

# Wartime and Post-war Economies (China)

By [Hajo Frölich](#)

**China, which joined the Allied cause in 1917, profited economically from the First World War. This was due less to the young Republic's direct involvement in the hostilities than the increased European demand for Chinese raw materials and food imports and, for a few years, the decreased economic competition of imperialist European nations in China. This gave both the nascent Chinese bourgeoisie and Japanese companies more opportunities for development. Agriculture profited less than industry, however, and development was very uneven due to the political and economic frictions of the "warlord period" which began with the death of the president of the Republic of China, Yuan Shikai (1859-1916).**

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## Introduction

The conclusion that [China](#) profited economically from the First World War is one of two key new insights [scholarship](#) on the economic history of Republican China from 1912 to 1927 has generated over the last three decades. The second is that it is hard to draw generalized conclusions about

China during that period because it was not a unified nation but rather split into several territories under warlord, party (Nationalist Party [Guomindang, or GMD] and Chinese Communist Party [CCP]), as well as foreign control.

Before the 1980s, scholars both inside and outside China in general held a pessimistic view of the country's economic history since the 19<sup>th</sup> century. The First World War, primarily seen as a European conflict, did not seem to have altered the bad performance of China's economy. The reasons for the long persistence of this pessimistic view in retrospect cannot be pinned down easily. One reason was a general lack of hard data of the kind one would find for early 20<sup>th</sup> century Western economies (perhaps not the accurate yardstick).<sup>[1]</sup> For instance, relying on data collected by the state is problematic in a setting where the state – despite claiming the opposite – had little influence on, control of, or information about the economy. Accordingly, foreign trade, on which the state produced most accurate and reliable figures through the [Maritime Customs](#), tended to be viewed as much more influential – mostly in the negative – than current research would suggest.<sup>[2]</sup>

Another, and probably more important, reason was that in China itself, a pessimistic view of economic development was needed to justify state economic planning. This was a hallmark not only of the Communist regime after 1949, but of Republican China under the GMD and even of some of the warlords after 1916.<sup>[3]</sup> As Thomas G. Rawski argued in 1989, scholarly interpretations until then had often been influenced by narratives supported by various Chinese political regimes which claimed that the state had a far reaching influence on the economy, and which blamed that same economy's perceived bad performance on the foreign presence in China, and, in the case of the Communists, on the "semi-feudal" structure of society.<sup>[4]</sup>

Today, scholars widely agree that the First World War stimulated the modern urban sector of China's economy: it greatly strengthened the economic (and political) position of [Japan](#) and boosted both Chinese (light) industry and the export of [food](#) from China.<sup>[5]</sup> Marie-Claire Bergère notes that, from roughly 1916 on, there was a decisive upsurge in Chinese national industry, such as cotton and flour mills, tobacco production, and consumer goods in general.<sup>[6]</sup>

It is necessary to remember that Bergère's positive evaluation of China's wartime economic performance is based on findings primarily from Shanghai, one of East Asia's largest and busiest ports.<sup>[7]</sup> In order to speak accurately of the wartime and post-war economy of China, we have to take into account regional differences not only in terms of geography, climate, population, [transport](#), [raw materials](#), marketplaces, and the like,<sup>[8]</sup> but also dichotomies of stable and unstable, constructive and destructive, recognized and unrecognized political regimes occupying parts of China at different times.<sup>[9]</sup>

Thomas G. Rawski's path breaking work quoted above notwithstanding, it is still disputed whether China's economy on the whole was dynamic and growing before 1949, or fundamentally

stagnant.<sup>[10]</sup> The background to this question today essentially has little to do with the Republican period (1912-1949), but rather revolves around an evaluation of the achievements of the CCP *after* 1949. Nevertheless, it poses a necessary question regarding Chinese economic developments during and after World War One and points to the way in which an analysis of the economic development of this time period has been used for various political ends.

In recent years a series of business history case studies has provided ample evidence of the benefits the First World War opened up to Chinese firms. These studies support the case for a dynamic pre-1949 economy and have done away with the assumption that Chinese enterprises in general were unable to stand up to challenges posed by foreign competitors.<sup>[11]</sup> In order to present a balanced picture of those years in different regions and economic sectors, this article now looks at industry and trade, transport, banking, and agriculture.

