Shanghai-Based Industrialization in The Early 20\textsuperscript{th} Century: A Quantitative And Institutional Analysis

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Abstract:
A significant but uneven spurt of industrialization started in China during the first three decades of the 20th century at a time of political instability and national disintegration. This article argues that economic growth during this period was closely associated with the rise and expansion of major treaty ports designated under the Western imperialist framework. I focus on the political institutions of a city-state adopted in early 20th century Shanghai – the rule of law, secure property rights and provision of public goods – as a crucial determinant to such growth. Using a historical GDP framework, this paper shows that the Shanghai-based industrialization exerted a significant quantitative impact on her immediate hinterland, the Lower Yangzi region. Per capita income in the two Lower Yangzi provinces was 64% higher than China’s national average, and it had experienced a magnitude of growth and structural change between 1914/18 and 1931/36 comparable to contemporaneous Japan and her East Asian colonies.
Introduction

Max Weber remarked that cities in China or Asia in general, unlike those in the West, had no specific political role. The Chinese city had no city law, no political association of merchant and craft guilds backed up by independent military power, no privileges or freedoms granted by a charter (Weber, p.59). Cities in the West became inseparably linked to the rise of both the modern state and capitalism; but according to him, cities in traditional China were often the planned product of administration under a Centralized empire (p.61).

Around the time Weber was musing about the contrasting features of cities in the East and West, the Chinese Empire was crumbling. During the latter half of the 19th century, the Chinese response to Western imperialist challenge was timid and conservative. Reforms such as the Tongji Restoration and the Self-strengthening movement all aimed at the preservation of status quo with minimal or superficial modifications.¹ But the imperial and bureaucratic stupor was shattered in 1894-6 by China’s humiliating military defeat by Japan – long regarded as China’s humble student. The Late-Qing constitutional reform (1904-1911), itself modelled on the radical Meiji reform in Japan, marked a major ideological breakthrough and the beginning of fundamental institutional change.

¹ For the Tongji-Restoration, see Mary Wright. For the Self-Strengthening Movement, see chapters 9 and 10 in John K. Fairbank (ed.), The Cambridge History of China, Vol. 10.
Yet the reform never had the backing of a Meiji type of strong state. The Qing government by then was politically weak and fiscally insolvent, and eventually collapse in 1911. China’s new military ruler, Yuan Shikai, rolled backed some of the Late-Qing reforms, and abolished the local and provincial assemblies to reassert central control. Yuan’s own political fortune was short-lived. His death in 1916 marked the beginning of the Warlord era, which was to bring enormous damage if not complete disaster to the national economy. According to James Sheridan, the Warlords often brought terror and exploitation. “[Their] demand for money was insatiable and the militarists wrung an astonishing array of taxes from the population. They printed worthless currency on a large scale. …In many areas, the actions of organized crimes were less serious than hordes of uncontrolled soldiers who roamed the countryside preying on the peasantry” (p.318).

Warlordism did not always take on violently destructive forms as illustrated by the following example. In 1926, the Shandong warlord placed the manager of the Jinan branch of the Bank of China under house arrest. When the Bank agreed to lend the Shandong government 500,000 yuan, the threats against the Jinan manager ceased. Later, the manager of the Bank’s Tianjin branch noted, “Actually, if we had persevered some, the amount might have decreased a little” (Bret Sheehan, p.101).² The logic of

² House arrest, kidnapping and threats against bankers had become widespread practices by the warlords as revenue extortion, see Du Xuncheng (2000), pp. 2275-6.
Chinese warlord politics inspired Mancur Olson’s classic distinction between stationary and roving banditries (Olson, p. 568).³

Ironically, it was during this period of political instability and civil strife that saw the emergence of a significant and somewhat uneven spurt of industrialization. For example, the industrial output index constructed by John Chang for the period of 1912-1936 gave an annual rate of 10% (Chang, p.60-61). Calculations from the data compiled by Du Xuncheng showed that the nominal annual industrial investment by Chinese nationals in the period of 1914-1925 was 11 times that of the 1840-1911 period.⁴ A somewhat provocative study by Thomas Rawski even contended that China’s per capita GDP growth between 1911 and 1936 attained a rate roughly comparable to that of contemporaneous Japan.

How did economic growth come about in an era of political instability? This article argues that the missing link to this puzzle is the external or the Western imperialist factor. In the 19-20th century, Western Imperialism did not subjugate China to full colonization, but manifested itself as a series of trading rights, leased territories, treaty ports with

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³ Thomas Rawski disputed the extent of the Warlord damage to the Chinese economy by alluding to the limited scale and duration of such violence. Yet he agreed that “political unrest and civil wars made any long-range investment extremely precarious” (p.47). Rawski also argued that local rulers often promoted economic development (chapter 1, 1989). However, concrete evidence for actual economic growth under any of the local rulers was also wanting. See Sheridan (p.317, footnote 35) for a criticism of Rawski’s assessment.

