate market possibilities. He was accompanied by the director of the Hong Kong trading firm that had the exclusivity of Dacheng's products for export. They visited Malaysia, Singapore, and Indonesia. During his travel, he looked for cotton yarn and cloth distributors and researched extensively about the region: economy, transports, presence of Chinese communities, state of the textile industry, et cetera. At the end of 1948, foreign trade in China was already very restricted. Therefore, Zhu Xiwu suggested that they enforce foreign trade via Hong Kong and establish an international production chain: raw spinning and weaving in Changzhou, finishing in Hong Kong, and selling in the Southeast Asia.[102]

South Textiles Limited appeared in 1948 but started to operate in 1949 from Castle Peak Road. The firm was directed by the two sons of Liu Guojun, Liu Hankun and Liu Handong (Jerry H. T. Liu, 1920), who had just arrived

after graduating from MIT and Lowell Institute of Textiles in the United States.[103] Besides, Cha Jimin, who was married to the daughter of Liu Guojun (Liu Biru), established one of the most modern finishing industries in the colony, China Dyeing Works. Meanwhile, Liu Jingji, who had managed Anda during the war, also arrived in Hong Kong in January 1949 and looked for a venue to install a new factory. However, he did not feel secure in the city and finally abandoned the project, returning to mainland China after several months.[104]

At the eve of the Communist takeover, a total of six mills were opened in Hong Kong. In total, there were 120,000 spindles, with a production capacity of 7,200 bales of yarn per month—far exceeding the capacity of the weaving and knitting sector of the city. In only one year, Hong Kong transitioned from suffering a shortage of cotton yarn to being able to export it. Of course, the development of spinning mills helped the knitting and weaving sector to recover and forge ahead of their pre-war production levels, making Hong Kong an emerging textile center in the Asian markets.

# CHAPTER 6

# The Socialist Transition and the Shanghai–Hong Kong Network

## Introduction

In spring of 1949, at the eve of the Communist takeover of the Yangzi Delta, the Chinese Communist Party established several important issues to be addressed urgently. The first two were the guarantee of food distribution for all its citizens and assistance to the industrial base to secure regular production.[1] The distribution of staple goods (such as grain, raw cotton, and coal) was the key factor that helped pacify the Chinese society after decades of fragmentation, war, and insecurity. It was an urgent matter, as hyperinflation and war had left an overwhelming situation of scarcity and extreme poverty. Industrial companies in Shanghai, like Dafeng, had to adapt the payroll every month according to inflation and, more importantly, secure provisions of food for their employees, while provisions of raw cotton and energy to produce were meager.[2] Other companies closed down, leaving thousands of workers unemployed. In Wuxi, the spinning and weaving mills had no cotton to produce.[3] Liu Jingji, general manager of Anda, described the situation of the cotton industry of Shanghai as terminally ill.[4] According to the socialist theory, this situation proved the speculative essence of capitalism, the "anarchy of production," and the necessity of a state-driven rational planning.[5]

In the first year of the Communist regime, the government created state-owned distribution companies that provided raw cotton to factories in exchange for industrial outputs like yarn and cloth. Private companies signed contracts with the state to secure supplies and the state would buy their product in exchange with official "processing orders" (*jiagong dinghuo*). By signing these contracts, the state aimed to control the systems of transport and distribution of goods while avoiding private speculation and inflation.[6] Private trading companies had to purchase bulk products from the state at

fixed prices, so margins were limited and controlled by the government. As a consequence, the number of distribution and retail trading companies declined rapidly as the largest part of the wholesale business was taken over by the government.[7] In the industrial cities of Shanghai and Wuxi at least, the inflation spiral was put under control.[8] In January 1951, the director of the Central Finance and Economic Commission, Chen Yun enacted a law that established the control of the state in all bulk purchases of raw cotton, yarn, and cloth.[9] Therefore, the trade network that nurtured the Chinese textile industry was substituted by state distribution monopolies.

## Lixin and China Engineers: Trade in the Early PRC

The Communist government imposed tight controls over the pricing of textile goods all over the Yangzi Delta. In May 1949, a South Jiangsu branch of the state-owned company for the distribution of raw cotton, yarn, and cloth opened in Wuxi—aimed at monopolizing the textile trade.[10] In September, the state-owned company accused the brand of yarn "Double fish," manufactured by Lixin, of speculation by increasing the prices over the benchmark. All sales in the open market were temporarily prohibited.[11] However, the major victims of the centralization of the yarn and cloth distribution were small trading companies that disappeared or were merged in the public administration. Some of them were small shareholders of the big spinning, weaving, and dyeing mills of the Yangzi Delta region, such as Lixin.[12] At the end of 1951, all the production of Lixin was purchased by the state-owned firms: the traditional trade networks of cloth distribution of Wuxi—with a history of approximately 500 years seemed to have come to an end.[13]

Meanwhile, the three founders and main shareholders of Lixin—Zou Songdan, Tang Xianting, and Cheng Jingtang—registered Lixin (with a capital of 3.6 billion new RMB) in the Federation of Trade and Commerce of Wuxi, a compulsory association for all major private firms.[14] It was through these associations how the new regime imposed its policies on private companies and networks.[15] These three partners, who had led the management of the company since its inception in 1920, were over 70 years old and, therefore, daily operations were left to the board of directors, which would gradually assume a greater role in the management of the factory, especially Tang Junyuan (the son of Tang Xiangting) and Zhang Peicang.[16] Tang Junyuan and Zhang Peicang were both textile engineers and colleagues, but Junyuan was the son of the founder, while Peicang had gradually prospered from being a skilled worker in the dyeing department initially.[17] Both represented a new alliance between workers and capitalists in the New Democracy policy that was implemented since 1949.

From the times of Japanese occupation, the industrial companies of Shanghai and the Yangzi Delta had adapted to the instability of the Chinese domestic markets, turning to foreign partners to seek for supplies and sales. In 1949, Lixin and other companies were waiting for new machineries and reparations without reaching the pre-war production levels. Lixin had also ordered raw cotton from Raw Cotton Traders (the company of Gomersall) and other foreign firms to secure stocks for the whole year of 1949.[18] At the beginning, the Communist regime did not impede this trade and allowed the importation of raw cotton from abroad that was already ordered, even without taxing them.[19] Actually, the Communist policy was more liberal than the late Nationalist regime regarding import and export of cotton goods. However, the trade blockade that the Nationalist navy imposed in the Taiwan straits after the battles of Zhoushan and Hainan islands left some orders pending, even one year after the Communist takeover.[20]

As a result, in summer of 1950, most of the shipments stopped in Hong Kong and their cargoes were stored until conditions got better.[21] Meanwhile, China Engineers Limited, the machinery provider to Lixin, sold cotton piece goods from Lixin in Hong Kong for a commission of 1.5 percent. In this way, Lixin received foreign currency and was able to pay for the raw cotton and for the storage of the machineries in Hong Kong.[22] Thanks to the mediation of China Engineers and foreign banks, Lixin could export products from Shanghai and get some Indian raw cotton in exchange.[23] Barters of raw cotton against manufactured products continued during the first half of 1950, until the trade embargo put all trade into a standstill.[24]

In July 1950, the shipments that had already been contracted were brought into the port but, at the end of the year, all foreign currencies were to be delivered to the Bank of China. No payment with foreign currencies would be available and all private companies had to revaluate their assets and readjust their capital according to the regulations of the Committee of Finance and Economics of the State Council.[25] Lixin finally cancelled the machinery contracts that had not been shipped already, in coordination with Chinese Engineers.[26] The transnational networks that provided with textile machineries and technological updates were thus cut off, like the traditional cloth distribution firms, by the Communist controls over trade and also by the trade embargo caused by the Korean War.

From now on, raw cotton had to be bought from state-owned firms about one month in advance. In return, finished products were purchased by state-owned distribution companies, but no financing was provided between the raw cotton order and the delivery of finished cloth. In the past, cotton mills used to stock raw cotton for an average of three to six months, but this kind of security was not available anymore.[27] Therefore, the shortage of raw cotton

had created serious difficulties for textile companies and the Chinese government agencies, which could not deliver enough raw cotton to keep the mills functioning, especially after June 1950. Then, China Engineers Ltd. made a petition to the Chinese government to finance imported raw cotton against existing stocks of finished cloths, as it was done in 1948. But the answer was negative.[28] However, the urgent need of raw cotton forced the public organism to purchase 5,000 bales of raw cotton from Pakistan via China Engineers at a fixed price. However, due to Pakistan's unstable situation, the British company was only able to deliver half of the order with an overrun that was paid by the Chinese state.[29] No more orders were forthcoming.

The Korean War pushed forward an economic embargo that was imposed on Communist China. Import of military goods from Britain, the United States, and other countries was already banned in November 1949, but the US secretary of state, Dean Acheson, allowed some trade on a cash basis for other goods, despite strong opposition from the "China lobby" that supported Chiang Kai-shek in Taiwan.[30] However, when the Seventh fleet arrived to defend the Taiwan Strait in June 1950, a full-fledged embargo was put into practice at the end of year and all trade between China and the capitalistic countries of the West was forbidden.

However, as late as in May 1951, William Charles Gomersall was still optimistic regarding the trade between Britain and China. In a conference given at the Royal Institute of International Affairs in London, he praised the new Communist regime and advocated for enhancing trade relations between Great Britain and China. After making it clear that he was not a Communist sympathizer—just a "plain businessman"—he said he was convinced that the new regime had brought efficiency and cohesion in the territory, something that was totally new in China. For instance, railways were working on time, northern coal arrived to Shanghai regularly, and electricity cuts had diminished even after the bombing of Shanghai's main electrical station by the Nationalists, in February 1950. The government had curbed inflation, and demonstrated discipline and administrative skills. The lack of trade was due to the trade blockage and Britain should oppose more emphatically to it, according to Gomersall.

Gomersall argued that Britain should resume trade with China and encourage the export of technology. He was especially interested in developing worsted, artificial fibers, wool tops, dyestuffs, knitting machines, and printing and dyeing mills.[31] In the conference, Gomersall alerted that manufacturing in China would be more complicated than trading due to high taxes, lack of raw materials, depressed consumer markets, and the impossibility of firing workers. At that time, China Engineers was engaged in big industrial undertakings such as with China Printing & Finishing Company

Limited, a major British textile mill in Shanghai that was purchased by the company in early 1949.[32] As a factory director, China Engineers had recruited Lu Shaoyun, the engineer that worked with Liu Guojun in the 1930s.[33] However, Gomersall was confident that China could develop if the country established an export-oriented industrialization focused on the textile sector.

After the purchase of China Printing and Finishing Company Limited, Gomersall and China Engineers became relevant actors of the vanishing British presence in China. Because the Chinese authorities did not recognize foreign consular services, Gomersall worked as a liaison between the British Foreign Office and the Chinese administration during the first years of the Communist regime.[34] He tried to convince the new Chinese government about the advantages of keeping British investment and trade, especially in the textile sector, where new technologies such as artificial fibers could be developed.[35] But this project was too ahead of its time.

## Small Business in the Woolen Industry

During the 1930s, the pioneers of the cotton finishing industry, such as Wang Qiyu and Tang Xiangting, were also prime movers in the woolen industries. They created woolen and worsted firms that could spin and weave fine yarns and they let their sons prosper in this sector, providing them with small and medium mills to achieve experience, before they joined the big cotton-textile groups. Therefore, these companies were mostly family based and remained separated from the cotton industries.

Naturally, China Engineers and William Charles Gomersall played a leading role in the importation of machinery and the overhauling of the plants. In this case, China Engineers also established a plant on its own. Shanghai Worsted Mills was founded in 1937 between Li Shuxiong (James H. Lee), founder of China Engineers; Wang Qiyu, from the Dafeng group; and Guo Dihuo, from the Yong'an group.[36] The company was among the first firms in China to manufacture worsted.[37] This production was very adequate for making gabardines and serge for the finishing workshops and tailoring departments of Shanghai. The mill was one of the first mills in China to incorporate the complete process of spinning, designing, weaving, dyeing, and finishing woolen fabrics.[38] One of the objectives of Shanghai Worsted Mills was to innovate in the production of yarns from different fibers and experiment blended yarns with cotton, flax, hemp, jute, linen, canvas, wool, and worsted.[39]

Following Gomersall's transnational strategy, Shanghai Worsted Mills was registered as a British company in Hong Kong during the war against Japan. After 1945, the mill was handed back to their shareholders intact and its

knitted yarns made good sales due to weak competition. The knitting industry was not relevant in the 1930s but gained popularity and was modernized during the late 1940s and 1950s, bringing good opportunities to the sector.[40] In the early 1950s, "Baby," a trademark of Shanghai Worsted Mills was among the most famous in the knitting yarn market of China. However, the only way to keep the mill operating was through the purchase of wool tops with foreign currency that China Engineers had in Hong Kong, and by importing the wool tops at a loss after paying more than 40 percent as import tax.[41]

China Engineers also provided modern technology to other wool companies in China. Most of the machines came from the British manufacturer Prince Smith and were supplied to Tang Junyuan in Wuxi and to the sons of Wang Qiyu in Shanghai. The first woolen mill in Wuxi was named Xiexin (Yih Hsing Woolen and Worsted Company) and was founded in 1934 by Tang Junyuan and two of his cousins, Tang Jiyuan and Tang Xiongyuan.[42] The mill had 4,000 worsted spindles and 50 worsted looms, and was literally attached to Lixin.[43] It was the first company that produced refined woolens in the Yangzi Delta region. Xiexin and Lixin moved to the International Concessions of Shanghai to avoid Japanese occupation, and China Engineers helped them move the equipment and bring a British cover to the operation in front of the Japanese authorities.[44] After the war, Xiexin prospered in both cities, Shanghai and Wuxi, and increased capital several times, reaching more than 400 shareholders in 1949.[45] China Engineers imported wool tops for Xiexin from Great Britain and Australia, and this trade continued until 1952.[46]

A similar case was Dawei Weaving and Dyeing Company (Dai Wai), a company founded in 1933 by Wang Qiyu and his five sons.[47] The eldest, Wang Tongyuan, and the youngest, Wang Fuyuan (1917), assumed management responsibilities and became directors of the company.[48] It was a small firm placed in the International Concession of Shanghai that made high-end fabrics from different fibers with 300 looms.[49] The two brothers demonstrated good management skills during the war and were later promoted, achieving major responsibilities in the cotton companies of his father. Wang Tongyuan opened a spinning and weaving mill in Hong Kong in 1948, while Wang Fuyuan was kept in charge of the three mills that Dafeng and China Cotton Mills possessed in Shanghai. Dawei was the only company that was fully owned by the family.[50]

However, during the socialist transition, these small but innovative companies lost their independence. The Communist party was not familiar with the industrial landscape of Shanghai and the Yangzi Delta region. They saw private textile networks that linked different companies horizontally, not as networks but as cartels that were controlled by big family clans such as the

Rongs, the Lius, and the Guos.[51] These families were similar to the bureaucratic capitalists of the Nationalist regime (the Songs, the Kongs, and the Jiangs), but they were not considered traitors as long as they cooperated with the new regime. However, they were forced to merge. During the long decade of war, the lists of shareholders of Dafeng, Lixin and Dacheng diminished and only the bigger owners remained. Other small shareholders simply abandoned their shares when they got to know that to have capitalist shares was not appealing anymore. Other small shareholders, such as the small and medium trading firms, simply disappeared with the trade monopolies. Under the new regime, China Engineers, Lixin, and Dafeng from one side; and Shanghai Worsted Mill, Xiexin, and Dawei from the other, were melted into big cartels with only a few capitalists responsible. These new industrial groups were usually known by the surname of the main shareholder or founder, without considering the rich network of shareholders and partners that existed before.

## The Transition to Socialism of the Dafeng Group

Mao put forward his revolutionary plan that considered China to be neither ready for a bourgeois revolution nor the dictatorship of the proletariat. In 1940, he set the rules for the New Democracy: an alliance between peasants, workers, petty bourgeois, and national bourgeois to overcome the protracted situation of China.[52] This alliance would be called the United Front, and called for capitalists to join the new political and economic institutions. This was the official policy during the first years of Maoism and it succeeded in avoiding a massive emigration of industrialists. Capitalists, workers, and peasants would cooperate under the promise of a new socialist era.[53]

China had already experienced a surge of bureaucratic capitalism and state planning under the rule of Chiang Kai-shek, especially during the long war against Japan.[54] In 1945, all Japanese assets were confiscated by the Nationalist government, becoming state-owned companies, and that was how the state-owned Textile Reconstruction Company came to dominate the cotton sector in China in the post-war period. In 1949, the new Communist regime took over all of this pre-existing public sector, and all former state capitalists and managers became enemies, the "bureaucratic capitalists" (*guanliao zibenjia*).[55] The first urban political campaign of the Mao regime—the campaign to suppress counterrevolutionaries—fought against the previous bureaucrats of the Guomindang and their companies. Meanwhile the other enemy, the "compradore capitalist" (*maiban zibenjia*), was not affected in this first massive campaign.

The transfer of public capital from one party to another was the main struggle in Shanghai and the Yangzi Delta region during these first years, and this violent struggle ended with the Nationalist presence in mainland China.[56] Meanwhile, other capitalists, who worked with foreign firms (like Lixin, Dafeng, Anda, or Dacheng) were supposed to be collaborators of the imperialist forces, or "compradore capitalists" (*maiban zibenjia*). However, no matter their relations with foreigners or their investments in Hong Kong, all capitalists who welcomed the new regime were called "national capitalists" (*minzu zibenjia*), and were asked to continue in their posts and register in the new official federations and associations.[57]

The new regime made a plan to audit companies and enforce rational accounting while implanting labor-capital consulting committees to solve class conflicts.[58] From March 1950, all private firms were registered with the municipal government of Shanghai stating their inventory, capital, workers, managers, and owners. Meanwhile, private owners, whose numbers had diminished, in comparison to the data of shareholders previous to 1949, had to register with the Shanghai Industrial and Commercial Association.[59] Once registered as capital owners, the association put pressure on them to contribute to the war effort in Korea. In order to be called a national capitalist, the business sector had to donate money to the government.

These policies of transferring profits to the state through business taxes, donations to the war effort, and mandatory purchase of state bonds had shackled the financial independence of private firms, worsening their financial situation.[60] Fiscal pressure reached its peak during the massive campaigns of the Three and Five Anti of 1952. Contrary to the first political campaigns, this one reached the capitalist class that was the victim of innumerable humiliations and prosecutions. The campaign attacked the corruption of the bureaucracy and the sins of the bourgeoisie. National capitalists were humiliated and tried to retire from the business, becoming chronically ill while some of them even committed suicide.[61]

Meanwhile, Beijing launched a new legal type of company that would lead the transition to socialism. The "joint public and private" company (*gongsi heying*) was a double-edged sword: from one side it aimed to help industrial units to resume or increase production, facilitating investment and loans but, from the other, the state would own shares and have a stake in the firm. At first, companies that entered this program were from Nationalist origin but, soon after, other companies—some of them bankrupt—joined the campaign.[62]

However, the companies that earned profits and paid more taxes and war contributions to the government were less disturbed. According to some

estimation, the Shanghai business community paid the government around 10 trillion RMB altogether.[63] This campaign dealt a severe blow to the finances of private companies, especially if they had factories in two or more cities, like Lixin. Dafeng paid for the Five Anti campaign a total of 5.1 billion yuan, while Lixin paid 3.7 in Shanghai and 6.2 billion in Wuxi, which was equal to almost all the benefits that the company won between 1950 and 1953.[64]

In October 1953, the policy of New Democracy was replaced by a more radical "General Line for the Transition Period" policy, where it was stated that the capitalist class would be destroyed and all companies would have to enter a process of transition toward socialism.[65] In Dafeng, Wang Qiyu and most of his family had migrated to Hong Kong leaving the youngest son, Wang Fuyuan, in charge of all responsibility. They transferred current capital to Hong Kong and 30,000 spindles, which was the most important quantity of spindles to be moved from Shanghai to Hong Kong. Surprisingly, the government did not treat the Wangs as a compradore family, despite the inflated political discourse. The donations of Wang Fuyuan were a positive point, according to the political cadres who examined Dafeng's case, and they treated Wang Fuyuan with respect as the director of the three companies of the group: Dafeng, China Cotton Mills, and Dawei.[66] Wang Fuyuan also became a prestigious member of the Association of Weaving and Dyeing Industry of Shanghai.[67]

But China Cotton Mills, Dafeng, and Dawei were heavily indebted after the campaigns: the high taxes and the margin limitations due to mandatory purchase and low sale price of the products took its toll on the companies' balance sheets. The state used this financial situation to force Wang Fuyuan to accept a joint association between the capitalist side and the Shanghai government and, afterward, a merger between Dafeng, China Cotton Mills and Dawei.[68] However, the three companies were very different: Dafeng was a historical dyeing company founded in 1920, Dawei was a family enterprise of the 1930s, and China Cotton Mills was a big corporation with two spinning and weaving mills.