## Industry and Trade

The war drastically reduced the foreign competition that Chinese firms confronted until the outbreak of hostilities in August 1914. Within months, Western businesses and banks were forced to withdraw both personnel and capital from the Chinese market in large quantities and reallocate it to their home countries. The German leasehold of Qingdao was soon taken by Japan and all German property was confiscated by the [Chinese government](#) in 1917. British exports to China dropped by around 50 percent in many sectors over the course of the war, and those from [France](#), [Italy](#), or [Belgium](#) fared no better. The most important exception to this trend was Japan, which managed to expand its business operations and political influence on the Chinese mainland.

From 1915 on, the war also boosted Chinese exports and caused China's trade deficit to drop by more than 80 percent, as can be seen from table 1. This, however, was a temporary effect only, and by 1920, the deficit was up again.

Year	Import	Export	Balance
1911	471,504,000	377,388,000	-94,166,000
1912	473,097,000	370,520,000	-102,577,000
1913	570,163,000	377,388,000	-166,857,000
1914	569,241,000	356,227,000	-213,015,000
1915	454,476,000	418,861,000	-35,615,000
1916	516,407,000	481,797,000	-34,610,000
1917	549,519,000	462,932,000	-86,587,000
1918	554,893,000	485,883,000	-69,010,000
1919	646,998,000	630,809,000	-16,188,000
1920	762,250,000	541,631,000	-220,619,000
1921	906,122,000	601,256,000	-304,867,000

1922	945,050,000	654,892,000	-290,158,000
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Table 1: Annual value of external Chinese trade, 1911-1922, in taels (a silver currency)<sup>[12]</sup>

During the war, raw materials for the munitions industry as well as wool, clothing, and foodstuffs were much sought after and could be sold by Chinese companies at ever rising prices. This in turn led to an increase in the price of silver and thus the Chinese tael which more than doubled its value against both the US Dollar and the British Pound between 1914 and 1919. As a consequence, purchases on the world market became much cheaper for Chinese firms and paying off high foreign debt (in foreign currencies) also became easier for Chinese governments.<sup>[13]</sup>

Nevertheless, there were hindrances to economic growth. Shrinking international transport capacity (which had been mobilized for war in Europe) resulted in freight rates increasing up to twenty-five fold, severely limiting the degree to which Chinese companies could turn their newly gained “home advantage” into high returns on exports. Increasing overseas transport costs also hampered the import of machinery into China which was needed to expand production. Far less handicapped by the war on the European continent, large Japanese companies, with the backing or participation of the Japanese government, began to trade heavily with and invest in China. The capacity of Japanese cotton mills tripled and by the end of the war Japan had doubled its share of Chinese imports to almost thirty percent.<sup>[14]</sup>

In the late 19<sup>th</sup> century, foreign firms and the Chinese state had possibly been the main stimuli in expanding the modern economic sector in China. However, their actual share in the emerging modern economy during the wartime and post-war period was soon dwarfed by Chinese private companies. By the 1930s, state enterprises accounted for not more than three percent of total sales by Chinese companies.<sup>[15]</sup> Chronically short of sufficient funds, the Beijing government, which had inherited huge debts from its imperial predecessor, continued to borrow money both at home and abroad, mostly to serve existing loans and military expenditure, leaving little or nothing to foster the domestic economy.<sup>[16]</sup> In addition, foreign direct investment also declined significantly after 1914 as was mentioned above.<sup>[17]</sup>

Compared to agriculture, the Chinese industrial sector was tiny. Its share of the GDP only reached 2 percent in 1933, up from less than 1 percent in 1916.<sup>[18]</sup> For the urban centers where industry was concentrated, it nevertheless played a significant role both in economic terms and in reshaping the social realm. Between 1912 and 1920, the Chinese industrial sector grew by 13.8 percent annually, while the overall average for the period 1912 to 1936 (before the Japanese invasion) stood at a still impressive 9.2 percent.<sup>[19]</sup>