⁴ The calculation is from Cheng Linsun, p. 41. Du used 1911 as the cut-off year, the contrast of industrial expansion versus stagnation would be even sharper if the cut-off period was the mid-1890s. Throughout this period, Chinese monetary standard was silver-based with moderate inflation.
extraterritoriality or spheres of interest. In the early 20th century when central control was weakened, Western treaty ports achieved rapid expansion at the expense of Chinese sovereignty. Most notable was the growth of treaty port cities of Shanghai, Tianjin and Wuhan, all strategically located in China’s major economic regions. In fact, these major treaty ports became the linchpin of economic growth in the first three decades of the 20th century. Large scale investment, modern banking and industry were disproportionately concentrated in those “pockets” of relative stability.

Clearly, these privileges and extraterritorialities were politically unjust and economically oppressive, but their expansion in an era of political chaos and national disintegration turned out to be a mixed-blessing mainly for two reasons. Firstly, some of these “privileges” happened to coincide with those necessary conditions for growth, namely, the security of property rights and contract enforcement, freedom from arbitrary taxation or official exaction, right to transparent rules and predicable jurisprudence and maintenance of peace and public order. Secondly, as shown later, these “privileges” in the treaty ports had often, legally or illegally, been utilized by Chinese business and residents.

This article focuses on the institutional change of the International Settlement area of Shanghai, China’s largest and most important treaty port territory ruled by Western business interest. I show that the phenomenal growth of Shanghai in the early 20th century directly benefited from the expansion of those “privileges” and autonomy which offered stability and predictability to the growth of not only Western but increasingly, Chinese business and industry. The so-called golden era of growth in the
1. Shanghai-based Industrialization: a Quantitative Analysis in the Regional Context

The Growth of Shanghai: a Quantitative Summary

Throughout the first three decades of the 20th century, both the growth and shares of modern industry and services were disproportionately concentrated in Shanghai, which alone produced about 40% of the national manufacturing output (including Japanese-controlled Manchuria) in 1933; housed 50 to 60% of cotton spindles throughout the 1910s and 1930s; and generated about 50% of the national electricity...
output in the 1920s, almost twice as much as the major British industrial cities such as Manchester and Glasgow.\(^5\) In 1931, Shanghai absorbed 34% of total foreign direct investment (FDI) in China and 67% of FDI in manufacturing; handled more than half of China's foreign trade and one fifth of its shipping business throughout 1896-1936; and boasted of 47.8% of the national financial capital in 1936 (Xiong, vol.1, p.19 and p.21, Zhang, Zhongli, p.313).

A new benchmark based estimate of Shanghai’s industrial gross output series in 1933 price compiled by Xu Xinwu and Huang Hanming confirmed its brisk pace of growth with annual compound rates of 8.7% and 9.6% for 1895-1936 and 1912-1936 respectively (Statistical Appendix, pp.311-342). Annualized growth rates among the benchmark years of 1911, 1925 and 1936 in Xu and Huang’s Shanghai index were in striking synchronism with those in the John Chang index for China, a confirmation of the predominant weight of Shanghai’s share in the national total.\(^6\) Rapid

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\(^{5}\) See Ma 2004, Appendix to Table 1. For the share of cotton spindle figure in Shanghai, see Editorial Committee, vol. 2, p.444.

\(^{6}\) The annual growth rates of the Chang index for 1912-1925 and 1925-1936 are 11.8 and 7.4% respectively; for the Xu and Huang index, they are 12 and 5% respectively. Note that part of the higher growth rate in the Chang index in the 1925-1933 period reflected heavy industry expansion in Manchuria under Japanese colonialism since 1931 (Chang, p.98-103, Xu and Wang, Statistical Appendix). The Chang index for China consisted of 15 industrial products covering between 40 and 57% of the total factory output (Chang, p.36). The Xu and Wang index for the total industry covers 9 sectors that include textile (cotton, silk and wool), flour milling, matches, and cigarette making, paper, pharmacy, and machinery repair as well as other sectors which are partly guess-estimated on the share of the 9 sectors in the total industry. Shanghai occupied a predominant share in the production of cotton and electric power, the first and the third largest items in the Chang index. The rapid growth of modern industry in Shanghai constituted the most
industrial growth saw Shanghai’s population double from only half a million in the 1890s, to over a million in the 1910s, only to triple again to about 3.5 million in the 1930s, making her the world’s seventh largest city (Murphy, p.22).

Towards the 1930s, industrial production in Shanghai was turning from labour-intensive consumer goods towards more capital-intensive sectors, with low value added sectors steadily migrating to other regions, particularly Jiangsu province. In 1933, the industrial output of Jiangsu province trailed only behind Shanghai and Japanese controlled Manchuria, with a share of about 13% of the total for China proper (not including Manchuria) (Makino and Kubo, table 2). The industrial belt that stretched along the Shanghai-Nanjing railroad constructed in 1908 produced about 79% of total Jiangsu industrial output (In and Tang, p.91).

