

‘Sweet and Sour Confucianism’. The Impact of Culture on the Qing State and the Fate of the Qing Empire

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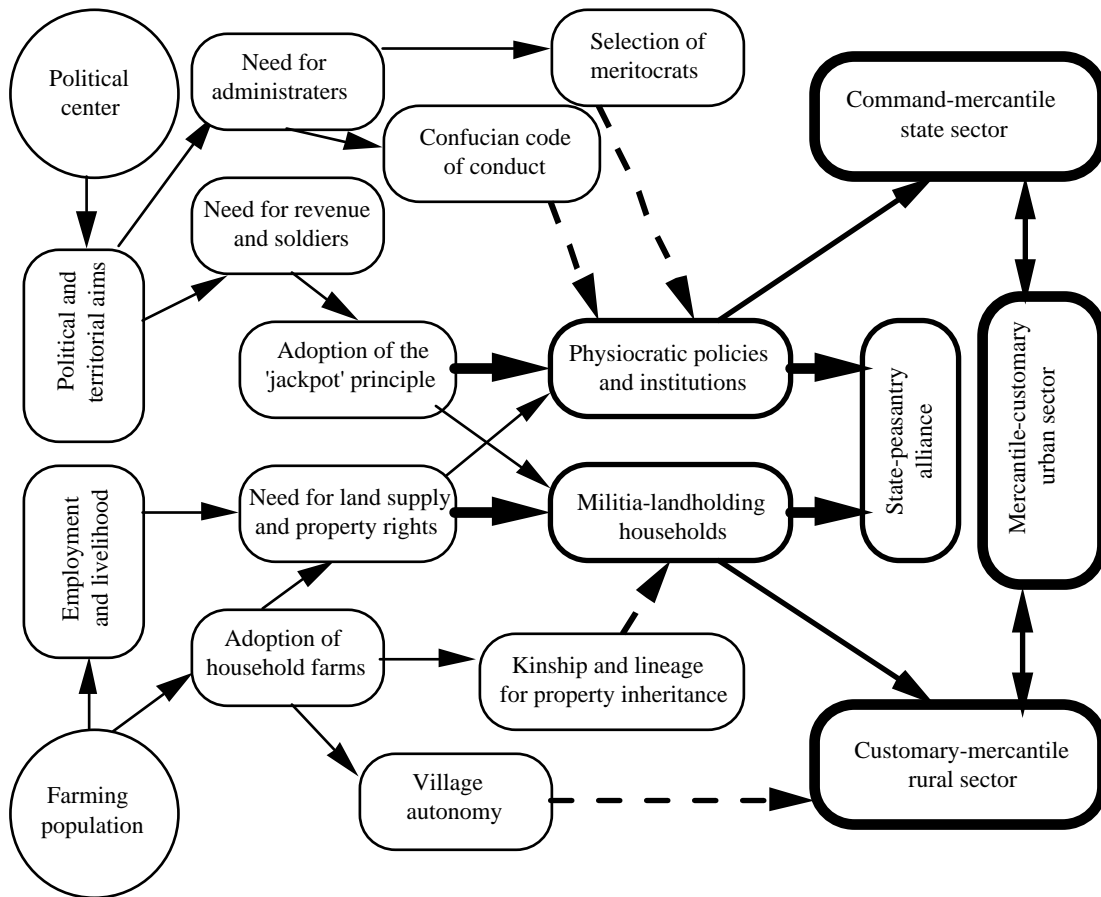
Abstract

This paper examines the success and failure of the Qing state to see the impact of Confucianism on the growth trajectory during the Qing. It argues that due to the commitment to benevolent rule Confucianism and the Confucian state nurtured the growth of a privately owned, small-holding based agrarian economy but discouraged a state-led urban industrial growth. It cost the Empire in the end.

A. Background: Confucian Political Economy of the Empire of China in the Long Run

The key players in this political economy were (1) the landholding peasantry and (2) the fiscal state. (3) Confucianism functioned as a broker between the two parties by helping create and maintain a symbiotic ‘peasant–state alliance’. The Confucian state provided the peasantry with vital services regarding property rights over land, basic law and order and national security. In return, the peasantry fed the Confucian state with revenue and manpower for the standing army along the empire’s frontiers (see Figure 1).

Figure 1. Political Economy of the Empire of China in the Long Run



B. Sweet Confucianism: the Great Success of the Qing State, 1644–1840

The whole concern of the ruling Manchus was how to win the hearts and minds of the Han Chinese who constituted the vast majority in society. The Manchus were fully aware that what allowed them to rule China was circumstantial: their entry to China proper was by the invitation of the Ming General Wu Sangui (1612–78) in a desperate bid to defeat a powerful

rebellion, headed by Li Zicheng (1606–45?), which succeeded in toppling over the Ming Dynasty in the Fourth Month of 1644 (Chinese calendar). Wu resorted to an alliance with an external enemy of Ming China on the other side of the Great Wall, the Manchus, and used their forces as mercenaries.

Li's rebellion was promptly crushed. But the Manchus did not honour their deal with Wu, stayed and consequently ruled China. For the rest of the Qing Period, the Manchus had to redeem themselves with a good Confucian behaviour for the sake of their legitimacy. This they did rather successfully. It is documented that Fan Wenjin (1596–1665), the most trusted adviser of the second Manchu Emperor Shunzhi (r. 1644–61), sent in a memorial to the throne that the Qing army should be highly disciplined after entering China proper, ex-Ming officials should be re-employed, and ordinary people's livelihood returned to normal. His advice was accepted. As a result, the last Ming Emperor, the victim of the Ming rebellion, was buried in a state funeral organised by the Qing authorities, ex-Ming officials were recruited and the Ming laws and regulations were consulted.¹ But that was only the beginning.

1 Voluntary Sinicisation and Confucianisation

The Qing was a successful dynasty not only in terms of the complete and voluntary Sinicisation and Confucianisation on the Manchu's part as the conquerors but also in terms of economic prosperity that the Chinese institutions were able to offer. In the nutshell, the Qing dynasty was characterised by a benevolent rule over a fundamentally private economy.

First of all, the Manchus did not repeat the senseless bloodbath committed by the Mongols who conquered China in the thirteenth century; nor did the Manchus exclude the Chinese from any sector of the economy or

¹ See Zhao Erxun 1927. Zhao's history is commonly recognised authoritative for the Qing dynasty, ranked equally with all the official histories of the other dynasties.

state politics.² Rather, the Manchus tried to maintain a moral high ground and portrayed themselves as the saviour of the Chinese. The name of the dynasty ‘Qing’, meaning ‘clean’ or ‘cleaner than the predecessor of the Ming’, says it all.³

Secondly, the Manchu rulers advocated the Ming idea of ‘a united China where the Han and non-Han are the same’ (*tianxia yitong, huayi yijia*).⁴ This was done with the tacit recognition that the Han Chinese were culturally superior. So, the Ming Imperial Palaces was carefully preserved (including all the names of the buildings and gardens). The Ming Imperial tombs were carefully protected.⁵ Most extra-ordinarily, in the winter of 1684, Emperor Kangxi (r. 1662–1722) paid his personal respect in Nanjing to the mausoleum of the founder of the Ming. He humbly kneeled and kowtowed at the tomb (*sangui jiukou*), the highest etiquette only to the throne.⁶ The Chinese language was recognised as an official language and was eventually mistaken as the “Manchu language” by the outsider (and hence the word “Mandarin”), while the original Manchu Mandarin was lost.

Thirdly, all the key Ming institutions remained intact. All the Manchu emperors were strictly educated from a very young age by top Chinese scholars. They all became capable calligraphers of the Chinese language. Ming administration and laws were religiously copied. Private property rights

² Undeniably, from 1663 to 1756 there was a control over the media by the Qing Court, known as *wenzi yu*, meaning ‘incrimination by writings’. It has been wrongly translated into ‘inquisition’, as the ‘crime’ was of ‘political incorrectness’ and had nothing to do with religion. There were 65 cases in all. Only a tiny number of Chinese intellectuals (a few hundreds) were affected, far less than any of Mao’s political purges. It thus can be ignored. See Literature Department, 1986.

³ According to Fairbank, “[T]he Manchus by the time they came to power in China had already mastered the Confucian art of government and reconciled their own political institutions with it”; see Fairbank, 1965.

⁴ Dong Lun c. 1399 A.D.

⁵ Wei Zaitian, Xu Xuechu and Li Yawei (1995).

⁶ Wei Zaitian, Xu Xuechu and Li Yawei (1995).

(over land in particular) were defined and protected. The Ming bureaucrat recruitment system by Imperial Examinations and official meritocracy were inherited.

2 Confucian social mobility and meritocracy

A key area to achieve the continuity in the social life in China was to maintain the well established mechanisms of Confucian social mobility and meritocracy. This was carried out with a great care by the conquerors. The Ming triennial Imperial Examinations for recruitment of bureaucrats was inherited from the first Qing Emperor (Shuizhi, r. 1644–61) onwards with all the Ming rules intact: The last Imperial Examination under the Ming took place in 1643, while the first Qing examination began in 1646 for military officers and 1647 for civil servants. The interval was three years with no undue gap.⁷ There were in all 122 examinations for civil servants from 1647 to 1908 and 102 examinations for military officers from 1646 to 1899. The impact of those examinations on the stability of Qing society cannot be overstated.

From the data of all the Qing Examination Champions (*zhuangyuan*), the winners were overwhelmingly Han Chinese:⁸

	Manchus, % in total	Han Chinese, % of total
Winners of civil examinations	2.7	97.3
Winners of military examinations	2.8	97.2

Evidently, the old Confucian class mobility via education was well preserved.

⁷ See Song Yuanqiang 1992.

⁸ Song Yuanqiang 1992.

3 Power-sharing with the Han Chinese

By Qing law, official positions were shared amongst Manchus, Han Chinese and Mongols. Amongst the high ranking positions (1st–3rd Grades) in the Qing central administration, including the cabinet and six government ministries, a careful balance was maintained with which the Han Chinese claimed about a half of all. More Manchus were employed only in the medium and lower ranking positions. The Mongols were marginalised. Even in the military forces where the Manchus (and the Mongols) had the clear comparative advantage due to their nomadic root, positions were deliberately shared with the Han Chinese, especially at the higher rank.

This is a ‘top-heavy’ pattern for the Han Chinese, as at the top ranks they disproportionately gave more orders to their Manchu (and Mongol) subordinates. Table 1 shows how it worked.

Table 1. Ethnic Distribution of Qing Officials and Officers, Percentage Shares

	<u>Manchus</u>	<u>Han Chinese</u>	<u>Mongols</u>	<u>Total</u>
I. 1 st –3 rd Grades				
Civil officials*	52.5	45.9	1.6	100
Military officers†	38.5	38.5	23.0	100
II. 4 th –6 th Grades				
Civil officials*	63.1	32.7	4.2	100
Military officers†	57.7	24.4	17.9	100
III. 7 th –9 th Grades				
Civil officials*	77.6	16.4	6.0	100
Military officers†	40.9	31.8	27.3	100
Total (I+II+III)	59.4	25.5	15.1	100

Source: TBI.

Note: *Positions in the Qing central administration only. †Officers of the elite Qing Banners.

As one moves down from the Qing administrative pyramid to the provincial, prefecture and county levels, proportionally more and more Han Chinese were in charge. This is demonstrated at the Governor-General level (the First in Waiting Grade or the Second Grade), the most powerful position outside the central administration. They oversaw the day-to-day running of one or two provinces which were the empire's basic production, consumption and tax-paying units. Thus, they formed the key link between Beijing and the rest of the empire (*fengjiang dali*, meaning 'Executives of the Empire's Territory'). During the entire Qing Period, there were in all 335 appointments of Governors-General (normally Imperial Degree holders with demonstrated skills of state craftsmanship). A total of 234 of them went to Han Chinese, 96 to Manchus, and 5 to Mongols.

It is important to note that after the Opium War (1840), it is the officials/officers of the Han origin that played the leading role in the day-to-day maintenance of law, order and morals in society, in dealing with foreign powers, and in the major events such as the crackdown upon the Taiping and Nian rebellions during the 1850s and 60s, the push for westernisation and self-strengthening during the 1860s to 1890s, the trial of constitutional monarchy in 1898 and 1906.⁹

It is no exaggeration that from 1850 the latest, the Han Chinese formed the backbone of the Qing administration and ran the Qing Empire while the Manchus were marginalised. There is no evidence to show that such marginalisation was involuntary on the Manchu part. But during both

⁹ Amongst them the most prominent were Zeng Guofan (1811–72), Zuo Zongtang (1812–85), Shen Baozhen (1820–79), Li Hongzhang (1823–1901), Zhang Zhidong (1837–1909), Yuan Shikai (1859–1916), Yan Fu (1854–1921), Kang Youwei (1858–1927), Tan Citong (1865–98), and Liang Qichao (1873–1929).

the 1850 Taiping Rebellion and the 1911 Revolution,¹⁰ the Qing state was attacked as the ‘Manchu apartheid regime’ (*manzu zhengquan*) and the Qing officials were demonised as the ‘Manchu devils’ (*qingyao*). The rebels and revolutionaries clearly barked the wrong tree.

4 Benevolent rule

Behind its deliberately preserved extravagant and mighty façade, the Qing ‘Confucian state’ was limited regarding its influence on the economy.¹¹ The functions of that state were to (1) promote Confucian values for social stability, (2) promote economic activities for tax revenue, (3) provide some public goods and services (such as the Grand Canal and public granaries) for national defence, law and order on the macro-level, and emergency relief (against famine and violent price fluctuations).