As industry grew so did the working class which became an important factor in urban politics. According to the pioneering study by Jean Chesneaux, in all of China there were but 1.5 million workers in 1919.<sup>[20]</sup> From that year onwards, these workers more frequently joined ranks with

students in protesting national humiliation, [imperialism](#), and the harsh working conditions at, most notably, Japanese factories in Shanghai and other cities. After the founding of the CCP in Shanghai in 1921, the politicization of workers and their organizational unification in labor unions increased, as did the total number of workers.<sup>[21]</sup> Warlords began to realize that a well organized [labor force](#) could threaten their power from within. Much like the British police in Shanghai and elsewhere, they violently quashed a series of strikes and anti-imperialist protests from 1923 on, killing hundreds of Chinese workers.<sup>[22]</sup> Nevertheless, nowadays even historians in mainland China tend to view this “semi-colonial” phase as at least partly beneficial to the modernization of China, though not with the same vigor as some English language publications used to do.<sup>[23]</sup>

The positive economic effects of the First World War became even clearer after the war’s end. China’s post-war economy continued to grow. Thomas G. Rawski, estimated – admittedly only on “relatively firm empirical foundations”, the annual growth rate of the GDP between 1914 and 1936 to have stood at 2 percent, which is still almost twice the figure taken for granted by earlier scholars. According to Rawski, industry experienced the highest annual growth rate (8.1 percent), finance the second highest (5 percent), while at the bottom we find agriculture and handicrafts, on average still growing by at least 1.4 percent per year.<sup>[24]</sup> The reason for this trend was that, at least up to around 1920, foreign competitors were slow to recover, while the end of the war had quickly eliminated high freight rates and the scarcity of certain raw materials and machinery on the world market.<sup>[25]</sup> The post-war world reconversion crisis which emerged in 1920 led to a decline in the silver price which had gone up so dramatically during the war. By the end of 1921, the value of the tael had accordingly gone down from 1.48 US Dollars the year before to just 0.74 US Dollars. In other words, import prices doubled, serving as a protection shield for Chinese domestic industry. The economic crisis around the globe meant that the simultaneous drop in prices of Chinese goods on the world market did *not* lead to increasing export rates. Instead, Chinese exports peaked at 631 million taels in 1919 and declined by 15 percent the following year.<sup>[26]</sup>

This comparatively light effect of the global post-war economic crisis can be explained by the degree to which the self-reliance of the Chinese market – centuries of global economic integration notwithstanding – had persevered in the 1920s. The sheer size of the national market meant that in times of a difficult external trade environment, most Chinese firms still found both raw materials and customers in sufficient numbers.<sup>[27]</sup>

China’s was thus still a “dual economy,” not only in geographical terms, but also insofar as production for export and production for domestic markets tended to be separated, as in the case of silk.<sup>[28]</sup> In a geographical sense, the problem of China’s dual economic divide between the affluent coastal and central regions and the less developed hinterland intensified during the war and post-war period. Not least due to warlordism, intra-Chinese trade further disintegrated.<sup>[29]</sup> However, this trend can also be viewed positively: before the war, China’s increasingly integrated internal trade had to a large degree been driven by export which mainly went through Shanghai. After the war, some

provinces managed to establish direct trade links with other countries, decreasing their dependence on Shanghai, as can be seen from table 2. <sup>[30]</sup>

Years	Shanghai	Guangzhou	Hankou	Tianjin	Dalian	others
1891-1893	49.9	11.6	2.3	3.1	-	33.1
1901-1903	53.1	10.4	1.8	3.6	-	31.1
1909-1911	44.2	9.7	4.4	4.5	4.0	32.3
1919-1921	41.4	7.2	3.9	7.4	13.1	27.0
1929-1931	44.8	5.0	2.4	8.4	15.0	24.4

Table 2: Relative share of external trade of five major ports in China, 1891-1931, in percent <sup>[31]</sup>

## Transport

Difficult transport conditions and resulting high transport costs hampered the development of industry and commerce during the war and post-war years. “Coolies” carrying raw material and goods on foot were paid very low wages but their slow speed and limited capacity still made for inefficient transport when compared to railways.

China’s railroad network had grown rapidly in mileage between 1895 and 1911. However, warlordism and the First World War, which brought foreign investment in railroads to a standstill (except for Japanese investment in Manchuria) slowed railroad growth and the network only expanded from 8,000 kilometers in 1912 to 12,000 kilometers in 1927.