The party examined the capitalist composition of the group: Cui Fuzhuang, one of the founders of Dafeng and China Cotton Mills, passed away in 1949 and the other historical founders—Yu Baosan, Yang Xingdi, and Li Baibao—had either died, were dispersed, or were missing after a decade of war and turmoil. As it happened in Lixin, the shareholder pool of China Cotton Mills was reduced from hundreds of capitalist contributors to dozens. Besides, the best engineers that were trained by the eldest brother, Wang Tongyuan, had left for Hong Kong. Therefore, the major part of the capitalists who had stayed in China, besides Wang Fuyuan, were skilled

workers who had prospered around the time of the Communist takeover, such as Li Weinong, the new director of the board that had entered the group in 1939. Among the 58 members that represented the private side of the group, only five were in the company from before 1937 and more than a half of them had arrived after 1945.[69] The structure of the group was totally different from the late 1920s, when Dafeng had more than 300 shareholders, mainly traders and cloth and yarn merchants. During the long period of war, the majority of the old shareholders were lost and now Wang Fuyuan, as the sole member of the Wang family, represented more than 50 percent of the capital of the whole group (Dafeng, China Cotton Mills, and Dawei). The rest of the Wang family was in Hong Kong, and in 1954 it was evident that they would not come back. Meanwhile, the majority of the "new" members pushed Wang Fuyuan to accept the merger with the Shanghai government.

In December 1953, the remaining shareholders of Dafeng, China Cotton Mills, and Dawei decided to accept the proposal of the government to merge and become a socialist company. It was a kind of farce, as the ultimate responsibility for this decision was with Wang Fuyuan, who as the majority shareholder and representative of the Wang family in Hong Kong, was finally "convinced" by the pressure of the other members, who spoke in the name of the working class and the government.[70] Because a part of the capital had been taken to Hong Kong, the company was in debt to the state and their workers. This debt was transformed into new public shares, which would allow Dafeng to enter socialism without needing any real public investment.

Dafeng became a socialist company in October 1954 together with other textile companies, and an official ceremony was held in November.[71] This socialist transformation consisted of a written agreement between the three companies of the Dafeng group, wherein the private part accepted socialist values, the leadership of the Communist Party, and the surveillance of the working classes.[72] Actually the share of the government was very small, not even reaching 1 percent of the total subscribed capital. According to the document, the transition to socialism was meant to be gradual as all assets, working conditions, capital provision, and production would be studied and supervised by the government in order to establish a new social charter between the state, the workers, and the private part. However, from the Wang family's perspective, this was the final straw that indicated that they had lost all power in the company. Wang Fuyuan reported that he was suffering from a chronic disease, and petitioned to be allowed to go to Hong Kong for treatment. Finally, this last member of the Wang family left for Hong Kong in 1959.[73]

Meanwhile, the socialist Dafeng group tried to unify the three companies—Dafeng, Dawei, and China Cotton Mills—under a single

management. Therefore, besides the "harmonization" between public and private, there was also a merger (*hebing*) that took place. The fusion would unify the supply chain, so the state would have a more rational knowledge to adapt the company's production to the state's planning. At that time, China Cotton Mills had almost 700 looms and 50,000 spindles; Dafeng had 400 looms and a finishing set; and finally, Dawei had 400 looms. The committee believed that if 500 more looms were added, Dafeng would be self-sufficient. But this figure was calculated on the basis that the dyeing machines could increase their production from its average of 72,000 pieces to 100,000 or even 120,000 pieces. This increase would come with machine reparations and by putting the machines to the maximum workload possible.[74] They did not take into account that the dyeing set was from the 1920s and that there was no chance of replacing the materials and devices as foreign trade was closed and dyeing technology was still not well-developed in China.

## The Rupture of Dacheng and Anda

As it happened with a lot of textile companies of the Yangzi Delta region, during the war Dacheng was divided in two, one part of the firm being in the International Concessions of Shanghai and the other in the Japanese occupied territories. As a result, Dacheng was transformed into two firms, one company in Shanghai, called Anda, and Dacheng that remained in Changzhou. The political situation of Dacheng was more delicate than Anda, due to Liu Guojun's political contacts and his experience in moving factories to Chongqing during the Japanese occupation.[75] Dacheng had sold piece goods to the Nationalist army, and in 1949, Song Ziwen impelled Liu Guojun to move the mills to Taiwan—as he had done in Chongqing. But Liu Guojun only created a very small mill in Taiwan, while his family lived between Shanghai and Hong Kong. At the time of the Communist takeover, Liu Guojun was in Hong Kong, where his sons would settle down and develop cotton spinning and weaving business. Meanwhile, in Changzhou, the underground cell of the Communist Party of Dacheng played a key role in the communist takeover of Changzhou in the spring of 1949. The underground branch of the Communist Party wrote a letter to Liu Guojun asking for his return and opposing to any movement of the factory.[76]

In April 1949, Communist troops entered Changzhou and they hung their flags in the premises of Dacheng, while the People's Liberation Army received electricity, oil, telecommunications, and other strategic support from Dacheng mills.[77] The management's responsibilities fell on Zhu Xiwu, who ensured that the three factories kept producing without hindrance, in collaboration with the Communist workers who did not strike.[78] Meanwhile in

Hong Kong, He Beiheng (a member of the Chinese Communist Party) met Liu Guojun, who was recovering from a renal colic in hospital, and informed him that, according to Zhou Enlai, he was invited to live in Communist China and to contribute to the new regime.[79] At that time, Liu's friend Huang Yanpei, who was a member of the China Democratic League, was involved in the preparatory session of China's Political Consultative Conference, where several members of different political parties collaborated in the writing of a new constitution.

Huang Yanpei encouraged national capitalists to become a pillar of new China, with workers, peasants, and capitalists working together in the United Front, the new organization that would amalgamate the different parties and social classes in China's New Democracy. Huang Yanpei led the formation of the Ministry of Light Industries in the first government of Mao Zedong and became the minister, while Communist Li Weihan was elected the head of the United Front organization.[80] According to Huang Yanpei, Liu Guojun had good reasons to return to the mainland.

Liu Guojun was optimistic regarding the future economic developments of China. He was convinced that China's textile industry could produce enough cotton goods to cloth not only the country's population but also to export to other countries, profiting from the lack of competition from Japan and Great Britain. In an interview in Hong Kong, Liu Guojun argued that China's textile exports would provide with foreign currency that would be necessary to purchase other goods from abroad, like technology, for example. However, to attain this objective, communication between Shanghai and Hong Kong had to be reestablished as soon as possible.[81] At the eve of the Communist takeover, Dacheng exported to the markets of Southeast Asia via the ports of Shanghai and Hong Kong.[82] Furthermore, Dacheng bought machineries through China Engineers until August 1951.[83]

In August of 1950, the board of directors for Dacheng and Anda met in Shanghai with Liu Jingji and Xu Zhiyi, a representative of Liu Guojun. Both companies suffered from a scarcity of raw cotton and power outages.[84] Xu raised a proposal to merge both the firms and to allow Liu Jingji to take more responsibilities, since Liu Guojun would gradually retire.[85] However, Liu Guojun sent several letters ordering to postpone the decision until he was back in China.[86] According to him, this decision should be taken in a joint meeting of shareholders of Dacheng and Anda. Finally, Liu Guojun left Hong Kong; took a train to Guangzhou and arrived in Shanghai in September 1950. He left the business of Hong Kong to his sons, Liu Hankun and Liu Handong, and to his daughter Liu Biru. Liu Guojun was 74 years old at the time.

The joint-shareholder meeting of Dacheng and Anda took place in October 1950 and was very controversial. There was a conflict of leadership between Liu Guojun and Liu Jingji, who had organized a board meeting before the arrival of Liu Guojun and was declared general manager. But some members of the board did not recognize it and were clearly waiting for Liu Guojun.[87] The shareholder and the son-in-law of Liu Guojun, Cha Jimin, accused Liu Jingji of organizing a board without taking minutes and without the approval of the rest of the directors. Liu Jingji threatened to sue Cha Jimin for his accusations, because he had been acting as general manager of Anda ever since Liu Guojun was absent. Then, a group of shareholders sharply criticized Liu Guojun for being absent and for evading capitals. They accused him of having a backward way of thinking and lacking a clear perspective of the present political conditions. Liu Guojun did not recognize most of these new shareholders and complained that the old shareholders of Anda were missing. In fact, in 1954, the capitalist side of Anda was reduced to only 20 persons.[88]

In the meeting, Liu Guojun answered that he had contacted higher-up authorities in Beijing and had secured good deals with the government. The idea of a merger between Anda and Dacheng was to establish a common management but with different accounting systems. This plan would bring bright future prospects for both textile companies.[89] Then, Liu Guojun explained how Anda was built from Dacheng and how the machinery was transported from Changzhou to Shanghai during the Japanese occupation. Liu Jingji answered that the company was not a filial of Dacheng because the machineries were fully paid for by the shareholders of Anda.[90] The machinery was an important issue in the discussions, because Anda had the most modern technological equipment in Shanghai at that time.[91] However, no agreement was reached and the two companies remained separated while Liu Guojun and Liu Jingji continued as major shareholders of both companies.[92]

Dacheng had its central headquarters in Shanghai but the main mills were in Changzhou, something that was common in the textile companies of the Yangzi Delta. However, this situation was awkward for the Chinese regional governments and Dacheng's office had to move to Changzhou, even further increasing the distance between both the companies.[93] Meanwhile, Liu Guojun met Huang Yanpei in Beijing. They talked about the future of the United Front and the policy of collaboration between workers and national capitalists. He received a strong support from the minister of textiles and Liu Guojun was promoted as a national capitalist, even though he had just arrived from Hong Kong and had even invested in Taiwan. He was received by the leader of the United Front, Li Weihan, and even by Premier Zhou Enlai.[94] He made conferences in the ministries of trade and light industries, where he

introduced his plan to develop the textile industry: He argued that the light industry should nurture the heavy industry, because the heavy industry was a second stage of development that needed more capital and technology. The benefits from the textile industry would be the basis for further development in China.[95]

At that time, Changzhou had the most number of automatic looms in China after Shanghai, and Dacheng was the most important group. It won the national competition for producing China's best corduroy fabrics.[96] But Liu Guojun complained that he could not maintain the quality of the goods without the high-quality raw cotton and dyestuffs that were imported.[97] Liu Guojun insisted, in numerous conferences and writings, that in order to develop China's economy taking the textile sector as a basis, foreign trade was needed.[98] He was not alone and other national capitalists who were integrated in the People's Republic of China were arguing in favor of an export-oriented industrialization. That was the case of Liu Hongsheng, another national capitalist who had left Hong Kong for Shanghai, and envisaged the same strategy for China: a first phase of export of consumer goods, followed by a second phase of importing machinery and a third phase of quality upgrading.[99] It was the same idea that William Charles Gomersall had defended in front of the Communist government. However, all these plans were rejected and the Chinese government set a developing plan for China that went in the opposite direction: prioritizing the development of the heavy industries.[100]

After going to Shanghai and Beijing, Liu Guojun arrived at Changzhou, where he was received as a hero by the mill workers and the local government. In October 1950, he made a speech to celebrate the first anniversary of the founding of the PRC, where he insisted on his export-oriented development plan.[101] But shortly afterward, the massive campaigns to donate funds for the Korean War—and later, the campaigns of the Three and Five Anti—put Dacheng and Liu Guojun under great financial and political pressure. During the campaigns, the board of directors of Dacheng was accused of selling cotton yarn and cloth at inflated prices. In February 1951, several members of Dacheng were found guilty of sympathizing with the nationalist regime and some of them were even sentenced to death.[102] Some foremen and members of the management were also condemned for exploitation of the workers.

During the campaign, Liu Guojun was humiliated for having sold Japanese goods during the 1930s, for being a member of the capitalist China Democratic National Construction Association (the political party lead by Huang Yanpei), and for evading taxes and capitals.[103] He wrote a full-fledged confession where he recognized all his errors. Most of them were related to the payment of taxes, margins and prices, and to his activities outside China

(especially in Hong Kong and Taiwan). However, he defended the use of foreign currency (he had earned 900,000 USD in wartime Chongqing), because he had spent it in the United States buying machinery and raw cotton, which greatly helped in the post-war reconstruction not only of his companies, but also contributing to the country's economic recovery. Finally, he apologized for having invested in Hong Kong.[104]

Meanwhile, in Shanghai, the new Shanghai Cotton Textiles Industry Association accepted Liu Jingji as a member of the committee, who would lead the textile sector of the city in the following decades along with other capitalists such as Guo Dihuo and Rong Yiren.[105] Anda was well-managed and kept production going without wage cuts. It was considered as a model of success in socialist China, and the cadres of the bureau noticed that Liu Jingji had political ambitions, technical skills and a working class background.[106] Contrary to Liu Guojun, Liu Jingji repatriated capital and raw cotton to China, and had built a new mill in Shanghai's Pudong instead of Hong Kong.[107] Therefore, even though the company suffered from severe mass- movement criticisms in 1952, the Shanghai Party Committee decided to chose Anda as a "model" private company that would enter the process of socialist transition in February 1954.[108]

According to the Shanghai Industrial Production Committee, Liu Jingji was educated in socialism and now the board of directors was ready to enter the process of "harmonization between public and private" (*gongsi heying*), even though some disputes remained in the board after the separation from Liu Guojun and Anda.[109] The company entered a process of socialist transition in early March 1954, along with two other textile companies that were owned by the relatives of Liu Jingji. Again, companies were assembled according to familial factors creating family cartels. The three companies were merged into one family group, and Liu Jingji assumed general management along with the Communist cadres, who represented the public part, acting as vice directors.[110] Liu Jingji had political contacts and a good socialist background as he came from a poor family, and this operation gave him a political career. He became a delegate and representative of Shanghai at the meeting of the labor-capital committees of the Ministry of Labor in Beijing, and a member of the China Democratic National Construction Association.[111]

Meanwhile, Liu Guojun's long-term experience and economic vision were highly valued by some cadres of the government of Jiangsu and even Beijing, due to which he finally emerged unscathed from the mass movements of the 1950s, even though he was prepared to go to the jail at every moment.[112] When the government of Jiangsu opened the possibility for private companies to enter a process of socialist transition, Liu Guojun was one of the

first members to apply.[113] After writing an article stating that the capitalist class should be abolished, Dacheng entered the transformation to socialism just one month after Anda.[114] In his seventies, Liu Guojun participated in the Standing Committee of the Jiangsu People's Congress between 1954 and 1957, and in the National People's Congress in 1958.[115]

# CHAPTER 7

# Trade and Industrialization in Hong Kong

## Introduction

Located at the mouth of the Pearl River delta, Hong Kong is a convenient port for trade. Opium, tea, silver, and textile constituted the key goods that Western companies exchanged and smuggled into China through Hong Kong during the nineteenth century. As stipulated by the Treaty of Nanjing (1842), British traders and diplomats built a colonial city that became one of the cornerstones of the British Empire in Asia. The economy of Hong Kong specialized in long-distance trade and the city reached one million inhabitants in 1937.[1] During the Japanese occupation of China, the city was a neutral point of contact between Chongqing's Free China, the International Concessions of Shanghai, and the occupied cities of China. However, Hong Kong also fell under Japanese control on the Christmas day of 1941, and communication between Chongqing, Shanghai, and Hong Kong came to a standstill. The defeat of the British Empire in Asia and the end of the Treaty Port system did not change the status of Hong Kong, which was later returned to British hands after the Japanese surrendered. The city continued to be an important strategic point for long-distance trade, intelligence gathering, and liaison between regions.

The outbreak of the Civil War in 1946 incentivized the emigration of Chinese merchants to Hong Kong. Chinese capitalists strongly opposed the Nationalist controls that were implemented over trade and industry, but they also distrusted the Communist regime and its treatment of private property. Therefore, the city became a pole of attraction for Chinese emigrants and foreign direct investment. According to some investigations, the city received a net inflow of 1.2 billion HKD between 1947 and 1950, and reached a population of 2 million people in 1949.[2] The immigration mixed entrepreneurs

and engineers (along with their families) with skilled industrial workers and other immigrants and refugees from the neighboring provinces. Two big communities from China appeared in the city: the Cantonese and people from the Yangzi Delta region (mainly Shanghai and other cities). The latter group soon developed businesses and industries, and dedicated huge capital amounts to monetary speculation—something that was seen as a characteristic of Shanghai's business life.[3]

In 1949, thirteen spinning and weaving mills were operating in Hong Kong, while in 1945 there were none. All their founders came from mainland China and specifically from the Yangzi Delta and Shanghai. They had originally planned other destinations for these new machineries but the delays from Europe and the bureaucratic hurdles in obtaining import licenses drove them to invest in Hong Kong instead. Besides, hyperinflation—and the unstable situation of China—helped them to reconsider their investment.[4] Therefore, after ten years of paralysis in the machinery trade due to the war, the most modern equipment ordered by Chinese textile firms ended up in Hong Kong, leaving the Yangzi Delta with obsolete machineries.

When the first spinning mill opened in August 1947, cotton yarn was supplied to Hong Kong's workshops and small weaving and knitting industries that had developed in the British city during the 1930s.[5] At the end of the year, cotton yarn from Chinese mills was also bartered against raw cotton in Hong Kong, but this trade was unstable and the weaving and knitting workshops needed regular supplies of yarn. Besides, the post-war world markets were hungry for cloth, and the most important production centers in Japan, the United States, and Europe had not recovered from the war yet. Therefore, the world's demand of cloth was high and the price of yarns and cloths skyrocketed. Several East African countries placed an order for 60 million yards of cloths with Hong Kong's industries in 1947, and the weavers, in turn, put pressure on Hong Kong's government for securing cheap cotton yarn.[6] In order to secure the 5,000 bales of yarn that were needed by the local industries every month, the Hong Kong government imported Japanese and Indian yarn and also bartered Chinese yarn in exchange for raw cotton.[7] Under this situation, it was only natural that some members of the networks of Dafeng, Lixin, and Dacheng identified good opportunities in Hong Kong for developing spinning mills. Those who kept good trading contacts in Hong Kong were the first to invest in the British colony, and they noticed how the government provided facilities for such kind of ventures.

At that time, the traditional openness of Hong Kong suffered several setbacks. Trade conditions became very unstable due to the Nationalist blockades in Zhoushan, Taiwan, and Hainan islands; the British embargo on India; the boycott against Japanese goods in the sterling area; and, finally, the

American embargo after the outbreak of the Korean War in June 1950. Therefore, when Hong Kong was developing its spinning capacity in the last years of the 1940s, the Cold War unfolded its paradigm of closed borders, placing Hong Kong just inside the boundary between the Eurasian communist world and the capitalistic Asia-Pacific region. Therefore, Hong Kong became a "Cold War city;" at crossroads between the United States, Great Britain, Communist China, Nationalist China, and Southeast Asia.[8]

Meanwhile, hundreds of local weaving and knitting firms protested against the rise in yarn prices.[9] Between 1947 and 1949, the Department of Supplies, Trade and Industry of the Hong Kong government secured 10,000 bales of Chinese, Japanese, and Italian cotton yarns to fulfill the demand of weavers, knitters, and garment makers.[10] Finally, in 1951, thanks to the development of cotton mills with a capacity of 200,000 spindles in Hong Kong, the local demand of yarn was fulfilled without importing more yarns.[11] However, Shanghai's industrialists had originally invested only to meet the Chinese demand; but from 1950 onward, the Chinese market was gradually closed by the borders of the Cold War and the trade blockade enforced by the United States. Trade with China did not recover and the textile industry of Hong Kong had to open up to outside markets. Thanks to the combination of know-how from Shanghai, the trading facilities of the British port, and the trade networks of the southern Chinese that extended in the Southeast Asia, Hong Kong was able to compensate the lack of trade with China and compete internationally with the Japanese textile industry, which was leading the market in the Asian continent.[12]

Before 1949, Hong Kong was a distribution center for cotton goods in China and had a trade deficit in textiles. Yarns and cloths from China, India, and Japan were imported in Hong Kong and re-exported to other destinations—mainly to Central and South China. But after the trade blockade of the 1950s, Hong Kong had to seek other markets to find cheap and regular supplies of raw cotton from abroad. Cotton-piece goods made in Hong Kong reached not only the traditional Southeast Asian markets (Thailand, Malaya, Philippines, Indonesia); but also South Asia (mainly Pakistan), where cotton traders had been bartering raw cotton against manufactured goods for China; and finally, Australia, East Africa, Near East (Iraq, Oman), East and South Africa, and even Europe (Great Britain, Sweden).[13] In fact, some of these destinations had already imported Chinese textile goods during the Second World War, although at a smaller scale. The textile industry of Hong Kong massively exported manufactured products to all these markets.