Although reluctant, Dr. Sun Yat-Sen once openly admitted that ‘Unlike the Europeans and Americans, the Chinese never hated their emperor so much. This is because the Emperor of China was not as nearly despotic as his European counterparts.’¹² If true, Sun’s revolution was completely redundant. This is something that we will discuss later.

(a) Laissez-faire

By not doing much by and large, the Qing state achieved a considerable degree of prosperity, activating the ultimate dream of *wuwei erzhi* of Taoism, which can be roughly translated as ‘governance by *laissez-faire*’.

¹⁰ The 1911 Revolution was at its time openly called *paiman gemin*, literally ‘the revolution to expel the Manchus from the state power’. Racism was its birthmark.

¹¹ Deng 1993.

¹² Sun Zhongsan 2000.

A great deal of research both in the English and Chinese languages has shown that the Qing economy was very productive by premodern standard upon which a decent living standard was achieved and maintained, although, ironically, many recognised the Qing economic achievement as a stage of the Ricardian ‘stationary state’. For example, Mark Elvin speaks of a ‘high-level equilibrium trap’ referring to a situation where resource allocation, market capacity, technology advancement and population density all reached their premodern maxima during the Qing Period;¹³ while Pomeranz indicates a ‘resource endowment plateau’ for the same period when China reached its production probability frontier with its given resource bundle.¹⁴

But every one agrees that the Qing economy was overwhelmingly a private economy. In the eighteenth-century, as much as 92 percent of the registered land in China was privately owned.¹⁵ The proportion remained 80 percent at the end of the nineteenth century.¹⁶ Among these property owners, smallholders were the majority.¹⁷ Logically, if a private economy is allowed to flourish for a long time, the state is not an excessive rent seeker. This judgment is historically accurate, as so many times socialist and communist states in the recent past abolished and plundered a private economy, sending people’s livelihood to the very bottom. Also, logically, if an economy of small holders enjoyed a high living standard, the society must have been reasonably egalitarian.

In this context, unlike the Mongol Yuan, the Qing had no equivalent of Grand Bureau for Agriculture (*da sinongsi*) or Bureau for Maritime Trade (*shibosi*) devoted to agriculture and commerce (or any such sector). Instead,

¹³ Mark Elvin 1973.

¹⁴ Kenneth Pomeranz 2000.

¹⁵ A. Feuerwerker 1984.

¹⁶ See Xu Dixin and Wu Chengming 2000.

¹⁷ The average farm size was 20–30 *mu* (1 Qing *mu* = 0.67 ha) in the North and 12–15 *mu* in the South; see Feuerwerker 1976.

the Qing had a national economy which was more or less self-propelling and self-regulating. This means that the Qing state had to be *laissez-faire*, as any unnecessary intervention in the private sector would negatively affect its performance. Officials were encouraged to aid farming but not to dirty their own hands. They were also instructed to watch commerce but not to take over it.¹⁸ The Governor of Guangdong was recorded to reply to the English negotiator Lord Napier before the Opium War in writing that

‘The Celestial Empire appoints officials – civilian to rule the people, military to intimidate the wicked; but the petty affairs of commerce are to be directed by merchants themselves. The officials are not concerned with such matters.’¹⁹

His *laissez-faire* message was loud and clear.

(b) Check on official corruption

Official corruption was a touchy issue. Power corrupts which made the Qing bureaucracy no exception. But the empire of China lived long enough to put in place some ingenious and effective devices in the institution to minimise corruption. Overall, corruption was under control, due to two key factors. One was Confucian self-discipline with a distinctive code of conduct; and the other was meritocracy with which good deeds determined one’s career.²⁰ What often forgotten is that part of the official duty was regular surveillance and appraisal of other officials. Impeachments fellow officials

¹⁸ Confucianism is ambivalent towards trade: trade and merchants were tolerable as long as they do not upset China’s social order.

¹⁹ Gilbert 1929.

²⁰ See Deng 1999.

and remonstrations to the throne were quite common during the Qing. Such impeachments did bring bad guys down.²¹

(c) Simple, small and cheap: a minimalist state

At the top of the state apparatus, there were only some 2,546 appointed officials (Table 2).²² Amongst the remaining 20,000 odd officials, 17,350 administrators run 18 provinces (*sheng*) with a total of 190 prefectures (*fu*) and 1,672 counties (*xian*).²³ A total of 2,650 officers run the standing army for national defence.²⁴ There can be no doubt that the empire was thinly manned by officials.²⁵ It was the source of huge social savings.

²¹ Numerous cases, see Zhao Erxun 1977. The most sensational was the 1799 He Kun Case who was ordered to surrender all his properties and commit suicide; see *ibid*.

²² Evidence suggests that officials in the Qing central government worked on very long hours to keep the vital departments running 24 hours a day, see Wanyan Shaoyuan 2005.

²³ Yang Zhimei 1992. Noted, after 1882, Fengtian, Jilin, Heilongjiang, Xinjiang and Taiwan became full provinces. Also, if all the 402 county equivalent units are counted, there were 2,074 counties. See Zhao Erxun 1977.

²⁴ Yang Zhimei 1992.

²⁵ Generally, the Ming-Qing bureaucrats were made of only 0.3 percent of China's total population; see Jin Guantao and Liu Qingfeng 1984.

Table 2. Officials of the Qing Central Government

	<u>Number of officials</u>
Cabinet (<i>neige</i>)	288
Ministries	
Personnel (<i>libu</i>)	224
Revenue (<i>hubu</i>)	362
Rites (<i>libu</i>)	145
War (<i>bingbu</i>)	221
Punishments (<i>xingbu</i>)	407
Works (<i>gongbu</i>)	317
Sub-total	1,964
Other	582
Total	2,546

Sources: Based on Yang Zhimei 1992 and Zhang Deze 2001.

To show how small the Qing state was, the basic statistics are (1) Qing Empire only had a total of 24,150 (as in c 1700) to 26,355 (as in 1850) civilian and military officials on its payroll;²⁶ (2) Qing China had 1.5 million members of the gentry (as in the end of the nineteenth century);²⁷ and (3) Qing China had a population of 56.1 million (as in 1701) to 398.9 million (as in 1833).²⁸ The ratios between these groups show just how small the Qing state really was:

Gentry-officials ratio	56.9:1 (1850)
Population-officials ratio	2,323.0:1 (1700)
Population-officials ratio	15,135.6:1 (1850)

²⁶ For officials' numbers; see Yang Zhimei 1992. However, Chung-li Chang's figure for the officials is only 12,000.

²⁷ For the gentry number, see Chung-li Chang 1962.

²⁸ See K. G. Deng, 'Unveiling China's True Population Statistics for the Pre-Modern Era with Official Census Data', *Population Review* (vol. 43 no. 2, 2004), pp.1–38, Appendix 2.

It is important to note that during 1700 to 1850, the official number increased less than 10 percent with an annual average of 0.06 percent a year. But China population increased from 1701 to 1833 at a speed of 1.5 percent annually.²⁹ The Qing state thus became increasingly smaller and cheaper compared with the rest of the economy.

It is not that surprising that the Qing state only claimed a tiny proportion of China's wealth. As a rule of thumb, (1) in the Qing agricultural economy, some 80 percent of China's total population produced some two-thirds of the country's GDP; (2) in the non-agricultural economy, the remaining 20 percent of the population produced 30 percent of the total GDP (see Table 3);³⁰ and (3) the Qing revenue was a negligible 1–2 percent of China's total GDP.³¹

Table 3. China's GDP Structure in the 1880s³²

Estimates	<u>Chang</u>	<u>Feuerwerker</u>	<u>Nankai</u>	<u>Average</u>
Total value*	104,300	125,200	131,600	120,370
Agricultural GDP	60.1%	66.8%	69.6%	65.5%
Non-agricultural GDP†	39.9%	33.2%	30.4%	34.5%

Source: Based on Chang 1962; Feuerwerker 1995; Liu Foding, Wang Yuru and Zhao Jin 1999.

Note: *In metric ton of silver.

²⁹ For the Chinese population, see K. G. Deng, 'Unveiling China's True Population Statistics for the Pre-Modern Era with Official Census Data', *Population Review* (vol. 43 no. 2, 2004), pp.1–38, Appendix 2.

³⁰ Based on Perkins 1969; Feuerwerker 1976 6; Liu 1987.

³¹ Perkins 19672. Feuerwerker 1990; Gang Deng, *The Premodern Chinese Economy – Structural Equilibrium and Capitalist Sterility* (London and New York: Routledge Press, 1999), app. 7.

³² The current study does not want to re-work China's GDP but to take the average amongst the available estimates.

The Qing tax burden was light, certainly lighter than its predecessor the Ming if not the lightest after the Western Han Dynasty (206 B.C.–24 A.D.).³³ It was operated in the “jackpot” principle to collect huge aggregate revenue from a large population with a small sum per capita.³⁴ Astonishingly, the Qing total rural tax revenue was fixed from 1715 to 1840 under the policy of freezing the total tax revenue (*yongbu jiafu*) announced by Emperor Kangxi,³⁵ unprecedented in both China’s history and the history of Asia. The practice was only ended by the Opium War before which time the Qing bureaucracy indeed had the strong distaste for tax increases.³⁶ In the absolute sense, the highest annual tax revenue collected in grain under the Qing (at 1820) was only 29 percent of its counterpart under the Ming (at 1502). In the relative sense, in term of tax burden on per unit of land, the highest rate under the Qing (at 1661) was only 17 percent of the peak of the Ming (1542).³⁷ More strikingly, the per capita tax burden in 1766 was merely 8 percent of that of the 1381 under the Ming.³⁸ In addition, from 1715 to 1840, the Chinese population increased by 567 percent (as from 1721 to 1833).³⁹ If the increased population paid roughly the same amount taxes, the per capita tax burden had to decrease by a massive 78.6 percent.

So, surpluses of unprecedented quantities were left in the private hands. If one takes into account the negative taxation in the form of disaster rescue handouts and tax exemptions, the real tax burden had to be even lower than what the tax rate indicates (see Figure 2). All this was deliberate.

³³ See Ministry of Finance, ed. 1991.

³⁴ The official land tax rate was 5 to 6 percent of the output; see Perkins 1969.

³⁵ Zhao Erxun 1977.

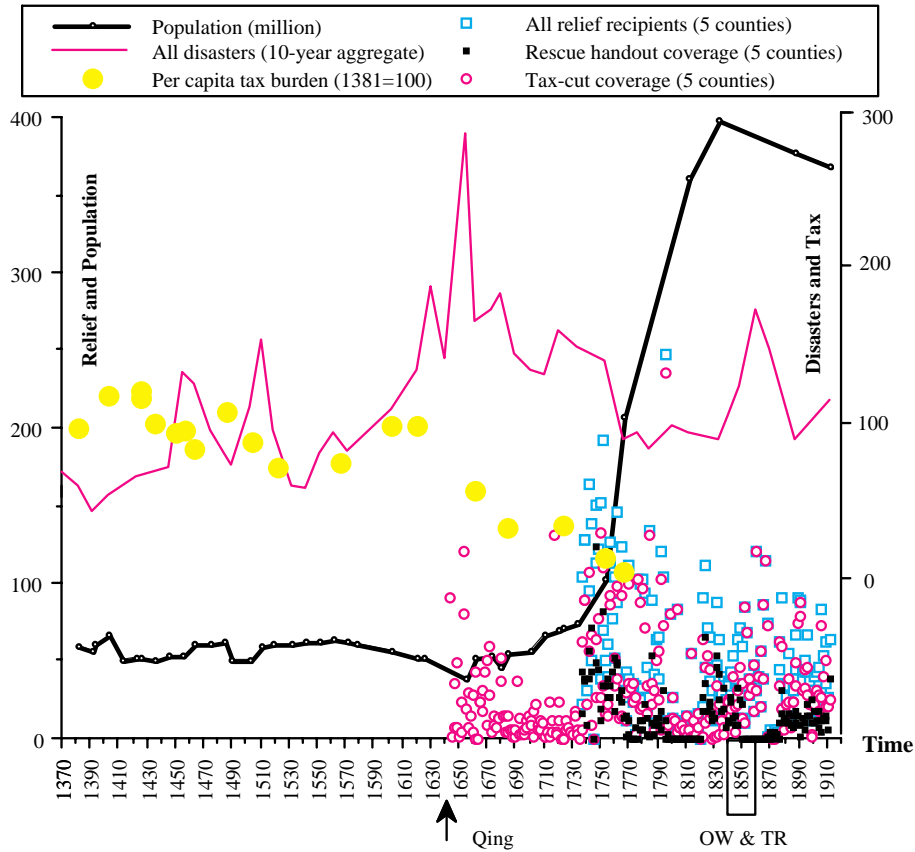
³⁶ See Myers and Wang 2002.

³⁷ Deng 1999.

³⁸ Liang Fangzhong 1980.

³⁹ K. G. Deng, ‘Unveiling China’s True Population Statistics for the Pre-Modern Era with Official Census Data’, *Population Review* (vol. 43 no. 2, 2004), pp.1–38, Appendix 2.

Figure 2. Tax Rates, Disaster aid and Population Growth, 1370–1911



Source: Disasters based on Chen Gaoyong 1937. Population data based on K. G. Deng 2004. Land under registration based on Liang Fangzhong 1980. Data of Qing disaster aid are from Zhao Erxun 1927. Per capita tax burden based on Liang Fangzhong 1980.