While the rapid expansion of Shanghai induced a massive draw of labour for the Lower Yangzi and beyond, its capital and entrepreneurship flowed back in return. The Shanghai capital provided critical support for the rise of Nantong as an industrial city under the remarkable leadership of the scholar-bureaucrat-entrepreneur Zhang Qian. But the most direct impact of Shanghai industrialization could be seen in the transformation of the city of Wuxi from a market town in the early 1900s to China's fifth largest industrial city in the 1930s. The growth of Wuxi, largely driven by the massive capital flow from the Wuxi-born Shanghai industrial tycoons, important demand for coal, the item with the second highest share in the Chang index. These three items together accounted for over 50% and 80% of the Chang index in 1912 and 1933 respectively (p.76).
earned the city a new nickname in the 1920s and 1930s: “Little Shanghai.” (Yu Xiaobo, pp.241-248).\(^7\)

While there was no equivalent of the kind of technological and institutional transformation of its agrarian sector to those of Japan and her colonies in the same period, the Shanghai and Lower Yangzi industrialists were at the forefront of improving major industrial cash crops such as cotton and silk cocoons through the diffusion of new scientific seeds and practices. Industrialization also promoted large-scale diffusion of commercial fertilizers and power-driven agricultural machines such as water pumps, rice and flour millers (Ma Junya, pp. 67-79).

**Shanghai-based Industrialization: a Quantitative Assessment in a Regional Framework**

Unfortunately, these significant developments did not seem to register prominently within a national accounts framework for early 20\(^{th}\) century China. A major problem is that the modern industry, despite its vigorous growth, had a negligible share in the 1933 GDP - the entire modern sector and modern manufacturing being a mere 7% and 2.2% respectively – overshadowed by the predominant 60% share of the agricultural sector (Perkins p.119, Liu and Yeh, p.66). This led to a rather gloomy assessment of the economic performance between the 1910s and

\(^7\) For Shanghai investors’ financial involvement in the Nantong enterprise and later the Shanghai bankers’ direct financial and managerial control of the Dasheng business conglomerate in Nantong in the 1920s, see Elisabeth Koll, p. 63 and chapter 6. For the general spill-over effects of the Shanghai industrialization on urbanization in the Lower Yangzi region, see Ma Junya, Introductory Chapter.
1930s, characterized as one of “moderate industrial growth amidst agrarian stagnation and continued population expansion,” with an annual rate of per capita GDP growth at 0.33% per annum (Yeh, p.120).

This assessment was challenged by Thomas Rawski whose new estimate revised the annual growth rate of Chinese GDP per capita between 1914/18 and 1931/36 upward to about 1.1 and 1.2% respectively (Rawski, p.330), a rate not so far from the peak to trough annual GDP per capita growth rate of 1.42 and 1.64 for Japan between 1917 and 1931 (Ohkawa and Rosovsky, p.25). But Rawski’s upward revision hinged on a somewhat shaky reassessment of the agricultural sector performance, of which aggregate output data were notoriously poor.\(^8\)

The fundamental issue, however, is these assessments, or reassessments, based on a national framework have missed the highly regional and localized nature of growth in this era. Early 20\(^{th}\) century growth in China is also referred as Shanghai-based industrialization. Using a region-based production accounts, I re-examined the quantitative impact of Shanghai-based industrialization on the immediate hinterland of Shanghai, the Lower Yangzi region. My methodology there is to use

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\(^8\) Relying on the assumptions of a long-run perfectly competitive Chinese agriculture, Rawski used the growth rate of several scattered series of agricultural real wages to derive his real per capita agricultural output series between the 1910s and 1930s. The positive growth in real agricultural wages, converted by Rawski into a real 1.4-1.7% annual growth in per capita agricultural output, raised his overall 1930s Chinese per-capita income estimate 16% higher than the original Liu and Yeh estimate. But without this upward revision, his revised per-capita income would only become 6% higher than the original Liu and Yeh estimate and annual GDP per capita growth rate between the 1910s and 1930s would drop to about 0.5% (Rawski, p. 280-337).
provincial and regional level data to tease out the share of the two Lower Yangzi provinces (Jiangsu and Zhejiang) in the total net value added of all 13 sectors used by Liu and Yeh for estimating the 1933 national GDP.

Table 1 presents my result for the Lower Yangzi Province Net Domestic Product (NDP) for the 1930s with a detailed breakdown of all the 13 sectors. The details of data sources and calculations can be found in Ma (2004).

