The Colonization of Hong Kong: A Trade Perspective

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ABSTRACT

The current thesis attempts to explain the institutional buildup of the treaty-port system in China from the trade perspective: first, evidence of the tradition of "colony for trade" in Hong Kong is present in detail in historical literature and data; second, a mathematical model is constructed to capture the trade mechanism working in the history of the treaty-port system covering Hong Kong, Shanghai [the representative of Concessions and Settlements (C&S)], and Macao in sequence.

Why was Hong Kong colonized? Is it true that Hong Kong was colonized for its rich natural resources (e.g., African colonies) or its desirable dwelling environment (e.g., Neo-Europes) as Acemoglu et al. (2001) argued for its colonial origins? Hong Kong's experience based on historical empirical evidence, shows that there definitely exists a new colonial and institutional origin: trade, traced back to Adam Smith (1776) and Ragnar Nurkse (1961), where the triangular trade among China, India, and Britain left Hong Kong as the transit trade position to get started on its journey to getting rich. Acemoglu et al. (2002) emphasized that the "institutional reversal" due to colonialism was the key to its subsequent economic growth. Was it right for Hong Kong? Hong Kong was not colonized for settling down; thus, there was little incentive to build up good institutions to sustain its economy according to the argument of Acemoglu et al. (2001). However, Hong Kong built the good institutions to rise up like Neo-Europes, whereas Acemoglu et al. (2005) showed that the rise of Europe was motivated by the triumph of the institutions derived from the Atlantic trade. This implies that trade could be an indispensable channel through which the economy would flourish. The current paper extends the trade mechanism in the motherland before 1850 according to Acemoglu et al. (2005) to the colony after 1840; thus, this is where Hong Kong's trade story begins. Endowed with the trade framework originating from the colonialism of Hong Kong, the whole evolution of the treaty-port system, including Hong Kong, C&S (represented by Shanghai), and Macao in China, from 1840 to 1941 could be fully understood. Consequently the current paper attempts to construct an analytical model to highlight the trade mechanism in the colonization of Hong Kong and its extension or competing institution form - C&S in the treaty-port system further.

ABSTRACT (Chinese Version)

本论文集旨在从贸易角度解释中国的通商口岸体系的制度成因：首先，从历史文献和数据角度论证了香港作为贸易型殖民地的历史传统；然后，构造一个数学模型来分析贸易机制如何作用并先后促成包括香港、上海（代表租界）和澳门在内的整个通商口岸体系制度的形成。

为什么香港会被殖民？是像 Acemoglu et al. (2001)论述的殖民根源那样，香港的殖民肇因于其丰富的自然资源（比如，非洲的殖民地）或者优良的定居环境（比如，新欧洲）？来自香港经历的历史证据显示，存在一种新的殖民和制度根源，那就是贸易，始自 Adam Smith (1776) 和 Ragnar Nurkse (1961)的论述：香港置身于中国—印度—英国的三角贸易的转口贸易地位使其走上富裕之路。而 Acemoglu et al. (2002)强调肇始于殖民主义的“制度逆转”是之后经济增长的关键，这一论断适用于香港吗？因为香港并非因为西方殖民者的定居而被殖民的，根据 Acemoglu et al. (2001)的观点也就鲜有动机建立良好的制度来支撑经济。但是香港确实崛起于其自身优良的制度，一如 Acemoglu et al. (2005)证明西欧的崛起得益于大西洋贸易引致的制度成就。这意味着贸易可以成为繁荣经济的必不可少的机制。本文将 Acemoglu et al. (2005)强调的 1850 年前殖民地母国西欧的贸易机制扩展到 1840 年后的殖民地国家，所以香港就是一个贸易型殖民地的范例。站在来自香港的贸易型殖民主义角度，包括香港、租界（以上海为代表）和澳门在内的整个通商口岸系统在 1840 到 1941 年间的制度演化就不难理解了。接着，本文构造了一个分析模型来突出发生在香港的殖民化过程中的贸易机制，并进一步将之延伸到租界乃至整个通商口岸的制度成因解释。

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The Colonization of Hong Kong: A Trade Perspective

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July 13, 2011

Abstract.

Why was Hong Kong colonized? Is it true that Hong Kong was colonized for its rich natural resources (e.g., African colonies) or its desirable dwelling environment (e.g., Neo-Europes) as Acemoglu et al. (2001) argued for its colonial origins? Hong Kong's experience based on historical empirical evidence, shows that there definitely exists a new colonial and institutional origin: trade, traced back to Adam Smith (1776) and Ragnar Nurkse (1961), where the triangular trade among China, India, and Britain left Hong Kong as the transit trade position to get started on its journey to getting rich. Acemoglu et al. (2002) emphasized that the "institutional reversal" due to colonialism was the key to its subsequent economic growth. Was it right for Hong Kong? Hong Kong was not colonized for settling down; thus, there was little incentive to build up good institutions to sustain its economy according to the argument of Acemoglu et al. (2001). However, Hong Kong built the good institutions to rise up like Neo-Europes, whereas Acemoglu et al. (2005) showed that the rise of Europe was motivated by the triumph of the institutions derived from the Atlantic trade. This implies that trade could be an indispensable channel through which the economy would flourish. The current paper extends the trade mechanism in the motherland before 1850 according to Acemoglu et al. (2005) to the colony after 1840; thus, this is where Hong Kong's trade story begins. Endowed with the trade framework originating from the colonialism of Hong Kong, the whole evolution of the treaty-port system, including Hong Kong, Concessions and Settlements (C&S, represented by Shanghai), and Macao in China, from 1840 to 1941 could be fully understood. Consequently the current paper attempts to construct an analytical model to highlight the trade mechanism in the colonization of Hong Kong and its extension or competing institution form – C&S in the treaty-port system further.

Keywords: Colonization, Trade, Treaty-Port System, Hong Kong, C&S, Macao

JEL Codes: B31, E02, E11, F14, F54, N75, N95, O11, O53

"In countries, besides, less extensive and less favourably circumstanced for inferior commerce than China, they generally require the support of foreign trade. Without an extensive foreign market they could not well flourish, either in countries so moderately extensive as to afford but a narrow home market or in countries where the communication between one province and another was so difficult as to render it impossible for the goods of any particular place to enjoy the whole of that home market which the country could afford. The perfection of manufacturing industry, it must be remembered, depends altogether upon the division of labour; and the degree to which the division of labour can be introduced into any manufacture is necessarily regulated, it has already been shown by the extent of the market."

Cited from p. 174, Book IV of Adam Smith, *The Wealth of Nations*, 1776 [1958].

Introduction

The current paper attempts to highlight the trade mechanism's role in the treaty-port system in China from 1840 to 1917, covering Hong Kong, the Concessions and Settlements (C&S, e.g., Shanghai), and Macao, which inherited the colonialism of Hong Kong.

Acemoglu et al. (2001) argued that institutions resorting to settlement due to mortality and natural resources contribute fundamentally to the economic performance of countries with colonial origins, taking Hong Kong, Singapore and Malaysia as examples in Asia. According to the settlement argument of Acemoglu et al., there are two basic elements—mortality and natural resources—working in the incentive for institution construction: low mortality plus rich resources lead to settlement, which forms the incentive to build up good institutions to improve and sustain economic performance, for example, Neo-Europes (United States, Canada, Australia and New Zealand); high mortality plus rich resources provide little motive to settle down, leaving bad institutions to trap an economy, for examples, the extractive states in Africa. In reference to the work of Acemoglu et al. (2001), there is little content on the Asian colonies, and mortality had inconsistent logic to explain settlement among different regions by comparing mortality and settlement data. Furthermore, the history of Hong Kong and Singapore shows, no local resources is to be extracted at all, and no settlement in the sense of migration is established either. Looking at the whole evolutionary image of African and Asian colonies, their shape and geographical position is only attractive for the western overseas trade routes to Asia, passing by Africa, without the concept of settlement in the same sense as that of the Neo-Europes. In fact, Curtin (1998) found that mortality was greatly reduced during 1840s and 1860s before the formal colonization began in Asia and Africa in the 1880s, and Curtin (1998) stated that it diminished further in 1895-1914 during the colonization of Africa and Asia. Thus, there are great limitations to the argument of Acemoglu et al. (2001) when applied to the case of Asia. This limitation leads to the trade mechanism introduced in the current paper—the trade in Asia, in parallel with the Atlantic trade highlighted by Acemoglu et al. (2005).

Acemoglu et al. (2001, 2002) tried to classify all colonies into either good or

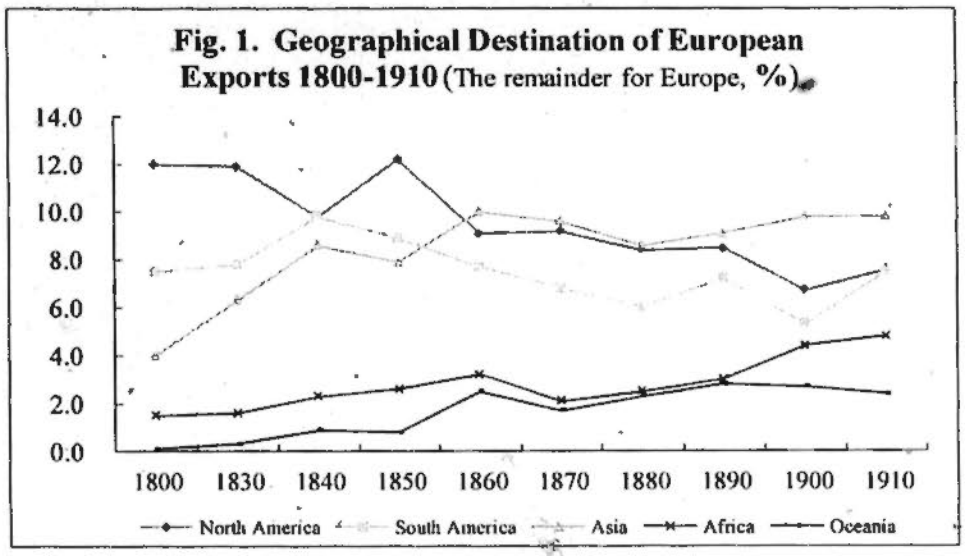
extractive states from the settlement perspective resorting to the consideration of the combination of mortality and natural resources; it's really problematic in the equal treatment between non-settlement *ex ante facto* and the unsuccessful settlement *ex post facto*. And trade was introduced to explain non-settlement intention case here, which related to the Crown colonies in Asia and Africa. What the current paper wants to show is the missing part in the story of Acemoglu et al.: the role of trade, in China for example, which contributed to the institutional changes in traditional Asian societies, rather than the settlement in the Neo-Europes. The settlement strategy was not played in Asia at the time; hence, the mechanism concerned (mortality and natural resources consideration) did not work locally in the Asian colonies. The current paper does not imply nor intend to deny or reduce the role of institutions in economic growth. The current research efforts endeavor to show that settlement was not the unique or complete origin of the incentive behind the building up and improvement of institutions, and trade is always the indispensable motive so that trade settlement[1] like Hong Kong and C&S in China due to economic consideration other than local mortality and natural resources was highlighted in the current paper.