Note: Yearly figures are used for disaster aid undertakings. OW = Opium War. TR = Taiping Rebellion.

Even by the very end of the Qing with all the changes taking place, the tax burden was still light by any standard. From Table 3, China’s total GDP in the 1880s is estimated as in the range of 120,370 ton worth silver. During the same period, the Qing annual revenue was 100 million *liang* of silver (3,750 tons) maximum, an equivalent of 3.1 percent of the total GDP.

Now, it becomes necessary to clarify the myth of the income of the Chinese gentry. It has been argued that the gentry claimed a quarter of the Qing GDP.⁴⁰ This seems to be a lot. But given the fact that only a tiny proportion of the gentry were able to work for the Qing state:⁴¹ as mentioned earlier, the Qing Empire only had a total of 26,355 officials on its payroll in the mid-nineteenth century vis-à-vis a total of 1.5 million members of the gentry.⁴²

Equally, it becomes necessary to clarify the myth of the fat-cat officials whose 'upright bonus' (*yanglian yin*) exceeded his basic salary (*guanfeng*) a dozen times or more.⁴³ But it did not change the fact that the total wage bill of the bureaucrats was in the region of 49 million *liang* (60 percent of the Qing total budget of 80 million *liang*) by the end of the Qing. Even if we double wage bill to 98 million, it is still an equivalent of 1.2–3.0 percent of China's total GDP. All the estimates have not taken into account the maintenance of the Qing standing army of 800,000 troops, which cost at least 16 million *liang* a year just for the soldiers' living allowance. So, individual officials may not have been so cheap, the Qing state still was because it only had limited number of fat cats. For that matter, Qing did not degenerate into a plutocracy. Therefore, the lion's share of the alleged one-quarter of GDP had to be private incomes which had little to do with the Qing state revenue.

Part of the reason was the *de facto* autonomy at all levels in the administration. Each province was largely self-contained in food production to say the least. Provincial Governors (*xunfu*) and Governor-General were

⁴⁰ Chang 1962.

⁴¹ The ratio between candidates and official openings was as low as 30:1 to 100:1, see Wang Dezha0 1982; Chung-li Chang 1955; Fairbank 1957; Ping-ti Ho 1962; Deng Ciyu. 1967.

⁴² Chung-li Chang 1962.

⁴³ Numerous accounts. See for example, Chung-li Chang 1962; M. Zelin 1984.

entitled to ask for tax exemption and disaster relief from the Beijing. Otherwise, they were on their own. Officials in charge of each prefecture (*fuyin*) and county (*zhouyin, xianling*) did the same. By analogy, the local governments were 'peace-keepers' who only acted when peace was in jeopardy. Paradoxically, this was a highly decentralised empire, the opposite to 'centralised feudalism' of Tokugawa Japan. Not surprisingly, the Tokugawa system was far more expensive, judged by Japan's high tax rates.

The other part of the reason was the private nature of the rural sector which dominated the Qing economy. It did not require much government input to function. This is certainly the case at the grassroots level where much of day-to-day administration, maintenance of law and order, and reinforcement of commercial contracts, and the performance of arbitration over disputes were carried out by autonomous citizens themselves. The fact that the influential gentry class – the backbone of the imperial bureaucracy – was rurally based only made such autonomy logical.

The often cited *lijia* organisation – an equivalent of the modern day 'neighbourhood watch network' in the West – was self-financing and self-regulating. The head of the *lijia* was customarily elected and rotated. The main task of the *lijia* was crime vigilance, especially against crop theft in the rural region. The quasi-official tasks of population census, land registration and tax payment were at best auxiliary for purpose of the *lijia* institution. After all, the *lijia* spent a month (or a part of it) out of 12 in a year in autumn on its annual taxes. So, the official function of the *lijia* should not be exaggerated. From 1772 on, to reduce the burden on the *lijia*, village

population census was permanently scrapped together with all types of *corvée* services.⁴⁴

The Qing state became involved in the grassroots' affairs only as the last resort and often by invitation of citizens. This was fully compatible with the very nature of the private economy. Given that Qing China had a class of gentry of 1.5 million members for a total of 1,672 counties,⁴⁵ each county would on average 600 local gents to run the local town/village autonomy. As a result, the Qing administrative tentacles stopped at the county level. This allowed the Qing state to be simple and small.

(d) Proto-welfare and physiocratic state

The Qing minimalist state may be viewed from the modern point of view as lethargic,⁴⁶ but it was by no means passive towards people's livelihood. Apart from the repertoire of Physiocracy, the Qing state run the most comprehensive disaster relief programmes in the entire history of China. It was the single most important factor that determined the phenomenon spurt of China's population during the Qing Period.

This view contradicts the entrenched traditional view that the Ming-Qing population thrived on the New World crops: sweet potatoes (*Ipomoea batatas*) and maize (*Zea mays*). Both were drought-resistant and high-yielding. It was recorded in the early seventeenth century that sweet potatoes were able to yield ten times more than rice.⁴⁷ Maize can increase the yield level by 30 percent.⁴⁸ The gain in China's agricultural output must

⁴⁴ See Jiang Liangji and Wang Xianqian 1884.

⁴⁵ Chung-li Chang 1962.

⁴⁶ J. K. Fairbank and Merle Goldman 1998; E.L. Jones 1988.

⁴⁷ So much so, sweet potatoes were called *jīnshū*, meaning 'good as gold', see Shi Shenghan 1979.

⁴⁸ As in the case of maize/wheat yield ratio as at c. 1900, see J. K. Fairbank, and K. C. Liu 1980.

have been remarkable to support a fast swelling population size.⁴⁹ It seems as if the Song proto-green revolution repeated itself.

However, to the disappointment of those who believe in the ‘Columbian Exchange’,⁵⁰ there is not evidence that the New World crops took China by storm as the Champa rice did during the end of the Northern Song (960–1127). Rather, their spread was painfully slow. Maize was first reported in Li Shizhen’s *Compendium of Materia Medica (Bencao Gangmu)* of 1578. But not until 1628 did well-informed Chinese literati have the chance to see it.⁵¹ One and half centuries later around the 1750s, maize began to spread in different parts of China, presumably under official sponsorship.⁵² Sweet potatoes were first smuggled to China from Luzon in 1593. But by the end of the Ming, the new crop still depended on push from ranking officials like Primer Xu Guangqi for its spread.⁵³ Even so, the result was not guaranteed. At best they were adopted on marginal lands while the best fields were still used for rice, wheat and cash crops such as cotton, tobacco, rapeseed and peanuts.

Secondly, there is no evidence that the new crops replaced wheat, millet and rice and became China’s main food source during the Ming-Qing Period. According to Song Yingxing’s *Exploitation of the Works of Nature (Tiangong Kaiwu)* of 1637, Chinese lived 70 percent on rice and 30 percent on wheat, barley, sorghum and millet. The New World crops were completely ignores.⁵⁴ Most optimistically, the new crops provided 20 percent

⁴⁹ Elvin; F. W. Mote 1999; Liu Kexiang.

⁵⁰ Crosby 1972.

⁵¹ Shi Shenghan 1979.

⁵² Two Qing officials, Chen Dashou, Governor of Anhui Province, and Hao Yulin, Governor of Fujian and Zhejiang, were responsible for the spread of the crop in the marginal regions in Anhui and Fujian; see Luo Ergang 1965. For more information, see Cao Shuji 1988; and Cao Shuji 1990.

⁵³ Gang Deng 1993.

⁵⁴ Song Yingxing 1978.

of all food during the Qing.⁵⁵ This matched the observation that China's average family size increased by only one extra person (or 20 percent growth in a family of five people) by the mid-eighteenth century.⁵⁶ Intriguingly, in food deficit provinces Shandong, Jiangnan, Fujian and Guangdong during the Qing, local farmers did not switch to maize or sweet potatoes. Instead, they grew more cash crops, especially cotton, tea and latter tobacco, in exchange for rice with other regions. To feed these food-deficit regions, a total of 36 million *shi* of rice was shipped per annum via ten routes.⁵⁷ So, food production in these regions declined while the local population kept growing.⁵⁸ China's population growth was clearly powered mainly by its traditional crops, not the new comers.⁵⁹

Thirdly, the incentive for Chinese farmers to grow these alien crops was weak, not because they were difficult but because they were 'Giffen Goods' (stigmatised as *culiang*, meaning 'coarse and inferior food', vis-à-vis *xiliang*, meaning 'fine food', exclusively for high quality rice and wheat). This was not changed even during the famine-ridden republican and Maoist periods.⁶⁰ This Giffen status also explains why traditionally these new crops were first to be abandoned from human consumption once food supply

⁵⁵ L. E. Stover and T. K. Stover 1989. In places where sweet potatoes were grown, the crop occupied on average only 11–16 percent of the total food output even in the 1910s throughout 1940s, see Liu Foding, Wang Yuru and Zhao Jin 1999.

⁵⁶ James Lee and Wang Feng 1999.

⁵⁷ Wu Chengming 2001; Zhang Haiying 2001.

⁵⁸ Chen Hua 1996; B. K. L. So 2000.

⁵⁹ Case studies of North China confirms that during the 1920s-30s the output of sweet potatoes still remained obscure in China's production league table while maize had no advantage in output over wheat, sorghum, millet and soybeans. So, until the 1930s, maize and sweet potatoes remained a marginal food source. The Chinese experience is mirrored elsewhere in Asia: five centuries after their introduction, sweet potatoes and maize have still not been the major crops. See Lin and Xu, "China's Further Contribution".

⁶⁰ Typically, during the Maoist famines during the 1960s–70s, sweet potatoes were promoted as famine relief food by the communist state.

improved.⁶¹ They had less value-adding capacity. Consequently, maize was cheaper than other staple crops.⁶² Its marketing rate was the lowest (26.4 percent) comparing with ordinary rice (38.4 percent), soybeans (44.0 percent), wheat (52.5 percent), barley (63.7 percent), and glutinous rice (95.4 percent).⁶³ Sweet potatoes were the cheapest of all, good only for the desperate poor or animals. Sweet potatoes are also more perishable if fresh and more costly to dry for storage. They had an extremely high marketing rate as the producer did not want to keep them: 100 percent in large landholding households, 96 percent in small landholding households, and 75–80 percent in tenant and semi-tenant households.⁶⁴

Fourthly, there is no record that sweet potatoes and maize were involved extensively in long distance trade or used as tax payment during the Ming and Qing. So, there was no strong market and tax incentive for farmers to grow them on a large scale. In comparison, a great emphasis was imposed on the improvement of rice-farming. In the Qing official agricultural treatise *Compendium of Works and Days (Shoushi Tongkao)* of 1742,⁶⁵ the early ripening variety – with such names as ‘Fifty Days’, ‘Sixty Days’ and ‘Champa’ – occupied 37.3 percent of all rice types reported across the empire.⁶⁶

In this context, it is simply impossible to attribute the Qing population spurt mainly to the New World crops.⁶⁷ Even present-day scholars such as Li Bozhong and Kenneth Pomeranz have mentioned little about the New World

⁶¹ See Wang Jiange 2003.

⁶² The price ratios amongst rice, wheat and maize in 1900 were 3.5:2.8:1; see Yu 2000.

⁶³ Yuan Shuyi and Dong Conglin 2001.

⁶⁴ Data for available for the 1930s only; see Yuan Shuyi and Dong Conglin 2001.

⁶⁵ E Ertai 1956.

⁶⁶ Gang Deng 1993; also see Zeng Xiongsheng. 1998).

⁶⁷ Although contemporary China is the single largest sweet-potato producer to claim 80 percent of the world total, the output is mainly for industrial use, not as a source of staple food (Zhang and Li, ‘Importance of Maize’). Zhang Kai and Li Genpan 1983.

crops in the Ming-Qing economy.⁶⁸ The impact of the new crops on China's total food production should not be exaggerated.

Once we rule out the New World crops, our attention turns to other factors: farming zones, internal migration, tax rates and income redistribution. Individually, each factor may not have the strength to increase the population. But collectively they formed a formidable synergy.

Firstly, China's territory was doubled in the absolute sense by the end of the seventeenth century under the initiative of the Qing state either through merger (Manchuria and Mongolia in the north and northeast) or through military campaigns along China's frontiers (Xinjiang in the far west).⁶⁹ Although the expansion was carried out in some barren lands, it nevertheless covered some of the best farming zones including the black-soil region (Manchurian) and the natural irrigation zone along the Great Bend of the Yellow River (South Mongolia). Efforts were also made to open up the north-western corner (Gansu and Xinjiang) and the south-western corner (Guizhou and Yunnan) for farming.⁷⁰ The scheme left only Tibet and its neighbouring Qinghai untouched.

The additional land supply from Manchuria and South Mongolia alone was the equivalent of some 17 percent of China's land mass, or 50 percent of the aggregate of China's main farming zones today. Consequently, with this windfall of land resources the Ming 1:1 ratio between the dry farming acreage and paddy acreage was changed to 2.3:1 in favour of dry farming.⁷¹

⁶⁸ Li Bozhong 1996; Kenneth Pomeranz 2000.

⁶⁹ The Qing territorial expansion was associated with Kangxi (r. 1662–1722) and Qianlong (r. 1736–1795).

⁷⁰ By the 1820s, the new farmland in the Balikun and Yili regions of Xinjiang (also known as 'Chinese Turkistan') alone totalled 908,500 *mu* or 121,735 hectares (Chen, *Socio-Economic Conditions*, p. 265; see also J. K. Leonard and J. R. Watt, 1992.