The 13 pioneering cotton-spinning mills of Hong Kong were all placed in the Kowloon area, the territory that was leased to the British Empire in

1898 for a period of 98 years. The success of the cotton-spinning mills was related to the modern equipment of the factories, the price-quality ratio of the products, and the potential of trading to overseas markets. In 1949, British textile expert Mr. Butterworth admired the remarkable experience of the textile entrepreneurs in setting the layouts, disposing electricity, and installing air-conditioning machines. These conditions contrasted with the old network of local weaving workshops, which were owned by the local Cantonese population—sometimes creating tensions between the new spinners from the North and the local population.[14] The expert predicted a large development of big modern vertically integrated mills in the near future.[15] In 1955, the textile expert Arno S. Pearse, who visited the Chinese mills of Shanghai and the Yangzi Delta in 1928, was also impressed by the modernity of the equipments, with air-conditioning, and the fact that the factories worked without any manual looms.[16]

In November 1953, the vice president of the United States, Richard M. Nixon, paid a visit to Hong Kong and participated in a welcoming dinner organized by textile industrialists and other manufacturers at the Federation of Hong Kong Industries.[17] The members of the association asked Nixon for a relaxation in the trade controls just as the Korean War had come to a truce.[18] The United States did not open the trade with Communist China but, in exchange, it—along with Great Britain and West Germany—became one of the most important customers of textiles manufactured in Hong Kong. It was the first time Nixon had set foot in China. When he made a second visit (the historical visit to Beijing in 1972), Hong Kong was already the world's largest cloth exporter.[19]

Shanghai's spinners created their own association for representing their interests; in 1955, the Hong Kong Spinners Association was founded—substituting the more informal Spinners Club created in 1949. The Association elected an old pioneer, Wang Qiyu (C. Y. Wong), founder of Dafeng in Shanghai, as the first chairman of the association.[20] In fact, this association followed the strategy of internationalization that Wang Qiyu had envisioned when he was in charge of the Sixth Region Association of Textile Manufacturers in Shanghai. Besides, he was the oldest member and the one who had invested the most in Hong Kong. Tang Xinghai, owner of the South Sea Textile Manufacturing Company, and member of the Tang family of Wuxi was elected as Vice Chairman. The 13 companies that constituted the association had an overall capacity of 280,540 spindles and 2,456 looms.[21] It was rather a small capacity, considering that it represented 5 percent of all the spindles in China, but they were all very modern. At that time, the textile industry was already the first industrial sector of Hong Kong's economy.

## The network of China Engineers Limited

It is not unusual that the best in-depth reports of Hong Kong's cotton industry that were published in the early 1950s were compiled by China Engineers for the *Far Eastern Economic Review*.[22] William Charles Gomersall and his partners played a leading role in the industrialization of the textile mills of the city. They had already developed a trade and technology network in China with Lixin, Dafeng, and other companies such as Yong'an and Shenxin. These networks were based upon mutual trust, which was built after years of long-distance and time-consuming machinery trade. When the second generation of managers from Dafeng and Lixin arrived at Hong Kong, this network was naturally extended and enriched.

In July 1950, China Engineers put into practice the Hong Kong Cotton Pool. All the 13 cotton spinners of the city joined this program and sought the assistance of William Charles Gomersall and his partners.[23] This service meant that cotton yarn and cloth was sold in the outside markets through the mediation of China Engineers.[24] In exchange, China Engineers financed the purchase of raw cotton from abroad, so that the spinning mills could pay back for the raw cotton after the yarn was produced. Earlier, spinners did not have a secure channel to obtain raw cotton, and had to sell cotton yarn rapidly in order to get sufficient cash to purchase raw cotton for future yarns. But sometimes, this was done at a loss just to ensure that the mill had enough cotton to produce. The irregularity of the raw-cotton supply made it impossible for these spinners to compete with the textile sectors of India and Japan. The mediation of China Engineers created a pool of raw-cotton supply that had a fixed price and was in agreement with all spinning companies, thereby, avoiding speculation movements. The idea of unifying the efforts of all mills and obtain a secure flow of raw cotton was already in the Sixth Region Association of Textile Manufacturers, lead by Wang Qiyu in 1947.[25] However, this project—which was never enforced in China,—was feasible in Hong Kong.

In this way, China Engineers' network extended to other companies and it became a dominant entity in the initial years of Hong Kong's industrialization. Ningbo merchant and founding partner of China Engineers, Li Shuxiong (James H. Lee), was the head of Hong Kong Cotton Pool, and responsible for negotiating with British banks for loans and the raw cotton purchases.[26] According to the *Far East Economic Review*, it was an example of how horizontal cooperation supplanted economic competition and speculation, allowing the nascent textile industry of Hong Kong to reach a more sound financial position.[27] Li Shuxiong was well experienced with the social clubs of Shanghai, and adapted well to the new situation of Hong Kong in

the Cold War. In 1951, he made a trip to the United States and was received by Alfred Wedemeyer and General Willoughby, who was at that time General MacArthur's chief of staff in Japan.[28] At the same time, William Charles Gomersall held a conference at London's Royal Institute of International Affairs. By then, China was still the main business for China Engineers, and Gomersall was optimistic in regard to Sino-British relations, but only if both countries committed in ensuring trade and keeping diplomatic and economic relations.[29]

China Engineers was not only suppliers to Hong Kong's textile industries but also their financers. The company directly financed two of the most important spinning mills that appeared in 1948: Wang Qiyu's China Cotton Mills Ltd., and Kowloon Textile Industries Ltd., a firm founded by a branch of the Rong family. The loans to both companies totaled to almost 1 million pounds and were secured by mortgages and machineries of respective companies.[30] China Engineers also acted as a broker between British banks in Hong Kong, which were still reluctant to give loans to the Chinese immigrant community, and Chinese entrepreneurs, who needed credit and foreign currency. Of course, China Engineers profited by charging a commission two points between the interest rates offered by the bank and the company's own interest rate charged to the textile companies.[31] But China Cotton Mills Ltd. paid an annual 6 percent interest rate, which was still below the market price of all Chinese banks. Finally in 1961, HSBC and other British banks established their own departments for dealing with Chinese industrial businesses, and the banking role of China Engineers came to an end.[32] During the 1960s, one third of the total loans and advances from the most important banks of Hong Kong were given to the textile companies.[33]

Thanks to the financial and trading facilities by China Engineers, spinners increased their raw-cotton orders by 25 percent, without having to sell yarns immediately to pay for them. In the beginning, a majority of the raw cotton was purchased from Pakistan, where the company had relevant partners since the old times of the Shanghai trade. Wang Qiyu was a member of the Indian Cotton Importers Association in the 1920s, and two of the founding shareholders of China Engineers were raw-cotton traders from South Asia.[34] Therefore, Pakistan became the main supplier of raw cotton for Hong Kong and also the first buyer of the yarns, taking three quarters of the city's output in the early 1950s.[35] China Engineers also sold Pakistani cotton to the Chinese communist government, until the Cold War blockades put an end to that trade. Furthermore, Pakistan increased their export taxes and Hong Kong had to diversify its raw-cotton supply sources, thereby adding more than 20 different cotton producing countries to its list.[36] In 1954, the Hong Kong

Cotton Pool was finally dismantled; however, it had made an important contribution to the textile industry of Hong Kong.

China Engineers acted as an agent for European and American manufacturers, and all other kind of firms, interested in Asia. In 1950, China Engineers was the sole agent for 12 different power and electrical manufacturers, 24 textile machinery and accessories manufacturers, and 12 general companies (ranging from rubber and water pumps to diesel motors).[37] The company attended the Manchester fair of textile technology bringing into Asia technological updates of some of the newest innovations. In 1952, China Engineers opened offices in Singapore and Kuala Lumpur, and also supervised the establishment of several textile mills in the Philippines.[38] In 1960, it represented more than 200 firms of all kinds of businesses.[39] The company supplied all kinds of machines and accessories manufactured in Europe or the United States to the Asian continent. They were also engaged in importing raw cotton, because of their exclusive agreements with shipping companies, and in exporting manufactured textile goods abroad.[40] Therefore, China Engineers became a modern multinational.

The company also owned Hong Kong Knitters Ltd., a subsidiary firm that had a knitting mill with top-of-the-line knitting machines, and garment manufacturing companies. China Engineers claimed that it produces T-shirts that were comparable to the best ones made in Great Britain and the United States.[41] The knitting production was intimately connected with the final consumer, to the point that fashion trends and design became an important factor in this business. In 1959, China Engineers had three fully-owned subsidiaries that knitted, weaved, and dyed and two partially-owned subsidiaries of garment-making firms. Nine tenths of the goods were shipped for the US market.[42]

In December 1959, William Charles Gomersall held a conference, "Reminiscences of a China hand," and spoke about his 33 years of experience in Shanghai (from 1919 to 1952). Far from making a glorious description of the past, Gomersall depicted the inequalities between Chinese and foreigners, and the difficulties in undertaking a business. But he also explained how he had developed an "exceptional kind of trust" with some of the most important Chinese industrialists, such as Rong Zongjing, who trusted in Gomersall to the extent of accepting a deal of 60,000 pounds without even looking at a written contract.[43] In July 1960, William Charles Gomersall passed away in Hong Kong; according to the obituary by the company, he had a "rare facility of making personal and business friendships with Chinese industrialists."[44]

## Hong Kong Spinners Limited

China Engineers was neither a family enterprise nor a company that employed members of the same family. However, Hong Kong's industrial sector was generally perceived as a family business, and it's true that in nearly all the spinning industrial groups, family members were a majority.[45] However, the importance of family ties in Hong Kong must be understood from its historical perspective, taking into account that most of these companies emerged from previous firms and business networks that existed in the Yangzi Delta and Shanghai.[46] At the beginning, Dafeng, Dacheng, and Lixin were not family enterprises because they had hundreds of shareholders and different people in their board of directors. These companies mixed traditional bankers, producers of traditional clothes, cotton yarn and cloth traders, compradores, and merchants who had worked or studied in the West or in Japan. However, the companies that were created in Hong Kong by the second generation of industrialists were more familial and their capital was more concentrated.

First of all, it was the Japanese occupation of China that reduced the number of owners of Dafeng, Lixin, and Dacheng, as most of the shareholders were whether lost or dispersed due to the war. The board of directors of these companies took control and entered into agreements with China Engineers or other foreign firms to secure their assets, leaving small shareholders out of the business. The migration to Hong Kong in the midst of the Civil War was organized by these transnational networks—between foreign firms and founding partners—that had forged strong ties, even though some members of these families decided to stay in Communist China. During several interviews with Hong Kong's spinners in 1978, most of the industrialists answered that the most important network to establish in Hong Kong was not kin or regional origin, but the business networks.[47]

The transnational networks that linked China Engineers and the families, which controlled the boards of directors of the textile mills of the Yangzi Delta since the war against Japan, were the main actors in the industrialization story of Hong Kong. In order to avoid problems with the rest of shareholders of the original companies in China, or with the Nationalist or the Communist governments, the first investments to Hong Kong were more familial than corporative and rather small. When the socialist transition was accelerated in China in the 1950s, private companies in mainland China were merged according to family criteria, creating a stronger sense of family corporations. But the second generation of spinners developed their own textile firms in Hong Kong, benefiting from the financial facilities of the city and purchasing machineries on their own.[48] In fact, after the Korean war, the

textile companies of Hong Kong were totally separated from the companies of continental China.

When Wang Qiyu and his sons first decided to create a cotton mill in Hong Kong, they first imported a set of second-hand machinery from Shanghai. This machinery was originally owned by a family company called Taishan and was purchased by a new company registered in Hong Kong under the name of Peninsula Spinners.[49] Taishan was created in 1943 by the Wang family and started to produce in 1945 in the outskirts of Shanghai, a time when it was worthwhile to produce out of the big city and on a small scale.[50] However, after the Japanese surrender, such small ventures lost their attractiveness.[51] When Peninsula Spinners was set in Hong Kong in April 1948, it bought the machinery from Taishan, which was liquidated, and started spinning at the end of the year, without creating any conflict with China Cotton Mills or any government. The new company in Hong Kong was owned by the Wang family and William Charles Gomersall.[52]

Meanwhile, in July 1948, the board of directors of China Cotton Mills—composed by the Wang brothers, the founder Cui Fuzhuang, and William Charles Gomersall—decided to reroute 30,000 new spindles, which had already been ordered from Great Britain, to Hong Kong instead of Shanghai. Therefore, a new company was built, Hong Kong Mills Ltd., a subsidiary of China Cotton Mills situated in Hong Kong.[53] These spindles were paid by foreign-currency funds that the company had accumulated over the past years in Hong Kong and other bank accounts.[54] Besides, in December 1948, Hong Kong Mills received half a million HKD as loan from China Engineers.[55] This money was used to build the premises of the new spinning mill in Kowloon—the most modern and biggest mill in Hong Kong at that time. Meanwhile in Shanghai, Cui Fuzhuang—the last surviving partner of Wang Qiyu—died in March 1949 and was substituted by the brothers Wang Fuyuan and Wang Qingsun.[56]

The board of directors in Hong Kong was composed by the Wangs, Gomersall, and an engineer named He Ruitang (David Z. D. Woo). Meanwhile in Shanghai, Wang Fuyuan took charge of China Cotton Mills and Dafeng as the major shareholder.[57] He Ruitang was an engineer who had graduated from Manchester University in 1931, and was close to Wang Tongyuan. He followed him to Hong Kong with his family and joined the management team that was lead by Wang Tongyuan along with other engineers.[58] In Hong Kong, He Ruitang was in charge of securing raw cotton.[59] Meanwhile, Hong Kong Spinners started to produce a fine yarn by the name of "Red Rose," a brand that would be exported first to Pakistan, and then later to Thailand, Britain, Europe, and the United States. It later on became famous in Manchester—the center of the British Industrial

Revolution.[60] The management of this company was thus concentrated in three or four people.

In 1955, Peninsula Spinners and Hong Kong Mills were liquidated. During the Cold War, it was necessary to cut any links with Communist China, because several international customers such as South Korea did not accept any product that could have any remote relationship with Communist China. Therefore, a new company was registered with no links to the previous enterprises of Shanghai.[61] The new firm, Hong Kong Spinners Ltd., appeared in April 1954 and integrated the other two mills of Hong Kong.[62] Meanwhile, in October, Dafeng, China Cotton Mills, and Dawei suffered the transition to socialism in continental China. This new group was family-based but, at the same time, it was totally detached from the industrial group that was managed by Tongyuan's brother in continental China. Wang Tongyuan became the general manager, followed by his two brothers and He Ruitang.[63] Wang Tongyuan lead a rather small management team that was composed of an assistant manager (He Ruitang), a mill manager, a chief engineer, a chief accountant, and a cotton purchaser.[64] Therefore, Hong Kong Spinners Ltd. had a very different structure than Dafeng and China Cotton Mills—much smaller and more familial.

Meanwhile, in 1955, Wang Qiyu was elected the first chairman of the Hong Kong Spinning Industry Association, with the aim of globally promoting the textile goods made in Hong Kong—in the face of the growing competition from other Asian countries. Wang Qiyu, as he did in the Sixth Region Association of Textile Manufacturers, stressed the necessity of enhancing international trade.[65] Besides, the association alerted against the new policies of Great Britain that sought to protect its textile industry by imposing limits to its textile imports.[66]

The British government tried to restrict cloth imports from Hong Kong by establishing quotas, which were also adopted by the United States and other countries in the context of the General Agreement of Tariff and Trade (GATT). Due to the establishment of the quota system, spinning companies came face to face with the traditional weaving sector, which was also export-oriented. The spinning companies of Hong Kong reacted by integrating vertically the textile production process—a strategy used by their predecessors in continental China. The Hong Kong government established a Cotton Advisory Board in 1961, and Wang Tongyan was elected as a permanent member. The trade restrictions imposed by Great Britain and the United States did not stop Hong Kong from becoming the world's cloth production factory.[67]

While Wang Qiyu and Wang Tongyuan lead the international expansion of Hong Kong's textile industry, Wang Fuyuan, the younger son of Wang

Qiyu, still stood in Communist China, and was responsible for the capitalist part of China Cotton Mills, Dafeng and Dawei. The family tried to get a permit to allow him to migrate to Hong Kong, along with his wife and three children. They tried several times and finally succeeded in October 1959.[68] At his arrival, the younger son became engaged first in shipping and finally in the garment business. He created his own garment firm, which produced ski clothes for the markets of the United States and Europe. The company was called Eternal Garments and received financial support of Hong Kong Spinners Limited.[69]

Besides Eternal Garments, another company—a subsidiary of Hong Kong Spinners Limited—was founded in 1959 under the name of Leighton Textiles Company Limited. This one specialized in manufacturing men's trousers for export.[70] The company was run by the son-in-law of Wang Tongyuan, Liang Zhuokeng (Henry Chuek Hung Leung, 1928–2009). Finally in 1965, Wang Tongyuan purchased Hong Kong Knitters from China Engineers, and appointed his daughter Wang Peili (Eleanor Wong) as general manager.[71] It was the beginning of a generation of women managers that stood in the first line of Hong Kong's textile business. In this way, the Wang family achieved the integration of the whole process of textile manufacturing, as it was understood in the 1960s, following what Wang Qiyu and his partners achieved in the 1920s. Wang Qiyu passed away in Hong Kong in 1965.[72]

## The Tangs in Hong Kong

The Tang family of Wuxi was divided in two main branches: the descendants of old Tang Hongpei and the descendants of old Tang Fupei.[73] Both branches made significant progress in the development in Wuxi, Shanghai, and Hong Kong. For instance, Hongpei's grandson, Tang Xinghai, managed Qingfeng in Wuxi; Baofeng in Shanghai; and South Sea Textile Manufacturing Company Limited in Hong Kong.[74] His trajectory is somehow very similar to the other Tang branch, the great grandsons of Fupei, who worked in Lixin (Wuxi), Changxing (Shanghai), and the Winsor group (Hong Kong).[75] Both branches started in Wuxi in the 1920s, diverted their investments between Wuxi and Shanghai during the Japanese occupation, and then expanded their business to Hong Kong in the climate of the Civil War. During the Cold War, the Tang family was also separated by *the bamboo curtain*. Their re-encounter in the 1970s symbolized the thaw of the Cold War and the beginning of the process of opening up and economic reform.

Tang Xinghai had set up South Sea Textile Manufacturing Company Limited in 1948 with his best textile engineers from Shanghai and Wuxi. The

company started operations in the following year with 10,000 new spindles, and soon Tang Jiqian (Jack Chi-chien Tang, 1927–2014), who had graduated from MIT in 1949, joined the company. This first set of spindles did not come from the major companies of Tang Xinghai but rather from a small family-based company, which was later merged with Liu Jingji's Anda group.[76] The capital was later increased to 32,900 spindles—the best spinning machines that came from Switzerland and were purchased without any contact with Communist China.[77] Besides, the mill was among the first to integrate 490 looms, which produced sheeting, drills, and jeans that were exported to Southeast Asia, United Kingdom, Africa, Australia, and Canada. Finally, as Tang Xinghai had envisioned in 1946, South Sea pioneered in blended yarns—mixing cotton with artificial fibers like rayon and nylon.[78]

Tang Xinghai was also an active supporter of the Hong Kong Spinning Industry Association and was chosen vice chairman. The chairman, Wang Qiyu, was an honorary figure; so Tang Xinghai did most of the work during the early years.[79] He met with a delegation from Lancashire that asked for export quotas to Great Britain with the argument of giving a three years respite to the weakened textile industry of Lancashire.[80] He also became involved in politics, and became the first Chinese that was chosen as a member of the Hong Kong Chamber of Commerce. Afterward, he was also member of the Legislative Council and the Executive Council of Hong Kong. He also helped to establish Hong Kong's first polytechnic school for training textile engineers in Hong Kong.[81]

Meanwhile, the other branch of the Tang family, the one of Tang Xiangting, also disembarked in Hong Kong. Tang Junyuan had an extended family of 12 children and the majority of them stayed in Communist China. However, the eldest son, Tang Xiangqian (Leo Tang Hsiang-chien, 1923), was sent to study textile technology at the age of 24: first to Manchester University, England and then to Illinois University, USA. As it happened with other sons of textile entrepreneurs, Tang Junyuan sought help from William Charles Gomersall to get his son accepted in Manchester University and arrange his visa.[82] In Illinois, Tang Junyuan sent a letter to another machinery provider, who helped him manage his son's sojourn.[83] These kind of relationships created strong ties between the second generation of textile entrepreneurs and the machinery providers.

After graduating, Tang Xiangqian returned to Shanghai but short afterwards left for Hong Kong, where he worked for a bank and for China Engineers.[84] Similar to his grandfather, Tang Xiangqian emancipated and created a textile group from scratch. First, he borrowed some capital in the early 1950s and opened a small cloth factory with 104 looms, which was called Five Continents Second, he founded China Overseas Limited with the help of China Engineers.[85] In 1951, Tang Xiangqian got married in Hong Kong

but his family, being in Shanghai, could not attend the wedding.[86] At the end of the decade, after some years of positive performance, he partnered with two other textile industrialists and created Soco Textiles Limited, a big spinning and weaving group.[87] Because he had no support from his family he sought diverse partners like An Zijia (T. K. Ann, 1912–2000), a merchant from Ningbo, and Zhou Wenxuan (W. H. Chow, 1921–2007) from Suzhou. The company started by spinning blended fibers in 1959 with 36,000 spindles imported from Germany and Japan. The yarns produced by Soco were consumed by a network of weaving and finishing companies and workshops of the same group and then exported as cloth and garments.[88] Tang Xiangqian's development was horizontal, as he participated in different firms that produced wool, knitting, and garments. In Hong Kong, as well as in the Yangzi Delta of the 1920s, the background of small and medium firms was as important as the big spinning mills in the process of industrialization.