The Republican government continued to nationalize railroads in exchange for bonds. Although these were often financed through foreign loans with *de facto* interest rates of up to 9.5 percent, the railroads still benefitted the domestic economy, most notably in the North. In South China water transport continued to compete with trains. Railroads were more important for industrial development than for agriculture. While the tonnage of transported manufactured and mining products between 1917 and 1925 rose by 53 and 33 percent, respectively, that of agricultural products fell by three percent. Furthermore, due to the unfolding civil war, around one fifth of passenger traffic was military personnel, lowering the profitability of the railroad system. Roads for motorized vehicles were only begun to be built in earnest in the late 1920s. Even then, more traditional means of transport, i.e. by junks on waterways or by carrying goods on foot or on animal drawn carts, continued to be more important than motorized vehicles, railways, and steam boats, at least outside the coastal areas and away from the lower reaches of the major rivers. <sup>[32]</sup>

## Banking

While the wartime and post-war period saw the establishment of several modern commercial banks in China, traditional-style or “native” private banks (*qianzhuang*) also increased in number and

amount of credit given, not least to the government. Foreign banks, especially the Hong Kong Shanghai Banking Corporation, and Chinese commercial banks financed almost all export trade. But for internal trade and domestic industry, the traditional-style banks continued to be more important. The chief difference between these and the modern banks was that in most cases the former did not ask for securities on the loans they granted. Instead, they based their decisions on personal trust.<sup>[33]</sup> This made it easier for Chinese entrepreneurs to gain capital but it also severely limited the turnover and reach of the traditional-style banks which mostly financed local small-scale businesses. Large-scale and long-term loans such as were needed for industrial enterprises were much harder to get.<sup>[34]</sup>

## Agriculture

Agriculture was less influenced by the First World War than the modern industrial sector but it was to remain by far the largest sector of the Chinese economy well beyond 1949. The total gross value of farm output rose from roughly 16 to above 19 billion Chinese Dollars between 1914 and 1937, while the simultaneous population increase meant that the per capita output only rose from thirty-six to thirty-nine Chinese Dollars (1933 value).<sup>[35]</sup> Until the 1980s, leading scholars were convinced that agricultural techniques, marketing, and per capita output during the first three decades of the 20<sup>th</sup> century hardly changed.<sup>[36]</sup> The reason for this, in the eyes of Chinese Marxist historians especially, lay primarily in the perceived problematic concentration of landholding in the hands of few landlords who exploited their tenants through high rents. Recent studies, however, paint a more dynamic picture and either reject that this concentration took place at all or put more emphasis on the phenomenon of absentee landlords induced by the new cultural and business opportunities which drew the landholding elite to the growing cities, leaving estate management in the hands of the less capable and less well-intentioned.<sup>[37]</sup> This, in combination with new taxes levied by almost all of the warlords, made the situation for many peasants quite unbearable. The existing land tax alone, which was determined by provincial governments, guaranteed that peasants would furnish the lion's share of provincial budgets.<sup>[38]</sup>

Yet, other studies demonstrate a market-oriented, competitive, technologically updating agricultural sector which managed to increase its output at twice the speed of population growth, thus not only securing the livelihood of the growing urban population, but also improving the situation of many peasant households.<sup>[39]</sup> More and more peasants moved away from subsistence farming, increasingly growing cash crops such as cotton, tobacco, tea, opium (the ban on which was in effect a dead letter by 1916), and engaging in silk production. Although the geographical caveat applies to this development, too – commercialization of agriculture was mainly limited to coastal and parts of central China – and although such studies hardly pay attention to peasant culture and mentality,<sup>[40]</sup> they nevertheless have successfully questioned the stagnation hypothesis. Through the growing demand for agricultural products on the world market, the First World War in fact helped to further

commercial farming in China.<sup>[41]</sup>

Increasing commercialization, however, did not alter the continuous but very slow growth rates. This paradox, which has caused much debate, has probably been best explained by Philip C.C. Huang who sees it as a result of agricultural “involution:” marketization did not lead to agricultural capitalism because cheap (especially family) labor made mechanization unattractive and wealth generated in the countryside was not reinvested there but rather taken to the cities for business and consumption.<sup>[42]</sup>

Thus, for those peasants who lived away from areas of increasingly commercialized agriculture, there was little hope for improving one’s livelihood. For them, the most promising option was to migrate to the cities and find jobs in the booming industry. Not unlike today, this [rural-to-urban migration](#) altered the social world of both villages and cities and it began to change gender roles, providing opportunities for women’s emancipation in ways which would be further reinforced under Communist rule.<sup>[43]</sup>