⁷¹ J. K. Fairbank and K. C. Liu 1980.

With the known 2.8:1 yield ratio between rice and wheat,⁷² this expansion in dry farming would almost certainly increase China's total agricultural output by at least 34 percent without major technological change, assuming also that the paddy-farming zone remained constant.⁷³

In addition, vast internal regions were re-developed to intensify the land utilisation in the Sichuan Basin and the Yangzi–Han Plain, an equivalent of 7 percent of China's territory and 22 percent of its main farming zones. This was strongly encouraged by the Qing state. A widespread Qing idiom tells us 'when the Han Plain has a good harvest, all China is fed' (*huguangshu tianxiazu*).⁷⁴ By 1760, the re-developed Yangzi–Han Plain at least doubled the regional food production capacity from its Ming level, producing 2.2 million metric tons of grain a year,⁷⁵ together with large quantities of rice, raw silk, cotton and cloth.⁷⁶ Considering the redevelopment that doubled the output of 22 percent of China's total farm land in general and that of 72 percent of China's wet farming land in particular, the gain in China's agricultural output can be estimated at 153 percent, making the compounded output increase from both the new dry farming land and redeveloped wet farming land a massive 187 percent.⁷⁷ This judgement is supported by the data in Table 4 showing that by 1812 at least 94 percent

⁷² J. K. Fairbank and K. C. Liu 1980.

⁷³ It is known that amongst all the Chinese traditional main dry farming crops, wheat had the lowest yield level (as at 1900, see Fairbank and Liu, *History of China*, p. 11). So, it is reasonable to use wheat as a proxy for all dry crops. The calculation is based on $w_q (2.3+2.8) / w_m (1+2.8)$, where w_q is the Qing total output measured by wheat; and w_m , the Ming output measured by wheat.

⁷⁴ Pomeranz.

⁷⁵ Zhang Jiayan 1995.

⁷⁶ Chen Hua 1996.

⁷⁷ This is based on $w_q \{1+(2.8 \times 0.27 + 2 \times 2.8 \times 0.73)\} / w_m (1+2.8)$, where w_q is the Qing total output without the new land measured by wheat; and w_m , the Ming output measured by wheat.

the extra farm lands subject to taxation were in those new and re-developed areas.

Table 4. New Supply of Land (km²), 1578 vs.1812

I. Qing expansion		
	Land area	Privately farmed land*
Qing territory (1812)	11,604,000	527,683
Ming territory (1578)	5,964,000	467,598
Net gain	5,640,000	60,085
II. Regional gains		
	New lands	Extra farm land taxed
Manchuria	1,233,000 ⁷⁸	15,250
Mongolia	2,747,000	—
Xinjiang	1,660,000	743
Sub-total	5,640,000	>15,993†
Re-developed lands		
		Extra farm land taxed
Sichuan Basin	280,000§	30,240
Yangzi–Han Plain	400,000	10,410
Sub-total	680,000	40,650
Regional total	6,320,000¶	>56,643

Source: Based on Liang Fangzhong 1980. *cf.* Myers and Wang 2002.

Note: *Privately farmed land was about 90–95 percent of the Ming-Qing's total. †Part of South Mongolia was farmed but not taxed. §The basin is about 1/2 of Sichuan's territory of 560,000 km². ¶Including the amount of 680,000 km² which is doubly counted from the Qing territory's point of view.

It is important to note that during the period in question China's yield level per unit of land increased, too: according to Dwight Perkins, from 1770

⁷⁸ China lost one-third of Manchuria (440,000 km²) later to Tsarist Russia under the Aihui and Beijing treaties (1858–60). By then, the Qing population growth already peaked.

to 1850, China's land productivity increase by about 20 percent overall.⁷⁹ As Perkins's figure for 1850 is much lower than estimates made by Chinese historians,⁸⁰ the margin of land productivity growth may have been at least 20 percent greater. So, the compounded effect had to be much greater than what the land expansion and re-development suggested.

The timing of the increase in land supply matched the Qing population spurt. There is no evidence that such re-development led to ecological depletion on a large scale before 1800.⁸¹ Economic links between old and new regions were established, too. From 1750 on, Manchuria supplied with large quantities of wheat and bean-cakes (as fertilizers) to the Yangzi reaches at probably 10 million *shi* a year,⁸² about 720,000 metric tons enough to feed 48 million adults for a month at the subsistence level (500 grams per diem).⁸³ Within the Yangzi reaches, the delta region (known as Jiangnan) depended increasingly on rice imported from Sichuan, Hubei, Hunan and Jiangxi at also 10 million *shi* (500,000 metric tons) a year,⁸⁴ enough to feed another 33 million adults for a month.⁸⁵ So much so Suzhou became the main rice market of the country where the rice price was determined by Hubei, Hunan and Jiangxi. In return, Suzhou supplied cotton goods to the rice donor regions.⁸⁶ By the second half of the eighteenth century, the developments in the Yangzi reaches and Manchuria had begun

⁷⁹ See Dwight Perkins 1969.

⁸⁰ Perkins' figure for 1850 is 243 *jin* per *mu*, compared with 310 to 367 *jin* per *mu*; see Wu Hui 1985; Shi Zhihong 1994.

⁸¹ Pomeranz.

⁸² See Wu Chengming 2001. See also Mark Elvin 1973; Pomeranz.

⁸³ Qing *shi* of grain weights 72 kg; see Liang F. Z. 1980; Kang Chao 1986.

⁸⁴ Wu Chengming 2001.

⁸⁵ One Qing *shi* produces about 50 kilograms of husked rice after husking.

⁸⁶ See Zhang Haiying 2001. See also Myers and Wang 2002.

to fuse together to make Qing agricultural growth more sustainable.⁸⁷ Now, even in the strictest Malthusian sense, Qing population was well supported to have an unprecedented take-off.⁸⁸

The second factor was internal migration, often aided by the Qing state. New lands and redeveloped lands needed labour to produce. During the Qing, such a need created huge waves of migrants for a better life from the old core regions (such as Hebei, Henan, Shandong, Sshanxi, and Shaanxi) to resettle elsewhere.⁸⁹ The Qing state was fully behind this population re-shuffling through internal migration. The key concern of the Qing migration policy was rural full employment called ‘filling the regions of land abundance with people from regions of high population density’ (*yi zhai bu kuan*). Pro-active measures such as ‘farming by invitation’ (*quannong*) were implemented; property rights were defined and protected in the migrants-receiving regions; free passage, minimum capital and tax holiday were also on the menu. The policy worked. In the case of Sichuan, the surge of immigration began in 1713 under Emperor Kangxi’s edict.⁹⁰ In 1743–8 alone, a quarter of a million migrants re-settled there, breaking any record of migration in peace time in China’s long history. In frontier regions, immigration was just as active. By 1668, just one generation after the establishment of the Qing, Manchuria absorbed a staggering 14 million

⁸⁷ Such as Khrushchev’s Siberian Campaign to grow maize for his dream of ‘Goulash Communism’ and Mao’s ‘Great Leap Forward’ for his ambition to catch up with the West. Both were total failures.

⁸⁸ K. G. Deng, ‘Unveiling China’s True Population Statistics for the Pre-Modern Era with Official Census Data’, *Population Review* (vol. 43 no. 2, 2004), pp.1–38, Appendix 2.

⁸⁹ For the eighteenth century, see Pierre-Etienne Will 1990. See also Myers and Wang 2002.

⁹⁰ Commonly known as ‘filling up Sichuan with the population from Hubei’ (*huguang tian sichuan*); see Tian Fang and Chen Yijun 1986; Chen Hua 1996; see also Jiang Tao 1998; and Fernand Braudel 1979.

immigrants from China proper.⁹¹ Even so, the growth potential in Manchuria was yet to be fully realised: in the nineteenth century, the annual immigrants were 600,000. By the very end of the Qing (at 1907), the government ‘farming by invitation’ quota for Heilongjiang was still two million.⁹² Large-scale immigration also took place in Mongolia. In 1712, the number of immigrants from the Shandong counted for over 100,000.⁹³ A recent path-breaking study supports what the Qing records by showing that modern-day Manchurian, Mongolia and Sichuan are all the lineage enclaves of Shandong-Hebei and Hubei-Hunan with high population density during the Qing.⁹⁴ Elsewhere, minor waves of migration also occurred.⁹⁵

The third factor was taxation. The issue of low tax rates have been discussed earlier. Here, taxation was used as a device of income redistribution. The distribution of the Qing tax burden was worked out in such a way that the food-deficit provinces paid proportionally more cash (Zhili, Sshanxi, Henan, and Shaanxi, Anhui and Fujian) and less grain, the food-surplus regions paid proportionally more grain (Guangxi, Guizhou and Yunnan) and less cash, and Zhejiang (of the wealthy Jinagnan region) paid both more cash and more food. Overall, the south paid in more grain, while the north, more cash (see Figure 3).

⁹¹ Anon. 1799; Zhang Limin 1998.

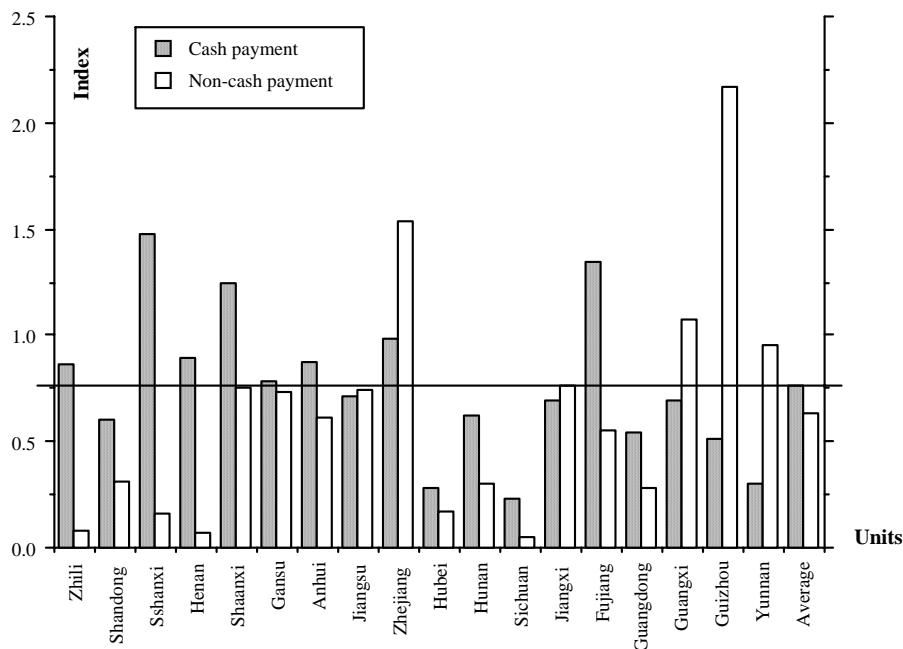
⁹² Tian Fang and Chen Yijun 1986.

⁹³ The Qing state imposed a ban on permanent immigration to Manchuria (1668–1860) and Mongolia (1740–1897). But there was little control over seasonal migrants to both regions. Moreover, by the time when the restriction was introduced, a large number of immigrants had already settled in. See Zhao Erxun 1977.

⁹⁴ Yuan Yida and Zhang Cheng 2002.

⁹⁵ James Lee 1982.

Figure 3. Long-term Distribution of the Real Tax Burden, 1685–1893



Source: TBI.

Here, the benchmark is the national average (marked by the bar). Gansu, Anhui, Jiangsu and Jiangxi are very close to the benchmark. Shaanxi and Guangxi are fairly close. Some provinces were never taxed enough in either cash or grain (Zhili, Henan and Yunnan); some never both enough in both (Shandong, Hubei, Hunan, Sichuan and Guangdong). More interestingly, despite their fertile land and regular rice exports, Hubei, Hunan and Sichuan were all lightly taxed. The reason had to be the encouragement of immigration to these provinces. Obviously, the Qing state began to use differential taxes for social welfare purposes.

The fourth factor was the Qing income redistribution through disaster relief. Good harvests were never evenly distributed across the empire. From

1821 to 1910, for example, 29.6 percent of all the counties suffered crop failures to some degree, 54.2 percent had normal harvests, and only 16.2 percent had bumper harvests.⁹⁶ Without redistribution of income, one-third of the counties would suffer population losses, about a half percent would break even or have modest population growth, and only about 16 percent would have very strong population growth which might not be enough to offset population loss elsewhere. Overall, China's population might behave not too differently from that of the Ming (see Figure 2.1).

With winning the hearts and minds of the Chinese as the state priority, the Qing bureaucracy was far more active than any other dynasties in Chinese history by switching from the traditional minimum approach to save lives known as hunger relief (*zhenji* or *jiuji*, literally meaning 'starvation mitigation') to a full-grown income redistribution scheme to tackle disasters (*zhenzai*) which combined famine relief and poverty relief in one. To begin with, the Qing aid was geared towards compensating a wide range of losses – lives, income, capital investment and property – caused by all forms of disasters: drought, flood, typhoon, frost, hail, fire, earth quakes, sea tide, locust outbreaks, plagues, riots, invasions, and even 'inconvenience' caused by military build-up and royal visits. In doing so, the Qing state operated in the area of poverty relief as we know of in modern societies. In comparison, under the Ming, there was no attempt made to compensate losses in capital investment and income, vital for the function of the economy and the quality of people's life. The Ming relief only helped those who were dying of starvation. The Ming philosophy was simple: (1) if people were hit by disasters but not hungry, there was no need for relief; and (2) if people were already dead in disasters, there was no need for relief, either. The Ming

⁹⁶ This is based on J. K. Fairbank and K. C. Liu 1980. See also J. L. Buck 1937.

approach was shared by most of its predecessors, including the Song.⁹⁷ Even worse, under the Ming, many disasters were simply ignored and unaided. On occasions, more taxes were imposed when disasters struck. This old approach was promptly abandoned in the very first year of the Qing rule.