During the 1960s, the textile industry developed horizontally, following a networked structure, through conglomerates that integrated big and small companies. They all worked with yarns, blends, artificial fibers, wools, finished and non-finished clothes, knitting, and garment making.[89] In Hong Kong, the number of companies multiplied from 1,500 firms in 1960 to more than 3,000 in 1969. This figure composed of only 44 large spinning mills; Apart from them, there were 259 weaving, 604 knitting, 177 dyeing, and more than 1,000 garment making industries.[90] Hong Kong's garment exports reached almost all the countries that participated in the capitalist world. As a result, Hong Kong became the most important textile and garment exporter in the world in the early 1970s. In 1969, only 8 percent of the yarns produced by the cotton-spinning mills of Hong Kong were exported, whereas in 1952 this percentage was 75 percent.[91] Meanwhile, the garment industry became the most important recipient of export earnings. Tang Xiangqian became a leading figure in this process of horizontal integration, creating different finishing companies that progressed during the 1960s.[92]

In 1969, Tang Xiangqian joined a holding group named Winsor, which integrated a whole network of textile companies. It started in 1957 with 500 sewing machines that produced trousers, shirts, and raincoats for export.[93] In the next decade, Tang Xiangqian was chosen managing director, and the company became the biggest conglomerate group of Hong Kong. It specialized in orders from big department stores in Europe, Japan, and the United States. At the end of the 1960s, Tang Xiangqian was chosen vice chairman of the Textile Association of Hong Kong, the chairman being Wang Tongyuan.[94]

Updating the machinery was essential in the textile industry, but Hong Kong also produced for famous fashion brands of Japan, France,

Germany, and the United States, where workmanship was also important. Thus, textile-finishing workshops became one of the key ingredients of the Hong Kong industrial model. In 1960, there were only 535 companies dedicated to garment making, while in 1978 the number of firms had raised to 8,100. The workshops employed an average of 30 persons and half of them had less than 10 workers. Around 90 percent of their production was exported—mainly to the United States, United Kingdom, and the Federal Republic of Germany.[95] A major part of these companies was integrated in big holding companies, which owned spinning and weaving mills but, at the same time, were flexible and adaptable to the demand and the consumer's tastes too—like the old workshops of the Yangzi Delta.

In 1972, Tang Xiangqian received a message from China informing him that his mother was ill. At that time, communication between mainland China and Hong Kong was not easy; not to say anything about crossing the border and traveling from capitalist Hong Kong to Communist China. However, Tang Xiangqian managed to get the permits and landed in Hongqiao Airport in June 1972 where he met Tang Junyuan and his brothers—after more than 20 years of separation.[96] He was struck by the poverty of his family and the general condition of urban dwellings in Shanghai, where families lived in one single room. He was careful not to show his background on the streets of Shanghai, and he wore revolutionary clothes as the climate of the city was still very dangerous due to the radicals of the Cultural Revolution. He then went back to Hong Kong, and was elected the chairman of the Hong Kong Cotton Spinners Association.[97] This would be the first of his several travels to continental China in the 1970s.

## The Lius in Hong Kong

Two sons of Liu Guojun, Liu Hankun and Liu Handong, and also his daughter, Liu Biru, chose to be in Hong Kong during the Cold War. The two brothers opened a spinning and weaving mill in 1948, supervised by Liu Guojun, when the father was still unsure between staying in China and moving out. In the beginning—as it happened with other undertakings—the investment was rather limited, with only 5,880 spindles and 200 looms. The company was called South Textile Limited, and soon increased its capital. However, in his report for the Five Anti Campaign, Liu Guojun claimed that all the investment for this textile mill came from the benefits of a familial private-trading company that he had established in Hong Kong with his sons in 1946.[98] South Textile Limited went on to become one of the 13 pioneering companies that started the spinning business in Hong Kong, before the proclamation of the People's Republic of China.

In contrast to the careers of Tang Xinghai, Tang Xiangqian, and Wang Tongyuan, who all had studied abroad, Liu Hankun had had a Confucian education and an early integration in the company with his father.[99] He became general manager of Dacheng when he was in his early twenties, and during the war he moved between Hong Kong (where he was in charge of an investment company) and Chongqing (where his father lived). Finally, he settled down in Hong Kong in 1945.[100] He founded South Textile Ltd and started operations in 1949 with less than 10,000 spindles but increased it by threefold in the following years. Meanwhile, Liu Hankun received a letter from his father explaining the positive prospects for China despite the campaign to suppress counter-revolutionaries.[101] When his brother Handong left for Brazil, Hankun succeeded in recruiting an engineer from Dacheng's Changzhou factory, who came to Hong Kong in 1955 to replace the brother.[102] Meanwhile, Hankun's father wrote letters to him asking about the situation in the world's textile market.[103] Liu Guojun believed that China would soon start exporting cotton goods massively. Liu Hankun was elected chairman of the Association of Cotton Spinners between 1956 and 1957, but he died of a heart attack afterward.[104] His father could not go to his son's funeral.[105]

Liu Handong (Jerry H. T. Liu) returned to Hong Kong, and took over his brother's business, which prospered during the 1960s and 70s.[106] Meanwhile, Cha Jimin—who was married to Liu Biru, the sister of Handong and Hankun—also achieved great success in Hong Kong's textile industry. He founded China Dyeing Works in 1949. He took this name from Dafeng—the pioneering dyeing firm that was founded in Shanghai in 1913, and where Cha had worked.[107] Cha Jimin followed Liu Guojun to Chongqing, where he managed Daming during wartime, but he did not follow his father-in-law in Communist China—even though he was present in the shareholder meeting that took place in 1950. In Hong Kong, Cha Jimin developed the same strategy as Wang Qiyu: to start a textile company with only the last part of the production process, finishing.[108] In fact, this was the main drawback of Hong Kong's textile industry during the 1950s: it could only export yarn and non-finished cloths because the dyeing and finishing industries were still undeveloped.[109] Cha Jimin was the first to implement modern dyeing production and, thus, received high profits.

Like Wang Qiyu and Liu Guojun, Cha Jimin invested in technology, and he was one of the first entrepreneurs to introduce the "auto–screen-printing" technology in the Asian continent.[110] China Dyeing Works profited from the newest pass-out turbine installation for dyeing and calendaring that was supplied, erected, and operated by China Engineers in 1956.[111] Like Liu Guojun, Cha Jimin integrated the finishing process with garment making, and the company soon had a garment factory attached to the main dyeing

and finishing mill. Cha Jimin successfully mixed the strategies of Wang Qiyu and Liu Guojun—his greatest masters in the textile business.[112]

Cha Jimin believed in technology, and in the internationalization of business. He traveled to dozens of countries and regions to learn new technologies. He allied with one of the biggest Japanese groups, Nisshin Spinning Company Limited, to make a joint company to explore the new "denim" clothes that were getting very fashionable in the Western markets in the 1960s, due to the boom of the blue cotton jeans. Cha Jimin collaborated and learned with Japanese engineers in a new venture, New Territories Textiles Ltd., which made him one of the most well-known textile industrialists of Hong Kong. At that time, in 1963, Liu Guojun was allowed to visit Hong Kong and met Liu Handong, his daughter, and his son-in-law.[113]

With the imposition of the export quotas in the early 1960s, Cha Jimin diversified his business and made foreign investments. He joined several delegations that visited Africa during the 1960s. He also visited European countries and decided he had to invest abroad. In 1963, he started nonwoven factories in the United Kingdom and the United States, and in the next year, he founded Akosombo Textiles Ltd in Ghana and United Nigerian Textiles Ltd. in Nigeria.[114] United Nigerian Textiles was built with more than 30,000 spindles and 2,000 looms, so it was not a small factory. At that time, Huang Hua—the future minister of Foreign Affairs of the People's Republic of China—was the Chinese ambassador in Ghana, and explained how he met a group of Hong Kong businessmen who were working in that country.[115] Cha Jimin would continue to invest in Africa, reaching eight factories by the end of the decade being known as the "textile king" of Africa among the people of Hong Kong. He was also one of the first foreign investors in Communist China.

# CHAPTER 8

# Networks in the Reform and Opening Up

## Introduction

In the historical Third Plenum of the Eleventh Meeting of the Central Committee of the Chinese Communist Party that took place in Beijing in December 1978, Deng Xiaoping inaugurated the period of China's economic reforms. Quoting Zhou Enlai's theory of the "four modernizations," Deng Xiaoping put focus on science and technology.[1] The theory of the four modernizations was first formulated in 1962 and emphasized technical education as means for developing the country's main strategic economic sectors—agriculture, industry, technology, and defense—, considering that revolutionary attempts to increase production without enough technical skills were doomed to failure. According to Deng Xiaoping, technology was China's main weakness and, thus, the country needed to import all kinds of machineries in order to modernize.[2] In May 1978, he specifically alluded to the backwardness of the textile-finishing sector, when he stated that the colors of the Chinese cloth were not up to the minimum standards of quality.[3]

In the 1950s, the networks that led technology innovation in the textile sector were dismantled. During the transition to socialism, the "integument" of capitalist enterprises was considered a fetter to the development of socialism.[4] In the 1950s, when a private company entered socialism, the board of directors, the shareholder structure, and the charter of the company were transformed and adapted to the socialist values and the leadership of the working class. A public-private joint venture was established and, nominally, the formal board of directors and the shareholders remained, without any real control over the management and technological issues. Shareholders received a fixed annual interest rate of 5 percent of their assets and were impelled to abandon the management of production.[5]

Therefore, the four modernizations theory acknowledged the importance of experts, in contrast to revolutionary activism and class struggle. Science and technology was considered a force of production in itself, independent of the class struggle that drove China's industrial policy in the past decades.[6] During the transition to socialism period, many textile owners of the Yangzi Delta announced, in goodwill, to serve as experts in the new regime. For instance, in 1955s shareholder meeting of Anda, Liu Jingji suggested that capitalists be educated in socialism, while communist cadres should be trained by the capitalists, like himself, in technical and management skills.[7] In 1956, Tang Junyuan, speaking as a member of the "commercial world" at the Shanghai Industrial and Commercial Association, announced that he was ready to relinquish all dividends and become a technical advisor for the government.[8] The Textile Bureau of Shanghai chose the capitalist leaders Liu Jingji and Tang Junyuan from Anda and Lixin respectively, for management positions. Of course, both were expected to be educated in socialism and Maoist politics. Liu Jingji and Tang Junyuan were then promoted in the Shanghai Textile Bureau and in the state-owned enterprise that was in charge of distribution of raw cotton and cotton goods, before being downgraded during the Cultural Revolution.[9] However, their experience would play an important role in the implementation of the four modernizations theory and the beginning of the reform and opening up process.

Meanwhile, Dafeng, Lixin, and Anda were melted into Shanghai's socialist system—becoming unrecognizable. In October 1955, all the four mills that constituted Dafeng were unified under one office (*zongguanlichu*), which centralized the administrative decisions that had to be reported to the Textile Bureau of Shanghai. This bureau was the main decision body for all Shanghai industries. The machineries of Dafeng were redistributed from one factory to another to unify production and establish balanced working units (*danwei*). In November 1955, the Bureau suggested that several cotton mills of the same district should have a unified management office.[10] Only in Shanghai, 4,000 private companies—devoted to all kinds of textile production—were transformed into 2,400 working units or *danwei*.[11] Also, some small firms were liquidated and integrated into large cooperatives.[12] Thus, the network that linked big cotton spinning and weaving mills with small and medium finishing workshops disappeared.

The Textile Bureau managed the technology investment for industrial companies such as Anda and Dafeng.[13] On one side, the allocation of machineries was decided by the economic planning commission of the Textile Bureau but, on the other, the production of spinning machines depended on the planning commission of the Heavy Industry Bureau. As a result, the former had to wait for the approval of the latter before setting the order.[14]

Besides, the assignment of machines depended on the contribution of every industrial group to the mass political campaigns and the purchase of state bonds. During Maoism, political activism, and not technical consideration, was the key issue that drove investment decisions.[15]

At the beginning of the Cultural Revolution, Dafeng, Lixin, Dacheng, and Anda became 100 percent state-owned companies. In 1966, the four firms of Dafeng became the textile factories of the Shanghai government numbers 25 and 26. The dyeing mill owned by Dafeng became the Shanghai Dyeing Factory Number 7.[16] In October 1966, after being merged with two other companies, Anda became the Shanghai Cotton Spinning and Weaving Factory Number 28, while the other mill in Pudong was transformed into Shanghai Textile Machinery Factory Number 3.[17] In Wuxi, Lixin became the Wuxi Dyeing Factory Number 1, after being separated from the spinning and weaving unit in 1966. Finally, in Changzhou, Dacheng became the Spinning and Weaving Factory Number 1.[18]

Meanwhile, the capitalist families that stayed in China became victims of violence during the Cultural Revolution. Even though they had long given up profits from the companies they still helped to manage, violence still spread until the People's Liberation Army took control of the factories, as in the case of Dacheng, in March 1967.[19] Often, the violence was particularly cruel against the sons of the capitalists—as it happened with the son and daughter-in-law of Liu Jingji, who were murdered in Shanghai.[20] Tang Junyuan and his sons also suffered from diverse privations and tortures in that period.[21] However, during the Cultural Revolution, the cadres who had negotiated with the private owners the joint-ownerships in the 1950s were also accused of being revisionists and rightists. In Shanghai alone, one of the cities where violence was more widespread, 106,264 veteran officials were prosecuted.[22] Therefore, in the beginning of the reform, old official cadres as well as capitalist families shared common sufferings.

Industrial experts but also communist cadres (like Deng Xiaoping) were downgraded, rehabilitated, and returned to their positions in the early 1970s when a moderate faction of Zhou Enlai won over the radicals of the Cultural Revolution.[23] The alliance between old communist cadres and technicians like Liu Jingji and Tang Junyuan, who had also become cadres, would allowed the implementation of the first reform and opening up policies.

During the Cultural Revolution, Chinese textile companies were totally transformed into socialist production units, and this status would not change in the future. In the early 1980s, there were 70 cotton-producing units in Shanghai, with 24 spinning and weaving mills that came from the mergers of the 1950s.[24] The fundamental problem of reform was how to innovate and, at the same time, how to treat this pre-existing socialist system

without collapsing. In the new reform era that would start after the Third Plenum, joint ventures between private investors and the public administration would be created in a dual-track system, without dismantling the pre-existing socialist sector.[25] Most of these state-owned factories survived as state-owned enterprises until the reforms of the early 1990s. But the role of Liu Jingji and Tang Junyuan in the opening up and reform process was not related to their previous commitments in Anda or Lixin, but in their contacts with the transnational network that existed in Hong Kong.

## The Technology Trade in the PRC

In 1978, Deng Xiaoping was aware that foreign trade in China was weak and that the country needed to open to technology imports in order to modernize its industrial base.[26] Technology imports were, thus, necessary until China developed enough technical capacity to produce textile machinery on its own that could compete with the global standards and markets.[27] Therefore, to implement the four modernizations theory, foreign trade was crucial. These were the same arguments that were suggested to the Communist government in the 1950s by William Charles Gomersall and Liu Guojun, although they fell on deaf ears.

From the 1950s, China followed a soviet-style industrialization path, where light industries were not considered a priority. In the First Five-Year Plan (1953–1957), the textile industry received only 4.9 percent of the total industrial investment.[28] Indeed, China received technological expertise from the USSR and other communist countries, and imports of industrial equipment peaked in 1955 at USD 752 million.[29] But the major part of this technology was destined for the 156 projects of state-owned capital-intensive industrialization driven by coal, electric power, steel, iron, and other heavy industries.[30] The textile industry only got a small share and put to work 44 new mills with 2.4 million spindles. In Jiangsu province, new spinning and weaving mills were opened in Xuzhou, Huaiyin, Yancheng, and Yangzhou. These cities did not have the textile tradition of Wuxi, Changzhou, or Suzhou.[31]

During the Great Leap Forward and the Cultural Revolution, the pressure to increase production put textile machines to exceed their limits, and the innovations that were publicized by the propaganda consisted of how to increase the speed of machines without breaking them.[32] Besides, every working unit was self-sufficient. Textile mills grew animals and vegetables, and every worker was able to behave like a farmer, a soldier, and an engineer. Therefore, technological skills were abandoned, and investments and innovations reached a standstill. As a result, in the early 1970s, most textile

industries were still running with the machines of the 1920s and 1930s that had been repaired and reutilized.[33]

But China did not completely close its doors to foreign trade, which was enhanced through state-owned companies that encouraged the export of certain manufactured goods, in order to obtain a favorable trade balance. However, there was no correlation between exports of manufactured goods and imports of raw cotton or technology. From 1954 onward, silks, carpets, and cotton goods were exported to the USSR, Czechoslovakia, East Germany, Poland, and other socialist countries.[34] Meanwhile, the government tried to increase cotton crops in China, and also tried to install new spindles near the cotton fields of Henan, Hebei, Gansu, and Xinjiang. As a result, only short staple Chinese cotton was available to the Chinese textile industry, worsening the quality of cloths.

In a conference held in Beijing in 1951, it was decided that only state-owned companies would handle imports of machinery and raw materials, while private companies would only be allowed to import some secondary.[35] At that time, until the middle of 1954, China Engineers kept trading with Chinese textile mills, especially minor machinery parts like flat cards, wool tops, and card clothing.[36] British importers in Shanghai had fallen to only nine, and China Engineers was among the last foreign companies that stood in Communist China.[37] But the lack of trade between China and Great Britain was also due to the trade blockade that was implemented by Washington and London. In 1952, China Engineers protested because card wires, insulation testers, and stokers—all goods allowed by the Chinese authorities—were not granted export license from the British government.[38] The Cold War's climate had made trade between China and the machinery manufacturers of Great Britain, Japan, and the United States impossible.

China Engineers owned two important industrial concerns in Shanghai: the Shanghai Worsted Mills and China Printing and Finishing Company Limited. In 1955, the Chinese government put pressure on the remaining British interests in China to relinquish their properties without any compensation. Profits could not be taken out of China and they were squeezed with taxes and compulsory public bonds and other impositions.[39] Gomersall tried to sell the assets of China Engineers, but the government was not ready to pay, and finally it abandoned China and its assets in 1956, being one of the last foreign firms to leave.[40]

However, the woolen industry of Shanghai, no matter if it was private or publically owned, needed imports of wool to operate. The mills were concentrated in Shanghai and depended exclusively on woolen imports that China Engineers provided. Therefore, after the trade blockades, the situation of this sector became desperate, and only 25 percent of the companies could keep a

regular production.[41] Under this situation, Liu Guojun suggested a recovery plan for the woolen industry.[42] He tried to convince the central government to move woolen factories from Shanghai to Xi'an, where wool was accessible and cloth was scarce. However, most of these companies, such as Shanghai Worsted Mill, were owned by capitalists or foreign companies, who were either absent or negotiating to leave or abandon their properties to the local governments. Therefore, Liu Guojun encouraged the central government to buy these woolen machineries and allow them to be moved to the interior.[43] Liu Guojun even tried to purchase the machinery of Shanghai Worsted Mill from China Engineers.[44] But the operation was not successful and, thus, Liu Guojun and William Charles Gomersall lost their last chance to collaborate. Finally in 1957, Liu Guojun succeeded in getting the woolen machineries moved from Shanghai to Nanjing.[45]

Between 1956 and 1976, China Engineers left China and concentrated their operations in Hong Kong and Southeast Asia, diversifying its business. During the 1960s, they introduced all kinds of technological devices to Hong Kong besides textile technology; this included Japanese TV sets, elevators and lifting technology for luxury hotels, electrical grids, lighting installations for new stadiums, and other engineering works.[46] In 1962, they were the sole agents in Hong Kong of 37 foreign power-and-electrical companies, 44 companies of general machinery (ranging from shipping to machine producers for biscuit making, steel pipes, chemicals, paper making, etc.), and 34 textile manufacturers that were at the edge of technological innovation. They also had an export division that sold all kinds of textile goods made in Hong Kong.[47] Curiously, China Engineers also kept a business relationship with the People's Republic of China that consisted of the purchase of rice from Guangdong province for Hong Kong's markets.[48] In the early 1970s, China Engineers was at the height of technological progress but trade relations with China were clearly marginal.

Meanwhile, in the 1960s and 1970s, China clearly fell behind in technological progress. Liu Guojun stayed in the old factory of Changzhou that kept producing the best corduroys with the old machines he had bought from Japan. After the passing away of his son in Hong Kong, Liu Guojun was allowed to visit the British city in 1962. He went with samples of his velvets and still claimed that someday trade relations would resume between Hong Kong and the Yangzi Delta. At that time, Zhou Enlai, who met Liu Guojun in 1950, had just formulated the theory of four modernizations. In 1962, a short biography of Liu Guojun that was written by one of his experts, Zhu Xiwu, appeared in a prestigious compilation of historical materials of China.[49] Zhu Xiwu praised Liu Guojun for he was never tempted to speculate and that he was always receptive to new technology, with a personal style of management.[50] It is possible that, through this biography, he was

trying to symbolize the theory of four modernizations that was proclaimed by Zhou Enlai that year.