Table 1. Net Domestic Product by Sector of Origin for China and the Lower Yangzi Province in 1933 (in Billion Yuans)

<table>
<thead>
<tr>
<th>Net Value Added</th>
<th>China</th>
<th>Lower Yangzi Province</th>
<th>Lower Yangzi Province Share (in %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>18.76</td>
<td>2.81</td>
<td>15</td>
</tr>
<tr>
<td>Factories</td>
<td>0.64</td>
<td>0.37</td>
<td>57</td>
</tr>
<tr>
<td>Handicrafts</td>
<td>2.04</td>
<td>0.71</td>
<td>35</td>
</tr>
<tr>
<td>Mining</td>
<td>0.21</td>
<td>0</td>
<td>negligible</td>
</tr>
<tr>
<td>Utilities</td>
<td>0.13</td>
<td>0.059</td>
<td>45</td>
</tr>
<tr>
<td>Construction</td>
<td>0.34</td>
<td>0.1</td>
<td>30</td>
</tr>
<tr>
<td>Modern Transportation &amp; Communication</td>
<td>0.43</td>
<td>0.09</td>
<td>21</td>
</tr>
<tr>
<td>Old-fashioned transportation</td>
<td>1.2</td>
<td>0.29</td>
<td>24</td>
</tr>
<tr>
<td>Trade</td>
<td>2.71</td>
<td>0.76</td>
<td>28</td>
</tr>
<tr>
<td>Government administration</td>
<td>0.82</td>
<td>0.1</td>
<td>12</td>
</tr>
<tr>
<td>Finance</td>
<td>0.21</td>
<td>0.14</td>
<td>65</td>
</tr>
<tr>
<td>Personal services</td>
<td>0.34</td>
<td>0.082</td>
<td>24</td>
</tr>
<tr>
<td>Residential rents</td>
<td>1.03</td>
<td>0.25</td>
<td>24</td>
</tr>
<tr>
<td>Net domestic product</td>
<td>28.86</td>
<td>5.75</td>
<td>20</td>
</tr>
<tr>
<td>Per Capita NNP (yuan)</td>
<td>57.36</td>
<td>94</td>
<td>164%</td>
</tr>
<tr>
<td>Population (millions)</td>
<td>503.1</td>
<td>60.4</td>
<td>12</td>
</tr>
<tr>
<td>Land Area (10,000 square kms)</td>
<td>966</td>
<td>21</td>
<td>2</td>
</tr>
<tr>
<td>Cultivated Area (million shi mou)</td>
<td>1543</td>
<td>143</td>
<td>9.3</td>
</tr>
</tbody>
</table>

Sources: Ma 2005.

Thomas Rawski should be credited with the first estimate of GDP of the Lower Yangzi core region for the 1930s in an unpublished manuscript (1985), which unfortunately did not present details on his procedures.
Table 1 shows that, in 1933, the Lower Yangzi Province, with a population of 12%, contributed a share of 15% in agriculture, 35% in handicraft, 57% in modern factory output, 65% in finance and 45% in modern utilities services. Altogether the Lower Yangzi Province had a 20% share in China’s NDP, making its per capita NDP 1.64 times that of the national average. Output produced by modern factories had a much larger impact in the Lower Yangzi, with a share in NDP about 6.3% versus 2% for that in China. The ratio of modern factory output to total manufacturing output (that includes both factory and traditional handicraft production) was 0.36 for the Lower Yangzi versus 0.24 for China. This ratio would most likely put Lower Yangzi on about the same level as Japan in the 1900s or even the 1910s.\(^{10}\)

What of the growth dynamics for the Lower Yangzi in the period of 1914/18-1931/36? There was no 1914/18 benchmark GDP data for China. The ones used by Yeh and Rawski are based on backward projection using sectoral series of real growth rates for this period. I followed their methodology and applied Rawski’s revised series of sectoral growth rates in China for the Lower Yangzi Province, with the exception of modern factory output and financial services for which I used the real index for Shanghai. I also used the real growth rates for the agriculture sector originally used by Yeh. Clearly, my 1914/18 Lower Yangzi Province GDP

\(^{10}\) Factory output accounted for about only 4% and 6% of Japanese NNP in 1885 and 1900 respectively. The factory to manufacturing output ratio was 41.2% in 1895. Since the Japanese definition of factory (enterprises with 5 and more employees) was broader than the Chinese definition (enterprises with 30 and more employees), the Japanese figures should be adjusted downward. (Ohkawa and Rosovsky, p.15 and 80-2).
and real growth rates of the 1914/18-1931/36 period should be viewed as highly preliminary or almost “hypothetical” and are meant to examine how overall GDP growth rates vary in China and Lower Yangzi Province given their different sectoral weights. The back-projected estimates are presented in Table 2.

Table 2 confirms that the economic structures of the Lower Yangzi Province NDP in 1914/18 and 1931/36 were already significantly different from the primarily agrarian China, making the region more comparable to the industrialized Japan and her colonies. In particular, industrial growth exerted a far greater impact on structural change in the Lower Yangzi than in China, bringing an increase in percentage shares of industry in NDP more than twice that in China.