The Qing state consistently scooped surpluses from the 70 percent of counties which had normal or above normal harvests to aid the other 30 percent where harvest were poor (but not necessarily below the poverty line). Such surpluses counted for 5–10 percent of China's total grain output,⁹⁸ not trivial by any standard. It is astonishing that the aid for a bad year sometimes exceeded several times over the state normal annual tax income.⁹⁹ The Qing aid set up a completely new standard with incredible generosity, breaking all the records associated with disaster relief in pre-modern Chinese history.¹⁰⁰

In terms of scale and scope, the Qing disaster aid coverage was much greater than that of the Ming considering the enlarged Qing territory and economy. To work out the scale and scope of the Qing disaster aid, a minimalist approach is taken by the current study to avoid inflation in numbers. Such an approach has several dimensions: (1) although the Qing state maintained stockpiles in the harvest seasons as a precaution against disasters (*beizhen*), only the actual disaster-rescuing handouts are counted; (2) only the aid cases registered by the Qing central government are counted, omitting local, minor and unofficial initiatives, which is justifiable by the aim of looking at specifically the Qing state impact on population growth; (3) wherever the ambiguous term of 'several' (*shu*, meaning 'more than two') is cited in the Qing history, the factor of two is used to avoid inflation; (4) a

⁹⁷Wang Shengduo 1995.

⁹⁸ L. M. Li 1982; Myers and Wang 2002.

⁹⁹ A. Woodside 2002.

¹⁰⁰ For the eighteenth century, see Pierre-Etienne Will 1990.

quasi-prefecture (*zhili zhou*) will be counted as an ordinary county, as in the Qing record quasi-prefectures are often not differentiated from the ordinary counties (*zhou*) despite the fact that on the empire-wide average one quasi-prefecture governed 2.8 grassroots counties; (5) the largest unit taken by this study for tax cuts and tax write-offs is a province, as it was administratively feasible for the empire, but the cases with the ambiguous term of ‘tax cuts for the whole country’ are to be omitted; (6) sensibly, the largest unit for disaster rescue handout is a prefecture on the assumption that sending food and money to a region was far more costly than announcing a tax cut, so whenever a province is mentioned in the Qing disaster rescue handout scheme only one prefecture of that province is counted, with the province’s own average size of a prefecture in terms of the number of counties; (7) thinly populated regions of nomads (Inner Mongolia, Outer Mongolia, Qinghai, Tibet and Chahar) are not included as they made very little difference in China’s demographic stance during the Qing; and (8) although it was not unusual for a region to be repeatedly helped after a disaster, this study will only count one tax cut and/or rescue handout. In other words, the main concern is the spread of the Qing disaster aid rather than the intensity of it. The scale of the Qing disaster aid is revealed in Table 5. Considering that the Qing had in all 1,672 counties,¹⁰¹ the country was covered times over by the aid undertakings during the Qing.

¹⁰¹ If all the 402 county equivalent units are counted, the total number is 2,074. See Zhao Erxun 1927.

Table 5. Recipients (Counties) of Qing Disaster Aid

<u>Year</u>	<u>Tax exemptions</u>	<u>Aid hand-outs</u>	<u>Total</u>
1674–83	917	0	917
1684–93	477	0	477
1694–1703	423	0	423
1704–13	380	0	380
1714–23	1,084	0	1,084
1724–33	389	0	389
1734–43	2,235	1,417	3,652
1744–53	2,783	2,358	5,141
1754–63	2,433	1,812	4,245
1764–73	1,944	495	2,439
1774–83	2,399	406	2,805
1784–93	2,346	697	3,043
1794–1803	2,761	231	2,992
1804–13	569	0	569
1814–23	775	555	1,330
1824–33	883	1,334	2,217
1834–43	934	1,028	1,962
1844–53	1,690	575	2,265
1854–63	2,190	0	2,190
1864–73	1,598	67	1,665
1874–83	1,417	624	2,041
1884–93	2,228	544	2,772
1894–1903	1,202	703	1,905
1904–11	1,431	594	2,025
Total	35,488	13,440	48,928
Average	1,478.7	560	2,038.7

Source: Zhao; *cf.* Myers and Wang.

Or,

<u>Year</u>	<u>Tax exemptions</u>	<u>Aid hand-outs</u>	<u>Total</u>
1674–1703	1,817		1,817
1704–33	1,862		1,862
1734–63	7,451	5,587	13,038
1764–93	6,689	1,598	8,287
1794–1823	4,105	786	4,891
1824–53	3,507	2,937	6,444
1854–83	5,205	691	5,896
1884–1911	4,861	1,841	6,702
Total	35,488	13,440	48,928
Average	1,478.7	560	2,038.7

Evidently, the main recipients were the old farming zones where the population density was the highest, as demonstrated in Table 6.

Table 6. Aggregate Disaster-Aid Entries,* 1644–1911

I. Northern core provinces (x 6)									
	Zhili	Henan	Shandong	Sshanxi	Shaanxi	Gansu			Total
A.	207	93	104	88	103	98			693
B.	12.1	5.5	6.1	5.2	6.0	5.8			40.7
II. Southern core provinces (x 8)									
	Anhui	Jiangsu	Zhejiang	Hubei	Hunan	Jiangxi	Fujian	Guandong	
A.	108	133	101	91	91	56	54	43	677
B.	6.3	7.8	5.9	5.3	5.3	3.3	3.2	2.5	39.6
III. Northern frontier provinces (x 4)									
	Fengtian	Jilin	Heilongjiang	Xinjiang					
A.	75	23	28	22					148
B.	4.4	1.4	1.6	1.3					8.7
IV. Southern frontier provinces (x 5)									
	Sichun	Guizhou	Guanxi	Yunnan		Taiwan			
A.	43	35	23	56		13			170
B.	2.5	2.1	1.4	3.3		0.8			10.1
V. Non-Farming provinces (x 5)									
	Tibet	Qinghai	Chahar	Mongolia†					
A.	4	1	2	9					16
B.	0.2	0.1	0.1	0.5					0.9
Total A									1704
Total B									100.0

Source: Zhao 1927.

Note: A – Provincial total entries, B – Provincial shares (%) in China's total. *Only one entry is counted for a province each year to avoid double counting. †Both Inner Mongolia and Outer Mongolia. The maximum number of entries for a province is 267, based on the Qing disaster management for 267 years (1644–1911).

The key elements in the new Qing system were (1) the state granaries called 'ever-even granaries' (*changping cang*), meaning 'granaries to keep the supply and price of grain even over time', (2) the empire-wide disaster

monitoring network, and (3) state annual disaster aid budgeting. Local communities also maintain their own granaries called ‘charity granaries’ (*yicang*) as a back-up.¹⁰² The first two elements are well-known in the literature on the Qing state-craftsmanship.¹⁰³ Less is known of how generous the Qing annual disaster aid budget was. The budget included aid in food (which was directly linked to the granary system) and aid in cash. The aid budget took two forms: (1) passive aid in the form of tax exemptions (*chu, huan, jian, and mian*) and (2) active aid in the form of rescue packages (or negative taxes: *bo, ci, dai, fu, gei, xu, and zhen*). Active aid took off after 1730 under Emperor Yongzheng (r. 1723–35) and Emperor Kangxi (r. 1736–95). The resources that put back to society through the Qing aid budget were not sizeable, although we do not always have the information of what was involved in the materialisation of aid.

In terms of food availability, during the end of the eighteenth century, the Qing state had 37–45 million shi of unhusked rice ready to be sent off for disaster aid,¹⁰⁴ enough to feed 250.4–304.5 million adults at the subsistence level for a month. It is worth noting that the upper band figure of 304.5 million people was almost China’s total population of the time.¹⁰⁵ Given that in the nineteenth century when disasters picked up, only one-third of the counties suffered crop failure, the Qing food stockpile of 37–45 million shi should have coped disaster aid needs with ease. In comparison, during the mid-seventeenth to mid-eighteenth centuries the Qing annual shipping of grain

¹⁰² It has been estimated that when the system functioned the state granaries stored an equivalent of eight percent of human food consumption while the private sector did another 3 percent; see C. H. Shine 2005; also her work 20044.

¹⁰³ A demand shock may occur when there is a crop failure, while a supply shock may occur after a bumper harvest.

¹⁰⁴ Myers and Wang 2002.

¹⁰⁵ K. G. Deng, “Unveiling China’s True Population Statistics for the Pre-Modern Era with Official Census Data”, *Population Review* (vol. 43 no. 2, 2004), pp.1–38, Appendix 2.

from the South to feed the North counted for only 5–8 million shi.¹⁰⁶ But, such quantities of food in storage often represented only a small percentage of China's total grain output: in the eighteenth century, the Qing state granaries processed some 3–5 percent of China's total grain.¹⁰⁷ This limit for the Qing state food stockpile was determined by (1) the optimal quantity of grain in storage to be effective,¹⁰⁸ and (2) the cost–benefit equation with which the natural process of spoilage of food in storage played an important part.¹⁰⁹ This limit necessitated aid in cash.

Most remarkably, apart from eight odd years (1661, 1663, 1722–4, 1735, 1745 and 1820),¹¹⁰ the Qing aid scheme never stopped even during the severe crises such as the Opium Wars, Taiping Rebellion, Sino-Japanese War, Boxers' Riot and the 1911 Revolution. On one account, from 1644 to 1819, the Qing state filed more disaster relief reports than reports of disasters themselves by 20 percent.¹¹¹ Indeed, the Qing state was so committed to disaster aid that its scheme even spilled over to foreign destinations to aid Japan (in 1906, Japan being an enemy in the Sino-Japanese War just a decade before), United States (1906) and Italy (1908) with the exact same amount for a Chinese province of the time.¹¹² In

¹⁰⁶ Zhou Buodi 1981.

¹⁰⁷ L. M. Li 1982.

¹⁰⁸ It is worth noting that during the Qing period the marketing rate for farmers' grain output was about 30 percent; see Li Wenzhi 1993. Supposing that the same percentage was applicable to the entire farming sector, the state-controlled grain was the equivalent of 10–17 percent of the total marketing of the grain, enough to regulate the market price especially given that in most cases disasters were regional. So, the state 'dumping' could easily flood any single provincial market where the food price became too high, not to mention that the market itself would respond to a higher regional price and encourage food imports from other regions.

¹⁰⁹ Myers and Wang.

¹¹⁰ Almost all these temporary suspensions of the Qing disaster aid were caused by a change of reigns. The only exception was 1745 during the Qianlong period.

¹¹¹ In all 2,830 relief reports vs. 2,337 disaster reports; see C. H. Shine 2005.

¹¹² Zhao.

comparison, the Ming hunger relief was always subject to budget cut and completely collapsed at the end of its rule.

Table 7 highlights quantities of resources devoted by the Qing state to disaster aid in both food and cash. Most interestingly, the ratio between food aid and cash aid was very close to unity. Given the private nature of the Qing economy and the sophistication of China's economy-wide markets, the Qing state clearly took the advantage of the market efficiency in disaster aid, where speed of delivery meant lives. On the other hand, the cash aid would certainly refuel China's market growth through linkages via a Keynesian 'snowballing effect'.

Table 7. Resource Inputs by Qing Aid Schemes, 1666–1911

Year	Food aid (<i>shi</i>)	Cash aid (silver <i>liang</i>)
Pre-Opium War		
1666	70,000	–
1711	–	100,000
1738	–	200,000
1742–6	4,400,000	3,900,000
1753–7	200,000	2,000,000
1770–8	5,200,000	1,575,000
1784–6	870,000	2,350,000
1822–3	100,000	5,140,000
1831–6	290,000	50,000
<i>Sub-total (I)</i>	<i>11,130,000</i>	<i>15,315,000</i>
	<i>17,362,800 (A)</i>	<i>15,315,000 (B)</i>
<i>Annual average aids</i>	<i>102,134</i>	<i>90,088</i>
<i>Sub-A:B ratio</i>	<i>1.1</i>	
<i>Lives rescued†</i>	<i>60.8–90.5 million</i>	<i>52.8–80.6 million</i>
<i>Total lives rescued</i>		<i>113.6–171.1 million</i>
<i>Annual average lives rescued</i>		<i>0.7–1.0 million</i>

Post-Opium War		
1847	—	900,000
1865–9	1,170,000	970,000
1872–9	350,000	1,200,000
1883–9	740,000	1,690,000
1890–8	815,000	1,790,000
1900–11	382,500	3,350,000
<i>Sub-total (II)</i>	3,457,500	9,900,000
	5,393,700 (A)	9,900,000 (B)
<i>Annual average aids</i>	84,277	154,688
<i>Sub-A:B ratio</i>	0.5	
<i>Lives rescued†</i>	18.9–28.1 million	34.1–52.1 million
<i>Total lives rescued</i>		53.0–80.2 million
<i>Annual average lives rescued</i>		0.8–1.3 million
Qing as a whole		
Total	14,587,500	25,215,000
Total value (silver <i>liang</i>)	22,756,500 (A)*	25,215,000 (B)
Annual average	92,884	102,918
A:B ratio	0.9	
<i>Lives rescued†</i>	79.7–118.6 million	86.9–132.7 million
<i>Total lives rescued</i>		166.6–251.3 million
<i>Annual average</i>		0.7–1.0 million

Source: Zhao 1927.