But the four modernizations theory did not progress and Liu Guojun, as well as many other families from capitalist background, suffered from the humiliations of the Cultural Revolution. In his eighties, Liu Guojun was obliged to move from his house, to a protected hotel, to avoid the violence by the red guards. In 1973, his son, Hanliang, left China and moved to Hong Kong, joining his brother.[51] At that time, the backwardness of the textile industry, despite the rhetoric of the Communist propaganda, was evident. In the early 1970s, Dacheng was still using the spindles and looms that Liu Guojun had purchased in the 1930s.[52] In 1972, Zhou Enlai attended the trade fair of Guangzhou and, sadly, complained that the quality of the Chinese textile goods was so poor that they presented a very bad image of the country.[53]

One decade after the Sino-Soviet split of 1960 and the elaboration of the four modernizations theory, China had hardly imported any technology from abroad. Furthermore, Maoist China had not solved the problem of cloth scarcity despite its effort to increase production. China increased its spindles from 5 million in 1940 to 10 million twenty years later, mostly by machines made in China. However, the low productivity of the spindles and the dependency on raw materials like cotton and silk hampered the growth of cloth production and the sector suffered from recurrent supply crises. In fact, since the inception of the cloth coupon system in 1954, the average consumption of cotton cloth per capita had diminished from 6.8 meters per person per year in 1956 to 6.0 in 1970. Actually, taking ration quotas as indicators, as it is very difficult to estimate industrial production under Maoism, it seems that the consumption of cloth in the early 1970s was even lower than in Republican China.[54] Deng Xiaoping considered China to have lost too many opportunities of development in the past decades.[55]

## The Spur of Reform

The first imports of textile technology came in the early 1970s and were managed by state-owned companies. Following the four modernizations theory, Qian Zhiguang took over the Minister of Light Industries in 1972 and drafted a plan to import big sets of technology to get the capacity of producing artificial fibers. At that time, Zhou Enlai had taken charge of the country, after some of the worst years of radicalism, and tried to rehabilitate the moderate cadres that were degraded during the Cultural Revolution. These cadres would later on play an important role in the reform, but the first big push in technology imports started earlier.[56] Shortly after the historical

visit of US president Nixon to China in 1972, one of the first goods that were traded between China and the United States was raw cotton.[57] Thus, the first impulse of modern growth in the textile industry came from importing raw cotton and technology.

When Deng Xiaoping took over the responsibilities of China's foreign relations in 1974, he focused on technical issues.[58] In 1975, he met with American congressmen and explained that China was not be afraid of importing technology. The country was backward and was in need of modernization in order to satisfy the people's most basic needs, food and clothing. Following this argument, that was consistent with the four modernizations theory, the government emphasized on outputs from the agriculture and the light industry.[59] The development of the petrochemical sector for fertilizers and for producing artificial fibers accomplished both objectives, as it liberated crop area for other products and allowed the textile industry to grow without the limitations of China's agriculture. The plan to enhance artificial fibers was first envisaged by the engineers of Tang Xinghai in 1948, but it is not clear whether the minister of light industries had a copy of it in 1972.[60]

During the 1950s and 1960s, China tried to install man-made fiber factories but this new industry did not succeed due to a lack of engineering skills and the limitations on foreign imports. In 1972, the Ministry of Light Industries submitted a memorandum to the party's Central Committee to establish a dual track policy that uses natural aw well as man-made fibers, in order to increase textile production. The draft was written by Chen Jinhua in January 1972, at the request of Vice Premier Yu Qiuli and Li Xiannian. Zhou Enlai supported the idea and the first import of technology came from France and Japan. Four processing mills were installed that produced polyester in Sichuan, Liaoning, Shanghai, and Tianjin.[61] This equipment saved 5 million tons of raw cotton. Polyester was extracted from oil, and China was lucky to have a surplus of oil production. Despite the criticism from the radical faction that accused the promoters of this purchase of being compradores, China bought 26 complete sets of technology in 1972 valued at USD 2.2 billion, mainly for the petrochemical industry.[62] This first round that was completed in 1979 was the first step to impulse China's economic modernization. From then on, the textile industry was considered a priority, and provincial governments were allowed to allocate foreign currencies gained through oil exports to purchase textile machineries for their state-owned enterprises.

At age 92, Liu Guojun was the only founder of the old companies of the Yangzi Delta—Dafeng, Lixin, and Dacheng—who saw the beginning of the opening up process. Liu Guojun pioneered in experimenting with new fibers and in importing technology from abroad during the 1920s and 1930s in the Yangzi Delta region and in the 1950s in China and Hong Kong. However,

in his late years, he thought that the industrialization of China had failed or had come too late. Even though Zhu Xiwu's article praised Dacheng and Liu Guojun's pioneering success, the old Liu Guojun considered that all attempts to imitate foreign powers were a disaster.[63] He claimed that agricultural output, the fundamental problem of China, rose thanks to the mechanization of the countryside, which was achieved under the Mao regime. After being a pioneer of the theory of opening up to foreign trade, he praised Mao Zedong's idea of "keeping the independence and lean on one's own efforts."[64] In 1978, Liu Guojun died in Nanjing, accompanied by his family, who came from Hong Kong.[65] His visions about the past, present, and future of China always remained original and different from the mainstream theories of the moment.

However, 40 years after Liu Guojun's first visit to Japan for purchasing velvet and printing machines, Changzhou Spinning and Weaving Factory Number 1, the old Dacheng, received approval from the Textile Bureau of Nanjing to import a set of Japanese technology of 10,000 heads of airflow spinners to make corduroys. In 1978, three engineers from the state-owned company went to Japan to buy technology and to learn about new industrial machineries. [66] This state-owned firm was fortunate to receive this public investment, that was decided by the Textile Bureau of the Jiangsu Government, which took into consideration Liu Guojun's fame and the history of Dacheng. Later on, new investments in textile technology prioritized wool, knitting, and artificial fibers—the three sectors that dominated the world's textile market.[67]

Other prestigious factories were also given permits to import technology. In Wuxi, Lixin and Xiexin were among the ones chosen. These companies still worked with the old machines that were imported by China Engineers in the 1930s and had become well-known in China during the 1950s for their woolen and dyed patterns, because they still produced high-quality goods.[68] In 1978, Lixin imported 19 sets of modern dyeing, printing, and finishing machines from England, Japan, Italy, United States, France, West Germany, and Holland. Meanwhile, Xiexin was allowed to import machines from West Germany, Italy, France, and Great Britain for a value of USD 100,000. State-owned banks of Jiangsu gave credit to both the companies so that they could modernize their machinery. This loan was paid back via money earned from exports of manufactured goods.[69]

## Tang Xiangqian and the First Joint Ventures

All the sons of Tang Junyuan stayed in China except Tang Xiangqian, who went on to become a successful textile entrepreneur in Hong Kong. When he visited China in 1972, he was struck by the impact of the Cultural Revolution and how everyone dressed in the same old revolutionary suits. He then started

to plan as to how "to make business to develop the country."[70] In 1974, Tang Xiangqian became chairman of the Hong Kong Cotton Spinners Association and planned to make an official visit to mainland China.[71] He waited until 1978, when he was given permit to visit the frontier village of Shenzhen in context of a conference to "compensate trade" between Shenzhen and Hong Kong.[72] Tang Xiangqian was allowed to import knitting machinery from the United States. After several months, the machines were imported and installation began. It was one of the first factories that opened in Shenzhen, even before the regulation for a joint venture was put into place.[73]

The reformist cadres of the State Planning Commission and the Ministry of Foreign Trade also visited Shenzhen and prepared the establishment of an office for dealing with affairs related to Hong Kong and Macao and, eventually, open the port of Shenzhen to foreign direct investment. The secretariat of foreign relations and investments in this area was Gu Mu, an old cadre who participated in the process of socialist transformation of private firms in the 1950s and who was rehabilitated in the 1970s. He was thus acquainted with the technology networks that existed between Hong Kong and Shanghai before the socialist transition. Gu Mu visited Europe in June 1978, and his report about the economy of Western Europe was a determinant in the spur of the reform process. In his report, Gu Mu urged to modernize the textile sector.[74]

In January of 1978, the Ministry of Textiles was recovered as a separate ministry after decades of obliteration, and the first meeting was dedicated to the question of importation of technology.[75] Peng Chong, who was responsible for pacifying Shanghai after the Cultural Revolution and the secretary who reported directly to the Politburo regarding the matters of the Yangzi Delta, rehabilitated important capitalist families such as Rong Yiren's and invited textile experts such as Chen Jinhua—who was also in the state-owned oil producing companies—to participate in the new ministry.[76]

Shortly afterward, the central state-owned printing and dyeing industrial company recognized that, during the 1950s, Tang Junyuan had given up private profits contributing to the development of Lixin amounting to more than 30,000 yuan. It was the first step toward rehabilitation and compensation after the Cultural Revolution.[77] At that time, Tang Junyuan was a member of the United Front and spoke for defending the four modernizations theory and the rehabilitation of old cadres of the Textile Ministry and the Textile Bureaus.[78] He gave a conference at Shanghai Industrial and Commercial Association where he stressed the necessity of profiting from Hong Kong's Chinese entrepreneurs who were skilled in textile technology. He suggested traveling to Hong Kong to investigate new textile technologies and to find possible collaborations with Hong Kong's industrialists. Peng

Chong agreed and Tang Junyuan traveled to Hong Kong for 20 days in 1978, where he would meet his son again.[79]

In January 1979, Deng Xiaoping met with the "commercial and industrial world" headed by Rong Yiren. They talked about exporting manufactured goods to finance the import of technology and the possibility of allowing foreign direct investment in the form of joint ventures.[80] Rong Yiren was put in charge of drafting a law proposition on the issue. This report was presented in June of the same year in the Fifth Political Consultative Conference. One month later, the State Council approved the law on Sino-Foreign Equity Joint-Ventures, which is often quoted as the first law of China's economic reform.[81] This new law regulated the establishment of joint-equity companies between foreign capitalist companies and the provincial governments of China.

In January 1979, Tang Xiangqian traveled to Xinjiang province to investigate the possibility of setting up a woolen factory that would profit from the rich wool resources of the biggest province in China.[82] Contrary to all expectations, the cadres of the provincial government of Xinjiang answered enthusiastically to all the questions of the Hong Kong entrepreneur and guaranteed him the permits to produce wool and export manufactured goods. After overcoming the basic difficulties that Tang Xiangqian summarized as "water, coal, roads and electricity," the mill started operations in July 1980.[83] The conditions in Wulumuqi, with its dry and continental climate, were totally opposite to those in Hong Kong. After a long and risky travel by truck from Xinjiang to the coast, the woolen goods were exported to the markets of the West. According to some reports, this could have been the first Sino-foreign joint venture that took place in China in the reform era.[84]

In 1979, a group of people from the United Front paid a visit to Hong Kong, and Tang Xiangqian hosted them. There were strong opinions against these kinds of meetings in continental China as well as in Hong Kong. But the meeting was a success and the Communist cadres proposed to establish an association of friendship between Shanghai and Hong Kong, an idea by the Vice Chair of the State Foreign Investment Commission and future mayor of Shanghai, Wang Daohan.[85] In 1984, after several delays, this association was created and directed by Liu Jingji on behalf of Shanghai and Tang Xiangqian on behalf of Hong Kong.[86] One of the first missions of the associations was to allow travels from one city to another. This meant that the families that were separated during the Cold War would meet again for the first time after almost 30 years.

Meanwhile, Liu Jingji was elected president of the Shanghai Federation of Industry and Commerce, and hosted the visits of numerous commercial delegations from foreign countries, which were starting to get interested

in investing in China. In July 1980, Liu Jingji organized the visit of a commercial delegation from Chicago, with more than 30 persons: bankers, directors of trading associations, and other members of private companies from Chicago.[87] The old entrepreneurs and technicians of the 1930s were back to guide the first steps of modern China's industrialization, backed by the old cadres.

In October 1979, a delegation of Hong Kong's industrialists arrived in Shanghai and met with Tang Junyuan and Liu Jingji. Among the delegation stood the son of Tang Junyuan, Tang Xiangqian, as the head of the textile delegation. Tang Xiangqian soon started negotiations with the Shanghai government and the Textile Bureau to open a new woolen factory in the Pudong area. Tang Xiangqian's project was approved, and it is said that he received the license no. 00001 of joint ventures issued in Shanghai in 1981.[88] According to the family sources, this was the first joint venture and the first foreign direct investment to arrive privately in the city of Shanghai, under the new reform and opening up era. By the end of the year, Tang Xiangqian opened 18 joint ventures with different governments of Shanghai, Jiangsu, Xinjiang, Guangzhou, and Shenzhen—becoming a major private investor in China at that moment.[89]

## Cha Jimin: from Africa to the Yangzi Delta

In June of 1978, the director of the United Front of Shanghai, Zhang Chengzong, received a letter from Cha Jimin requesting a meeting with Liu Jingji—who at that time was in the Textile Bureau of the city's government. According to the report made by Liu Jingji, Cha Jimin intended to come to Shanghai to look for patriotic activities that consisted of developing the technical skills of Chinese working class, particularly in the field of technology. Several cadres went to Liu's house to enquire about Cha's activities in Hong Kong and they finally extended an invitation to him.[90] Liu Jingji explained that Cha Jimin had developed industries in Africa, Europe, the United States, and Canada and he had even entered the business of computers in the United States. The cadres from the United Front and the Textile Bureau sent an envoy to Hong Kong to meet Cha Jimin. The envoy consisted of the son of Zhu Xiwu, the general manager of Dacheng who had written the article praising Liu Guojun.[91] He extended an invitation for Cha Jimin to visit China.

Cha Jimin arrived at Beijing in November 1978 and met with Liao Chengzhi, the head of the Hong Kong and Macao Affairs Bureau, and other cadres from the textile and industrial bureaus.[92] Then, Cha Jimin left for Shanghai to discuss the establishment of a joint venture with the Shanghai

local government. He arrived, with other delegates, from Hong Kong and was also accompanied by his managers that had worked in Nigeria.[93] Cha Jimin's plan was to establish a cotton spinning and weaving mill with 40,000 spindles and 1,000 looms. The cadres from Shanghai discussed whether they should order the machinery from the local Chinese manufacturers or from foreign suppliers. The price difference between local and imported spindles and looms was about one to ten or even 20 times. Therefore, the Chinese side tended to favor the local machinery industries despite the difference of output quality.[94]

Then, Cha Jimin explained the importance of purchasing foreign technology in order to be competitive in the global market; he clearly pushed for importing technology, and argued that textile production for export had a great future in China only if it was competitive and met international standards. He thus suggested importing machines that would be paid through the export of manufactured goods. Of course, in the beginning, the banks had to extend loans to the factories to allow them to make their first machinery orders. Following the system that was established in Hong Kong by China Engineers, he suggested for a loan from a foreign bank and pay back the machineries by installments after the second year at a rate of 20 percent every year.[95] Besides, in this new joint venture, that totaled USD 10 million, Cha Jimin contributed 2.5 million and the rest was Shanghai government's. Cha Jimin looked for export channels with his companies in different countries. The factory would be placed in Shanghai, just near the Cotton Spinning and Weaving Mill Number 28, or as it was previously called, Anda.[96]

Cha Jimin extended a program where engineers from mainland China went to Hong Kong to familiarize themselves with the capitalist factories. Engineers were trained by the staff of Cha Jimin and all costs were covered by him. After this preparation stage, a delegation from the mainland went to Hong Kong to see the textile equipment used by Cha Jimin. They calculated that the cost of production in Shanghai was about 70 percent of the cost in Hong Kong. With a yearly profit of USD 2.2 million, they could get the investment paid for in five years.[97]

According to Cha Jimin, the next step was to visit foreign countries and negotiate the purchase of machineries. Even though the Shanghai provincial government was initially positive of his plan, at the end, the joint venture in Shanghai did not prosper.[98] The local government of Shanghai did not accept the purchase of foreign machineries and the cost of production in Shanghai was too expensive according to Cha Jimin's calculations, especially after noticing that Tang Xiangqian had succeeded in Xinjiang. Cha Jimin then went to Changzhou (to meet the Liu family) and Haining, his hometown; in both cities he built textile mills as joint ventures with the local governments.[99]

In 1987, after meeting Deng Xiaoping, Cha Jimin established a big textile group in mainland China, the Hai Xin Textile Group.[100]

Even though Cha Jimin's entry in mainland China was not as fast as Tang Xiangqian's, most of the conditions he established for creating joint companies between foreign private companies and the local governments became promulgated as the new norm. In January 1980, the government allowed Chinese public banks to extend credit and foreign currencies, for importing machineries, under the political doctrine of "adjustment, reform and improvement." The government also promulgated new norms for exporting manufactured textile goods abroad by facilitating official permits.[101]

While Cha Jimin had not even come to China, Liu Jingji explained in detail his activities, paying special attention to the development of textile mills in Africa. Cha Jimin had profited from tax exemption on technology imports, and the special advantages for exporting their goods from Nigeria and Ghana. This type of treatment, as Liu Jingji suggested, could be copied in China in order to modernize the equipment of the textile sector in some regions.[102] In 1979, Gu Mu was put in charge of the first Special Economic Zone (SEZ) that opened in China, immediately favoring the import of technology, export of manufactured goods, and bringing all kinds of financial advantages for foreign companies, especially those coming from Hong Kong.[103] The new network that emerged between the Chinese joint ventures and Hong Kong companies made Hong Kong the main destination of textile exports from China. In 1981, four out of every ten dollars of textile exports from China went to Hong Kong, where they were either re-exported or sent to the garment factories to be finished.[104] Furthermore, from the beginning of the reform process, Hong Kong became the main investor in China.[105] No doubt that the early initiatives and long experience of Cha Jimin and Tang Xiangqian, from Hong Kong, and Tang Junyuan and Liu Jingji from Shanghai, were important factors that helped to shape this transformation.

# Conclusion

The study of Dafeng, Lixin, and Dacheng shines a new light on China's adoption of technology and the late industrialization. These companies developed enduring trade and technology networks that had the *Schumpeterian potential* of "revolutionizing the economic structure from within."[1] They not only used foreign technology to imitate foreign products, but also to innovate—mixing industrial modern production with traditional techniques of cloth finishing. However, because most of the research on textiles has focused on spinning, these innovations and the contribution of finishing companies to China's late industrialization have not been properly identified. However, these networks were key actors in the three stages of the China's industrialization in the twentieth century: during the 1920s and 1930s in Shanghai and the Yangzi Delta, during the 1950s in Hong Kong as well as in mainland China, and finally in the reform era.

The latest parts of the production process, dyeing and printing, are essential for understanding this connection. According to the official Chinese economic history, China developed a local form of capitalism, or the "sprouts of capitalism," before the arrival of the Western machineries, especially in the finishing workshops of the Yangzi Delta region. The urban dyeing and calendaring workshops are seen as sectors where this native capitalism was manifest, mainly because they functioned by paying salaries. The modernization of the finishing industry lead by Dafeng, Lixin, and Dacheng in the twentieth century departed from this traditional world of trade firms, dyeing workshops, and local banks. Therefore, in the finishing sector, the antagonisms between traditional forms of production and industrialization are not as clear as in other sectors.

This book demonstrates that some dyeing workshops adapted pretty well to the arrival of foreign technologies. The use of chemical dyes was widespread in the First World War, and the traditional dyeing workshops showed resilience and capacity of adaptation to the realities of the twentieth century. Even though they were considered backward, they had first-hand knowledge of the Chinese consumption markets. The cases of Jiuyu and Lihua in Wuxi, Dafeng in Shanghai, and the business firms of Liu Guojun

and Jiang Panfa in Changzhou demonstrate that traditional workshops and cloth firms adapted to the penetration of Western goods. These workshops were transformed into vertically integrated firms that proved to be resistant, profitable, and efficient. However, the traditional focus on spinning and labour productivity has tended to depict Chinese textile companies as weak and inefficient, with low levels of productivity. This book argues that labor productivity and micromanagement was less relevant than vertical integration and price ratios between raw cotton and the manufactured goods. It was the weakness of the Chinese market and not the institutional constraints of the Chinese firms that hampered China's industrialization.

Dafeng, Lixin, and Dacheng adopted a vertical-integration strategy to avoid the volatility of the Chinese market and were able to spin, weave, and dye high-quality products that competed with foreign cloth. In a situation of market fragmentation, the strategy of continuously importing technology to climb up the value ladder demonstrated itself to be more adaptable than mass producing coarser products. Dafeng, Lixin, and Dacheng imported technology through trade networks that were developed in Shanghai during the 1920s and 1930s. These deals involved a high degree of trust between the international machinery traders and the industrial customer, due to the difficulty and duration of this trade and the insecurity of the Chinese market. Therefore, strong interfirm ties developed between Chinese industrial firms and machinery importers, as it is shown in the relationship of these companies with China Engineers Limited, a transnational company founded in 1928. These ties that were developed between the Chinese textile firms and machinery providers were solid and played a determinant role in the industrialization of the Yangzi Delta region, as well as in Hong Kong. By looking at the internal archives of Dafeng; Lixin; China Engineers, and the historical continuity of this relationship, the strength and endurance of this network is demonstrated.