Taking Britain as an example, it played the strategy "Settlement in West, and Trade in East" referring to the timeline: the East India Company (EIC) was founded in 1600, whereas Virginia -the first colony in North America –was settled down in 1607. Recalling the argument of Nurkse (1961), the "growth through trade" mechanism was also applied to "outsiders" in the 19th century: "China, India, tropical Africa and Central America were not unaffected by the forces of growth through trade, but compared with the newly settled countries they were relatively neglected by the expansion of export demand as well as the flow of capital. And in places where both trade and capital flows were exceptionally active, as in parts of Southeast Asia, the outcome was sometimes a 'dual economy' in which a well-developed export sector coexisted with a primitive domestic economy. This lopsided pattern of development was surely better than no growth at all, yet it did show up the limitations of the external trade-and-investment engine when other conditions of progress were absent." (p. 289) In *The Communist Manifesto* Marx and Engels concluded how Western exports of modern industry made the East dependent on the West with its price and communication advantage, especially for China: "The cheap prices of its commodities are the heavy artillery with which it batters down all Chinese walls, with which it forces the barbarians' intensely obstinate hatred of foreigners to capitulate." (Toews, 1999, p. 69; Torr, 1951, pp. XVI) Thus, "handicraft industries were being destroyed and that the balance of trade was increasingly against China" according to India's experience with foreign manufactured goods (LeFevour, 1968, p. 11 and 158)

By looking at Fig. 1, the trade image that European countries have of Asia is vivid and clear. "Geographical Destination of European Exports 1800—1910 (European part is omitted)", European export activity to Asia was active: its share increased in two time ranges, 1800 to 1840, and 1850 to 1860, and surpassed the share of North America from 1860 onward, corresponding with the booms of building up

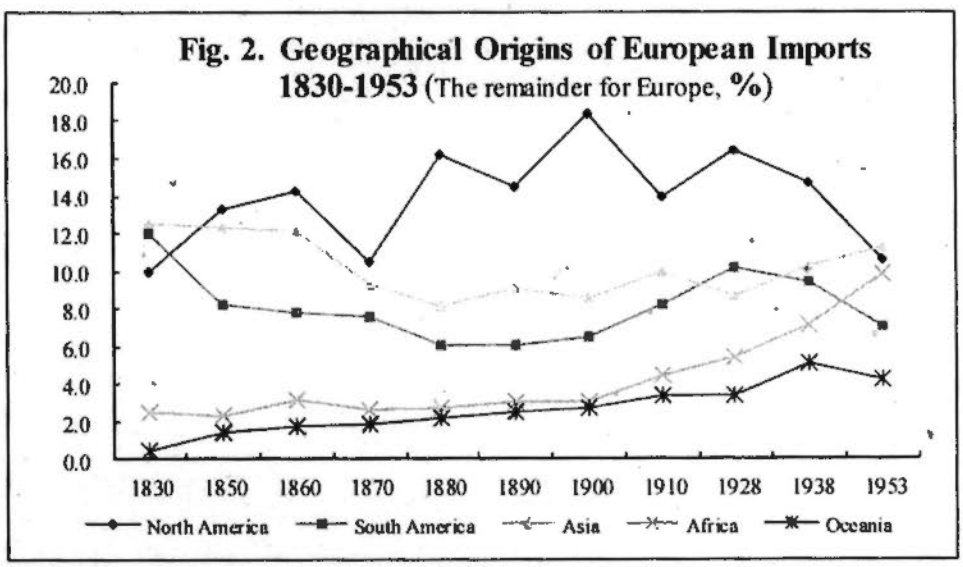
[1] In order to avoid any confusion, "trade settlement" would be just cited as trade for simple to highlight the difference from the settlement argument of Acemoglu et al. in the later content of the paper except some specific cases declared.

treaty-ports while its absolute volume increased the whole time.



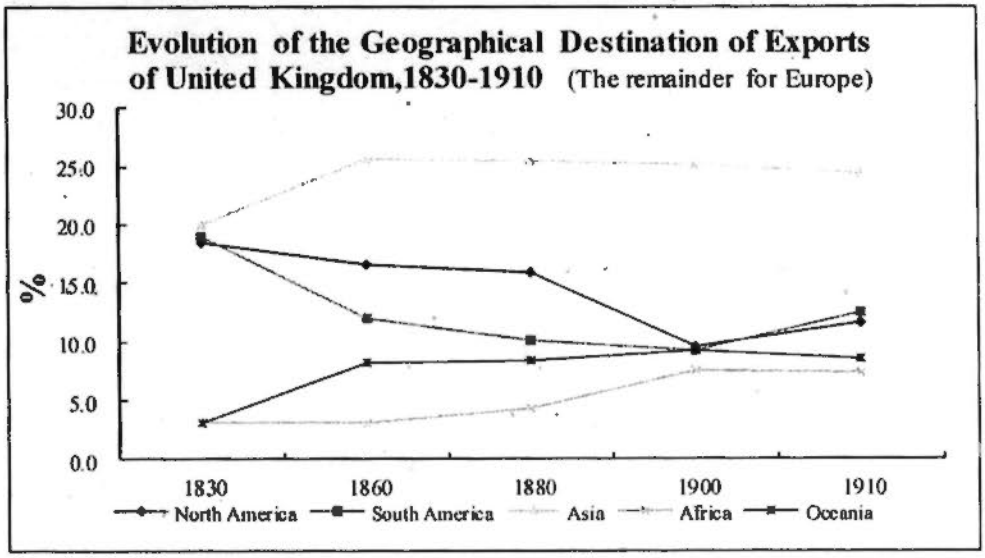
Data source: Table 1 (Bairoch, 1974, p. 560).

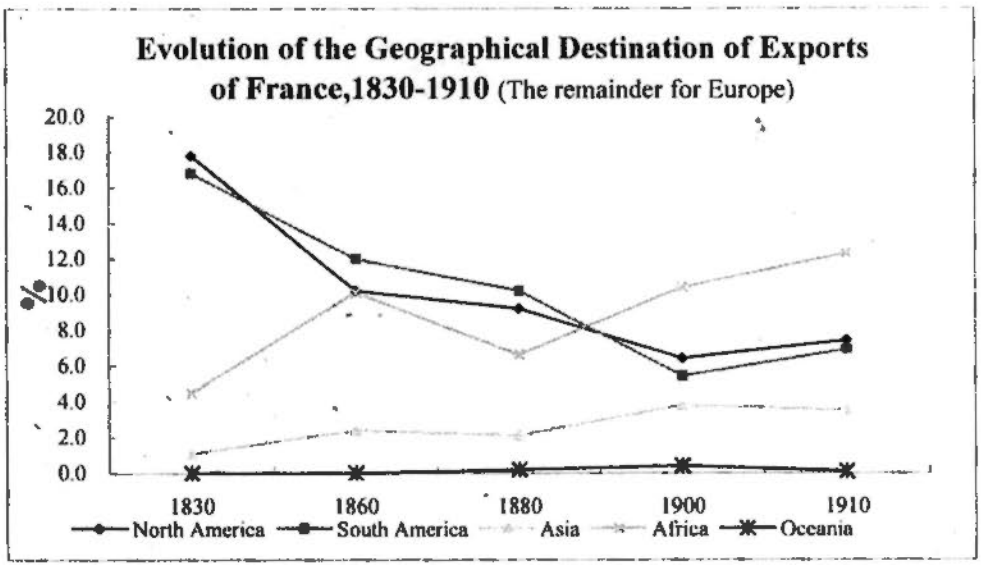
Fig. 2, "The Geographical Destination of European Imports 1830—1953 (European part is omitted)", also shows active European imports from Asia with increasing import volume before 1928, although its share fluctuated: downward from 1830 to 1880, and upward from 1880 to 1910.

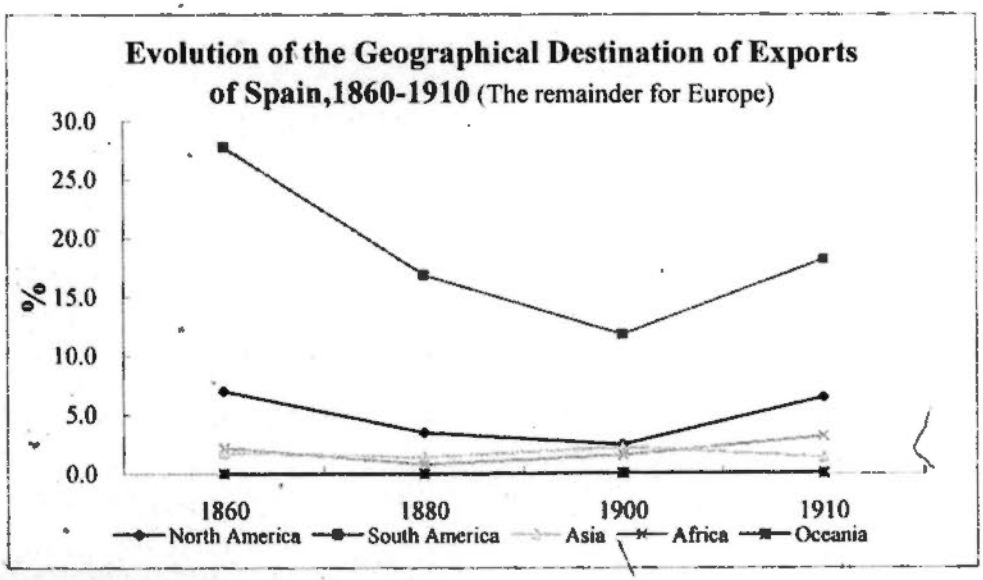


Data source: Table 7, p. 577 by Bairoch (1974). (The original title with the wrong duration, 1930—1910, was corrected, and the data for 1970 were excluded for a clear trend when the original table is cited here.)

In addition, reading each countries' exports share in the following figures (only three representative countries—United Kingdom, France and Spain for non-monarchy vs. monarchy ones and new vs. old colonial ones in the sense of Acemoglu et al., 2005) shows similar increasing trends in Asia.







Data Source: Table 6 (Bairoch, 1974, p. 575).

Endowed with the trade idea, the current paper successfully explained the

treaty-port system in modern China from the trade perspective by treating the case of China as the pure trade example. Combined with specific historical constraints, the theoretical model with the trade content has truly replicated the mechanism of how colonial powers made their choices between colony and C&S in China under the international environment of free trade.