Note: *Converted by the mean price at 1.56 *liang* of silver per *shi* of rice derived from the rice price range of 0.94 to 2.18 *liang* of silver per *shi* in the Yangzi and Pearl deltas of the seventeenth and eighteenth centuries; see R. B. Marks 1991; Y. C. Wang 1992.

†Estimation is made by the Ming standard, 20–30 *sheng* per head (12.4–18.6 kilograms of unhusked rice for an adult to last 18–37 days) was what it took to survive a famine,¹¹³ although the Qing aid was far more generous.¹¹⁴

In contrast, the Ming state spent far less on hunger relief. Merely four figures regarding famine relief are documented in *The History of the Ming Dynasty*: (1) tax exemptions of 2.77 million *shi* of rice for Jiangsu and

¹¹³ Zhang Tingyu 1974.

¹¹⁴ J. D. Spence 2002. Will's per diem was 2,800 calories worth during the eighteenth century, a half in food and the other half in cash.

Zhejiang in 1436,¹¹⁵ (2) tax exemptions of two million *shi* of rice for Jiangsu and Zhejiang in 1454,¹¹⁶ (3) rescue handout of one million *shi* of rice and wheat to Jiangsu in 1455,¹¹⁷ and (4) rescue handout of 400,000 *shi* of grain to Shaanxi in 1485.¹¹⁸ In 1579, the Ming Treasury was able to spend lavishly 24 million *liang* of silver in on a royal wedding, but had no money to aid a famine in Shaanxi Province.¹¹⁹ Thus, the Ming state basically left the fate of the disaster-hit population in the hands of God. In this context, the common practice to lump Ming and the Qing together as one historical era is misleading.

So, in the end the Qing state saved over time 166.6–251.3 million lives, an equivalent of about a half of the Chinese population in the nineteenth century. This is not at all trivial, although the system could work even better.¹²⁰ The inadequacy in the Ming disasters relief was at least partly responsible for the population stagnation. But until 1990 the Qing disaster aid was seriously overlooked. For example, the Qing government disaster aid expenditure is hardly mentioned.¹²¹ It is thus highly justifiable that the Qing state successfully reduced the number of lives lost in disasters to the very minimum by any premodern standard.¹²² Not surprisingly, until 1840 there was no famine on the empire-wide scale matching the notorious ‘Great Leap Forward’ under Mao in 1959–62.¹²³ It is worth noting that in premodern Asia, unaided famines were not uncommon. During the Tenmei Famine of

¹¹⁵ Zhang Tingyu 1974.

¹¹⁶ Zhang Tingyu 1974.

¹¹⁷ Zhang Tingyu 1974.

¹¹⁸ Zhang Tingyu 1974.

¹¹⁹ Zhang.

¹²⁰ Will and Wong suggested that the relief system degraded after c. 1877 from its previous glory; see Pierre-Etienne Will and R. B. Wong 1991. So, even more life could have been saved.

¹²¹ E.g. J. K. Fairbank, and K. C. Liu 1980.

¹²² Myers and Wang 2002.

¹²³ James Lee and Wang Feng 1999.

the 1780s a large proportion of the Northern Japanese population vanished.¹²⁴ A decade earlier in 1770, a great famine hit Bengal hard in colonial India.¹²⁵ So what the Qing did was extra-ordinary in Asian history.

Now, with the dynamics of the Qing disaster aid, regional food self-sufficiency was no longer a necessary condition for China's regional prosperity and high standards of living. Given that that about one-third of China's counties lived to some extent on the state aid handouts and the fourteen core farming provinces were the dominant aid beneficiaries of the Qing with a combined share of 80.4 percent of total disaster-aid entries,¹²⁶ the high living standards in places like the Jiangnan region may not have been completely self-made.¹²⁷ In this context, the Qing actually made some 'winners' in China's regional economic growth.

5 Secret of the Qing Success

Overall, the Qing income redistribution was what made the Qing unique in the history of the premodern era. Even more unique was the Qing combination of physiocracy (rural full employment) and income redistribution (disaster aid). This made the Qing state 'proto-welfare state' which always had ordinary people's livelihood on its agenda, as recognised by many scholars.¹²⁸ Evidently, the Qing state policy of 'ensuring national economic health and ordinary people's livelihood' (*guoji minsheng*) was not merely lip service,¹²⁹ but the realisation of the Confucian ideology of 'people as the

¹²⁴ Christopher Howe 1996; also S. B. Hanley and Kozo Yamamura 1977; Yasukichi Yasuba 1986.

¹²⁵ Dietmar Rothermund 1993.

¹²⁶ As during 1821 to 1910, see Fairbank and Liu.

¹²⁷ Pomeranz.

¹²⁸ Will; Will and Wong; also Thaxton.

¹²⁹ Leonard and Watt.

foundation' (*minben*).¹³⁰ This made the Qing state a pro-entitlement state. And, a pro-entitlement state made Qing China more efficient to feed its population. In judging the Qing welfare, Alexander Woodside reaches the conclusion that there was no European parallel to the Qing provision of poverty aid in terms of scale and scope.¹³¹

It is in this context that up until the mid-nineteenth century China retained relatively high rating of human development index (HDI) in all three relevant areas: (1) a life expectancy comparable with Western Europe,¹³² (2) a high adult literacy rate by the Asian standard to say the least,¹³³ and (3) a standard of living respectable by the world standard.¹³⁴ Another tacit parameter for HDI is freedom. Although this is hard to measure, the Qing citizens did not it. The best person to admit it is Dr. Sun Yet-Sen who explicitly stated that 'Why have the Chinese been like loose sands? What has made them loose sand? It is because of too much individual freedom.'¹³⁵ He indicated, rightly or wrongly, that his revolution was to limit that freedom.¹³⁶

All these were achieved hand in hand with a population spurt on an unprecedented scale and speed in the history of the Old World. This coincided with the development of the Chinese traditional technology had

¹³⁰ And, any failure in assisting ordinary people with their basic needs met was a justifiable reason for rebellions to take place (see Deng; see also Wong).

¹³¹ Woodside.

¹³² 34.9 to 39.6 at birth; see Kenneth Pomeranz 2000.

¹³³ The literacy rate in Qing times was estimated to be between 10-20 percent, see Wang Dezhaoh 1982; Wang Xianming 1987. Another estimate arrives at 16-27 percent; see E. S. Rawski 1979.

¹³⁴ Kenneth Pomeranz 2000.

¹³⁵ Sun Zhongshan 2000.

¹³⁶ Ibid.

almost certainly reached its zenith by the nineteenth century where diminishing returns began.¹³⁷

In summary, the four factors – new farm land, vigorous agricultural migration, low taxation and persistent disaster aid – stretched China's population-supporting capacity after 1700. The gain from this enlarged output capacity was so great that it over-compensated the negative impacts of natural disasters and population burden during 1650–1850. In this regard, the Qing state was the most successful in the entire history of the Empire of China.

C. Sour Confucianism: New Challenge and State Inadequacy, 1840–1910

1. What Was New: Rebellions, Opium or Modern Imperialism?

From the analysis of the Qing state and its track record, there was no reason why the Qing state could not put up with those rebellions – the Tapings, the Nians and the Muslims – and continue to rule China longer than it did. After all, the history of China was a history of rebellions.¹³⁸ Rebellion, or the right to rebel, was deeply rooted in the Confucian psyche which views the ruler a necessary role model of all citizens and which encourages a competition amongst all for a better behaviour. However, the long-term success rate for rebellions in China's history was merely 1.5 percent.¹³⁹ So, in the overwhelming cases, rebellions in China served as a petitions rather than a means to replace the state. This certainly applies to the Tapings, the Nians and the Muslims in the nineteenth century. They were nuisances rather than crises and the Qing state did crack them all down successfully.

¹³⁷ See Mark Elvin 1973.

¹³⁸ See Deng 19991.

¹³⁹ Deng 1999.

The opium consumption and trade was not new to nineteenth-century China. By the time the First Opium War, it had a 100 year history already.¹⁴⁰ The 'opium problem' emerged partly because of the outflow of silver and partly because of the social disorder associated with smuggling.¹⁴¹ The Qing strategy was to reduce the opium trade from the supply side. To blame the 'foreign barbarians' would be politically correct: a huge miscalculation by the Qing.

Given the British military supremacy over any Asian country, the outcome of the war was highly predictable.¹⁴² The war ended quickly with small casualties on both sides.¹⁴³ The Treaty of Nanking was signed in August 1842 and ratified at Hong Kong on 26th June 1843. The costs of the war were too limited to trigger any serious political crisis for the Qing state.¹⁴⁴ By 1840, the Qing state had some experience in dealing with Europeans who had come to China in several waves. The Jesuits had already well entrenched in the Imperial Court; and the Portuguese, leased Macao (1556).

¹⁴⁰ Gong Yingyan 1999.

¹⁴¹ Rodney Gilbert 1929.

¹⁴² The British expedition involved 20,000 troops and over 100 vessels with a total of 668 canons on board of 25 battles ships; see Mao Haijian 1995.

¹⁴³ The total casualty figure for the British side was 890 (including 66 died in the battles, 448 died of diseases and 380 wounded). That for China was 2,479 minimum (1,645 died in the battles and 834 wounded); see Mao Haijian 1995.

¹⁴⁴ The total military cost of the Qing defense campaigns was 30 million *liang* of silver, about a third of the Qing annual revenue; see Mao Haijian 1995. The cost of the Treaty of Nanking were (1) 6 million silver dollars (about 4.5 million *liang*) to Britain for the damage to opium stock and loss of lives and another 12 million silver dollars (about 9 million *liang*) to cover the British war expenses (Articles IV and VI); (2) release of all British detainees or Chinese working for Britain (Articles VIII and IX); (3) secession of Hong Kong (Article III) and opening up 'without molestation or restraint' five ports – Guangzhou (Canton), Xiamen (Amoy), Fuzhou, Ningbo, and Shanghai (Article II); (4) abolishing the Cohong monopoly and a re-payment of a total of 3 million silver-dollar debts (about 2.3 million *liang*) to the British debtors (Article V); (5) a single tariff for China at a fixed, publicized fair tariff rate (Article XI). So, the cash payout to the British was 15.8 million *liang* of silver. Thus, the total monetary costs for the Qing were 45.8 million *liang* of silver, or a half of the Qing annual revenue.

Things began to change during and after the Second Opium War, which lasted for 4 years from 1856 to 1860, involving 4 imperial powers, Britain, France, the United States and Russia. The Anglo-French troops attacked inland cities including Beijing. But the Chinese put up a good fight. The 1858 Sino-British, Sino-French, Sino-American and Sino-Russian Treaties of Tientsin (Tianjin) and the following 1860 Sino-British, Sino-French, and Sino-Russian Treaties of Peking (Beijing) clearly indicated that to open China for trade was no longer enough. The new trend was to annex China in the 'informal empires' of the powers of the time by systematic bullying China. This was something new.

It would be wrong to assume that the Chinese elite were in the dark: from the fifteenth century the Chinese closely noted and documented the rise of European colonialism along their traditional trading routes in Southeast Asia and the Indian Ocean region. They were well aware of European technology in the form of ship design and weaponry.¹⁴⁵ Europeans were subject to Chinese scrutiny a century before the First Opium War. This is evident in *Travels of the Seas*, written in 1730.¹⁴⁶ In 1839 on the eve of the Opium War, Lin Zexu (1785–1850), Imperial Commissioner in charge of the ban on the opium trade from 1838 to 1840, began to have European knowledge and information collected and translated into Chinese, including newspapers and magazines published in Portuguese-controlled Macao,¹⁴⁷ Emerich de Vattel's *Law of Nations (Huada-er Geguo Lüli)* written in c. 1758, Hugh Murray's *Encyclopaedia of Geography (Sizhou Shi)* published in 1834, and Algernon S. Thelwall's moralising essay on the British opium trade with

¹⁴⁵ See F. W. Drake 1975.

¹⁴⁶ Chen Lunjiong 1985.

¹⁴⁷ They included《澳门月报》,《澳门新闻纸》,《广州记事报》.

China entitled *The Iniquities of the Opium Trade with China* (*Duihua Yapian Maoyi Zuiguolun*) published in 1834.

Also, to be fair, dog-eating-dog was not unknown in China: during the half millennium from the Spring and Autumn Period (770–476 B.C.) to the Warring State Period (475 – 221 A.D.), the country was a huge theatre of wars. Confucianism was created during this era of turbulence as an antithesis of the competition for the bad human behaviour. Before that the First Opium War, the Chinese had accepted their fate when under the alien attacks and conquests at least three times: under the Jin Tartar (1115–1234), the Mongols (1271–1368), and the Manchus (1644–1911), not to mention the fact that the empire itself was a product of conquest by the Kingdom of Qin (841–220 B.C.).

The Chinese traditional way to handle conquerors was to play the card of 'Confucian culturalism' in the hope that a competition for good behaviour following a strict code of conduct, rather than of military strength and brutality, tame barbarians by removing their rough edges with Confucian gentlemanly softness (*yirou kegang*). The game of Confucian culturalism was playable only on the condition that the alien conquerors accepted their cultural inferiority and that they wanted to become something higher. The tactic worked repeatedly for the Chinese.