Table 2. Per capita NDP and Structural Composition in East Asia in 1914-1918 and 1931-1936 (in 1930s Chinese Yuan)

<table>
<thead>
<tr>
<th></th>
<th>China</th>
<th>Lower Yangzi Province</th>
<th>China</th>
<th>Lower Yangzi Region</th>
<th>Japan</th>
<th>Taiwan</th>
<th>Korea</th>
<th>Manchuria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1914-1918</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>71%</td>
<td>57</td>
<td>52</td>
<td>29</td>
<td>48</td>
<td>66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>8</td>
<td>15</td>
<td>17</td>
<td>20</td>
<td>29</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td>21</td>
<td>28</td>
<td>31</td>
<td>51</td>
<td>23</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per Capita NDP</td>
<td>52.44</td>
<td>80</td>
<td>90</td>
<td>161</td>
<td>102</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As % of China</td>
<td>100%</td>
<td>153</td>
<td>172</td>
<td>305</td>
<td>195</td>
<td>122</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1931-1936</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>65</td>
<td>49</td>
<td>43</td>
<td>19</td>
<td>44</td>
<td>53</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>10</td>
<td>19</td>
<td>22</td>
<td>28</td>
<td>27</td>
<td>13</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td>25</td>
<td>32</td>
<td>35</td>
<td>53</td>
<td>29</td>
<td>34</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Per Capita NDP</td>
<td>57.36</td>
<td>94</td>
<td>107</td>
<td>203</td>
<td>132</td>
<td>77</td>
<td>69</td>
<td></td>
</tr>
<tr>
<td>As % of China</td>
<td>100%</td>
<td>164</td>
<td>187</td>
<td>354</td>
<td>230</td>
<td>134</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>Annual per capita NDP Growth rate between 1914-18 and 1931-36</td>
<td>0.57</td>
<td>0.94</td>
<td>1.1</td>
<td>1.4</td>
<td>1.5</td>
<td>1.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population (million) in 1931/36</td>
<td>503.1</td>
<td>60.4</td>
<td>45.33</td>
<td>67.2</td>
<td>5.1</td>
<td>21.2</td>
<td>38.7</td>
<td></td>
</tr>
</tbody>
</table>

Source Notes: Ma (2004).
In Table 2, I also derive a crude per capita income ratio estimate for the Lower Yangzi Region, which excludes the areas of Northern Jiangsu and Southern Zhejiang from the Lower Yangzi Province by assuming the per-capita income of the excluded Northern Jiangsu and Southern Zhejiang prefectures as equal to China’s national average (including that of the Lower Yangzi Provinces). The geographic classification of the Lower Yangzi region corresponds to William Skinner’s work on China’s macro-regions. Those excluded Northern Jiangsu and Southern prefectures are geographically, economically and to a certain degree are culturally distinct from the Lower Yangzi region. The following is a map that delineates the boundary of the region.
Notes: The bold dark lines mark the provincial boundaries of Jiangsu and Zhejiang. The ten macro-regions that Skinner defined are Manchuria, North China, Northwestern China, Upper, Middle and Lower Yangzis, Yungui, Lingnan and Southeast Coast. For detailed boundaries of macro-regions, see Skinner, 1985, p. 273.
For Jiangsu province, the Lower Yangzi Core includes the prefectures of Suzhou, Songjiang, Jiangnin, Changzhou, Taichang and the City of Shanghai; the region includes the additional prefectures of Zhengjiang, Yangzhou, Tongzhou, Haimen, Haizhou. For Zhejiang province, the Core includes Hangzhou, Jiaxing, Huzhou; the region includes also the prefectures of Yanzhou, Caoxin, Ningbo, Cuzhou, Jinhua.
Annual per capita NDP growth in the Lower Yangzi Province during this period was almost twice that of China. Thus, even without the “Rawskian” type of upward revision in the agricultural output growth, Lower Yangzi region per capita NDP had already attained growth rates of 1.1%, comparable to those of Japan and her colonies during this period. This also implies that the gap in per capita income between the Lower Yangzi and China as a whole widened in the first three decades. Preliminary comparisons based on the 1930s exchange rates also show that per-capita income in the Lower Yangzi, were far higher than those of Korea and Manchuria, ranked third only after Japan and Taiwan. But with its population almost the size of Japan and more than 10 times that of Taiwan in the 1930s, Lower Yangzi had clearly emerged as the second largest industrial region in the entire East Asia (perhaps Asia).

Clearly, any casual statements linking these growth figures to human welfare would have to hinge on further research on consumption and income distribution. However, recent anthropometric studies provide some surprisingly congruent evidence in support of a regional pattern of growth in China. Stephen Morgan, whose statistical study based on thousands of height records of railway employees, concludes that from the last years of the 19th century to the second half of the 1920s, average male stature in China increased 0.25cm per decade compared with the 0.7cm per decade for the Lower Yangzi provinces (including Shanghai). This 0.7 cm per decade height increase in the Lower Yangzi is only slightly lower than the 0.91 cm per decade increase for Japan between 1892 and 1937. In fact, Morgan’s regional figure for the railway skilled workers shows that
excluding the Lower Yangzi adults, average heights in North China, Middle-Yangzi and South China show either stagnant or fluctuating trends from 1890-94 to 1925-29. These evidences lead him to conclude a spatially differentiated and uneven pattern of economic growth, contradicting Rawski’s claim of a sustained rise in per capita consumption across the whole of China.\textsuperscript{11}