In the model, Hong Kong, treated as the representative of colony, was colonized to increase British exports into China: the economy of Hong Kong was cultivated by the British necessity of the triangular trade among Britain, India and China, nourished by the illegal opium trade and the legal transit trade of teas, silks and foreign industrial manufactures; C&S, as the competing institution against colony, was built after Hong Kong was colonized to enlarge further the trade share of foreign powers in China under the free trade background. Macao and Leased Territories (L.T.) could also be incorporated into the framework from the same logic. Thus, the trade origin beginning in Hong Kong could be confirmed; it was trade, rather than settlement, which influenced institutional change in China by following the step of Europe's rise in the Asian colony age.

For the extra incentive that makes the present paper meaningful and interesting, it is the fact that Hong Kong grew from trade, as Adam Smith suggested the importance of "freedom of trade" in his famous 1776 book, *The Wealth of Nations*[2], compared to the mainland. Trade grew after the First Opium War, in which the economy of Hong Kong developed from nothing, step by step, to achieve industrialization in approximately 150 years. Meanwhile, the mainland stagnated and remained backward under the Qing dynasty from 1842, weathered a series of wars and social unrests from 1911, survived to revive the economy from 1978, but still fell behind Hong Kong's step to modernization. Hong Kong could be referred as a kind of beacon for the mainland to follow, which could lead the development of opulence and power. Moreover, Hong Kong could serve as a kind of mirror for us to see the historic process of China today. For example, the role that TVEs (Town and Village Enterprises) played in the growth of China could be found an ancestor in the trade description of Adam Smith (1776). Although named Smithian growth, as shown in Kelly (1997) [3], or the "industrious revolution" preceding the Industrial Revolution (IR), as described by Vries (1994)[4], Adam Smith said that trade is "for a freeman to find a market for his work" (p. 177 of Book IV), and believed that "the greatest and most important branch of the commerce of every nation" is "carried on between the inhabitants of the town and those of the country" "ultimately in a certain quantity of

[2] Refer to the following: "*The Wealth of Nations* argues three basic principles and, by plain thinking, and plentiful examples, prove them. Even intellectuals should have no trouble understanding Smith's ideas. Economic progress depends upon a trinity of individual prerogatives: pursuit of self-interest, division of labor, and freedom of trade" (O'Rourke, 2007, p. 1-2).

[3] Refer to the abstract of the paper: "Growth is driven by increased specialization caused by the geographical expansion of markets." That is, "growth dependent on efficiency gains from spatial specialization and division of labor" as concluded by Karl Gunnar Persson in reviewing S. R. Epstein's book *Freedom and Growth The Rise of States and Markets in Europe, 1300-1750*, shown at http://eh.net/bookreviews/library/0591.

[4] Refer to the abstract of the current paper: "The industrious revolution was a process of household-based resource reallocation that increased both the supply of marketed commodities and labor, and the demand for market-supplied goods. The industrious revolution was a household-level change with important demand-side features that preceded the IR, a supply-side phenomenon," which coincides with the beginning of China's reform and the opening of the Household Contract Responsibility System in the rural area.

rude produce exchanged for a certain quantity of manufactured produce" (p. 179 of Book IV). Another example concerns China's huge foreign reserve: once again, it is foreign trade that makes the direct and biggest contribution to the current huge foreign reserve of China. This issue was highly debated in the current world, and also reflected the growing influence of China on international society. From this angle, China is becoming powerful and bountiful, due to the tenable growth of trade. Fortune was accumulated from foreign trade surplus, especially the export-oriented part, with the beginning of the reform and the opening in 1978, when the pursuit of self-interest was formally respected and officially permitted. Hence, the commercial tradition rejuvenated — exchange and business in the domestic market first, then foreign trade motivated by foreign direct investment (FDI) and fostered by technological diffusion through the division of labor and international specialization. Additionally, is it possible that trade could induce institutional improvement in China, today and in the future, to sustain GDP and its growth according to the development experience of Hong Kong recently, the New-Europes modernly, and England anciently? From this settlement aspect, Shenzhen followed the step of Hong Kong empowerment with trade and settlement. When Barry Naughton (2007) reviewed the process of China to open up after 1978, there was a shadow that China grows with the origins of the treaty-port system further in the sense of Acemoglu's growth with colonial origins: "trade leads to the treaty-ports system, then institutional reform and opening with Special Economic Zones (SEZs) follows, and finally China's growth is driven".[5] Here proposes a plan to check and confirm further the institutional change in China along with the origin of the treaty-port system to echo the institutional evolution induced by trade descended from, generally, the rise of Europe.

After documenting the key premise of the current paper in the introduction, the following content is organized into the following parts. Section I is the literature review, which reviews the work of Acemoglu et al. to show the weakness of their settlement argument, and discloses the missing part in history: evidence of the colony for trade in the East Indies. Section II provides the background of the current study, which focuses on China, to show Hong Kong was colonized due to the British trade interest in China, and that the C&S followed in the same way, which contributed to

[5] Here are some statements concerning Naughton's (2007) work: "The resulting policy echoed some features of the Treaty Ports forced on China in the nineteenth century, but this time under Chinese sovereignty. These early experiments with SEZs may have contributed to the distinctive 'dual track' approach that became a defining feature of Chinese institutional transformation," (p. 52). With the legacy of the Treaty Ports, "Traditional economic centers suddenly revived with astonishing speed. The Low Yangtze macroregion began to reclaim its traditional economic primacy, while the Northwest (heartland of the planned economy) receded in importance. There was even a revival of traditional market-based organizational forms, in which larger numbers of very-small-scale specialized firms coordinated through markets with upstream and downstream producers," (pp. 51- 52). "From our contemporary standpoint, however, the traditional economy [the traditional household-based economic system, e.g., small-scale household businesses and TVEs] rebounded. Commercial and entrepreneurial networks and behaviors, rooted in the past, have a new-founded relevance and provide a positive legacy for the future." (p. 53) China began industrialization in the pattern of the "Treaty Port industrialization." "Modern industry began in enclaves in the Treaty Ports during the early twentieth century. This was the dominant pattern of industrialization in China proper (i.e., China 'inside the Great Wall,' excluding Manchuria). Foreigners began to operate factories around the turn of the century, and Chinese followed suit. Early enclave industrialization was concentrated in light, consumer-goods industries, that is to say, in industries at the downstream end of the value chain. According to the 1933 census of industry in China proper, textiles made up 42% of total output, and food products (including tobacco) a further 26%. Modern industry was concentrated in a few treaty ports....Enclave industrialization was started by foreigners and grew under the impetus of foreign example and competition," (p. 44).

the evolution of the treaty-port system. Section III shows the colonization of Hong Kong in detail. Sections IV supplies the model construction, which provides a trade framework to explain the evolution of the treaty-port system covering Hong Kong, the buildup of C&S and the colony of Macao. Section V applies the theoretical model to explain the creation of colony and C&S, respectively, with corresponding evidence to prove the predictions from the model. Section VI concludes the current study. Finally, the Appendix documents the measurements, technical content of solution, and proof of propositions, maps, and the tables involved.

I. Literature Review

Trade, institutions and economic prosperity are the trinity nexus that would open the door to wealth and power for a country. However, what is the interaction mechanism among the three elements? Reading the map to national treasure is difficult, with missing pieces revealing only a partial truth.

For the role of trade, on the very threshold of the IR in early 1776, when the capitalist enterprise was initiated, Adam Smith suggested the importance of "freedom of trade." Blessed with natural liberty, a country could get rich in the spirit of *laissez faire, laissez passer*. Smith opposed the mercantile system in his famous book, *An Inquiry into the Nature and Causes of the Wealth of Nations* (abbreviated into *The Wealth of Nations*[1]). Later, Myint (1958) refined the classical theory of international trade from Smith's idea by emphasizing two distinct benefits from international trade– a "vent for surplus" by overcoming the narrowness of the home market, and "productivity improvement" by widening the extent of the market to improve the division of labor—when he cited the following key passage of Adam Smith in the *Wealth of Nations* (p. 318):

> "Between whatever places foreign trade is carried on, they all of them derive two distinct benefits from it. It carries out that surplus part of the produce of their land and labour for which there is no demand among them, and brings back in return for it something else for which there is a demand. It gives a value to their superfluities, by exchanging them for something else, which may satisfy a part of their wants, and increase their enjoyments. By means of it, the narrowness of the home market does not hinder the division of labour in any particular branch of art or manufacture from being carried to the highest perfection. By opening a more extensive market for whatever part of the produce of their labour may exceed the home consumption, it encourages them to improve its productive powers, and to augment its annual produce to the utmost, and thereby to increase the real revenue and wealth of society" (Vol. I, Cannan ed., p. 413).

As far as the trade-growth nexus is concerned, Nurkse (1961, p. 285) concluded that the new countries or "regions of recent settlement" in the 19th century (i.e., the United States, Canada, Argentina, Uruguay, South Africa, Australia and New Zealand) had the pattern of the "growth through trade"—"their high, though varying,

[1] Refer to Book IV of Adam Smith (1776): "Through the encouragement of exportation and the discouragement of importation are the two great engines by which the mercantile system proposes to enrich every country, yet with regard to some particular commodities it seems to follow an opposite plan: to discourage exportation and to encourage importation" (p. 137), but "I do not observe, at least in our Statute Book, any encouragement given to the importation of the instrument of trade. When manufactures have advanced to a certain pitch of greatness, the fabrication of the instruments of trade becomes itself the object of a great number of very important manufactures." (p. 138) "The most effectual expedient, on the contrary, for raising the value of that surplus produce, for encouraging its increase, and consequently the improvement and cultivation of their own land [in landed nations], would be to allow the most perfect freedom of the trade of all such mercantile nations" [such as Holland and Hamburg], and "[t]his perfect freedom of trade would even be the most effectual expedient for supplying them, in due time, with all the artificers, manufacturers, and merchants whom they wanted at home, and for filling up in the poorest and most advantageous manner that very important void which they felt there." (p. 164) "By means of trade and manufactures, a greater quantity of subsistence can be annually imported into a particular country than its own lands, in the actual state of their cultivation, could afford." (p. 171) whereas "[m]anufactures require a much more extensive market than the most important parts of the rude produce of the land." (p. 175)

dependence on growth through primary commodity exports and on the private foreign investment [foreign investment in China refers to Hou (1965)] which, directly or indirectly, was thereby introduced." Kravis (1970) said that trade "play the handmaiden rôle in the growth of developing countries" in the 19th and 20th centuries, referring to the argument by Ragnar Nurkse—"Trade in the Nineteenth Century ... was above all an engine of growth." However, Crafts (1973) tried to question and revise it from the international trade condition angle due to a growth transmitting mechanism emphasizing the difference between economic growth and Modern Economic Growth, in the sense of Kuznets (1966)[2]. Kindleberger (1961) aimed to clarify and specify the operating mechanisms before attributing growth or stagnation to changes in foreign trade.