But what the Qing elite encountered this time in the space of 20 years (1840–60) was very different from what China had experienced previously. Firstly, unlike the early Jesuits, by the nineteenth century the Western Europeans did no longer view China any superior. Meanwhile, with the rise of modern colonialism, the age-old 'Confucian sphere of influence' and 'China-centred world-system' in Asia crumbled. This disarmed Confucian culturalism. Any moral preachment on the Chinese part at the modern imperial powers to join in a competition for the best gentlemanly behaviour

led anywhere. So, to the Qing Confucians, the new breed of Westerners was incredibly arrogant. Moreover, much to the distaste of the well-educated Qings, the prevailing rule of the game in the outside world was ‘the winner taking all’ in a competition for violence and ‘thuggery behaviour’.¹⁴⁸ This was traditionally associated with barbarianism by the Confucian standard.¹⁴⁹ This combination of arrogance and barbarianism caused enormous anti-Western feelings amongst the Qing elite.

Secondly, by the early nineteenth century each major industrial power possessed far greater military and economic strength than the Manchus who took over China in 1644. According to Dr. Sun Yat-Sen, China could be conquered by Japan within 10 short days; by the US, 30 days; by Britain, 45 days; and by France, 50 days.¹⁵⁰ So, there was a real possibility that China proper was colonised long before 1937.¹⁵¹ But, instead, the victors were mainly after reparations, political, judiciary, military and commercial privileges through numerous ‘unequal and imposed treaties’. From 1842 to

¹⁴⁸ As the hang-over of it, Japan has not paid a penny for its war crimes against China during WWII which cost 35 million Chinese lives and a total of US\$ 300–600 billions worth damage to the Chinese fixed assets in China at the 1937 price; see Li Zhengtang 1999; Chen Hong 2001. The amount for the Chinese fixed assets is now worth US\$ 4.24–8.48 trillion at the 2006 price; see www.minneapolisfed.org/Research/data/us/calc/hist1800.cfm for the calculation. This US\$ 4.24–8.48 trillion is the equivalent of 91–182 percent of Japan’s total GDP of 2005 at US\$ 4.66 trillion; see ‘Japan’, CIA Factbook, as in August 2006. If the interest is included (say at merely 5% per year) due to the 60-year long delay of payment on Japan’s part (1946–2006), Japan’s unpaid reparation to China is now compounded to US\$ 79.33–158.65 trillion at the 2006 price. This is at least 17 times of Japan’s total GDP of 2006. All these figures do not include the compensation of 35 million Chinese lives. Japan naively believes that by recompiling their history textbooks, it is able simply to write off all these debts and get away with it.

¹⁴⁹ Confucius was reported to say that if a ruler has to give up one factor amongst three – food, arms and faith, he should give up arms; see Kong Qiu *Lunyu* (*The Analects*).

¹⁵⁰ See Sun Zhongshan 2000.

¹⁵¹ This is not to say that violation and occupation of China’s frontiers did not exist. In 1858–81, the Russians forced their way to occupy 1,000,000 square kilometers in Chinese Siberia and another 510,000 square kilometers in Chinese Turkistan plus war reparations. These territories totalled 7.4 percent of the Qing Empire. There has been no intention for Russian governments, past or present, to return an inch of these territories to China. Japan did return Taiwan to China after WWII, but still occupies China’s Ryukyu Islands.

1901, China signed 26 major treaties to cater for 73 demands from 12 modern powers.¹⁵² Five such reparations totalled 713 million *liang* of silver (26,730 metric tons). During the same period, five major war reparations cost China a total of 713 million *liang* of silver (26,730 metric tons), greater than China's entire silver stock by 1800.¹⁵³ Qing China hence became an easy prey for the modern powers to milk ransoms from without the cost of running a colony. This, according to Dr. Sun Yat-Sen, made China a 'sub-colony' (*ci zhimindi*), worse than a full colony of the West.¹⁵⁴

Provided that the modern powers were not yet prepared to colonise China, the Qing elite were given the time and space to think over how to handle modern imperialism and its impact on China.

2 Change in the mindset and attitude of the Qing elite

The Qing elite were not a stupid bunch. The 1840 defeat made them think. Immediately after the First Opium War, there was a surge of information about Europe in books such as Wei Yuan's *A Comprehensive Survey of Off-shore Countries (Haiguo Tuzhi)* written in 1841,¹⁵⁵ Chen Fengheng's *A Brief History of England (Yingjili Jilue)* written also in 1841, Wang Wentai's *A Study of England of Red-haired Barbarians (Hongmaofan Yingjili Kaolue)* written in 1842, and Liang Tingnan's *Four Essays on Off-shore Countries (Haiguo Sishuo)* in 1846, Xu Jishe's *Records of Lands and Peoples Overseas (Huanying Zhilue)* in 1848, and Xia Xie's *Main Events between China and the West (Zhongxi Jishi)* in 1850. It is important to note that compared with the early works under the influence of the Jesuits, which

¹⁵² See Zhao Dexin 1990.

¹⁵³ Zhao Dexin 1990; Tang Xianglong 1992.

¹⁵⁴ See Institute of History, Guangdong Academy of Social Sciences 1981–6.

¹⁵⁵ The main body of text was Lin Zexu's 《四洲志》. This was a best-seller which had 11 editions from 1841 to 1902.

involved religious pursuit and pure science and technicality in their ivory tower, the new trend was for a wider range of mundane and tangible information concerning Europe, especially in terms of humanities (customs, values, law and social conditions).

The Qing elite were convinced that the Europeans might be brutal and aggressive but by no means primitive. They were highly sophisticated and often more efficient than the Chinese. Such a contrast took Qing thinkers some struggle to decide how to define the Europeans. Wei Yuan finally changed the old term *yi* (meaning 'barbarians') to a new one *yang* (meaning 'sea-borne') when referring to the Europeans.¹⁵⁶ By 1860, this new term was universally accepted.

Intuitively, the Qing elite were fully aware that the European victories everywhere depended heavily on their strong ships and powerful canons (*jianchuan lipao*) which created a *force majeure* over a traditional society like China. The painful experience from the two opium wars thus forced the Qing elite to accept the survival of fittest instead of the award for the best behaved. This was the beginning of social Darwinism in China. Coincidentally, the formal publicity of Charles Darwin's *The Origin of Species* took place during the Second Opium War.

It is now commonly agreed that social Darwinism was the corner-stone of all schools of political thought in post-Opium War China. There was also an overwhelming emphasis on the military, China's weakest link.¹⁵⁷ So much so, military strength became a panacea as shown by the notorious idiom

¹⁵⁶ Wei Yuan 1936.

¹⁵⁷ Numerous works, e.g. J. R. Pusey 1983. J. A. Fogel and P. G. Zarrow 1997. Aihwa Ong and Donald Nonini, 1997. Kewen Wang 1998. E. S. Rawski 1998. Timothy Brook and B. T. Wakabayashi 2000. Henrietta Harrison 2001. Kai-Wing Chow, Kevin M Doak, Poshek Fu 2001. George Wei and Xiaoyuan Liu 2002. S. L. Glosser 2003. Giovanni Arrighi 2003. A. D. Voskressenski 2003. Kwang-Ching Liu and Richard Shek 2004. P. F. Williams and Yenna Wu 2004.

‘power coming through the barrel of a gun’. With a historical twist, the adoption of social Darwinism, which was originally meant for China’s survival when facing the external pressure, was soon internalised in China’s domestic politics and statecraft. It eventually opened the Pandora’s Box of militarism, military coercion, and military dictatorship in the post-Qing era. Undoubtedly, the adoption of social Darwinism after the First Opium War was the first nail in the coffin for Confucian culturalism whose essence is about civilian-secular rule and sage-like humanity (*ren*).¹⁵⁸

Social Darwinism persuaded the Qing elite to swallow their pride and urged China to learn from the West. The idea was first put forward by a Confucian scholar Wei Yuan (1794–1857) in 1841, before the Treaty of Nanking, as ‘learning advanced technology from Europeans to fight against them’ (*shiyi zhichang yi zhiyi*).¹⁵⁹ In 1849 he went further to argue that to learn from Europe would enable China to build a rich country with strong armed forces.¹⁶⁰ Feng Gufen (1809–74), another Confucian scholar, advocated the need for adopting Western knowledge (*cai xixue*), producing Western tools and machines (*zhi Yanqi*), collecting more revenue (*chou guoyong*) and changing the Imperial Examinations (*gai keju*).¹⁶¹ By now, the elite began to contemplate changes not only in technology but in the institutions as well. In 1896, the ‘Westernisers’ (*yangwu pai*), finally

¹⁵⁸ The original meaning of Confucius’s *ren* was ‘Do not do to others what you would not want done to yourself’ (*ji suo buyu, wushi yu ren*) and ‘cherishing or loving one another’ (*airen*); see Kong Qiu (Confucius), *Lunyu (The Analects)*. Later, Zhu Xi (1130–1200 A.D.), the founder of Neo-Confucianism, interpreted *ren* as what separates human beings from the animal kingdom in a package of benevolence, righteousness, etiquette and intelligence (*ren yi li zhi*).

¹⁵⁹ See Preface of his *A Comprehensive Survey of Off-shore Countries (Haiguo Tuzhi)*, publisher unknown.

¹⁶⁰ In Chinese: 尽转外国之长技为中国之长技, 富国强兵, See Wei Yuan 1936. It is important to note that Meiji Japan copied from Qing China exactly the same approach after their 1868 Restoration, despite that fact that the *kanji* 富国强兵 was pronounced as *fokoku kyohei*.

¹⁶¹ Feng Guifen 1957.

summarised their approach as ‘Chinese ideology as the foundation and Western knowledge for utility’ (*zhongxue weiti, xixue weiyong*) in order to maintain its moral high ground.¹⁶² Even so, inevitably, Confucianism which dominated politics in China for so long was marginalised.

But the new idea was proved too far ahead of its time. They sank in only a decade later during the Second Opium War in the mandarin circle. In 1858, the Deputy Minister of Wars Wang Maoyin (1798–1865) recommended to the throne to circulate Wei Yuan’s *A Comprehensive Survey of Off-shore Countries* (*Haiguo Tuzhi*). He argued that ‘It is not impossible to resist against the Europeans [so long as we know their strength] (*erfei jingwufa zhi keyu*)’.¹⁶³ This ushered in a four-decade long era of the Self-strengthening (*zhiqiang yundong*) and Westernisation movements (*yangwu yundong*) which officially commenced in 1860. Here strength was the end while Westernisation was the means.

3 Consequences of the new mindset and attitude

By definition, the slogans ‘self-strengthening’ and ‘westernisation’ signalled a dramatic shift in the benchmark from China’s old golden age to the modern West. Now, the Qing mandarins were fully prepared to accept China’s position in the world in accordance with the social Darwinian principle: strength and efficiency, not moral values or code of conduct, determine one’s fate in competition. Also, it means that the Qing elite decide to join the social Darwinian race. One of the leaders, Zuo Zongtang, urged

¹⁶² The slogan was first raised by Grand Secretary Sun Jianai (1827–1909) in his memorial to the throne in 1896 on establishing Peking University whose aim was described by him as ‘learning mainly Chinese ideology and using Western knowledge as a subsidiary’ and ‘Chinese ideology as the foundation and Western knowledge for utility’; see Sun Jinai 1983. Interestingly, Meiji Japan had an almost identical approach called *wakon yōsai* (和魂洋才), meaning ‘Japanese spirit plus Western technology’.

¹⁶³ Jia Zhen and Bao Yun 1979.

that 'By copying European technology, China would be able to remove the advantage of the West and beat the West at its own game.'¹⁶⁴

A cluster of changes followed. Firstly, there was a rise in free thinking with open discussions in the Qing elite circle regarding China's current deficiencies and the possible future for the Qing Empire and the Chinese civilisation. Non-Confucian ideas were tolerated. Fresh opinions were encouraged. By-passing the Imperial Examinations, young and ambitious scholars were hired as aides to influential reformers, especially at the Governor-General level (*zongdu*) and Provincial Governor's level (*xunfu*). Curiosity and patriotism also drove young people to study overseas. By the end of 1870s, suggestions were made that China should try capitalism to 'strengthen the country and enrich the people'.¹⁶⁵

Secondly, the Foreign Affairs Department (*zongli geguo shiwu yamen*) was created in early 1861. The Foreign Affairs Department marked the beginning of modern foreign relations and diplomacy in China, in which China related to other nations as equals and recognized the importance of trade with them.¹⁶⁶ Apart from diplomacy, the department dealt with customs, naval defence, and the procurement of arms from the West.

Thirdly, there was a drive for knowledge modernisation through diffusion of advanced knowledge from Europe. The new rational was undoubtedly Francis Bacon's maxim the 'knowledge is power', contradicting the Confucian belief that 'moral integrity is power'.¹⁶⁷ It is documented that in 1866 Zuo Zongtang (1812–85), a top brass of the time, sent his memo to the Foreign Affairs Department that '[to learn from the West] depends much on

¹⁶⁴ 夺彼族之所恃, 师其长以制之; see Zou Zongtang c. 1885.

¹⁶⁵ See Bailey 1998.

¹⁶⁶ See Rodney Gilbert 1929.