The state had an even smaller influence on agriculture than on industry. Apart from a few exceptional warlords,<sup>[44]</sup> hardly any regime before the founding of the People’s Republic was able to implement large-scale agricultural projects or to extract significant amounts of capital for industrialization projects from the countryside.<sup>[45]</sup>

Even though historians nowadays tend to stress the dynamic qualities of China’s agriculture during the Republican period, contemporaries were much more concerned with its perceived stagnation or decline. In the 1930s, Chinese economists supportive of the GMD government were working out how to enhance productivity and raise the standard of living of the rural population, not least because they saw the “agricultural crisis” as the main source of support for their political enemy, the CCP.<sup>[46]</sup> With good reasons, [Thoralf Klein](#) has argued that conflicting interpretations of the development of Chinese agriculture must be linked to differing perceptions of “the peasant.” While the urban and the rural had not been understood as opposites until the revolution of 1911, the changes during and after the First World War led urbanites to perceive a “modernization gap” between city and countryside. While modernizers of various political backgrounds – from Christian reformer [James Yen \(1890-1990\)](#) to a young Communist named [Mao Zedong \(1893-1976\)](#) – judged that peasants had to be freed from their backward conditions, cultural conservatives praised rural China as the last bastion of Chinese tradition, yet unspoiled by Western imperialism.<sup>[47]</sup> These contradicting perceptions resulted in different programs of “rural reconstruction.”<sup>[48]</sup> Thus, the real significance of the First World War for China’s agricultural sector probably lay less in the war’s direct economic effects, but rather in its helping to generate opposite interpretations of peasants’ livelihood which would be among the fundamental dividing lines between Nationalists and Communists in the next decades.

## Conclusion



Although China's direct participation in the First World War was limited, the Chinese economy was considerably impacted by wartime developments. Chinese food exports fed troops and civilians in Europe, compensating for production shortages there. On the other hand, since the war drew the European powers' attention (including capital and manpower) away from China, the nascent Chinese bourgeoisie experienced a "golden age" of business expansion due to reduced foreign competition. This situation was to last for some years after the war ended. While geographic distribution of the Chinese modern industrial sector was very uneven and mostly restricted to urban coastal areas, Chinese companies in general emerged from the war in better condition.

Japanese companies also benefitted greatly from the war in Europe as they were able to expand in China, most notably in the Northeast, laying the foundation for the economic and eventually military penetration of China in following decades.

In the countryside, the increasing commercialization of agriculture to fuel food exports did not alter the overall slow growth of China's rural economic sector. This was due to a constant surplus of cheap (or even free) labor and too little investment. In the agricultural sector, the First World War thus exerted its most important influence indirectly: the cultural reorientations induced by the war led to the perception of an "agrarian crisis" which helped to create long-lasting and diverse political standpoints with regard to peasant China.

The First World War thus had a catalytic influence on the Chinese economy. It marked a first step towards ending economic (and political) dependency on Western imperialist powers. But it was also a step towards domination by Japan. For most of China, the economic "golden age" was only to return after 1978.

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## Notes

1. ↑ Feuerwerker, Albert: Economic Trends, 1912-1949, in: Fairbank, John King (ed.): The Cambridge History of China. Volume 12: Republican China 1912-1949, Part I, Cambridge et al. 1983, pp. 28-127, here: p. 33.
2. ↑ Hsiao Liang-Lin: China's Foreign Trade Statistics, 1864-1949, Cambridge, MA 1974.