The difficulties of the Chinese market created strong constraints in the industrialization process. During the 1930s, the industrialization of the Yangzi Delta was an isolated regional fact, a local experiment, in a context of widespread poverty and territorial fragmentation. A majority of the Chinese population did not participate in this process, and the demand for industrially produced cloth was not massive. In fact, as industrialization progressed in the Yangzi Delta region, the average consumption of cloth per capita in China fell. Analyzing the performance of Dafeng, Lixin, and Dacheng, it is possible to understand this paradox. These companies undertook a process of technological upgrading and were focused on the urban markets of Shanghai and also the transnational networks, which provided with imported raw cotton, machinery, and even sales opportunities in foreign markets. The

Chinese textile sector was already very concentrated in the Yangzi Delta when the Japanese occupation made inter-regional trade inside China almost impossible.

The war against Japan was a turning point in the formation of Sino-foreign joint ownerships that were focused on foreign trade. Between 1937 and 1941, Dafeng, Lixin, and Anda (a subsidiary of Dacheng) established themselves in Shanghai. They also associated with the foreign machinery providers to consolidate regular operations and avoid Japanese occupation. Under this alliance, they not only secured machinery supplies but also raw materials and even sales in the Southeast Asian markets. Hong Kong became an entrepôt for Chinese industrial products that were exported outside China. The city also accumulated Chinese capital that would re-enter China as foreign direct investment, coming from distant regions that were on different sides of the war. But this situation was perceived as exceptional and it was attributed to the extraordinary circumstance of war. If past studies have shown how Chinese state-owned enterprises were created during the Japanese occupation, this book suggests that an export-oriented textile network was established between Hong Kong and Shanghai under the same historical circumstance.

However, between 1945 and 1949, the main actors of these trade and technology networks envisioned this export-based industrialization as a possibility for China's future. After the Japanese occupation of China, the fragmentation in the market did not improve and the textile industry suffered, again, from the high volatility of prices of raw cotton and yarn under a situation of hyperinflation. The unstable prices of raw cotton, yarn, and cloth were the main elements that set the margins and benefits of textile industrial companies. Under this situation, several textile experts such as Wang Qiyu, William Charles Gomersall, Liu Guojun, Liu Jingji, and Tang Xinghai expressed in different ways, the idea of emphasizing foreign trade in order to be able to exchange manufactured goods for raw cotton and machinery. This was seen as the first stage, until China developed enough infrastructure and technology. But this message was lost in the chaos of China's Civil War.

In a situation of market fragmentation and scarcity of supplies, speculation (and not productivity) was the main concern for industrial entrepreneurs. Even though Hong Kong was not attractive from the perspective of industrial productivity, entrepreneurs from Dafeng, Lixin, and Dacheng decided to invest in the British colony because trade conditions were more secure and the world markets gave more predictable prices for their staple products. This book argues that the previous alliance between textile companies and machinery providers was extended and solidified in Hong Kong, where the possibility of an export-based industrialization became feasible during the late 1940s and early 1950s.

Meanwhile, speculation and scarcity were the main concerns in continental China at the time of the communist takeover. In the new socialist regime, Liu Guojun and William Charles Gomersall tried to bind together the Chinese government with the technology trade and the Hong Kong network. But the trade blockades of the Cold War and the gradual pressure of the Communist regime froze the operations of these networks. The state-owned enterprises monopolized foreign trade and all private companies disappeared under the general line of the socialist period in the mid-1950s. However, some members of these networks, such as Liu Jingji and Tang Junyuan, were recruited in the Textile Bureau and the United Front committee of the local governments as experts in the textile industry. They had links with the Hong Kong network, but the communications between both sides were cut by the *bamboo curtain*. Staying in Communist China, they suffered from all kinds of humiliation due to their capitalist background under the mass political campaigns of Maoism.

When Dafeng, Lixin, and Dacheng became state-owned companies, the links between these firms and the capitalist world of Hong Kong were lost. However, family and personal links are more difficult to break. During the transition to socialism, private companies were unified according to familial relations, without taking into consideration the rich network of shareholders that existed in the 1920s and 1930s. Meanwhile, the second generation of textile entrepreneurs that had built their own companies in Hong Kong created family-based firms, in contrast with the first generation. However, their familial situation was exceptional, as they were not allowed to return to their hometown for decades. In this way, Chinese business networks were transformed by the historical circumstances of the Cold War. The particular nature of evolution of China during the twentieth century drove business networks to be more family-based and more transnational as well. Therefore, this book questions several assumptions related to the supposed essences of the Chinese business networks.

Family links and business relations between Hong Kong and the Yangzi Delta were an important lever of China's economic reforms. The reforms and the opening up process did not start from scratch and were not a mere copy of foreign experiences. Some Chinese industrialists that participated in trade and technology networks of the Yangzi Delta and Hong Kong had already accumulated more than half-a-century worth of industrial experience when they established the first jointly owned companies with the local governments in China. These first joint ventures were not only promoted by the Chinese political cadres, but also by industrial owners from Hong Kong, like Tang Xiangqian and Cha Jimin, who recovered old relationships and relatives after decades of deprivation. In this sense, the "broom" of Mao did not succeed

in sweeping the previous integument of China's private sector.[2] The study of Dafeng, Lixin, and Dacheng demonstrates the recuperation of pre-liberation networks, despite the traumas of the Cold War.

Therefore, the question of the "China puzzle," where China has grown in the last decades despite the fact that it has "poor" institutions—in Western sense—could well be a problem of choosing what institutions should be analyzed and how.[3] Strict compartmentalization between historical periods and between inner and outer China may hinder the adoption of a *long-durée* perspective that enables to find continuities and breakdowns in the institutions, such as the Chinese business firm and China's trade networks. The lack of correlation between the traditional economic institutional theory and the realities of China's economic reform has driven the historical narrative to talk of a miracle, or to give all responsibility to the government, supposing that the private sector in China was built from zero. However, at the other side, private companies from Hong Kong also took the initiative and pioneered in establishing joint ventures with the Communist local governments.

Some institutions, such as traditional workshops and interfirm trade networks, adapted better to China's late industrialization, without fitting the Western institutional definitions, characterizations, or models. These networks brought about institutional innovations that are essential to understanding the idiosyncrasy of China's late industrialization, like the introduction of foreign technologies in a Chinese producing unit, and the ability of Chinese firms in establishing joint ownerships with different economic actors, such as transnational firms, family members, and local governments. They also pioneered in establishing a development plan for China, based on export-led industrialization. In the end, this analysis can not escape from the broader theoretical questions that refer to the definition of economic institutions such as the business firm and its boundaries.[4]

China is now debating about its future, and there is a growing consensus that the model of export-oriented development is coming to an end. In addition to the weakening of the global demand and the rise in production costs, the country faces an environmental crisis that is related to the intensive use of modern industry. Therefore, it seems that China needs a new development strategy and it is possible that this new model will have to rethink the relationship between men, nature, and technology. However, there are still some questions regarding the past development of China that remain unanswered.

# Glossary

Anda fangzhi gufen youxian gongsi 安达纺织股份有限公司
An Zijia 安子价
Benniu 奔牛
*buhao* 布号
*budian* 布店
*bumatou* 布马头
*buzhuang* 布庄
Cai Jiansan 蔡缄三
Caojiadu 曹家渡
Cha Jimin 查济民
*changsheng wang* 长胜王
Changxing fangzhi yinran gongsi 昌兴纺织印染公司
Chen Guangfu 陈光甫
Chen Jinhua 陈锦华
Chen Zixun 陈子埙
Cheng Jingtang 程敬堂
Cui Fuzhuang 崔福庄
Dacheng fangzhiran youxian gongsi 大成纺织染有限公司
Dafeng ranzhi gufen youxian gongsi 达丰染织股份有限公司
Dalun fangzhi gufen youxian gongsi 大纶纺织股份有限公司
Dalun zhibuchang 大纶织布厂
*dajibu* 大机布
Daming fangzhiran gufen youxian gongsi 大明纺织染股份有限公司
Danan fangzhi youxian gongsi 大南纺织有限公司
*danwei* 单位
Defu yanghang 德孚洋行
Deng Xiaoping 邓小平
*dengxinrong* 灯芯绒

Dieqiu 蝶求
Diliuqu jiqi mianfangzhi gongye tonghui 第六区机器棉纺织工业同会
Dongnan fangzhi youxian gongsi 东南纺织有限公司
Dongyangzhuang 东洋庄
Du Yuesheng 杜月笙
Fang Xianting 方显廷
Feihu 飞虎
Fei Xiaotong 费孝通
Feixiong 飞熊
Gu Jisheng 顾吉生
Gu Mu 谷牧
*guandu shangban* 官督商办
*gongsi* 公司
*gongsi heying* 公私合营
*gudong* 股东
*gufen gongsi* 股份公司
*gufen youxian gongsi* 股份有限公司
*guanliao zibenjia* 官僚资本家
Guangyi buchang 广益布厂
Guo Dihuo 郭棣活
*guodu shiqi zongluxian* 过渡时期总路线
*guohuo* 国货
Guo Shun 郭顺
Guoying fangzhipin shangye zhongguo huashabu gongsi 国营纺织品商业中国花纱布公司
Haixin fangzhi youxian gongsi 海新纺织有限公司
He Beiheng 何北衡
He Ruitang 何瑞堂
*hebing* 合并
Henglong 恒隆
Hengsheng 恒升
*hezi gongsi* 合资公司
*hezi youxian gongsi* 合资有限公司
Hugang jingji fazhan xiehui 沪港经济发展协会
Huang Hua 黄华
Huang Yanpei 黄炎培
Huiquanshan 惠泉山
*jiagong dinghuo* 加工订货
*ju* 局

Jiang Panfa 蒋盘发
*Jinghuodian* 京货店
Jingjiang 靖江
Jiufeng mianfenchang 九丰面粉厂
Jiulong fangzhi youxian gongsi 九龙纺织有限公司
Jiulong fangzhi gongye youxian gongsi 九龙纺织工业有限公司
Jiuyu choubuzhuang 九余绸布庄
*lanbu* 蓝布
*Laochang* 老厂
Lideng zhiyichang 利登制衣厂
Li Guowei 李国伟
Li Hongzhang 李鸿章
*lijin* 厘金
Li Lisan 李立三
Li Shuxiong 厉树雄
Li Weihan 李维汉
Li Weinong 李慰农
Li Xiannian 李先念
Li Yucheng 李裕成
Li Zhenzhi 李震之
Lihua buchang 丽华布厂
Lixin fangzhi yinran zhengli gufen youxian gongsi 丽新纺织印染整理股份有限公司
Liangyou 良友
Liang Zhuokeng 梁焯鏗
Liao Chengzhi 廖承志
*liehuo* 劣货
Liu Biru 刘璧如
Liuhe 刘鹤
Liu Guojun 刘国钧
Liu Handong 刘汉栋
Liu Hankun 刘汉堃
Liu Hanliang 刘汉良
Liu Hongsheng 刘鸿生
Liu Jingji 刘靖基
Lu Shaoyun 陆绍云
Lu Zuofu 卢作孚
*maiban zibenjia* 买办资本家
Ma Yinchu 马寅初

Maoqiao 猫雀
*minzu zibenjia* 民族资本家
Nanlian shiye youxian gongsi 南联实业有限公司
Nanyang fangzhi youxian gongsi 南海纺织有限公司
Ningbo Lühu Tongxianghui 宁波旅沪同乡会
Peng Chong 彭冲
*qipao* 旗袍
Qian Zhiguang 钱之光
*qianzhuang* 钱庄
Qingfeng 庆丰
*qinglanbu* 青蓝布
*rongbu* 绒布
Rong Hong 容闳
Rong Hongyuan 荣鸿元
Rong Yiren 荣毅仁
Rong Zongjing 荣宗敬
Shanghai maozhi gufen youxian gongsi 上海毛织股份有限公司
Shanghai shangye chuxu yinhang 上海商业储蓄银行
Shanghai Jiqi Zhibuju 上海机器织布局
Shanghaishi gongshang lianhehui 上海市工商联合会
Shanghaishi mianfangzhi gongyeju 上海市棉纺织工业局
Shanghaishi mianfangzhi gongye tongye gonghui 上海市棉纺织工业同业公会
Shanghaishi renmin zhengfu fangzhi gongye guanliju 上海市人民政府纺织管理局
Shanghaishi ranzhiye tongye gonghui 上海市染织业同业公会
*shangzhan* 商战
Shenxin 申新
Shengcitang 生祠堂
Sheng Xuanhuai 盛宣怀
*shoulaji* 手拉机
*Shuangli* 双鲤
Shuangtu 双兔
Siming gongsuo 四明公所
*sige xiandaihua* 四个现代化
Song Ziwen 宋子文
Suzhewan shachang tongye gonghui 苏浙皖纱厂同业公会
Taishan fangzhi gufen youxian gongsi 泰山纺织股份有限公司
Tang Baoqian 唐保谦

Tang chunyuan buzhuang 唐春源布庄
Tang Fupei 唐福培
Tang Hongpei 唐洪培
Tang Jiqian 唐骥千
Tang Maoxun 唐懋勋
Tang Junyuan 唐君元
Tang Xiangqian 唐翔千
Tang Xiangting 唐骧廷
Tang Xinghai 唐星海
Tianshan maofangzhipin youxian gongsi 天山毛纺织品有限公司
Tongfeng jinghuodian 同丰京货店
Tongzhan 统战
*tubu* 土布
Wanqian ruyi 万千如意
Wang Daohan 汪道涵
Wang Fuyuan 王福元
Wang Peili 王培麗
Wang Qiyu 王启宇
Wang Qinsun 王芹孙
Wang Tongyuan 王统元
Wang Zhaokang 王朝康
*wudubu* 五毒布
Wu Jingyuan 吴镜渊
Wuxishi gongshangye lianhehui 无锡市工商业联合会
Wuzhou budian 五洲布厂
Xianggang fangzhi youxian gongsi 香港纺织有限公司
Xianggang mianfangye tongye gonghui 香港棉纺业同业公会
Xianggang Gongye Tonghui 香港工业同会
Xiexin maofangzhiran gufen youxian gongsi 协新毛纺织染股份有限公司
Xianggang zhizaochang 香港织造厂
Xinchang jiqi gongcheng gongsi 信昌机器工程公司
Xu Chengxun 徐承勋
Xu Zhiyi 徐致一
Yanjiaqiao 严家桥
*yanghang* 洋行
Yang Xingdi 杨杏堤
Yitai zhiyi 怡泰制衣

yiyi zhiyi 以夷治夷
*yingmeipai* 英美派
Yong'an 永安
*yongbu* 甬布
Yu Qiuli 余秋里
Zhang Jian 张謇
*zhangfang* 账房
Zhang Chengzong 张承宗
Zhang Peicang 张佩苍
Zhenhuatang yangbu gongsuo 振华堂洋布公所
Zhentai fangzhi youxian gongsi 振泰纺织有限公司
Zheng Guanying 郑观应
*zhiranju* 织染局
Zhongfang shachang gufen youxian gongsi 中纺纱厂股份有限公司
Zhonggong shanghaishi weigongye shengchan weiyuanhui 中共上海市委工业生产委员会
Zhongguo Fangzhi Jianshe Gongsi 中国纺织建设公司
Zhongguo ranzhi gufen youxian gongsi 中国染织股份有限公司
Zhongguo wenshi ziliao 中国文史资料
Zhongwai hezi shanghai lianhe maofangzhi youxian gongsi 中外合资上海联合毛纺织有限公司
*zhong xin du jing* 忠信笃敬
*zhongxue weiti xixue weiyong* 中学为体西学为用
*zhoubu* 皱布
Zhou Enlai 周恩来
Zhou Wenxuan 周文轩
Zhu Xiwu 朱希武
*zihao* 字号
Zeng Guofan 曾国藩
*zongguanlichu* 总管理处
Zou Songdan 邹颂丹

# Notes

## Introduction

1. *The Economist*, "Made in China?" March 14, 2015, p. 13.
2. Even though industry had a dominant share in the GDP of 1978, according to official data, this domination was clearly overvalued. If current prices are used, in 1978 the distribution of the GDP was 42 percent for agriculture and 29 percent for industry. See Naughton, *The Chinese Economy*, pp. 154–55.
3. Ma, "Economic Growth in the Lower Yangzi," p. 355.
4. Vogel, *Deng Xiaoping and the Transformation of China*, p. 224.
5. This is an outstanding question in the field of Chinese business history. See Bian, "Interpreting Enterprise, State and Society," p. 456.
6. In 1987, John King Fairbank stressed the importance of the concepts of inner (*nei*) and outer (*wai*) China to understand the long process of reunification. See Fairbank, "The Reunification of China," p. 25; see also Kwon, *The Other Cold War*, Kindle version.
7. Yang, "Wo guo jindai yinran fazhan jianshi."
8. On the role of merchants in the global textile industry, see Farnie, "The Role of Merchants."
9. Akamatsu, "Historical Pattern of Economic Growth," p. 3.
10. See Bian, "Interpreting Enterprise, State and Society," p. 426; see also Rawski and Li, "Introduction," pp. 1–29.
11. North, *Institutions, Institutional Change*, p. 110.
12. See Bian, "Interpreting Enterprise, State and Society."
13. Huang and Xu, *Shanghai jindai gongyehua*, pp. 230–31.
14. Coble, *Chinese Capitalists*, pp. 21–22.
15. About the private sector in Taiwan, see Guiheux, *Les Grands Entrepreneurs*.
16. About the development of a spinning industry in late 1940s Hong Kong, see Wong, *Emigrant Entrepreneurs*.
17. Zhonggong zhongyang wenxian yanjiushi, *Deng Xiaoping nianpu*, p. 501.
18. Vogel, *Deng Xiaoping*, p. 491.
19. Wrigley, "Two Kinds of Capitalism," pp. 97–99; See also Wrigley, "The Supply of Raw Materials."
20. Allen, *The British Industrial Revolution*, p. 135.
21. Mokyr, *The Lever of Riches*, pp. 191–95.

22. Bray, *The Rice Economies*, p. 16; See also Sugihara, "The Second Noel Butlin Lecture."
23. See for instance, Honig, *Sisters and Strangers*; Zuo, *Shanghai fangzhi*; Luo, *Gaolanqiao*; and Perry, *Shanghai on Strike*.
24. Fong, *Cotton Industry and Trade*, pp. 87–88; see also Wang and Wang, *Qisheng huashang*, pp. 207–14.
25. Pomeranz, *The Great Divergence*, pp. 274–78.
26. Sugihara, "International Circumstances of Postwar Japan Cotton Industry," p. 536.
27. Rawski, "Issues in the Study of Economic Trends," pp. 35–42.
28. Chao, *The Development of Cotton*, p. 16.
29. Kraus, *Cotton and Cotton Goods*, p. 132.
30. See Eyferth, "Women's Work and the Politics."
31. Fei, *From the Soil*. Kindle Version.
32. Zanasi "Far from the Treaty Ports."
33. See for instance, Hou, "Economic Dualism"; Murphey, *The Outsiders*; Bergère, "Shanghaï ou l'autre Chine, 1919–1949"; and Lin, "China's Dual Economy."
34. Ma, "Economic Growth."
35. Mokyr, *The Lever of Riches*, p. 25.
36. Yeung, "Business Networks," p. 5.
37. Cochran, *Encountering Chinese Networks*, pp. 1–11.
38. Marx, *Das Kapital, Vol. I, Chapter 32: Historical Tendency of Capitalist Accumulation*.
39. Yeung, "Business Networks," p. 4.
40. Brown, "Introduction: Uses and Abuses," pp. 1–2.
41. Williamson, "The Economics of Organization" pp. 552–53.
42. Coase, "The Nature of the Firm."
43. See Hamilton, *Asian Business Networks*.
44. See Rowe, *Hankow Conflict and Community*.
45. Kwan, *Beyond Market and Hierarchy*, p. 4.
46. The concept of "the rules of the game" is taken from North, *Institutions, Institutional Change*, pp. 3–5.
47. Weber, *Wirtschaft und Gesellschaft, Part I: Soziologische Kategorienlehre Chapter 1: Soziologische Grundbegriffe, note §17*, p. 45.
48. Hobson, *Imperialism: A Study*, p. 94.
49. See Hobson, *Imperialism. Chapter 7: Economic Parasites of Imperialism*. See also Schumpeter, *Capitalism, Socialism. Part II: Can Capitalism Survive? Chapter 10: The Vanishing of Investment Opportunity*. Kindle Version.
50. Osterhammel, "Britain in China," pp. 159–63.
51. Duus, "Zaikabō: Japanese Cotton Mills," pp. 65–100.
52. Wu, *Understanding and Interpreting*, pp. 68–70.
53. Such journals are: *Fangda, Fangjian, Zhiwei Gongye, Ranzhifang Zhoukan, Fangzhi Dashe, Fanggong, Fangzhiran Gongcheng, Fangzhiran Jikan, Fangzhi*

*Zhiyou, Ranzhifang Zhoukan, Huashang Lianhehui, Zhusheng, Fangzhi Niankan, Mian Yuekan, Fangzhi Shijie, Fangsheng, Xiansheng*.