2. The Growth of Shanghai: an Institutional Narrative

The Rise of a City-State

In the traditional Lower Yangzi, Shanghai was a market town at the periphery of Suzhou city. After opening as a designated treaty port after the mid-19\textsuperscript{th} century, Shanghai began to grow and evolved into a city with three governments – the International Settlement, the French Concession and the Chinese quarter. The International Settlement, produced by a merger of the British and American concession quarters, started as a segregated community for Western expatriates. But following the massive influx of Chinese refugees during the Taiping rebellion, the Settlement authority, pressed by real estate merchants, began to accept Chinese residents after 1854.

\textsuperscript{11} See Morgan, figure 6 and concluding statement. Morgan’s classification of regions roughly corresponds to that of Skinner. For Japanese height data, see Ted Shay. According to Mituhiko Kimura, height increase in Korea remained dubious despite the per capita GDP increase in the colonial period.
The political institutions of the International Settlement evolved from a typical colonial enclave towards a city-state when it established a Municipal Council whose members were elected and represented by the business class. It had its own mini-constitution, the Land Legislation. As part of the extraterritorial rights, the Settlement had independent legal jurisdiction over disputes involving its own citizens or its citizens against Chinese. It had its own independent court, a so-called volunteer army, a police and prison system, and relied on land and property taxes as its revenue. To check against possible abuse of power by the Municipal Council, the Settlement established an independent Court of Consuls that would handle legal suits against the Council. This institutional structure placed the Settlement on a foundation of limited power and rule of law.¹²

In comparison with the Chinese quarter governed by the local Qing government, the business-dominated Municipal Council was far more efficient in the provision of public goods (or semi-public goods) ranging from the maintenance and improvement of port facilities, public roads and transportation, light, water and electricity supply, and a modern communication system (Elvin 1996, p.177).

The industrialization of Shanghai truly took off after the treaty of Shimonoseki imposed on China after the Sino-Japanese war in 1896; it

¹² Archival materials revealed by Shen hui show that the Municipal Council quite often lost suits including those cases involving Chinese litigants, see pp. 215-228. For a classic study on the importance of rule of law as a guarantee for private property rights in England, see North and Weingast. For a study of the European city-states as driving engine of growth in the pre-Industrial Revolution era, see DeLong and Shleifer.
granted foreigners the rights to establish industrial enterprises in the treaty ports, lifting the floodgate for massive foreign direct investment. More importantly, as part of the self-government movement under the Qing constitutional reform, Chinese gentry and merchants set up their Shanghai City Council in 1904, and practiced what Mark Elvin called “gentry democracy” in the Chinese area, a direction imitation of the Municipal Council in Western Shanghai. It experimented with the separation of power between the legislative and executive branches, having open debates and majority votes, standardizing tax collection (in place of tax farming), maintaining and improving public facilities, developing its own merchant militia, courts of justice with elected judges, and promulgating various regulative laws and moral codes, that seemed like a distant echo to Lee Kuan Yew’s modern Singapore. The Council was remarkably corruption-free (Elvin 1996, chapters 5 and 6).

In 1913, Yuan Shikai’s policy of re-centralization forcibly ended this short-lived Chinese experiment of local self-government. By then, only Western Shanghai survived and thrived in the wake of Qing’s collapse, backed by international treaties, and more importantly Western gunboats. By 1911, the International Settlement and the French Concession managed to extend their territories in Shanghai to an area as large as 1.5 times the total size of the international settlements in the other 23 treaty ports in China (Fei Chenkang 1991). When the Qing magistrate in Shanghai absconded - allegedly with public funds - during the 1911 revolution, the International Settlement seized control of Qing’s Shanghai Mixed Court and began to appoint its own Chinese personnel. By then,
Western Shanghai became a de-facto city-state with full territorial jurisdiction over its residents Western, or Chinese, a feature that set it apart from the rest of the foreign concessions in China.

The Shanghai Mixed Court, according to Thomas Stephens’ study, was to become an indispensable legal arm of the Settlement administration for the period 1911-1927 under which Shanghai was to witness unprecedented growth. The Mixed Court afforded Chinese residents protection from exploitation and personal violence. The Court refused to recognize the validity of any attempt by any authority outside the settlement to levy, however lawfully, any taxation upon any person within the settlement beyond what was approved by the settlement authority. “Throughout all the political vicissitudes of the Yuan Shikai era…, throughout all the marching and countermarching of the armies of the warlords and their murdering marauding hordes, the Mixed Court carried out the consuls’ policy of protection of resident Chinese and their business and property, unruffled and undisturbed. … Shanghai remained an oasis of peace, order and good government, in a China torn into convulsions by revolution, banditry and civil war.”