3. ↑ The pessimistic view of a stagnant economy is best scetched out in Feuerwerker, *Economic Trends*, pp. 28-29; on state economic planning before 1949, see Kirby, William C.: *Engineering China. Birth of the Developmental State, 1928-1937*, in: Yeh Wen-hsin (ed.): *Becoming Chinese. Passages to Modernity and Beyond*, Berkeley 2000, pp. 137-160; on economic planning by warlord [Yan Xishan \(1883-1960\)](#) in Shanxi province, see Gillin, Donald George: *China's First Five-Year Plan. Industrialization Under the Warlords as Reflected in the Policies of Yen His-Shan in Shansi Province, 1930-1937*, in: *Journal of Asian Studies* 24/2 (1965), pp. 245-259.
4. ↑ Rawski, Thomas G.: *Economic Growth in Prewar China*, Berkeley et al. 1989, pp. 2-3.
5. ↑ Wang, Jingyu (ed.): *Zhongguo jindai jingji shi, 1895-1927 [An Economic History of Modern China, 1895-1927]*, Beijing 2000, vol. 1, pp. 224-225; the war also led to a new relationship with [Germany](#) which lost its colonial possessions, and it strengthened the position of the [USA](#) in China, but for reasons of space I will not go deeper into these developments.
6. ↑ Bergère, Marie-Claire: *The Golden Age of the Chinese Bourgeoisie 1911-1937*, Janet Lloyd, trans. Cambridge et al. 1989, pp. 70-75.
7. ↑ The exceptional role of Shanghai and its positive influence on economic growth rates in the surrounding region is confirmed by Ma, Debin: *Economic Growth in the Lower Yangzi Region of China in 1911-1937. A Quantitative and Historical Analysis*, in: *Journal of Economic History* 68/2 (2008), pp. 355-392.
8. ↑ The most well-known account of such spatial-economic differentiation in China remains the one set out in Skinner, G. William: *Cities and the Hierarchy of Local Systems*, in: Skinner, G. William (ed.): *The City in Late Imperial China*, Stanford 1977, pp. 275-351.
9. ↑ Osterhammel, Jürgen: *Shanghai, 30. Mai 1925. Die chinesische Revolution*, Munich 1997, p. 75.
10. ↑ *Ibid.*, pp. 74-75.
11. ↑ Cochran, Sherman: *Big Business in China. Sino-Foreign Rivalry in the Cigarette Industry, 1890–1930*, Cambridge 1980; Cochran, Sherman: *Encountering Chinese Networks. Western, Japanese, and Chinese Corporations in China, 1880-1937*, Berkeley 2000; Cochran, Sherman: *Chinese Medicine Men. Consumer Culture in China and East Asia*, Cambridge et al. 2006; Chang, Ning Jennifer: *Vertical Integration, Business Diversification, and Firm Architecture. The Case of the China Egg Produce Company in Shanghai, 1923-1950*, in: *Enterprise & Society* 6/3 (2005), pp. 419-451; Chan, Kai Yiu: *Business Expansion and Structural Change in China. Liu Hongsheng and His Enterprises, 1920–1937*, Hong Kong 2006; Köll, Elisabeth: *From Cotton Mill to Business Empire. The Emergence of Regional Enterprise in Modern China*, Cambridge 2004.
12. ↑ Extracted from table 2.8. in Bergère, Marie-Claire: *The Golden Age of the Chinese Bourgeoisie 1911-1937*, Janet Lloyd, trans. Cambridge et al. 1989, p. 77.
13. ↑ *Ibid.*, pp. 64-66, 68.
14. ↑ *Ibid.*, pp. 66-68.
15. ↑ Rawski, *Economic Growth* 1989, p. 68.
16. ↑ Feuerwerker, *Economic Trends*, pp. 99, 102, 112.
17. ↑ Hou, Chi-ming: *Foreign Investment and Economic Development in China, 1840-1937*, Cambridge 1965, pp. 216-218.
18. ↑ Chai, Joseph C.H.: *An Economic History of Modern China*. Cheltenham et al. 2011, p. 81.
19. ↑ Bergère, *Golden Age* 1989, p. 70.