Recently, Acemoglu et al. (2001) had argued that institutions resorting to settlement make more fundamental contributions to economic performance in countries with colonial origins. Taking 1995 as an example, the trade channel was neglected or intentionally overridden, but highlighted in the rise of Europe by Acemoglu et al. (2002a, 2005). Rodrik, Subramanian, and Trebbi (2002) further identified the triumph of institutions over trade (or integration) based on a larger sample of 1995. Considering the trade-growth nexus, Acemoglu had the following comments in the beginning of Chapter 19 of his textbook, *Trade and Growth* (2009, p. 648): "...whether international trade encourages economic growth. The answer to this question also depends on exactly how trade is modeled, as well as on what the source of economic growth is (in particular learning-by-doing versus innovation)" (third paragraph).

Which is the truth? First of all, we have to admit the different backgrounds of the above two arguments: Adam Smith offered the trade effect with domestic systems at the dawn of the IR from the reality of exchange or business. Even he was wise enough to foresee the future factory system, with the domination of the machines developed and flourished consequently after the IR for more than 200 years. On the other hand, Acemoglu et al. showed evidence after the IR (especially in 1995). Thus, the great difference lies in the fact that the content and focus of trade changed—Smith's trade focused on mercantilism with the fortune accumulation. After IR, trade deepened and extended with the duty of technological spillover or the diffusion of the flow of ideas, just as Lucas (2007, 2008) proposed to affect growth rate through institutional incentive channels in a catch-up situation. That is, before the IR, trade directly increased GDP more in the Smithian meaning, whereas after IR, trade improved institutions more to sustain GDP indirectly and GDP growth rate directly according to Lucas and Acemoglu. Thus, it would be too simple and biased to decompose trade into either fortune or technological flows because trade always has a dual effect: the *volume effect* to GDP, with fortune as the body and the *velocity effect* to GDP, with idea flows as the skeleton that centers more on institutional improvement as the rise of

[2] Referred to Crafts (1973), "It is worth considering however the difference between two archetypal cases:
(i) trade leading to short-term rises in income per capita modifying the economy structurally only to the extent of orientation towards primary/extractive production for export, perhaps involving 'enclave development';
(ii) trade leading to sustained increase in income per capita over the long term plus fundamental structural change involving a marked shift in emphasis away from agriculture towards the secondary sector."

Europe caused by the Atlantic trade as reported by Acemoglu et al. (2002a, 2002b, 2005) regarding economic development. However, which effect is dominated or displayed depends on the specific country at a specific time. This includes a contingency on the selected and available measure of trade and economic performance, which may be the reason why the trinity relationship is so hard to compose and identify.

The following contents fall into four parts: Part A examines the problems of the settlement argument; Part B shows the weakness of the settlement argument with historical evidence; Part C proposes a new argument, "colony for trade," in Asian colonies; and Part D focuses on the case of Hong Kong and Singapore.

A. Colony for Settlement and Plantation: Theoretical Analysis

TABLE 5—IV REGRESSIONS OF LOG GDP PER CAPITA WITH ADDITIONAL CONTROLS

	Base sample (1)	Base sample (2)	British colonies only (3)	British colonies only (4)	Base sample (5)	Base sample (6)	Base sample (7)	Base sample (8)	Base sample (9)
Panel A: Two-Stage Least Squares									
Average protection against expropriation risk, 1985–1995	1.10 (0.22)	1.16 (0.34)	1.07 (0.24)	1.00 (0.22)	1.10 (0.19)	1.20 (0.29)	0.92 (0.15)	1.00 (0.25)	1.10 (0.29)
Latitude		0.75 (1.70)				1.10 (1.56)		0.94 (1.50)	−1.70 (1.6)
British colonial dummy	−0.78 (0.35)	−0.80 (0.39)							
French colonial dummy	−0.12 (0.35)	−0.06 (0.42)							0.02 (0.69)
French legal origin dummy					0.89 (0.32)	0.96 (0.39)			0.51 (0.69)
p-value for religion variables							[0.001]	[0.004]	[0.42]
Panel B: First Stage for Average Protection Against Expropriation Risk in 1985–1995									
Log European settler mortality	−0.53 (0.14)	−0.43 (0.16)	−0.59 (0.19)	−0.51 (0.14)	−0.54 (0.13)	−0.44 (0.14)	−0.58 (0.13)	−0.44 (0.15)	−0.48 (0.18)
Latitude		1.97 (1.40)				2.10 (1.30)		2.50 (1.50)	2.30 (1.60)
British colonial dummy	0.63 (0.37)	0.55 (0.37)							
French colonial dummy	0.05 (0.43)	−0.12 (0.44)							−0.25 (0.89)
French legal origin					−0.67 (0.33)	−0.7 (0.32)			−0.05 (0.91)
R^2	0.31	0.33	0.30	0.30	0.32	0.35	0.32	0.35	0.45
Panel C: Ordinary Least Squares									
Average protection against expropriation risk, 1985–1995	0.53 (0.19)	0.47 (0.07)	0.61 (0.09)	0.47 (0.06)	0.56 (0.06)	0.56 (0.06)	0.53 (0.06)	0.47 (0.06)	0.47 (0.06)
Number of observations	64	64	25	25	64	64	64	64	64

Notes: Panel A reports the two-stage least-squares estimates with log GDP per capita (PPP basis) in 1995 as dependent variable, and Panel B reports the corresponding first stage. The base case in columns (1) and (2) is all colonies that were neither French nor British. The religion variables are included in the first stage of columns (7) and (8) but not reported here (to save space). Panel C reports the OLS coefficient from regressing log GDP per capita on average protection against expropriation risk, with the other control variables indicated in that column (full results not reported to save space). Standard errors are in parentheses and *p*-values for joint significance tests are in brackets. The religion variables are percentage of population that are Catholics, Muslims, and "other" religions; Protestant is the base case. Our sample is all either French or British legal origin (as defined by La Porta et al., 1999).

Source: Table 5-IV Regressions of Log GDP per capita with Additional Controls (Acemoglu et al., 2001, p. 1389).

Acemoglu et al. (2001) pioneered in empirically confirming the effect of economic institutions on economic performance by identifying two different forms of colonialism, "extractive states" and "Neo-Europes," depending on the absence or presence of European settlers, which is the argument, "colony for settlement."

The fundamental logic of their paper was based on the following institution evolution path (refer to Acemoglu et al., 2001, p. 1370 and Acemoglu, 2005, p. 91).

(potential) settler mortality ⇒ settlements

⇒ early institutions ⇒ current institutions

⇒ current performance

TABLE 4—IV REGRESSIONS OF LOG GDP PER CAPITA

	Base sample (1)	Base sample (2)	Base sample without Neo-Europes (3)	Base sample without Neo-Europes (4)	Base sample without Africa (5)	Base sample without Africa (6)	Base sample with continent dummies (7)	Base sample with continent dummies (8)	Base sample, dependent variable is log output per worker (9)
Panel A: Two-Stage Least Squares									
Average protection against expropriation risk 1985–1995	0.94	1.00	1.28	1.21	0.58	0.58	0.98	1.10	0.98
	(0.16)	(0.22)	(0.36)	(0.35)	(0.10)	(0.12)	(0.30)	(0.46)	(0.17)
Latitude		−0.65		0.94		0.01		−1.20	
		(1.34)		(1.46)		(0.84)		(1.8)	
Asia dummy							−0.92	−1.10	
							(0.40)	(0.52)	
Africa dummy							−0.46	−0.44	
							(0.36)	(0.42)	
"Other" continent dummy							−0.94	−0.99	
							(0.85)	(1.0)	
Panel B: First Stage for Average Protection Against Expropriation Risk in 1985–1995									
Log European settler mortality	−0.61	−0.51	−0.39	−0.39	−1.20	−1.10	−0.43	−0.34	−0.63
	(0.13)	(0.14)	(0.13)	(0.14)	(0.22)	(0.24)	(0.17)	(0.18)	(0.13)
Latitude		2.00		−0.11		0.99		2.00	
		(1.34)		(1.50)		(1.43)		(1.40)	
Asia dummy							0.33	0.47	
							(0.49)	(0.50)	
Africa dummy							−0.27	−0.26	
							(0.41)	(0.41)	
"Other" continent dummy							1.24	1.1	
							(0.84)	(0.84)	
R^2	0.27	0.30	0.13	0.13	0.47	0.47	0.30	0.33	0.28
Panel C: Ordinary Least Squares									
Average protection against expropriation risk 1985–1995	0.52	0.47	0.49	0.47	0.48	0.47	0.42	0.40	0.46
	(0.06)	(0.06)	(0.08)	(0.07)	(0.07)	(0.07)	(0.06)	(0.06)	(0.06)
Number of observations	64	64	60	60	37	37	64	64	61

Notes: The dependent variable in columns (1)–(8) is log GDP per capita in 1995, PPP basis. The dependent variable in column (9) is log output per worker, from Hall and Jones (1999). "Average protection against expropriation risk 1985–1995" is measured on a scale from 0 to 10, where a higher score means more protection against risk of expropriation of investment by the government, from Political Risk Services. Panel A reports the two-stage least-squares estimates, instrumenting for protection against expropriation risk using log settler mortality; Panel B reports the corresponding first stage. Panel C reports the coefficient from an OLS regression of the dependent variable against average protection against expropriation risk. Standard errors are in parentheses. In regressions with continent dummies, the dummy for America is omitted. See Appendix Table A1 for more detailed variable descriptions and sources.

Source: Table 4-IV Regressions of Log GDP per capita (Acemoglu et al., 2001, p. 1386).

The above argument is highly consistent with the experience of the Neo-Europes,

such as the United States, Canada, Australia, and New Zealand. Additionally, it also agrees with that of the British colonies, thereinafter shown as the close R-squares—0.31 vs. 0.30 without latitude control and 0.33 vs. 0.30 with latitude control, coefficients, and standard errors—1.10 (0.22) vs. 1.07 (0.24) and 1.16 (0.34) vs. 1.00 (0.22), correspondingly, in identifying "the effect of institutions on income" between the base sample of 64 countries and the subsample composed of 25 British colonies listed in columns 1–4 of "Table 5-IV Regressions of Log GDP per capita with Additional Controls" (Acemoglu et al., 2001, p. 1389) and stated in the second paragraph on p. 1388 of the research by Acemoglu et al. (2001).