54. In the book it will be quoted as LGWJ, see Li, *Liu guojun wenji*.
55. The role of China Engineers Limited in the British policy of the 1950s regarding China and the closure of British companies in Shanghai has been researched by Howlett, *Creating a New Shanghai*. I would like to thank Jon Howlett for sending me a version of his thesis.
56. Lee, *A Half Century of Memories*.
57. Nehrt, *Managerial Policy*.
58. Wong, "A History of the Wong Family."
59. Wang, "Zhongguo jiqi yinran."
60. Tang and Li, *Bainian piling tangshi*; see also Haining Municipal Committee of CCPT, *Cha Jimin*; and Jiang and Tang, *Tang xiangqian zhuan*.

## Chapter 1

1. Wrigley, *Poverty, Progress and Population*, p. 116.
2. Ma, "Jindai jiangnan diqu," pp. 50–51.
3. On the pioneering character of these three companies in the finishing sector, see Yang, "Wo guo jindai yinran."
4. On traditional networks in the dyeing industry see Xu, *Jiangnan tubushi*, pp. 254–55 and pp. 369–84.
5. Zhang, "19 shiji Shanghai." See also the recent book by the same author in Ma and Zhang *Churuyu zhongxi zhijian.* On compradores, see also Hao, *The Commercial Revolution*.
6. Lu, "Arrested Development," p. 474.
7. Blackburn, *Report to the Mission to China*, H. Neville and H. Bells section, p. 288.
8. Mann Jones, "Finance in Ningpo," pp. 51–53.
9. Ye Zixi, "Shanghai de ranzhiye he zhenzhiye," p. 452.
10. Cui Fuzhuang, "Chuangban dafeng, zhentai, baoxing san chang jingguo jiqi ganxiang," p. 26.
11. Feuerwerker, *The Chinese Economy, 1870–1949*, p. 65.
12. See Odell, *Cotton Goods in China*, p. 35; See also Utley, *Lancashire in the Far East*, pp. 13–19 and 27–28.
13. Sugiyama, "Textile Marketing in East Asia," pp. 317–19.
14. See Brasó Broggi, "The Weft of Shanghai Fashion.", pp. 8–9.
15. Morse, *The Trade and Administration*, p. 246.
16. Li, "Ningboren zai shanghai," p. 21.
17. For an analysis on Zhenhuatang network, see Brasó Broggi, "The Weft of Shanghai Fashion."
18. In Chinese: Ningbo Lühu Tongxianghui; See Li, *Ningbo Lühu Tongxianghui*.
19. Hamashita, *China, East Asia and the Global Economy*, p. 87.
20. Wang, "Zhongguo jiqi yinran," pp. 110–11.

21. This is the case of Liu Hongsheng, see Fang, "You meitan qijia," p. 306.
22. Interview of Wang Qiyu, by Xu Chang, at *Xinrong Review*, September 20, 1947, available in CBHA, 8-04-033, p. 13.
23. That also happened to Ye Dengzhong, a successful compradore from Ningbo, see Zhu, "Xiangyu hushang de zaoqi," p. 85. See a compendium of biographies of Ningbo merchants in this edited book, including a short one of Wang Qiyu, by Li, "Shanghai ranzhiye xianqu wang qiyu."
24. According to his son, Wang Fuyuan, he worked in a Dutch firm (Chinese name Hexin). According to his granddaughter he worked for Crosfield & Sons (also named Hexin in Chinese), which was British; this is discussed in Braso Broggi, *Shanghai y la industrialización*, p. 134.
25. China Maritime Customs, *Report on the trade of China 1900*, in CMCHM, 1900, 35–5 (p. 1).
26. Blackburn, *Report to the Mission to China*, H. Neville and H. Bells section, p. 288; See also "A Research in Aniline" made by Dacheng (*Anilinyuan yanjiu baogao*), in HAMD, pp. 66–74.
27. Castrillo, *El comercio en el Extremo Oriente*, pp. 225–26. Castrillo was a missioner from Spain who wrote a book in 1916 with an exhaustive analysis of some of the principal industries of China. He gave a detailed report of the profits of Shanghai dye trading firms during the First World War. The Annual Reports of the Chinese Maritime Customs also took note of the high profits of aniline traders, China Maritime Customs, *Annual Reports, 1915*, in CMCHM, 1915, 68–9, p. 1.
28. That was the case of one of its founders called Wu Xiqing, see Dafeng Archives, Board of Directors, June 1921 (*Dafeng ranzhi gufen youxian gongsi, dongshi huiyi lu*), SMA, Q199-3-7, p. 1.
29. Peng, *Zhongguo jindai*, p. 74. See Fan, "Ming qing jiangnan."
30. Wiens, "Cotton Textile Production," p. 520; and Lu, "Arrested Development," pp. 484–85.
31. Xu and Yan "Zhongguo shougong," p. 65.
32. Traditional dyes were indigo (blue), hematite (ochre), cinnabar (red), green copper ore (green), *Arthraxon hispidus* (yellow), y *Quercus acutissima* (black). Every color had a ritual connotation. See Cheng, *History of Textile Technology*, pp. 102–03.
33. According to Qing's text *Mumianpu*, quoted in Sadao, "The Formation of Early Chinese," p. 48. Like in India, prints were made by a mortar with lime which was brushed on the cloth through a stencil.
34. Fan, "Ming qing jiangnan," p. 64; and Chao, *The Development of Cotton Textile*, p. 81.
35. Xu, *Jiangnan tubushi*, pp. 369–84.
36. Xu, *Jiangnan tubushi*, pp. 377–80; the data mostly coincides with Huang, "Lao zhenghe," p. 15.
37. Xu, *Jiangnan tubushi*, p. 380.
38. Mokyr, *The Lever of Riches*, pp. 139 and 154.
39. See Zhang, "Ranliao hangyehua," pp. 70–71.

40. *China Industrial Handbooks Kiangsu*, p. 309.
41. Xu Xinwu, *Jiangnan tubushi*, p. 172.
42. Wang, "Zhongguo jiqi yinran," pp. 110–11.
43. Cui Fuzhuang, "Chuangban dafeng, zhentai, baoxing san chang jingguo jiqi ganxiang," p. 26.
44. Cui Fuzhuang, "Benhui benkan yu tongye," pp. 236–37.
45. "The Situation of the Dyeing Industry in Jiangyin, 1936" (*Jiangsu jiangyinxian ranzhiye gaikuang*), in CBHA, 6-4-286, pp. 1–4. See also Xu and Yan Youli, "Zhongguo shougong," pp. 76–77.
46. Wang, "Zhongguo jiqi yinran," p. 112.
47. See a short bio of Yang Xingdi in the local gazette of Putuo district, *Putuo quzhi*.
48. Wang, "Zhongguo jiqi yinran," p. 112; see also *North China Herald*, *The Municipal Gazette*, 27-9-1919, p. 331.
49. Dafeng Archives, Inventory, 1921 (*Dafeng ranzhi gufen youxian gongsi shengcai huideng, 1921*) SMA, Q199-3-53, pp. 1–86.
50. On Dongyangzhuang, see the chapter "dongyangzhuang," on *Shanghai duiwai jingji*, pp. 152–54 and online version (see references).
51. Cui Fuzhuang, "chuangban dafeng, zhentai, baoxing san chang jingguo jiqi ganxiang," p. 26.
52. Xu, *Jiangnan tubushi*, pp. 54–63.
53. Coase, "The Nature of the Firm," p. 485.
54. Wu and Xu, *Chinese Capitalism*, p. 224; and Fan, "Shanghai guzhen," pp. 93–94.
55. *China Industrial Handbooks Kiangsu*, pp. 104–07.
56. Tang and Li, *Bainian piling tangshi*, p. 57.
57. Tang and Li, *Bainian piling tangshi*, pp. 57–59.
58. Tang and Li, *Bainian piling tangshi*, p. 64.
59. Tang and Li, *Bainian piling tangshi*, p. 70.
60. *Wuxi fangzhipin hangyezhi*, pp. 23–24; available in WMA K42-056-2.
61. Tang and Li, *Bainian piling tangshi*, p. 81; see also Jiang and Tang, *Tang xiangqian zhuan*, pp. 5–8.
62. Lin, "Wuxi jindai," p. 54.
63. Cheng Jingxi, "Obituary of Cheng Jingtang," 1965 (*Aiqing*), in WMA, F2-1-96, pp. 271–75.
64. Cheng Jingxi, "Cheng Jingtang and Jiuyu," 1965, (*Cheng Jingtang canjia jiuyu zhouzhuang jingguo*), in WMA, F2-1-96, p. 240.
65. In Chinese Lihua buchang.
66. Cheng Jingxi, "Cheng Jingtang and Jiuyu," pp. 245–47.
67. "Liu Guojun's Autobiography," 1953 (*Suowei liu guojun zizhuan*), in HAMD, p. 17
68. Liu Guojun, 1962, LGWJ, *zhuanji juan*, p. 10.
69. Gao, *Cong xiangtong*, pp. 26–27
70. *Changzhou fangzhi shiliao, dierji*, p. 33.
71. *Changzhou fangzhi shiliao, dierji*, p. 48.
72. Gao, *Cong xiangtong*, p. 28. At that time, Changzhou was producing a good range of semi-industrial clothes such as button cloth (*koubu*), sesame cloth (*zhibu*),

proper cloth (*yibu*), cover cloth (*taobu*). *Changzhou Fangzhi Shiliao, dierji*, p. 30.
73. Gao, *Changzhou guomian*, p. 48.
74. Liu Guojun, 1962, LGWJ, *zhuanji juan*, pp. 4–9.
75. *Shanghaishi mianbu shangye*, p. 6.
76. Finnane, *Changing Clothes in China*, Chapter 6, "Qipao China," Kindle Version.
77. Liu Guojun, 1962, LGWJ, *zhuanji juan*, p. 4.
78. Liu Guojun, 1962, LGWJ, *zhuanji juan*, p. 13.
79. In Chinese: Dalun zhibuchang.
80. *Changzhou Fangzhi Shiliao, dierji*, p. 29.
81. Chinese name: Guangyi buchang.
82. Liu Guojun, 1962, LGWJ, *zhuanji juan*, pp. 19–20.
83. Zhao, "Zhongxiang yitihua," pp. 70–71.
84. Peng, *Zhongguo jindai shougongye*, Vol. 1, pp. 74–84.
85. Zhang, "19 shiji," p. 14.
86. Yung, *My Life in China and America*, p. 59. Yung Wing was the first Chinese to graduate from an American university in 1854.
87. See Feuerwerker, *China's Early Industrialization*, pp. 207–22.
88. Zhang, *Jindai zhongguo de qiye*, p. 4.
89. Zhang, *Jindai zhongguo de qiye*, p. 17.
90. Mann, "Finance in Ningpo," pp. 47–48.
91. Mann, "Finance in Ningpo," p. 71. Zheng, *Lao Shanghai*, p. 492; Bergère, *Shanghai*, pp. 65–66.
92. Huang and Xu, *Shanghai jindai gongyehua*, pp. 110–11.
93. Ma, "Jindai jiangnan diqu," p. 8.
94. *Shanghai qianzhuang shiliao*, p. 170.
95. Chinese name: Shanghai shangye chuxu yinhang. According to the memoirs of Chen Zixun's son, 1958. In *Shanghai qianzhuang shiliao*, pp. 170–71.
96. Dafeng Archives, Shareholder meeting minutes, June 1921, (*Dafeng ranzhi gufen youxian gongsi, gudong dingqi, linshi huiyi jilu*), SMA, Q199-3-8, p. 1.
97. According to an investigation made by the Shanghai Cooperative Credit, 1945 (*Lixin fangzhi yinran zhengli gufen youxian gongsi diaocha baogao*), SMA, Q78-2-12410, pp. 73–74.
98. See Chan, *Business Expansion and Structural Change*, Chapter 8: "*Zhangfang*, Nucleus of the Chinese Business." Kindle Version.

## Chapter 2

1. The first steamship that navigated in China was the *Forbes* in 1830, see Blue, "Early Steamships in China," pp. 46–47; see also Bergère, *Shanghai*, p. 69.
2. Chen and Yao, *Zhongguo jindai gongyeshi*, p. 19.
3. The famous sentence *zhongxue weiti, xixue weiyong*, was popularized by the Chinese philosopher Feng Guifen, see Fairbank and Teng, *China's Response to the West*, pp. 50–51.

4. See Kuo and Liu, "Self-strenghtening."
5. See Yung, *My Life in China and America*, "Chapter 14: My Mission to America to Buy Machinery."
6. The concept that was present in Sunzi's Art of War, in Chinese, "yiyi zhiyi," in Fairbank, "The Creation of the Treaty Port," p. 219.
7. Bastid-Bruguière, "Currents of Social Change," pp. 542–45.
8. Hao, *The Commercial Revolution*, p. 166 and Zhang, "Zhen guanying," p. 5.
9. Letter of Li Zhaotang to Sheng Xuanhuai, 9-3-1876 (*Li zhaotang zhi sheng xuanhuai han*), compiled in Chen, *Shanghai Jiqi Zhibuju*, p. 1.
10. Yan, *Zhongguo mianfangzhiye*, p. 114. See also the classic analysis of Feuerwerker, *China's Early Industrialization*, pp. 214–17.
11. Köll, *From Cotton Mill to Business Empire*, p. 64.
12. Yan, *Zhongguo mianfangzhiye*, pp. 342–43.
13. See Bergère, *L'âge d'or de la bourgeoisie chinoise*.
14. Yan, *Zhongguo mianfangzhiye*, pp. 342–66.
15. Fong, *Cotton Industry and Trade in China*, p. 86.
16. Duus, "Zaikabō: Japanese Cotton Mills," pp. 79, 93 and 100.
17. Wray, "Japan's Big-Three Service Enterprises in China," p. 37. In China, this brand had a share of 23.45 percent of the market in 1930, according to Fong, *Cotton Industry and Trade in China*, p. 79.
18. See Wright, "Can a Nation Learn?"
19. Chao, *The Development of Cotton Textile*, p. 119; and Pomeranz, "Is there an East Asian Development Path?", p. 338.
20. Yan, *Zhongguo mianfangzhiye*, p. 13.
21. Lieu, *The Growth and Industrialization*, p. 97.
22. Fong, *Cotton Industry and Trade*, pp. 81–85.
23. Ferguson, *Andersen & Meyer and Company Limited of China*, pp. 2–3. This book is available at the The Bibliotheca Zi-ka-wei (the Xujiahui Library) in Shanghai.
24. For a debate on the concept of "trust" in networks see Uzzi, "The Sources and Consequences," pp. 676–77; and Granovetter, "The Impact of Social Structure," p. 34.
25. See Yang, "Woguo jindai yinranye," p. 46.
26. A report of the inauguration was in Shenbao; see Sun, *Shenbao ningbobang*, p. 24; see also *North China Herald*, 11-11-1922, p. 376.
27. Dafeng archives, Board of directors, October 1922, (*Dafeng ranzhi gufen youxian gongsi, donsgshi huiyi shilu*), SMA, Q199-3-7, pp. 24–25.
28. Chinese name: Dafeng ranzhi gufen youxian gongsi. Dafeng archives, Charter, n.d. (*Shanghai dafeng ranzhi gufen youxian gongsi zhangcheng*), SMA, Q199-20-88, pp. 1–6.
29. Dafeng archives, Shareholder meeting minutes, June 1921, (*Dafeng ranzhi gufen youxian gongsi, gudong dingqi lanshi huiyi shilu*), SMA, Q199-3-8, pp. 1–5.
30. Xu, *Jiangnan tubushi*, p. 374.
31. A research was done by the nearby University of St. John's under the direction of Professor Zhu Youyu between 1919 and 1920 and was published at the Journal

of the university, the *Yuehan Niankan* (1921), pp. 3 and 7. I wish to thank professor Luo Suwen for sending me this reference.

32. *Yuehan Niankan*, 1921, p. 6.
33. Dafeng archives, Documents of registration, 1924 (*Shanghai dafeng ranzhi gufen youxian gongsi zhuce wenjian*), SMA, Q199-20-91, pp. 1–31.
34. Dafeng archives, Documents of registration, 1924, SMA, Q199-20-91, pp. 1–31.
35. This British firm had a market share of one fourth in textile spinning machinery in China; see Fong, *Cotton Industry and* Trade, p. 79.
36. Chinese name: Zhentai fangzhi youxian gongsi.
37. Dafeng archives, Business documents about relationship with different foreign companies, 1947 (*Taishan shachang yu niuyue yinhang, huafu, tiancheng yanghang goumai mianhua youguan hanjian*), SMA Q199-3-211, pp. 61–88. See also Wong, "A History of the Wong Family," p. 7.
38. *Shanghaishi mianpu shangye*, p. 48.
39. Dafeng archives, Shareholder meeting minutes, June 1921, SMA Q199-3-8, p. 4.
40. See Braso Broggi, "The Weft of Shanghai Fashion."
41. Dafeng archives, Board of Directors, June 1921, SMA Q199-3-7, pp. 2–3.
42. Dafeng archives, Board of directors, May 1927, SMA Q199-3-7, p. 170.
43. Dafeng archives, Evolution of Dafeng and the construction of a new factory in Yanping Road, 1938 (*Shanghai dafeng ranzhichang yange jilüe jizai yanpinglu jianzhu yinran gongchang yuanqi*), SMA, Q199-20-94, pp. 1–2. They kept the accounts of the warehouse and documented all the movements of the company with a very detailed data.
44. Gu Jisheng appears in the first shareholder meeting of Dafeng as a candidate for supervisor of the meeting in Dafeng archives, Shareholder meeting minutes of Dafeng, June, 1921, SMA, Q199-3-8, p. 5.
45. Lixin archives, Shareholder meeting minutes, March 1921 (*Lixin fangzhi zongguanlichu chuanglihui ji diyijie zhi di shijie gudonghui huiyi jilu*), SMA Q195-1-328, p. 32.
46. Gao, *Changzhou Guomian Yichangzhi*, p. 49.
47. Liu Guojun, 1962, LGWJ, *zhuanji juan*, pp. 14–15.
48. Gao, *Changzhou guomian*, pp. 49–52.
49. He sold 5,000 yuan to the Shanghai investor, and lost 1,000 yuan. He said that this loss was his fee for studying how modern industry works. Liu Guojun, 1962, LGWJ, *zhuanji juan*, pp. 18. See also note of Dalun in 1918, in LGWJ, *handian yu qita juan*, p. 139.
50. Chinese name: Dalun fangzhi gufen youxian gongsi.
51. Gao, *Changzhou guomian*, pp. 50–51.
52. Liu Guojun, 1962, LGWJ, *zhuanji juan*, pp. 23–24; see also *Changzhou fangzhi shiliao*, *diyiji*, p. 94.
53. *Rea's Far Eastern Manual*, "Textiles," p. 97.
54. Bergere, *Capitalisme national et impérialisme*.

55. A History of Dacheng, 1953 (*Suoxie ben qiye lishi*), HAMD, pp. 323–24.
56. On the market strategy of Guangyi, see Zhao, "Lun jindai Zhongguo."
57. Gao, *Cong xiangtong*, p. 163.
58. Liu Guojun, 1962, LGWJ, *zhuanji juan*, p. 24.
59. Chinese name: Dacheng fangzhiran youxian gongsi. Charter of Dacheng, 1932 (*Dacheng gongsi zhangcheng*), HAMD, p. 344.
60. Wang, *Yangshangshi shanghai*, pp. 257–65.
61. Ferguson, *Andersen & Meyer*, p. 4.
62. About the first trained engineers in Dafeng, see Dafeng archives, A history of the evolution of Dafeng, 1938, SMA, Q199-20-94, pp. 1–2.
63. Lunt, *China Who's* Who, p. 223.
64. See the reports of *Rea's Far Eastern Manual*.
65. Köll, *From Cotton Mill to Business Empire*, p. 96.
66. *Rea's Far Eastern Manual, 1922, China Section, Cotton Mills*, pp. 98, 99 and 105.
67. Wang, "Zhongguo jiqi yinran," p. 115.
68. Name in Chinese: Xinchang jiqi gongcheng gongsi.
69. China Engineers published a journal for its customers and for internal review that was called *The China Engineers Quarterly Review*. Unfortunately, not all of these journals have survived. The author has found different numbers of this journal in different archives and collections, such as the HKU Library Special Collection, Shanghai Municipal Archives, Foreign Office, et cetera. This quotation is taken from "Reminiscences of a China hand. Talk to the Rotary Club of Hong Kong, Tuesday 16 June 1959." In *The China Engineers Review*, No. 78, December 1959, p. 13. This issue is available at HKULSC.
70. Certificate of incorporation of China Engineers, 1928, in HKPRO, 111-4-34.
71. See a family tree of the Gomersall family at *Farhi. Les Fleurs de l'Orient*.
72. Bickers, *Britain in China*, p. 100.
73. "William Charles Gomersall Obituary."
74. Lee, *A Half a Century of Memories*, p. 18.
75. Tao, *Zhejiang shangbang*, p. 261; see also Yan, *Zhongguo mianfangzhi shigao*, p. 349.
76. About the participation of Li Shuxiong in these events, see See Li and Sun, "Aiguo aixiang de qiyejia Li Shuxiong."
77. Lee, *A Half a Century of Memories*, p. 39.
78. Lee, *A Half a Century of Memories*, p. 91.
79. About Elliston, see *The London Gazette,* 5-3-1915, p. 2248.
80. Memorandum and Articles of Association of The China Engineers Limited, 18-10-1928, CBHA 7-13-515, pp. 35–56.
81. Certificate of incorporation of China Engineers, 1928, HKPRO, 111-4-34.
82. "Memorandum and Articles of Association of The China Engineers Limited," 18-10-1928 (*Xianggang zhengfu zhuce xinchang jiqi gongcheng gongsi shanghai fen gongsi sheli dengji, 1928–1948*), CBHA, 7-13-515 p. 38.
83. Elliston to Wang Qiyu, 15-3-1929, Dafeng archives, Miscellanea documents on sales and purchases of Dafeng, Zhongfang and Dawei (*Dafeng ranzhichang*

*pingmiantu, zhongfang shachang, dawei shachang youguan xiaoshou yewu cailiao 1929–1946*), SMA Q199-3-197, p. 3.