More importantly, in their devotion to an ideal of dispute resolution according to predetermined, known, and rigid standards, the court assessors’ attempts to construct a framework of fixed universal rules in the style of the adjudicative mode of Western jurisprudence brought legal

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13 See Stephens, pp.104-6. For a comparison with the taxation system in Shanghai and the Mixed Court’s repeated trials of illegal Chinese taxation in the Settlement, see Feetham, pp.103-7.
certainty and calculability, often missing or absent in the traditional Chinese legal system. It was this kind of certainty that made it possible for large modern corporations such as banks, insurance companies, and steamship lines to exist and flourish.\(^{14}\)

Perhaps more important is the impact of the rule of law on the psyche of the average residents in Shanghai as illustrated by the following observation made in 1917: “The Chinese residing in the International Settlement have numbered 800,000. Although they are unspeakably low in knowledge and [education] level, under the influence of British custom, their habit of following the law is superior to [the people in] the interior…. [In the interior] officials bully the people and the people dare not resort to the law, whereas the residents in the Settlement all know that detaining people without warrant is kidnapping, and a kidnapper, whether an official or a common people, would be punished.”\(^{15}\)

The importance of legal and institutional change is borne out by recent studies on the growth of real estate in Shanghai. Modern property rights adopted in the Settlement – particularly its transparency and security – laid the very foundation for the rise of modern real estate that further triggered the growth of modern banking.\(^{16}\) Zhao Jin’s work shows that land

\(^{14}\) See Stephens pp.107-8. Also see chapters 1, 2 and 3 for an insightful study of the Chinese traditional legal system.
\(^{15}\) Quote cited in Xiaoqun Xu, p.41.
\(^{16}\) For a careful analysis of the impact brought by Western private property rights system to the Lower Yangzi, see Ma Xueqian, *Chu Chuantong Dao Ginda*, chapter 3. For the Foreign Concession land certificate (Daoqi) serving as the most secure loan collateral, see Zhao Jin, *Zhongguo Chengshi Faodicaiyi Shiren*, chapter 1.
values per mou in the International Settlement shot up by a stunning 20 times between 1865 and 1930, with a three fold increase between 1911 and 1930 (p.145). More importantly by 1930, the average per mou land value in the International Settlement was over 26 times that of the entire Chinese quarter and three times that of the highest-valued area in the Chinese quarter, the Nanshi district, which was also adjacent to the financial centre within the Settlement.\textsuperscript{17}

A similar pattern could be found in the geographic distribution of business establishments. Data culled by Marie-Claire Bergere illustrates that over 70\% of highly contract-intensive sectors such as banks, insurance, trading and other service companies were located in the International Settlement whereas only less than 20\% - mostly traditional native banks and pawn shops - were in the Chinese Quarter. For a capital intensive sector such as the mechanical engineering industry, 84\% of establishments were situated in the Settlement area. On the other hand, only about 60\% of factories in relatively labour-intensive sectors such as textiles and food-processing industries were built within the Settlement while the Chinese Quarter took in more than 30\%.\textsuperscript{18}

The role of the Mixed Court in the rise of Shanghai's emergence as a financial centre is best illustrated by the dramatic 1916 incident of the bank-note suspension order. In the 1910s, Beijing was another important

\textsuperscript{17} Overall, per mou land values in the Settlement was and about 28\% higher than that of the French Territory (Zhao, p.153 and 156). For Daoqi see Ma Xueqian, chapter 3 and Zhao Jin, chapter 1, also Feetham pp.317-348.
\textsuperscript{18} Bergere (1986) Table 3.3 on pp.108-9.
financial centre thanks to the presence of the large state-backed banks such as the Bank of China and Bank of Communication. However, in 1916 the Republican government in Beijing resorted to the printing press for fiscal revenue and ordered the suspension of paper note conversion to silver - a move that was to bring panic and ruin to financial sectors throughout China. However, with the backing of the Mixed Court, the Shanghai Branch of the Bank of China successfully resisted the order. 1916 became a turning point where Shanghai was to emerge as China’s sole financial centre. Subsequently, the Shanghai bankers were to play a leading role in the privatization of the government state banks and induced the rise of a modern Chinese banking sector, with almost all the key banks located in foreign concession areas of large treaty ports. By 1925, the share of capital power by Chinese banks reached 41%, higher than the 37% held by the once dominant Foreign Banks.\(^{19}\)

The Shanghai City-state, as a model of free market, free trade and banking, and a relatively strong legal system, had given birth to a new generation of Chinese entrepreneurs who came from modest backgrounds to fortune without the bureaucratic patronage and rent-seeking tendencies which so often characterized the traditional merchants or the bureaucratic merchants of the Self-strengthening era. While entrepreneurs of the Lower Yangzi region natives dominated its business class, Shanghai had become