There is some plausibility in some cases in Africa, Congo, for example, as cited by Acemoglu et al. (2001). However, it seems that the settlement mechanism by Acemoglu et al. (2001) had limited rather than general applicability in the African colonies. The mechanism may also be limited only in the example taken by the authors because "Table 4-IV Regressions of Log GDP per capita" (p. 1386, Acemoglu et al., 2001) clearly and definitely shows that the R-square at columns 1 and 2 declined by more than 50% (from 0.27 to 0.13 without latitude control and from 0.30 to 0.13 with latitude control, respectively) when excluding the Neo-Europes (only 4 out of 64 countries in the base sample) from columns 3 and 4. The R-square increased by more than 50% (from 0.27 to 0.47 without latitude control and from 0.30 to 0.47 with latitude control, respectively) when excluding the African colonies (27 out of 64 countries in the base sample) from columns 5 and 6. The potential problem existed in the fact that it is reasonable to conclude low potential settler mortality leads to settlement as a necessary condition, with low mortality as one of the significant factors determining settlements. However, it is wrong to derive high potential settler mortality as a sufficient condition killing settlement because the reason for non-settlement is more complicated than the simple high potential mortality.

It's dangerous and risky to use afterthoughts to conclude real history, just as Findlay and O'Rourke (2007) reminded that "Many possible outcomes in world history were ruled out *ex ante*, not just *ex post*."[3] Hicks (1969) once said, "... for it is unsafe to exercise one's imagination on the past—even to the extent that is needed for 'theoretical' purpose—unless it has been warmed by that 'old-fashioned' history."[4]

Compared to the comfortable environment of low mortality for settlements in Neo-Europes, African colonies mostly represented high potential mortality for Europeans, which could be the reason for the absence or presence of little settlements in most African colonies. This is shown in Column 8 of "Appendix 2: Data on Mortality" on p. 54–55, and Column 2 of "Appendix Table A5: Construction of Settlement Variables" on p. 62–64 in Acemoglu et al. (2000), combined with columns 5 and 10 of "Appendix A2: Data on Mortality" (Acemoglu et al., 2001, p. 1398). Higher mortality is definitely insufficient to produce no or little settlements, as shown in the increased R-square by counting out African colonies. Thus, the logic problem is implied in the "settlements" chain used as the keystone in the work of Acemoglu et al. (2001), which brought up the unharmonious result because the causal relationship

[3] Refer to the last sentence of the first paragraph at pp. xxi of Preface in Findlay and O'Rourke (2007).
[4] Refer to the paragraph covering p.5-6 of Hicks (1969).

between (potential) mortality and settlements is not general and solid, except Neo-Europes. For example, Algeria had a higher mortality rate of 78.2 compared to Egypt's 67.8, with the settlement ratio distinction, 0.13 vs. 0.01; Argentina and Chile had the same mortality rate, 68.9, with the settlement ratio difference, 0.60 vs. 0.50; Malaysia and Singapore had the same mortality rate, 17.7, with the settlement ratio gap 0 vs. 0.05 according to the above data source.

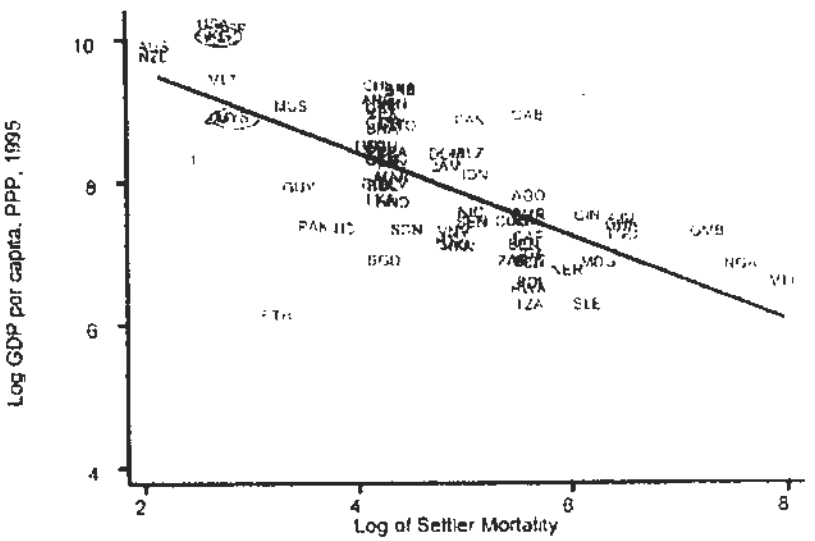


FIGURE 1. REDUCED-FORM RELATIONSHIP BETWEEN INCOME AND SETTLER MORTALITY

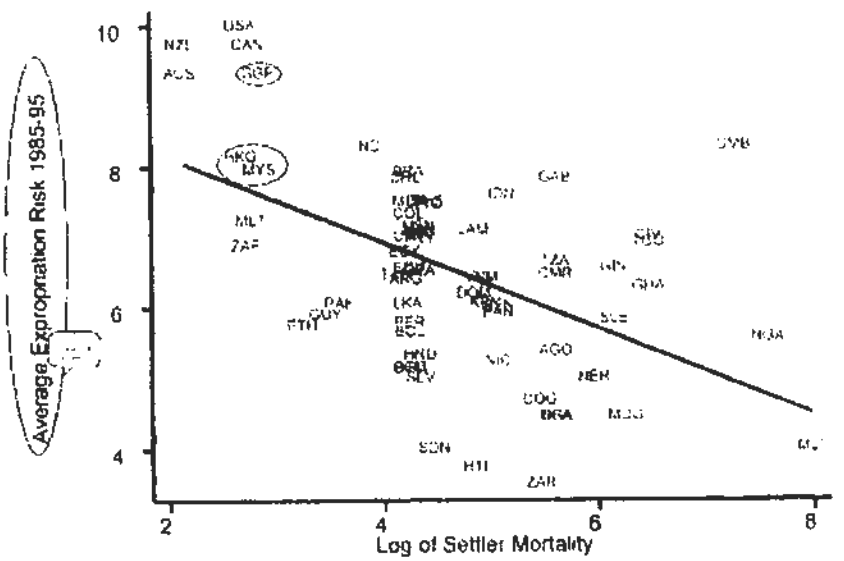


FIGURE 3. FIRST-STAGE RELATIONSHIP BETWEEN SETTLER MORTALITY AND EXPROPRIATION RISK

Source: Figure 1 on p. 1371 and Figure 3 on p. 1384, Acemoglu et al. (2001).

As far as the Asian colonies were concerned, the explanatory power of the argument from Acemoglu et al. is again questionable. The reason is that there was no direct discussion about it; discussion was limited to the Asian dummy and discussion

about India was minimal, in contrast to African cases representing the extractive states. Thus, Hong Kong, Singapore, Malaysia, and so on are shown as a secondary result denoted by "HKG," "SGP," and "MYS" in Figure 1 on p. 1371 and Figure 3 on p. 1384, as defined in "Appendix A2: Data on Mortality" on p. 1398 by Acemoglu et al. (2001), without evidence to support their conclusion given the nature of things. In fact, Asian colonies cannot be classified into either Neo-Europes or extractive states. This non-classification implies the existence a third form of colonialism with a different story for Asian colonies. Such a form of colonialism deviated from the paradigm of Neo-Europes and African colonies, with the indirect evidence shown in the great estimated coefficient difference between the Asian dummy, African dummy, and "Other" continent dummies [–0.92 (0.40) : –0.46 (0.36) : –0.94 (0.85) without latitude control and –1.10 (0.52) : –0.44 (0.42) : –0.99 (1.0) with latitude control] in columns 7 and 8, Panel A, of "Table 4-IV Regressions of Log GDP per capita" (Acemoglu et al., 2001, p. 1386). These results show that the Asian dummy has closer coefficients with the "Other" continent dummy. However, its standard error is about less than half of the latter, and the Asian dummy has a standard error closer to the African dummy, although its coefficient is again about less than half of the latter. Asian and African colonies were always little settled by Europeans. Hong Kong was the representative case in which Europeans did not intend to settle down, and there was nothing to be extracted by them either.

The settlement mechanism attributed to mortality is logically and theoretically unimpeachable in itself—relatively low mortality contributed to settlements, whereas the absence of settlements was, at least, partially due to high potential mortality[5]. Mortality (potential) then seemed plausible in relating with the settlements, which definitely fitted into the condition of mortality working as the IV of institutions. However, it failed unavoidably and expectedly in the empirical environment. In practice, settlements were closely related with the New World and Oceania, except for Africa and Asia, which can be evidenced in the change between "Settlers/total population in 1900 (low estimate)" column and "Population of European descent in 1975" column in "Appendix Table A5: Construction of Settlement Variables" (Acemoglu et al., 2000, p. 62–64) where most of the pre-colonies had almost zero descent in 1975, except for the Americas and Oceania. The potential high mortality reason could truly explain some cases, but it does not work for all, especially for Hong Kong, Singapore, and Malaysia, nor even for India and Egypt. The settlement channel suggested by Acemoglu et al. could not explain why they all had lower (potential) mortality than Argentina, Chile, Brazil, and so on, but were not settled by Europeans like the latter ones, particularly Hong Kong (14.9), Singapore, and Malaysia (17.7), which had a mortality level close to that of Canada (16.1) and the United States (15), in reference to the above appendix tables used by Acemoglu et al.

B. **Historical Background:** Settlement vs. Plunder —Incomplete Story

Resorting to the historical facts, we could find why the settlement mechanism

[5] This argument was explicitly stated as "...the causal effect of institutions on economic outcomes: European did not settle and were more likely to set up extractive institutions in areas where they faced high mortality" in the abstract of Acemoglu, Johnson, Robinson, and Thaicharoen (2003).

suggested by Acemoglu et al. would fail in African and Asian colonies:

First of all, the timing was different from the colonization in America, Africa and Asia. When the European expansion began in Africa and Asia, the former colonies in Central and South America had been independent, except for some Caribbean ones shown in Maddison (2006).

"The revolutionary and Napoleonic wars were much less costly in real terms to Britain than to France, the Netherlands, Spain and other continental countries. ... There were huge setbacks to the overseas commercial and colonial interests of the continent powers. The Dutch lost all their Asian territories except Indonesia, and their base in South Africa. The French were reduced to a token colonial presence in Asia, and lost Saint-Domingue, their major asset in Caribbean. Shortly after the war, Brazil established its independence from Portugal. Spain lost its huge colonial empire in Latin America, retaining only Cuba, Puerto Rico and the Philippines.

Britain took over what the French and Dutch lost in Asia and Africa, extended its control over India, and established a privileged commercial presence in Latin America.