20. ↑ Chesneaux, Jean: *The Chinese Labor Movement 1919-1927*. Stanford 1968, p. 42.
21. ↑ Hershatter, Gail: *The Workers of Tianjin, 1900-1949*, Stanford 1986, p. 212.
22. ↑ Chesneaux, *Labor Movement*, pp. 206-210, 262-289; Wasserstrom, Jeffrey N.: *Student Protests in Twentieth Century China. The View from Shanghai*, Stanford 1991, pp. 96-124.
23. ↑ Wang (ed.), *Zhongguo jindai jingji shi*, pp. 224-225.
24. ↑ Rawski, *Economic Growth 1989*, p. 330, table 6.11.
25. ↑ Bergère, *Golden Age 1989*, p. 91.
26. ↑ *Ibid.*, pp. 86-87.
27. ↑ *Ibid.*, p. 91.
28. ↑ Li, Lillian M.: *The Silk Export Trade and Economic Modernization in China and Japan*, in: May, Ernest R., Fairbank, John K. (eds.): *America's China Trade in Historical Perspective. The Chinese and American Performance*, Cambridge 1986, pp. 77-102, here: p. 87.
29. ↑ Lin, Man-houng: *China's 'Dual Economy' in International Trade Relations, 1842-1949*, in: Sugihara, Kaoru (ed.): *Japan, China, and the Growth of the Asian International Economy, 1850-1949*, Oxford 2005, pp. 179-197, here: pp. 189-191.
30. ↑ Kose, Hajime: *Foreign Trade, Internal Trade, and Industrialization. Patterns of Regional Commodity Flows, 1914-31*, in: Sugihara (ed.): *Japan, China, and the Growth*, pp. 198-213, here: pp. 211-212.
31. ↑ Wang, Jingyu (ed.): *Zhongguo jindai jingji shi, 1895-1927 [An Economic History of Modern China, 1895-1927]*, Beijing 2000, vol. 1, p. 168.
32. ↑ Chang, John K.: *Industrial Development in Pre-Communist China. A Quantative Analysis*, Edinburgh 1969, pp. 110-111, table 34, table 36; Huenemann, Ralph William: *The Dragon and the Iron Horse. The Economics of Railroads in China, 1876-1937*, Cambridge 1984, p. 247; Feuerwerker, *Economic Trends*, pp. 91, 94-98; Rawski, *Economic Growth 1989*, pp. 213-215.
33. ↑ Sheehan, Brad: *Trust in Troubled Times. Money, Banks, and State-Society Relations in Republican Tianjin*, Cambridge 2003, pp. 101-109.
34. ↑ Bergère, *Golden Age 1989*, pp. 78-83; Rawski, *Economic Growth 1989*, pp. 128-145; Osterhammel, *Shanghai 1997*, pp. 69-70.
35. ↑ Feuerwerker, *Economic Trends*, p. 64, table 12.
36. ↑ *Ibid.*, pp. 63-71.
37. ↑ Siu, Helen F.: *Agents and Victims in South China. Accomplices in Rural Revolution*, New Haven 1989, pp. 88-97; Myers, Ramon H.: *The Chinese Peasant Economy. Agricultural Development in Hopei and Shantung, 1890-1949*, Cambridge 1970.
38. ↑ Feuerwerker, *Economic Trends*, p. 104.
39. ↑ Brandt, Loren: *Commercialization and Agricultural Development. Central and Eastern China 1870-1937*, Cambridge et al. 1989, p. 178.
40. ↑ For a critique of Brandt's work, see Chai, Joseph C.H.: *An Economic History of Modern China*, Cheltenham et al. 2011, pp. 83-84; Osterhammel, *Shanghai 1997*, p. 177.
41. ↑ Rawski, *Economic Growth 1989*, p. 344.
42. ↑ Huang, Philip C.C.: *The Peasant Economy and Social Change in North China*, Stanford 1985; Huang, Philip C.C.: *The Peasant Family and Rural Development in the Yangzi Delta, 1350-1988*, Stanford 1990; for a detailed evaluation of Huang's hypothesis, see Osterhammel, *Shanghai 1997*, pp. 177-181.

43. † Honig, Emily: *Sisters and Strangers. Women in the Shanghai Cotton Mills, 1919-1949*, Stanford 1986.
44. † One of the most successful, again, was Shanxi's Yan Xishan who through forestation, water conservation, training, and rewards managed to increase the amount of more lucrative cotton grown in his province threefold. See Gillin, Donald G.: *Warlord. Yen His-shan in Shansi Province, 1911-1949*, Princeton 1967, pp. 92-95.
45. † Feuerwerker, *Economic Trends*, p. 75.
46. † Zanasi, Margherita: *Saving the Nation. Economic Modernity in Republican China*, Chicago 2006, pp. 53-55.
47. † Klein, Thoralf: *Technologische Innovation oder soziale Revolution? Chinas Bauern in der Transformation der Agrargesellschaft*, in: *Geschichte und Gesellschaft* 33 (2007), pp. 575-611, here: pp. 586-587.
48. † Alitto, Guy S.: *The Last Confucian. Liang Shu-ming and the Dilemma of Chinese Modernity*, Berkeley 1986; Hayford, Charles W.: *To the People. James Yen and Village China*, New York 1990.

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