\(^{19}\) For details of the note suspension incident and the role of Shanghai Bankers’ Association in privatizing modern state banks in China and the shares of capital power, see Chen linsun, pp. 54-59, pp. 59-62, pp.162-168, p.241. For the contribution of modern banks to China’s monetization, see Rawski 1989, pp.155-179.
a magnet for Chinese merchants nationwide. Xue and Wang’s data showed that shares of Chinese ownership in nine major Shanghai modern industries had been consistently higher than those of foreign ownership throughout the 1910s-1930s. Western Shanghai, from a colonial perspective, had induced far more vigorous indigenous entrepreneurship than Japanese colonialism did in Taiwan and Korea, or Manchuria. In fact, Japanese entrepreneurs themselves had thrived in the highly competitive and multi-national Shanghai.20

But most important of all, it was the Foreign Concession’s long-standing stance on freedom of association, press and speech that generated far-reaching and long-lasting impact. Shanghai, which boasted of China’s most vibrant civil society with multiple layers of commercial and social organizations, had, by the 1920s, emerged as the new intellectual capital of the New Cultural Movement, ushering in what Marie-Claire Bergere famously declared as Chinese bourgeoisie’s Golden Age.21

But the Shanghai city state was no model democracy. It had limited representation even among the Western residents, and worst of all, the Municipal Council had, until 1927, obstinately refused representation of the Chinese residents, its largest tax contributors. The existence of Western Shanghai, rife with racial hierarchy and social discrimination, was a daily

20 Xue and Wang, p. 341. For share of Japanese capital in industries in Taiwan and Korea especially in large scale establishment, see Mizoguchi and Umemura, p.77.
21 The Settlement harbored numerous Chinese organizations such as the General Chambers of Commerce or the Shanghai Bankers’ Association or even the Native Bankers’ Guild, see Bergere (1986) pp.123-139 and Parks Coble pp.13-28 for a summary. For intellectual and cultural developments, see Bergere (1981) pp. 12-3.
reminder of Western colonialism and a constant incitement to nationalism. Short both on legitimacy and representation, the strength of Western Shanghai only lay in the weakness of the empire.

Cite-State in the Shadow of an Empire

The empire returned. The Nationalist regime founded in Nanjing in 1927 became an immediate threat to the autonomy of independent Western Shanghai, but did bring relative peace and stability to the Lower Yangzi, if not China. Ten years later, the Nationalist rule in the Lower Yangzi was usurped by the Japanese occupiers. It was an irony of fate that Japanese imperialism officially ended a century of Western Shanghai in 1941 (Fei, p. 415). Shanghai capitalism, nonetheless, survived till the day when Communist troops marched into the heart of the City’s commercial district in 1949. It was then that Shanghai’s once glaring evening city-lights—a symbol of its freewheeling spirit of capitalism—were shut along with China’s door to the outside.

Meanwhile, Chinese capitalism went on the run. Shanghai capitalists streamed into colonial Hong Kong, where their capital, industrial skills, entrepreneurial vision were, as acknowledged by the Hong Kong government, to have given the City a ten to fifteen years’ head-start in industrialization over many other Asian countries (Wong Siu-lun, p.2). In Nationalist ruled Taiwan, the educated elites from the Lower Yangzi region

22 For a critical assessment of the Nationalist government’s economic policies and conflict with Shanghai capitalists, see Parks Coble and Bergere (1986), Epilogue.
were to form the majority of its economic planners and technocrats. It was in these new Chinese peripheries that capitalism, spared from annihilation, blossomed into two East Asian miracles.

**Conclusion**

Cities in the West from Antiquity to the Medieval period were regarded by Weber as forming a crucial transitional phase to the rise of modern state and capitalism. The institutional transplantation of a Western-style city-state in 20th century Shanghai seems to offer us the missing link to unlock the enigma of the rise of Chinese industrialization in a phase of political instability and national disintegration. The political institutions of the Shanghai city-state engendered profound changes in property rights regimes, the contract enforcement mechanism, fiscal organization, civil societies, and the provision of public goods. The emphasis by this article on institutional change as a determinant to the rise of Shanghai-based industrialization is a major departure from most pre-existing explanations based on geography, agglomeration and technological spillover.24

Against the long history of the Chinese empire, the life-cycle of Shanghai as a city-state seemed like a fleeting second. By the late 1920s,

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23 See Alan P. L. Liu, p.49.

24 For the pre-existing explanations, see Rawski, 1985, Introductory Chapter and also Elvin, p.315.
her autonomy was already sharply curtailed under the rising tide of nationalism. After 1949, Shanghai, like all cities before, returned to being an administrative district - albeit an important one - of a highly centralized state. But the full extent of its historical implication is yet to be grasped. In China’s centralized political structure, spirits of innovation were perennially short of political space and often survived precariously at the fringe of the empire. Thus, this article, amidst the current swirl of excitement about the imminent rise of the world’s largest economy, is a reminder about the historical importance of that small space of autonomy which had once supplied refuge to a risk-taking, often beleaguered “minor” China, the rise of which opened up a new horizon for an ancient civilization.
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