In 1750, the British Empire included about one and half million people in the Americas, about 2.4 million in Ireland, and bases in Calcutta, Madras, and Bombay. By 1820, although it had lost its 13 North American colonies, Britain had gained control of Indian territories with a population of about 100 million." (p. 98)

Wesseling (1978) concluded, "... For many centuries Europeans and Asians were the warp and woof of the same commercial fabric which did not tear until the 19th century, and then through the violence of the new capitalism. ...This 19th century expansion of Europe was directed in particular towards Africa and, once again but in a different manner, Asia. That is to say the 'formal' expansion. It is now common knowledge that, in terms of investments and trade, both Americas were much more important—certainly for England—than Asia and Africa. But if the word is used in its strictest sense, then European expansion did not exist in America. This was the result of a much earlier decision. As Braudel writes, in 1500 Europe was confronted with a vital choice, 'either to make use of Christopher Columbus' discovery and opt for America, or to exploit the discovery of the continuous sea links round the Cape of Good Hope to its limits and batten on to Asia.' It is obvious that it chose to play the American card and that this choice led to a long-term development which was highly unstable but had enormous consequences for the players and their opponents. In fact, as a result, everything was over in America by the 19th century: conquest, colonization, liberation and, as far as the United States were concerned, the start of an empire of its own. Except in the economical sense, for instance in Argentina, European imperialism in the 19th century scarcely existed in the Americas. It was quite another story in Asia and Africa where in the 19th century the cards were dealt out once again although the hands were quite different at the two tables. In Asia the issue was roughly speaking to implement existing spheres of influence, in Africa to create new ones. ..." (p. 4–5).

Second, recalling the European expansion history, European strategies were different from those played in America and Asia. Adam Smith claimed "the discovery of America, and that of a passage to the East Indies by the Cape of Good Hope are the

two greatest and most important events recorded in the history of mankind"[6] as Engerman (2009) cited; meanwhile, Braudel (1978) wrote, "... European expansion began in 1492 or 1497. This forced on Europe an extremely grave choice: either to make use of Christopher Columbus' discovery and opt for America, or to exploit the discovery of the continuous sea links round the Cape of Good Hope to its limits and batten on to Asia. At some times Europe has been obliged to go one way, at other times the other. In the short term, in 1497, or rather in 1498, it was more profitable to exploit Asia, because there, everything was already in place. Exploitation, parasitisation, even some times the seizing of ships belonging to Muslims or Gujeratis, that was all that was necessary. There was a period of predation across the Indian Ocean. On the other hand, in America, it was necessary to build or rebuild. The arrival of gold or silver out of the American continent should not be put too early. The New World did not deliver any considerable quantity of precious metal before 1550. Therefore, it was necessary to build America, which was Europe's task, in the *long term*, I do believe that the long term was ultimately more profitable than the short. But everything had to be built, plantations, mines, gold washings, the peopling of this great area. However, Europe had the great advantage of being able to take its time here. Elsewhere, it was always confronted by indigenous societies, while in America, their reaction was extremely feeble." (p. 18)

Engerman (2009) stated, "Some colonies involved settlement by the colonizing power, while others did not, and may have been established mainly for trading purposes. ... Most earlier colonization was based on land expansion by armies, but there were some examples based on controls by sea, these, however, more frequently leading to trade relations with distant areas. ... Based on the magnitude of the existing and surviving populations, there were two rather distinct patterns of European settlement within the Non-European world. In the Americas, because of the great Native-American mortality after European arrival, there was settlement by Europeans and by the African slaves they brought over to supplement the number of Native-American survivors (see Tables 1 and 2). In Asia, however, even where the Europeans obtained political control, there was more limited deaths among natives at the time of settlement and there was sufficient population that could be controlled for their needs, so that neither European nor African migration into these arrears was important. ...

The involvement of different European powers was also not restricted to the Americas, as two other continents were colonized at roughly the same time. In regard to India, for example, Portugal opened the initial trading ports between 1500 and 1515, giving it the same one-century lead it had over England in the Americas. Other nations followed the Portuguese, also with trading companies. After the English East India Company in 1600, East Indian Companies were established by the Dutch, the French, the Danish, the Scotch, and the Swedish, while there were limited attempts to establish trading relations by the Russians, Spanish, and Prussians. ...The early Dutch

[6] "Smith, Wealth of Nations, II : 626; Raynal's wording was: 'There has never been any event which had more impact on the human race in general and for Europeans in particular, as that of the discovery of the New World and the passage to the Indies around the Cape of Good Hope.' See Dorinda Outram, *The Enlightenment*, 2nd edition (Cambridge: Cambridge University Press, 2005), 57." (Note 28, p. 20)

movement into Asia via the Indian Ocean left them with a successful colony in the Indonesian islands, but only trading contacts, with no political power, in China and Japan, while they lost several American colonies on the mainland and in the Caribbean and did not achieve a great success in their remaining American colonies. ...The local population density also affected the types of political controls that the Europeans could introduce, varying from land to be settled and controlled by Europeans to areas with only political control, in conjunction with local rulers, and with a rather limited ability to interfere with the cultural and economic life of local population." (p. 21–23)

Third, settlement is really only one side of the European expansion. Engerman (2009) said, "With the exceptions of Australia and New Zealand, European settlements in most parts of the world other than the Americas were not based upon large numbers of European settlers who became the key productive laborers, but upon small numbers who remained on the perimeter of the country and exercised control through military power or political arrangements with the local rulers. For example, the Portuguese, Dutch, British, and French sailed around the Cape of Good Hope at roughly the same time as they went to the Americas, to acquire territories and control of large native populations in Asia. The numbers of European settlers were few and they were generally involved in either political administration or in operating very large agricultural units. These settler populations were rarely directly employed in producing commodities for sale in European markets, and their primary concern was more with military and political control than with the direct production of economic surpluses. As for Africa, the early European settlements on the coast, mainly trading forts, could not exercise control over the native population because of the disease factors as well as African military power. Even when Europeans were able to move inland during the nineteenth century, after the introduction of quinine, European domination was achieved with relatively few settlers, but through arrangements with local powers or, as with the Belgians and the Germans, with the exercise of extreme military prowess." (p. 24–25)

Even in these early American colonies, there were different settlement patterns in different regions for different colonial powers.

For example, Engerman (2009) pointed out that "[by the eighteenth century,] In Canada and the northern United States, the population was predominantly white, with few Native-Americans and limited numbers of Africans. In the southern U.S. there were also few Native-Americans but with import of slaves from Africa, the population after 1700, became almost two-fifths African slave. The Caribbean islands (except for the Spanish possessions) had few Native-Americans, only a relatively small number of whites, and were populated for about ninety percent by black African slaves. In Central and South America, however, there was a limited number of blacks, some whites, and a predominant Native-American population." (p. 24)

How did the difference take place? History gave the answer: In the history of colonies, permanent settlement had never been popular among Western powers, except in Britain, originally. The Portuguese and Spanish first arrived in America, ahead by one century. The Dutch then followed, and the British shortly thereafter.

However, only Britain took the policy of encouraging immigration with the birth of the colony for settlement; thus, the mortality mechanism that Acemoglu et al. relied on failed from the beginning. Except for mortality, the reason for non-settlement could simply be that the colonial powers had no intention or plan to settle down due to another constraint.

Curtin (1998) found that the European settlement in Caribbean originally followed a different precedent -unlike "the Medieval English settlements in Ireland, beginning with the 'English pale' around Dublin. There the objective was to send out English settlers as a garrison for protection against the wild Irish" (Virginia, the first colony in North America, followed it)- to "add strength to fortified trading posts in the New World, following the model of the militarized trade diasporas of the Indian Ocean," and the latter became plantations due to two fundamental reasons: "the economic nature of sugar as a commodity" with "a high price elasticity of demand" and "the epidemiological difference between Europeans and Africans in the West Indies." (p. 77) The latter was the origin of the mortality argument derived by Acemoglu et al. Emmer (1998) said, "...early Atlantic history which seems to be uniquely British is the supply of young, mobile people willing to work and settle overseas. Only Portugal seems to have duplicated the British experience in that respect in the South Atlantic. Without such a supply of settlers, the Dutch expansion in the Atlantic took on a different character. Most of the Dutch viewed their stay overseas as a temporary exile, comparable to making a long voyage on a ship. ... the Dutch merchants were so keen on exploiting the lethal trade niche with the tropical zones in Asia: they had enough men. To send these men as settlers to North America would have been less profitable. (...the importance attributed to plantation colonies.) In Britain these were viewed as 'darlings of the empire', while in the Dutch experience the plantation colonies were viewed as generators of trade rather than as producers of tropical cash crops." (p. 8-9) Moreover, "...it was only in the British Atlantic that two powerful settlement colonies were established with unrivalled economic growth: the US and Canada. None of the other settlement colonies in the New World were able to develop in the same way and this has created the ahistorical notion of failure and backwardness in the historiography of the Caribbean and Latin America." (p. 2–3) Based on the preceding historical description, it would be difficult to treat all Europeans as settlers; thus, colony equals settlement is generally similar to the argument by Acemoglu et al.

Evidence from migration history also shows that settlement was not general and significant, in the strict definition of colony by Curtin (1998)[7], outside North America before 1850 and in Neo-Europes after 1850, by comparison. It is easy to find the difference by comparing the population structure between 19 Caribbean slave and sugar islands, and 13 North American colonies and the United States, according to Panels A and B, respectively, in "Tables 2–28 Population of British Colonies and Former Colonies in the Americas, 1750 and 1830" on p. 107 of Maddison's (2006) work. His work clearly showed that the Caribbean sugar islands were dominated by

[7] "true colonies, settled by farming families who would be self-supporting and provide a loyal population for defense or offense in case of war" (p. 77). Based on this definition, the colonies in Spanish America, Africa, Asia, and Caribbean could hardly be considered "true colonies" because they all missed some elements of the definition.

slaves, whereas the United States had a small percentage of blacks. In the global voluntary migrations on pp. 14–21 of Segal's (1993) work, during the period 1500–1814, "The principal routes were Western Europe to North, South, and Central America, and the Caribbean. Much emigration occurred in response to colonial settlement." In all the four stages of global migration (1500–1814, 1815 -1914, 1919–1939, and 1945–1980), the Neo-Europes were always the major receiving regions.

Emmer (1992) concluded, "Until 1800 intercontinental migrations were still relatively modest due to the limited technical and financial possibilities, at the time, of transporting, massive numbers of migrants across the seas. After 1800 these various limitations had been considerably reduced and it had become possible to transport more migrants in a decade than in any of the three centuries before 1800.

During the period of the ancient regime between 1500 and 1800 the expansion of Europe caused two big migration streams to come into existence, both directed toward the New World: (1) the forced emigration of about six million Africans, and (2) the emigration of about two to three million Europeans. These two migratory movements enabled the foundation and consolidation of colonies of settlement in the New World, as well as the foundation and expansion of a number of plantation colonies in the Caribbean, in north eastern Brazil and in the southern part of North America.