84. See Mukherji, "Found & Lost."
85. *The China Engineers Quarterly Review*, No. 10, July 1934, p. 1.
86. Li, *Ningbo Lühu tongxianghui*, pp. 76–77.
87. Lixin archives, Inaugural meeting of shareholders, October 1920, SMA, Q195-1-328, pp. 16–17.
88. Tang and Li, *Bainian piling tangshi*, p. 82.
89. Lixin archives, Documents of purchase of 100 looms (*Lixin fangzhi zongguanlichu xiang yingshang xiangxing yanghang dinggou yingguo dijin shengchang zhibuji 100 tai de youguan wenjian*), SMA, Q195-1-792, pp. 2–11.
90. William Charles Gomersall, "Reminiscences of a China Hand. Talk to the Rotary Club of Hong Kong, Tuesday 16 June 1959." In *The China Engineers Review*, No. 78, December 1959, p. 12.
91. Contract between Lixin and Calder Marshall, 6-8-1920, Lixin archives, Documents of purchase of a full finishing set (*Lixin fangzhi zongguanlichu xiang yingshang xiangxing dinggou yingguo zhimu sifa menchang quantao piaoran jiqi de youguan wenjian*), SMA, Q195-1-791, pp. 6–8.
92. The Exchange rate of the British pounds was always fixed by the HSBC bank and the oscillations of the British currency during and after the First World War were behind the raise and fall of several compradores and cloth shops, see *Shanghaishi mianbu shangye*, pp. 69–75.
93. Lixin archives, Inaugural shareholder meeting minute, October 1920, SMA Q195-1-328, pp. 1–2.
94. Documentation, receipts and invoices of the purchase of machinery for dyeing and weaving by Lixin to Calder Marshall, 1920–21, (*Lixin fangzhi zongguanlichu xiang yingshang xiangxing yanghang dinggou piaoran jiqi yinqing guolu, zhibuji sanzong jiaoyi de zhangdan ji shouju*), SMA, Q195-1-793.
95. Lixin archives, Contract between Calder Marshall and Lixin for the purchase of 100 looms, 13-4-1921, (*Lixin fangzhi zongguanlichu xiang yinshang xiangxing yanghang dinggou yingguo dijin shengchang fangzhiji 100 tai de youguan wenjian*), SMA, Q195-1-794, pp. 6–8.
96. Cheng Jingxi, Cheng Jingtang biographical materials, 1965 (*Cheng Jingtang shilüe*), in WMA, F2-1-96, p. 251.
97. Lixin archives, Agreement between Calder Marshall and Lixin, 13-4-1920, SMA Q195-1-794, p. 6.
98. Lixin archives, Inaugural shareholder meeting minute, October 1920, SMA Q195-1-328, pp. 17–19.
99. Cheng Jingxi, Cheng Jingtang biographical materials, 1965 (*Cheng Jingtang shilüe*), WMA, F2-1-96, p. 251, pp. 252–53.
100. Lixin archives, Shareholder meeting minutes, March 1921, SMA Q195-1-328, pp. 3–4.
101. Zhang Peicang, History of the Lixin period, 1965 (*Lixin fangzhi yinran chengde pianduan*), WMA, F2-1-96, p. 69; see also Jiang and Tang, *Tang xiangqian zhuan*, p. 9.

102. Lixin archives, Letter from Mather Platt Ltd. to Lixin, 13-7-1923, (*Lixin fangzhi zongguanlichu xiang yingshang pinghe yanghang dinggou yingguo maidepu dengchang ranhuiji ji gaizhuang daqianshen de youguan wenjian*), SMA Q195-1-819, p. 19.
103. Lixin archives, shareholder meeting minutes, Lixin, March 1921, SMA Q195-1-328, pp. 3–4.
104. Lixin archives, Agreement between China Engineers Ltd. and Lixin, 26-9-1932 (*Lixin fangzhi zongguanlichu xiang yingshang xinchang jiqi gongcheng gongsi dinggou mianfang jiqi shebei de youguan hanjian, danju*), SMA, Q195-1-772, p. 8.
105. *The China Engineers Quarterly Review*, No. 10, July 1934, p. 2.
106. Lixin archives, List of machines ordered by Lixin to China Engineers, 1932, SMA Q195-1-772, pp. 28–30.
107. "Typical Mill Layouts," in the *General Catalog of Tweedales and Smalleys* published in 1920, catalogue available in Donghua University.
108. Lixin archives, Documentation related to the purchase of motors, 1932–34 (*Lixin fangzhi zongguanlichu xiang yingshang xinchang jiqi gongcheng gongsi dinggou mada, youkaiguan jiqi tadianqi cailiao de youguan wenjian*) Lixin to China Engineers, SMA Q195-1-773, pp. 1–10.

## Chapter 3

1. Ma, "Economic Growth in the Lower Yangzi," p. 368.
2. Sugihara, "The Second Noel Butlin," p. 130.
3. According to the last estimate by Kubo, "Industrial Development in Republican China," in Kubo, *20 seiki chūgoku*, p. 112.
4. Kraus, *Cotton and Cotton Goods in China*, p. 117.
5. Several authors have studied the concept of dual economy; see for instance, Hou, "Economic Dualism"; Murphey, *The Outsiders*; Bergère, "Shanghaï ou l'autre Chine, 1919–1949"; and Lin, "China's Dual Economy."
6. *Shanghaishi mianbu shangye*, p. 92.
7. See Ma, "Economic Growth in the Lower Yangzi."
8. About the internationalization of the British textile sector see Singleton, "The Lancashire Cotton Industry." About the expansion of the domestic market of the United States, see the classic study of Chandler, *The Visible Hand*.
9. Xu, "The Struggle of the Handicraft," p. 35.
10. See Keller and Shiue, "Market Integration and Economic Development"; see also Wang, "Secular Trends of Rice Prices."
11. See Shiroyama, *China during the Great Depression*, especially Chapter 2 "The Coming of Industrialization," pp. 37–59.
12. Hsiao, *China's Foreign Trade*, p. 39; and Farnie, "The Role of Merchants," p. 22.
13. Pearse, *The Cotton Industry of Japan and China*, p. 196.
14. Pearse, *The Cotton Industry of Japan and China*, pp. 191, 194–96.
15. On price oscillations of raw cotton see Fong, *Cotton Industry and Trade in China*, pp. 74–75; on yarn, see pp. 105–07.

16. Fong, *Cotton Industry and Trade in China*, pp. 281–82.
17. "The only reason that Japan, a country where cotton is not grown, has been able to develop a huge industry, with which her cotton-producing neighbor has been unable to compete, is to be found in the difference between the fiscal systems of the two countries," quoted from F. E. Taylor, Statistical Secretary, May 1917, China Imperial Maritime Customs. Annual Reports, Statistical Series. Returns of Trade and Trade Reports for the year 1917, CMCHM, 72–10 (p. 2).
18. Sugihara, "The Economic Motivations behind Japanese Aggression."
19. Cui Fuzhuang, "chuangban dafeng, zhentai, baoxing san chang jingguo jiqi ganxiang," p. 26.
20. On the raise of Chinese fashion, see Finnane, *Changing Clothes in China*; on department stores, see Cochran, *Inventing Nanjing Road*.
21. China Maritime Customs, Annual Reports, Statistical Series. Returns of Trade and Trade Reports for the years 1922 and 1925, CMCHM, 99–220 (p. 16) and 1922, CMCHM, 93–100 (p. 530).
22. On the impact of ecological crisis on one region, Shandong, see Pomeranz, *The Making of a Hinterland*, Chapter 3: "Ecological Crisis and the Logic of 'Self-strengthening'", pp. 120–52.
23. Buck, *Land Utilization in China*, p. 45.
24. For railroads see Feuerwerker, *The Chinese Economy*, pp. 147–56; for steamships, see Feuerwerker, *China's Early Industrialization*, pp. 96–188.
25. Furuta, "Kobe Seen as a Part of the Shanghai," pp. 56–62.
26. Cui Fuzhuang, "Chuangban dafeng, zhentai, baoxing san chang jingguo jiqi ganxiang," p. 26.
27. See Zhao, *Jindai sunan qiye jituan*.
28. Dafeng Archives, Shareholder meeting minutes, June 1921; and March 1922, SMA Q199-3-8, p. 2 and p. 7.
29. *Shanghaishi mianbu shangye*, p. 86.
30. Lixin archives, Shareholder meeting minute, October 1920, SMA Q195-1-328, pp. 16–17.
31. Lixin archives, Shareholder meeting minute, October 1920, SMA Q195-1-328, pp. 16–17.
32. Abe, "The Chinese Market for Japanese Cotton," p. 83.
33. Dafeng archives, Board of directors, November 1922, SMA Q199-3-7, p. 26.
34. Dafeng archives, Board of directors, November 1922, SMA Q199-3-7, p. 27–28. On Xu Chengxun, see *Shanghaishi mianbu shangye*, pp. 78–79.
35. Dafeng archives, Shareholder meetings, March 1923, SMA Q199-3-8, pp. 10–13.
36. Cui Fuzhuang, "Chuangban dafeng, zhentai, baoxing san chang jingguo jiqi ganxiang," p. 26.
37. Dafeng archives, Board of directors, November 1924, SMA Q199-3-7, pp. 86–88.
38. Bergère, *Capitalisme national et impérialisme*, pp. 12–23.

39. In 1924, the turnover of Dafeng was 540,000 tael for mercerized yarns and 765,000 for finished clothes, while in 1928, the breakdown was 360,000 tael for mercerized yarns and 2,040,000 tael for cloth. See the Income statements of Dafeng for both years in Dafeng archive, Documents of register of Dafeng, 1924 (*Shanghai dafeng ranzhi gufen youxian gongsi zhuce wenjian, 1924*), SMA Q199-20-91; and Dafeng archives, Documents of register of Dafeng, 1928; (*Shanghai dafeng gufen youxian gongsi zhangcheng, gudong mingce, qingcebiao ji shenqing zhuce zhizhao de baogao*, 1920–1928), SMA Q199-20-89, pp. 59–63.
40. Dafeng archives, Shareholder meetings, February 1925, SMA, 199-3-8, pp. 27–28.
41. According to the chronicle of the son of Wang Qiyu, Wang, "Zhongguo jiqi yinran," p. 115,
42. This time, the engineer of Zhentai, Mr. Brierley and another intermediate trader, Moysey, mediated in the purchase of these looms, see Dafeng archives, Documents related to the purchase of looms, 1926 (*Maoli yanghang yu zhentai fangzhi gufen youxian gongsi goumai fangji deng hanjian*), SMA Q199-3-212, p. 48.
43. *North China Herald*, 31-12-1926, p. 634.
44. Fong, *Cotton Industry*, p. 26; and Kraus, *Cotton and Cotton Goods*, Appendix A.
45. Gao, "Mianye lishi," pp. 25–28.
46. See Bergère, *Capitalisme national et impérialisme*.
47. Wakeman, *Policing Shanghai*, p. 27.
48. See Honig, "The Contract Labor System."
49. Fong, *Cotton Industry*, p. 87; see also Zeitz, "Do Local Institutions." However, there is an economic history literature that attributes to labor competitiveness in the cotton mills the explanation of the success and failure not only of the Chinese cotton mills but of Chinese economy as a whole, see Clark, "Why Isn't the Whole World."
50. Dafeng archives, Board of directors, April 1926, SMA Q199-3-7, pp. 135–39.
51. See women's fashion in *Liangyou*, No. 1, 1926.
52. Dafeng archives, Shareholder list, 1928, in SMA Q199-20-89, pp. 14–56.
53. Dafeng archives, Board of directors, May 1927, SMA Q199-3-7, pp. 166–75.
54. Lixin archives, Shareholder meetings, September 1925, SMA Q195-1-328, pp. 90.
55. Lixin archives, Shareholder meetings, September 1925, SMA Q195-1-328, pp. 92–96; see also SMA Q195-1-19, pp. 1–2.
56. Cheng Jingxi, Cheng Jingtang Biographical Materials, 1965 (*Cheng Jingtang shilüe*), in WMA, F2-1-96, p. 251.
57. Lixin archives, Shareholder meeting minutes, September 1925, SMA Q195-1-328, pp. 92–96.
58. Cheng Jingxi, obituary of Cheng Jingtang (Aiqing), 1965, WMA, F2-1-96, pp. 280–81.
59. Lixin archives, Shareholder meeting minutes, September 1925, SMA Q195-1-327, p. 89–93; see also See Remer, *A Study of Chinese Boycotts*, pp. 117–27.

60. Different expression are repeated in the minutes of the meetings: *jiaotong duanjue* (transport interruptions), *hailu yunshu bu tongchang* (land and sea transports are blocked), *jiaotong zuse* (transport is obstructed). See Lixin archives, Shareholder meetings from 1924 to 1929, SMA Q195-1-328.
61. *China Industrial Handbooks Kiangsu*, pp. 107–08 and 327–28.
62. Lixin archives, A History of Lixin, 1952, (*Lixin fangzhi yinran zhengli gufen youxian gongsi jianshi*), SMA Q195-1-297, p. 1
63. Gao Shiheng, "Nanyang mianbu shichang zhi taolun," p. 2.
64. Cui Fuzhuang, "chuangban dafeng, zhentai, baoxing san chang jingguo jiqi ganxiang," p. 26.
65. About the relationship between the vertical integration of Dafeng and the Nationalist movement, see Braso Broggi, "Transnational Strategies"; see also *Shanghaishi mianbu*, pp. 126–27.
66. Lixin archives, Shareholder meetings, September 1925, SMA Q195-1-328, pp. 89–93.
67. Lixin archives, Contract between Calder Marshall and Lixin, January 1926, SMA Q195-1-794, pp. 4–10.
68. For a fascinating overview of the advertising industry in Shanghai, see Crow, *400 Million Customers*.
69. About the brands of Dafeng, see Brasó Broggi, "The Weft of Shanghai Fashion", p. 10.
70. Lixin archives, Register of trademarks and other documents (*Lixin fangzhi zongguanlichu yingye zhizhao ji shangbiao zhucezheng de jilu*), SMA Q195-1-9, pp. 1–2.
71. Some of these ads can be seen at the Illustrated Book of Trademarks in Modern China, by Zuo, *Minguo shangbiao tudian*, pp. 274–76 and also 394–408.
72. Lixin archives, Shareholder meeting, April 1927, SMA Q195-1-328, pp. 102–06.
73. Dafeng archives, Board of directors, May 1927, SMA Q199-3-7, p. 170.
74. Dafeng archives, Board of directors, October 1928, SMA Q199-3-6, pp. 26–32.
75. Lixin archives, Letters from China Engineers to Lixin, 1931–32 (*Lixin fangzhi zongguanlichu xiang yingshang xinchang jiqi gongcheng dinggou xiangou dianxian de youguan wenjian*) SMA Q195-1-769, pp. 1–8.
76. Name in Chinese: Lixin fangzhi yinran zhengli gufen youxian gongsi.
77. Quoted in Zhu, "Qiyejia de jingying," p. 60.
78. Cui, "Chuangban dafeng, zhentai, baoxing," p. 27.
79. Discourse of Liu Guojun at the general assembly of the Association of National Products of Jiangsu, September 1929 (*Jiangsu sheng guohuohui disici changweihui*), LGWJ *fulu*, p. 14.
80. Liu Guojun, "A Plan for Saving the Country through Hand Spinning," 1931 (*Tusha qiuguo jihuashu*), LGWJ *lunzhu zhuan*, pp. 1–7.
81. Liu Guojun, "Tusha qiuguo jihuashu," 1931, in LGWJ *lunzhu zhuan*, p. 3.
82. Zhao, "Zhongxiang yituhua," p. 155.
83. Gao, *Changzhou guomian*, p. 8.
84. Gao, *Changzhou guomian*, p. 9.

85. Liu Guojun, 1962, LGWJ, *zhuanji*, p. 24.
86. Zhao, *Jindai sunan qiye jituan*, p. 60.
87. Gao, *Changzhou guomian*, p. 53.
88. Liu Guojun, 1962, LGWJ *zhuanji*, p. 29.
89. Sun Jianchang, "Liu Guojun and Huang Yanpei," 1999 (*Liu guojun yu huang yanpei*), LGWJ *fulu*, pp. 158–73.
90. Liu Guojun, "Impressions about the Travel to Japan," 1935 (*Furi kaocha yinxiang ji ganxiang*), LGWJ, *lunzhu juan*, p. 12.
91. Liu Guojun, 1962, LGWJ *zhuanji*, p. 29.
92. According to the Report of Anda, made by the production committee of the Communist Party of Shanghai, 1952 (*Zhonggong shanghaishi weigongye shengchan weiyuanhui),* "A Report of Anda" *(Anda fangzhi gufen youxian gongsi baogaodan*), SMA, A38-2-222-5, p. 13.
93. Li, "Liu guojun yu liu jingji."
94. Wang, *Shanghai dacidian*, Vol. 3, p. 1679.
95. Liu Guojun, 1962, LGWJ *zhuanji*, p. 29.
96. *Cha Jimin*, pp. 35–37.
97. Liu Guojun, 1962, LGWJ *zhuanji*, p. 25.
98. Haining Municipal Committee of CCPT, *Cha Jimin*, pp. 40–42.
99. Liu Guojun, 1962, LGWJ *zhuanji*, p. 26.
100. Chao Fuxie, "Shiyejia liu guojun," 1950, LGWJ *fulu*, pp. 108–09.
101. Trademarks of Dacheng (*Dacheng gongsi zhuce shangbiao*), HAMD, pp. 37–58.
102. *China Industrial Handbooks Kiangsu*, p. 355.
103. "A Research in Aniline" made by Dacheng" (*Anilinyuan yanjiu baogao*), in HAMD, pp. 66–72.
104. Maps, documents and letters for the enlargement and machinery purchase of Dacheng, 1936 (*Dacheng gongsi gouzhi dichan qi zhiyuan baozhengshu chen junqing guangbu jianxi baogao ji xinding mianfang shebei zhuan yinhang zhi ya danbao de han*), CMA, E9-1-1934-2.
105. Zhao, "Zongxiang yitihua," p. 155.
106. Liu Guojun, 1962LGWJ *zhuanji*, p. 32.
107. Yao Xinghan, "The Characteristics of Liu Guojun's Managements" (*Liu guojun xiansheng zai jingying guanli shang de yixie tedian*), in LGWJ *fulu*, pp. 66–70; see also Zhu, "Qiyejia de jingying."
108. Dacheng archives, Shareholder meeting, 1936, CMA E9-1-1935-3, p. 1.
109. Dacheng archives, Shareholder meeting, 1936, CMA E9-1-1935-3, p. 1.
110. Dacheng, Shareholder meeting, 1932, in *Fangzhi Zhoukan*, Vol. 2, No. 29, pp. 794–95. This volume is available at the Donghua University Library Historical Materials.

## Chapter 4

1. Feuerwerker, *The Chinese Economy, 1870*–1949, p. 91; and Feuerwerker, "The State and the Economy," p. 302.

2. See the classic article by Rostow, "The Stages of Economic Growth."
3. Xu and Min, "The Struggle of Handicraft," p. 43.
4. Coble, *Chinese Capitalists*, p. 13.
5. Bergère, *Histoire de Shanghai*, p. 305.
6. Huang and Xu, *Shanghai jindai gongyehua*, p. 224; see also Henriot, "Shanghai Industries under Japanese Occupation."
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## Chapter 5

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## Chapter 7

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## Chapter 8

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## Conclusion

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