¹⁶⁷ Confucius claimed that 'Great virtue (*dade*) leads to status, income, fame and longevity'; see Kong Qiu 1993.

education. ... After the training China will have the right specialists to supervise production of ships and to navigate a fleet; and everything will work for China'.¹⁶⁸ To fulfil that, the Capital Foreign Language Academy (*jingshi tongwenguan*) was established in mid-1862 with an open system of recruitment to ensure the authenticity of knowledge from the West. In 1869, it appointed the Yale-educated missionary William A. Martin (Ding Weiliang, 1827–1916) as Dean (*zong jiaoxi*). Martin served in that capacity for 25 years. Under his leadership, international law received priority in the curriculum and translation projects of the academy, something China urgently needed in engaging with the West.¹⁶⁹

In the south, the Translation Division was added in 1868 to the Jiangnan (Kiangnan) Arsenal in Shanghai (*jiangnan zhizaoju fanyiguan*) which had been established in 1865. John Fryer (Fu Lanya, 1839–1928), a Briton, was appointed as Translator in Chief. Soon, it took over the Capital Foreign Language Academy as the main source of written information regarding European knowledge. Fryer was involved in the production of 129 books in his three-decade long service in the Jiangnan Arsenal. The technical subject areas of those books included mathematics (calculus and analytical geometry), electricity, metallurgy, chemistry, medicine, physics, astronomy, geology, geography and cartography. Countries revealed included the British Empire, France, Germany, Italy, Spain, Portugal, Holland, Belgium, Denmark, Norway, Sweden, Switzerland, Austria, Hungary, Greece, Poland, Russia, Turkey, Egypt, Persia, India, United States, Mexico, Peru and Brazil. There were also specific publications on armed forces of the British, French, German, Italian, Austrian, Russian,

¹⁶⁸ See Zou Zongtang c. 1885.

¹⁶⁹ Martin spoke fluent Chinese. His first Chinese translation was Henry Wheaton's 1836 work of *Elements of International Law*; see Tian Tao 2001. This work was introduced to Japan in 1865. He went on to translate two more law textbooks; see Xiong Yuezhi 1994.

Persian, Indian, and Japanese, regarding their shipbuilding, navigation, communication, weaponry, naval warfare and annual budgets.¹⁷⁰ He even established the first popular modern scientific journal in China called *Magazine of Nature (gezhi huibian)* in 1875 and ran it until 1892.¹⁷¹ Fryer hence became the godfather of scientific enlightenment to late Qing literati.

Fourthly, entwined with knowledge modernisation, there was a drive for military modernisation. It is not surprising that the leaders of Westernisers were all closely associated with the Qing military: Zeng Guofan (1811–72) and Li Hongzhang (1823–1901, Zeng’s subordinate) were the founders of the Hunan Army (*xiangjun*, formed in 1854) and the Anhui Army (*huaijun*, formed independently also in 1854), respectively. Zeng and Li also established the Jiangnan (Kiangnan) Arsenal in 1865. In 1875, Li and Shen Baozhen (1820–79, also Zeng’s subordinate) were responsible for the establishment of China’s Northern Sea Fleet (*beiyang haijun*) and the Southern Sea Fleet (*nanyang haijun*) as show cases of naval modernity. Another leader, Zuo Zongtang (1812–85, Zeng’s subordinate), was heavily involved in the arms industry. By doing so, the Westernisers departed from the golden principle of civilian rule despite the fact they themselves were all properly trained with the orthodox Confucianism.

Foreign advisers and technicians, often in their dozens, were always on the payroll of the Chinese naval establishments,¹⁷² some reaching the rank of admiral of the Qing navy.¹⁷³ The first training centre, the Mawei Naval Academy (*mawei chuanzheng xuetao*), was established in 1867 in Fujian Province. It employed several dozen French instructors to train just ten

¹⁷⁰ See 江南制造局译书提要

¹⁷¹ See Wang Yangzong 2000.

¹⁷² See Hao Peiyun 1929.

¹⁷³ Hao Peiyun 1929.

Chinese.¹⁷⁴ This trainer–trainee ratio demonstrates just the seriousness the Westernisers were in upgrading the Qing navy. Four other academies were established in Tianjin (1880), Huangpu (1887), Nanjing (1890), and Yantai (1903).¹⁷⁵ From 1876 onwards, naval cadets were sent to Britain and France to learn the latest technology and skills.¹⁷⁶ In 1905, cadets went to Japan for the same purposes.¹⁷⁷

The Westernisers were the first group to try out import substitution industrialisation (ISI). It began with the arms industry. In 1861, Zeng Guofan established China's first factory, the Anqing Arsenal, in Anhui to produce fire arms of the European style. It was a half-way house, as its production still depended on the traditional handicrafts. Nevertheless, in 1865, the arsenal launched China's first wooden hull steamship the *Huanghu*. In 1868, the Jiangnan Arsenal in Shanghai launched the *Huiji*, a 60 metre long 600-tonner with 8 cannons, propelled by 400 horsepower. It was the first functional modern naval vessel built on China's soil. In the following decade until 1876, seven more steamships were built in the arsenal. The largest was the *Yiyuan* with a displacement of 2,800 tons and 1,400 horsepower.¹⁷⁸ Meanwhile, a modern shipyard, the Fuzhou Shipyard, was built in 1868 with 5 docks and 3,000 workers.¹⁷⁹ It was the largest in East Asia of the time. During the first 10 years the shipyard launched 15 large steam ships with an aggregate displacement of 170,000 tons. It went on to build another 25 ships from 1876 to 1907 with the total displacement of 300,000 tons.¹⁸⁰ In terms of

¹⁷⁴ Hao Peiyun 1929.

¹⁷⁵ Hao Peiyun 1929.

¹⁷⁶ Hao Peiyun 1929.

¹⁷⁷ Hao Peiyun 1929.

¹⁷⁸ See Hao Peiyun 1929.

¹⁷⁹ The Yokosuka Dockyard in Yokohama, Japan, only had merely 100 workers at that time.

¹⁸⁰ 福建省地方志, 2006.

quality, by 1885, Qing shipbuilding easily matched that of Meiji Japan (see Table 8).

Table 8. Chinese and Japanese Naval Shipbuilding Compared, 1870–85

Name	Hull	Length	Beam	Draught	Horsepwr
A. Jiangnan Arsenal					
<i>Weijing</i> (1870)	Wooden	65.8m	9.8m	3.5m	605
<i>Hai-an</i> (1872)	Wooden	96.0m	13.4m	6.1m	1,800
<i>Zhiyuan</i> (1875)	Wooden	96.0m	13.4m	6.7m	1,800
<i>Baomin</i> (1885)	Wooden	72.1m	11.5m	4.6m	1,900
B. Yokosuka Dockyard					
<i>Seiki</i> (1876)	Wooden	62.1m	9.3m	4.0m	443
<i>Banjo</i> (1880)	Wooden	46.9m	7.8m	3.9m	659
<i>Jingei</i> (1881)	Wooden	75.9m	9.5m	4.3m	1,450
<i>Kaimon</i> (1884)	Wooden	64.3m	9.9m	5.0m	1,267
<i>Tenryu</i> (1885)	Wooden	60.1m	10.8m	5.2m	1,267

Source: Chinese ships: We Yungong 1905; Wang Er-min 1963. Japanese ships: see Hansgeorg Jentschura, Dieter Jung, and Peter Mickel 1977.

Note: Measures of the Qing ships are converted from Qing Standard *chi* (*yingzao chi*) which equals 32cm; see Liang Fangzhong 1980. Measures of the Japanese ships are converted from the imperial system.

4 State inadequacy and incapability

Overall, however, the Westernisers scale and scope of their reform to change China were both limited. The Qing state invested very little in modern infrastructure such as railroads and telegrams, very important during the first phase of modernisation of the nineteenth century. It becomes clear that Westernisation Movement was insulated within the immediate concern of China's military modernisation instead of economic modernisation.

Firstly, the state-led modern sector was tiny. It was unable to take over the market. The Qing state did not take a clear leadership. This is shown in the employment data for the modern sector:

Modern enterprises	Number of workers	% in total
Qing state-run	30,600	33.3
Chinese private	27,250	29.7
Foreign	34,000	37.0
Total	91,850	100.0

Secondly, the Qing state was extremely weak in the provision of modern infrastructure. From Table 10, its investment in railways hardly existed (see Table 10).

Table 10. Investment Shares in Railways, 1888–1946¹⁸¹

Sector	Total	Foreign (I)	Chinese (II)	(private)	(Gvt)	I:II
No. Projects	90	76	14	(10)	(4)	5.4
% in total	100.0	84.5	15.5	(11.1)	(4.4)	
Sum*	1398235438	1078932172	319303266	(299681530)	(19621736)	3.4
% in total	100.0	77.2	22.8	(21.4)	(1.4)	

Note: *Converted with period exchange rates.

The ultimate reason was the Confucian taboo against heavy taxation which prevented the Qing state from obtaining revenue from the population even when it had the legitimate reason to do so. Even when the Qing state pursued the aim of building the new navy, the central government heavily

¹⁸¹ Source: Based on ZTBZ 1996; Yang Yonggang 1997.

depended on the provincial coffers, as the costs of the new navy were beyond the capacity of the Imperial Treasury (as in 1910, in 10⁴ *liang* of silver, Hao P. 1929: 14, 178–81):

	Start-up fund	Annual maintenance	Total
Total	1,634	168	1,802
Treasury	500	–	500
Provinces	1,134	168	1,302
<i>Anhui</i>	48	8	56
<i>Fujian</i>	80	5	85
<i>Guangdong</i>	120	20	140
<i>Guangxi</i>	50	6	56
<i>Henan</i>	64	8	72
<i>Hubei</i>	80	10	90
<i>Hunan</i>	36	4	40
<i>Jiangsu</i>	120	20	140
<i>Jiangxi</i>	56	10	66
<i>Manchuria</i>	–	10	10
<i>Shaanxi</i>	40	2	42
<i>Shandong</i>	80	15	95
<i>Shanxi</i>	60	5	65
<i>Sichuan</i>	80	10	90
<i>Zhejiang</i>	100	15	115
<i>Zhili</i>	120	20	140

5 From incapability to foreign dependence and to ‘the traitor of China’

From Table 11, the annual average foreign debt was more or less the equivalent to the late Qing annual revenue. This basically means that the Qing state was in total financial ruin. The Qing incapability in extracting revenue from the population of the empire led to heavy dependence on foreign funds to keep the Qing state barely afloat. This alone gave the

oppositions plenty of pretexts for accusing the Qing state as the traitor of China.

Table 11. Government Foreign Debts, 1861–98¹⁸²

Year interest	Purpose	Sum (Silver <i>Liang</i>)	Debtor	Annual (%)
1861–66	Counter-Taipings	1,609,925*†	Foreign merchants in JS, FJ and GD	?
1867–68	Counter-Muslim Rebellion	2,200,000*	Foreign merchants in SH	18.0
1874	Taiwan defence	2,000,000§	British bank	8.0
1875	Counter-Muslim Rebellion	3,000,000†	British banks	10.5
1877–78	Counter-Muslim Rebellion	6,750,000§	British bank	15.0
1883–85	Coastal defence	13,602,300§	British bank	9.0
1886	Naval updating#	980,000§	German bank	5.5
1887–88	Flood control	1,968,800*†	British bank	7.0
1893–95	Coastal defence (1)	42,090,000§¶	British and German banks	6.0–7.0
1895–96	War reparation to Japan	200,000,000¶	French and Russian banks	4.0–5.0
Total		274,201,025		
In metric tons		10,230		
Annual average		7,834,310		

Note: * Loans for 2 years. † Loans for 2–5 years. § loans for 6–19 years. ¶ Loans for 20 years and over. # Fund abused for the Summer Palace. JS–Jiangsu. FJ–Fujian. GD–Guangdong. SH–Shanghai.

So, the state failure of the Qing had very little to do with the alleged economic exploitation commonly cited by Marxian and/or left-wing historians. Instead, the state took far too little from the economy to sustain basic services for the sake of Confucian integrity.

Counterfactually, if the Qing state was able to double its tax revenue to the region of 200 million *liang* of silver (7,500 tons) per year, roughly 0.5

¹⁸² Source: Based on Tang.

liang per head of the Qing population per year, the Empire could have well survived until today. This 200 million *liang* is the equivalent of 6 percent of China's total GDP of the 1880s (see Table 3).

This was the tragedy of the Confucian cultural influence: it was too 'civilised', too 'caring' and too well-entrenched in China to fence off the onslaught of Social Darwinism.

D. Final remarks

From the low tax burden and disaster relief point of view, the Qing state performed very well until the end of its life. But in term of exacting revenue the Qing state always 'unperformed' in order to keep in line with Confucian benevolence. The policy to freeze the total revenue regardless of economic growth was a deliberate choice to benefit ordinary people. The Qing prosperity owed much to the small and cheap state. However, this official attitude 'spoiled' China's population to the point that any increase in tax burden was seen as unlawful. This is a 'low tax trap' which worked only when peace can be guaranteed indefinitely somehow. In reality, this cannot be achieved.

The lessons to be learned from the Qing Period are: (1) There is a thin line between Confucian benevolent rule and self-unplugging by the state; (2) also, there is a thin line between *Laissez-faire* and anarchy.

The Confucian ideology lowered and perpetuated the threshold of public tolerance towards any attempt to raise taxation burden. This in turn created a situation that disabled and diminished the Qing state regarding its fiscal capacity. It is thus not at all that surprising that the Empire crumbled in 1840 when a small fleet of the EIC was able to rampage along the entire

east coast of China and that in 1911 a tiny group of Republicans were able to end the Qing monarchy.

Ironically, the Qing internal benevolence to benefit the population at the expense of the state fiscal capacity planted the very seed of external vulnerability to destroy the Qing way of life that was meant to be nurtured. In this context, the culture factor played an overwhelmingly decisive role in the Qing history.

References: to be included