During the first half of the nineteenth century the situation remained unchanged both with respect to the ethnic composition as well as the destination of the intercontinental migratory movements. After 1850, however, the volume of intercontinental migrations increased in an explosive way because of the dominance of European migrants. Between 1800 and 1960 at least 61 million Europeans participated in intercontinental migration. North America remained the main recipient of these migrants; 41 million or 70 percent of Europeans went to the United States and Canada. The other European migrants went to South America (12 percent), to South Africa, Australia, and New Zealand (9 percent), and to the Asian part of Russia (9 percent)." (p. 2–4)

Mörner (1992) described the immigration into Latin America, especially Argentina and Chile, as "On principle, immigration to Spanish America was reserved for Spanish subjects of the monarch, and out-migration to the Americas was also strictly supervised," and "Latin America's attraction for European migrants was very limited and selective during, and for some decades after, the wars of independence." (p. 222)

Fourth, regarding mortality, it could not have been stable at the time when medical improvement was achieved[8], just as the column "Change from Table 1.1 (percent)" in "Table 1.2 Mortality of European Troops Overseas, 1909–1913" showed in comparison to "Table 1.1 Mortality of European Troops Overseas, 1817–1838," which was also clearly demonstrated in the change between "Map 1.1 Mortality of

[8] There are two periods recording the sharply decreased military mortality in France, Great Britain, India, Algeria, and the British West Indies—the middle decades of the 19th century—when the sharpest drop in absolute mortality per 1,000 took place, attributed to quinine in malarious countries and to improvements in the water supply elsewhere; 1895–1914, when the sharpest percentage decrease in deaths per year happened, with the application of the germ theory of disease and the mosquito theory for the transmission of malaria. (Curtin, 2001, p. 78, Article XI)

European Troops at Home and Abroad, 1817-1838" and "Map 1.2 Mortality of European Troops at Home and Abroad, 1909–1913" (Curtin, 1989, p. 7–11, 19). Curtin (1998) concluded, "The drop in death rates overseas was especially sharp from 1840s to the beginning of the First World War. The first major decline took place between 1840s and the 1860s, and the trend was clear by 1870s. The largest European overseas armies were the French in Algeria and the British in India. Over these two decades, the French military death rate in Algeria dropped by 60 per thousand; the rate for British troops in India dropped by 22 per thousand; and the change was equally impressive in other tropical territories, such as the British West Indies or the Dutch East Indies." (p. ix, Preface)

Considering the different timing of European expansion in the Americas, Africa, and Asia while "Australia and New Zealand were settled by the British at the end of the eighteenth and early nineteenth centuries" (Engerman, 2009, p. 27), and the migration history by Emmer (1992), it was not until around the middle of the 19th century when European expansion began in Africa. Curtin (1998) said, "[T]he conquest of Africa began in the 1880s." Bairoch (1974) even pointed out that African colonization effectively began after 1885; and even later in Asia as the evidence of Engerman (2009, p. 23) and Wesseling (1978, pp. 4–5) shows that the mortality factor should have been greatly reduced in the European expansion in Africa and Asia due to medical developments, as described in "Killing Diseases of the Tropical World" (Chapter 3, Curtin, 1989), unlike the early case in the Americas (especially the Caribbean islands). In fact, the image of "The White Man's Grave" only illusively came from the European experience in tropical Africa, where there was an abnormally high mortality rate in 1780–1850, as Curtin analyzed (Article VII and XI, Curtin, 2001; Chapter 1, Curtin, 1998). The same was not the case in Asia when the Europeans tried to conquer the continent. There is an interesting comparison between the English and French campaigns of 1860–1897, from the *British Medical Journal* (p. 239, Curtin, 1998): deaths from diseases per thousand during the British campaign in China Field Force and China (Talienwan) in 1860 were 14.9 and 5.4, respectively, vs: 118.0 by the French in China (French) in 1862. This confirms the low mortality for England in China at that time, and the great mortality difference between England and France. Judging from the colonialism practice of Great Britain, there really existed two different forms—the old colonial system in America and the new one in Africa and Asia—that had nothing to do with settlement. As Curtin (2001) said, "While the medical reforms were not a direct cause of the later scramble for Africa, they were clearly a technological leap forward. As such, they were necessarily an important permissive factor. ..., the history of tropical Africa would certainly have been very different if European mortality had continued at the old rate." (p. 110, Article VII)

In fact, Britain made changes to its colonial strategy over time, especially before and after 1815.

Harlow and Madden (1967) said, "In the history of British colonial developments the period between 1774 and 1834 is noteworthy as one in which old and new objectives strain and jostle against each other in the turbulence of swift waters. With the exploration of the Pacific in the age of Cook and growth of industrial techniques

an old ambition was revived, that is, to establish an empire of trading depôts in the Far East—in contradistinction to troublesome colonies in the West. Almost simultaneously an explosion occurred which shattered the North American Empire, and compelled politicians at home to adjust the imperial system to take control of an independent United States and an autonomous Ireland.

On the constitutional side the official policy was twofold: to reproduce the 'perfect equipoise' of the British constitution in the Canadian wilderness an antidote to subversive republicanism, and to rule non-British dependencies by the benevolent dictatorship of an evolving Crown Colony system. At the end of our period the problem of internal colonial self-government, stimulated by a renewal of large-scale emigration, was just about to reappear over the rim of the horizon. With regard to the regulation of trade a modified form of the Old Colonial System was vigorously operated; but as merchants and manufacturers began to think with increasing confidence in global terms the tenets of Adam Smith began at long last to win more general acceptance, and the rigidities of imperial monopoly were gradually replaced by the principle of reciprocal concessions—the prelude to the experiment in free trade. These and other related trends were accentuated (and in some cases temporarily distorted) by the strain of the long struggle with revolutionary and Napoleonic France." (first and second paragraphs, Preface, *British Colonial Developments, 1774–1834: Select Documents*)

McIntyre (1966) had the following record, "Not only did the empire change in strategy and shape during the era of the French revolution. In the new possessions which were captured in the French wars, fundamentally new concepts of government were evolved. In particular, an autocratic system of government, known as the Crown colony, was created, which in the nineteenth and twentieth centuries was to be a characteristic form of colonial rule in Africa and Asia. ...The basis of the new system was the idea that rights of the inhabitants would be safeguarded, but *not* by the grant of an assembly. To this end, the colonies were to retain their languages, revenue systems and existing laws. The governor would call small advisory councils of leading citizens. But the governor would *rule*, under direct instructions from home, and with the minimum of reference to local opinion. Here is the basis of the 'Crown colony' system. ... [W]hile Britain lost most of her American colonies, she acquired new possessions in the Caribbean, the Indian Ocean and the Pacific. ..." (p. 32–34) "The Victorian age [1837–1914] will always be regarded as the great age of *Pax Britannica*. Many parts of the world came to be dominated by British trade, finance and naval power. The Indian empire spread from the frontier of Persia to Burma; its commercial tentacles stretched onwards to Singapore and Hong Kong. Large portions of Africa were acquired. ...[Y]et the first three decades of Victoria's reign witnessed one of the most significant peaceful revolutions of modern history. The Old Colonial System was abolished. The trade and navigation monopolies gave way to free trade ..." (p. 35–8)

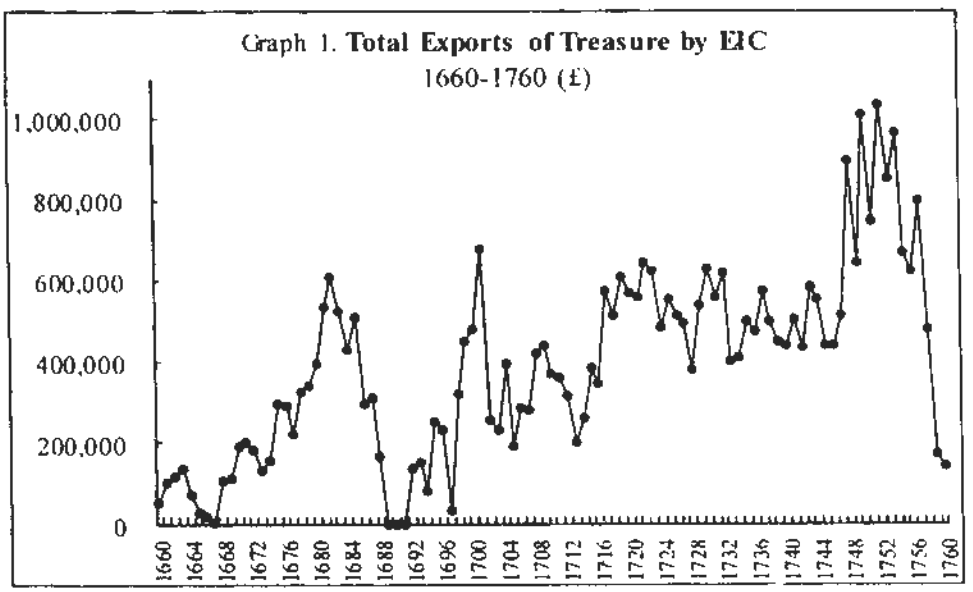
Fifth, regarding the extractive states built by the colonial powers, the case of the plantation colonies in history the above statement alludes to—few settlers or little settlement in the sense of Acemoglu et al. (formerly predominated by slaves and later

indentured labor), with the large exploitation of local and natural resources, which predominantly happened in the Caribbean, and extended to Africa (e.g., the Belgian Congo) and even Indonesia (the Dutch "cultivation system" instituted in 1830, shown on p. 7–8 of Emmer, 1998). Given the potential and realistic difficulty in identifying trade from extractive intention, as stated in the words "generator of trade" by Emmer (1998), some Dutch shippers derived the profits of plantation from trade in the Caribbean as mentioned by Curtin (1998). "Commerce and colonization, 'trade and plantations', were thus two sides of the same thing and were naturally supervised by a single committee of the Privy Council." (Walker, 1953, p. 5) It is reasonable to classify and attribute trade into extractive states, or vice versa, to some extent in some cases in the Caribbean, African, and Asian colonies. Hence, mortality can really make sense. However, one fact is undeniable: it is still trade, neither settlement nor extractive states, which dominated in Asian colonies, especially in the Far Eastern ones. Even in the description by Curtin (1998), the unique role that trade played in the Indian Ocean by the EIC is still implied—"These posts [trading posts in New World or Caribbean] would be a cross between existing colonies in Ireland or Virginia and the trading post operations of the East India Company." (p. 77) Thus, for "the model of the militarized trade diasporas of the Indian Ocean" and later the trading-post empire initiated by the Portuguese in Asia from the 16th through the 18th centuries described by Curtin (1984) in detail, the following work deserves to clarify its role as the precedent of Asian colonies played in history.

C. Another Channel: Colony for Trade in the East Indies

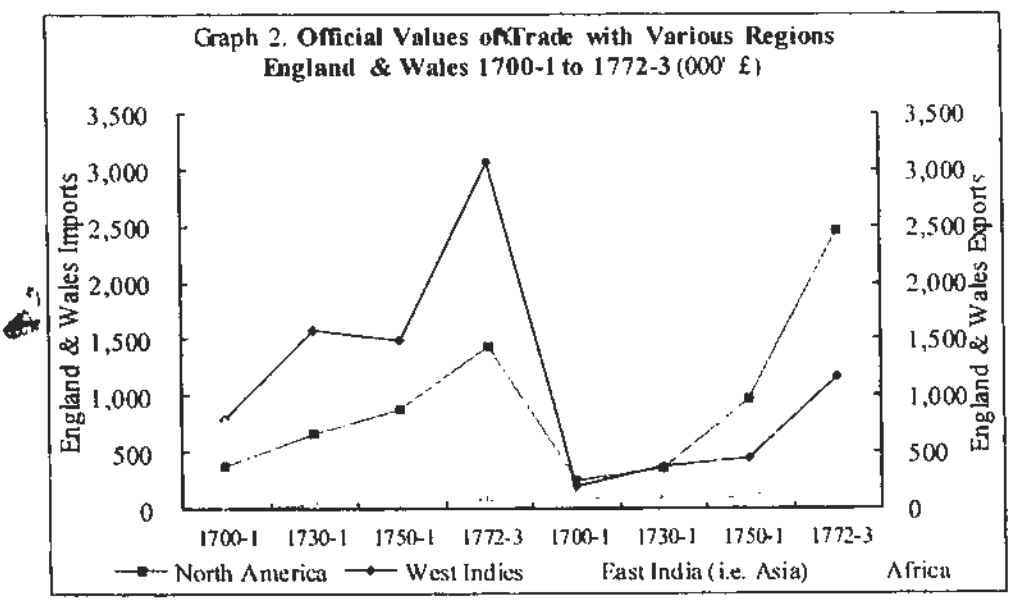
In the British overseas trade history, there was evidence of trade in Asia.

Pritchard (1970, p.45) said, "The desire to find a market for woolens, and the interest in the spice trade must be considered as constant factors which encouraged voyages toward China and the East." Its appendix IX "Imports and Exports of the East India Company to the East" showed that beginning as early as 1601, huge volumes and shares of money were shipped to the East by the EIC before the settlement in North America started.



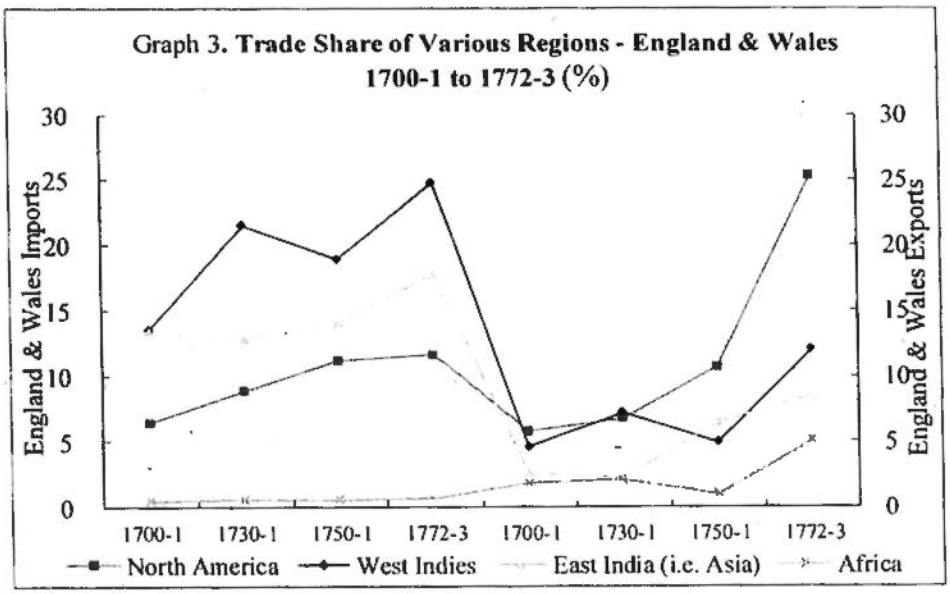
Data source: Table C.4. (Chaudhuri, 1978, p. 512)

Graph 1 shows the treasure exported by the EIC from Europe in 1660–1760, which clearly describes the British trade imbalance (details can be found in the comparison between commodity exports vs. exports of treasure in Tables C.3 and C.4 by Chaudhuri, 1978, p. 511–512).



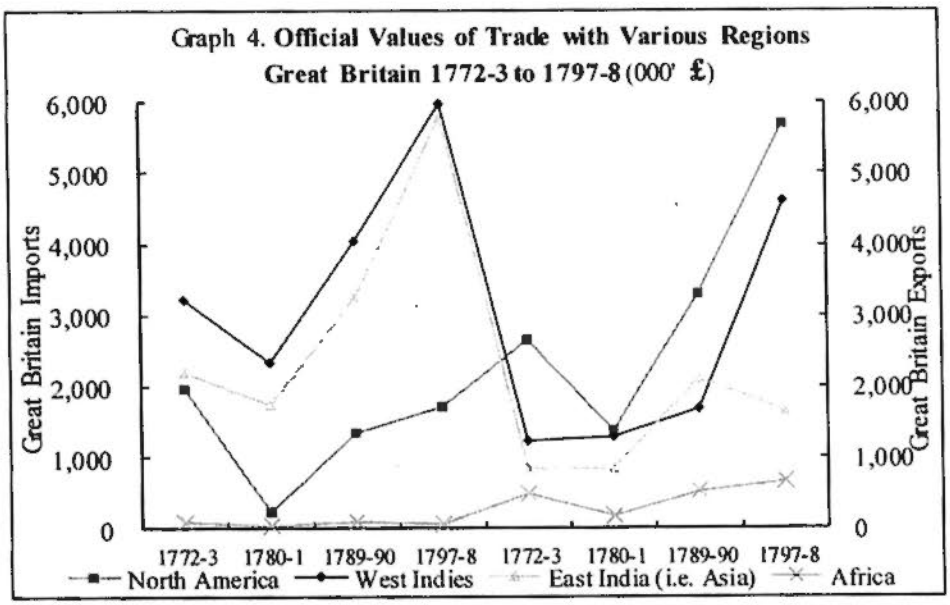
Data source: Table by B.R. Mitchell (1988, p. 496). Note: Here the content of Europe and

Fisheries are omitted; East India i.e. Asia according to the original note.

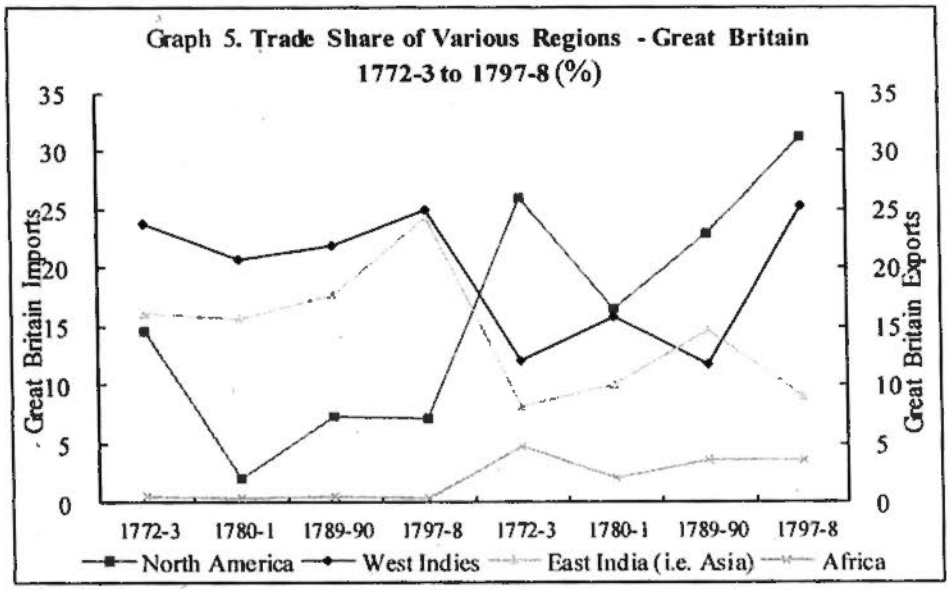


Data source: Author's computation based on the table by B.R. Mitchell (1988, p. 496). Note: Here the content of Europe and Fisheries are omitted; East India i.e. Asia according to the original note.

Compared to North America, Asia had a larger share in the imports of England and Wales from various regions in 1700–1773, and a smaller one in exports to various regions, both in absolute and relative volumes. England and Wales had trade imbalance with Asia because imports were greater than exports; a similar trend happened in North America until it was reversed in 1772–1773.

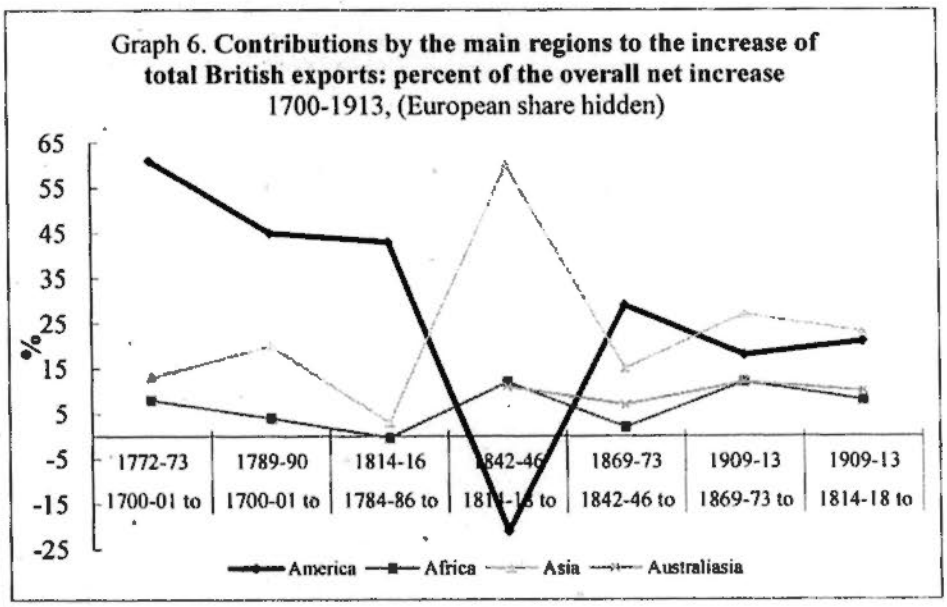


Data source: Table by B.R. Mitchell (1988, p. 496). Note: Here the content of Europe and Fisheries are omitted; East India i.e. Asia according to the original note.



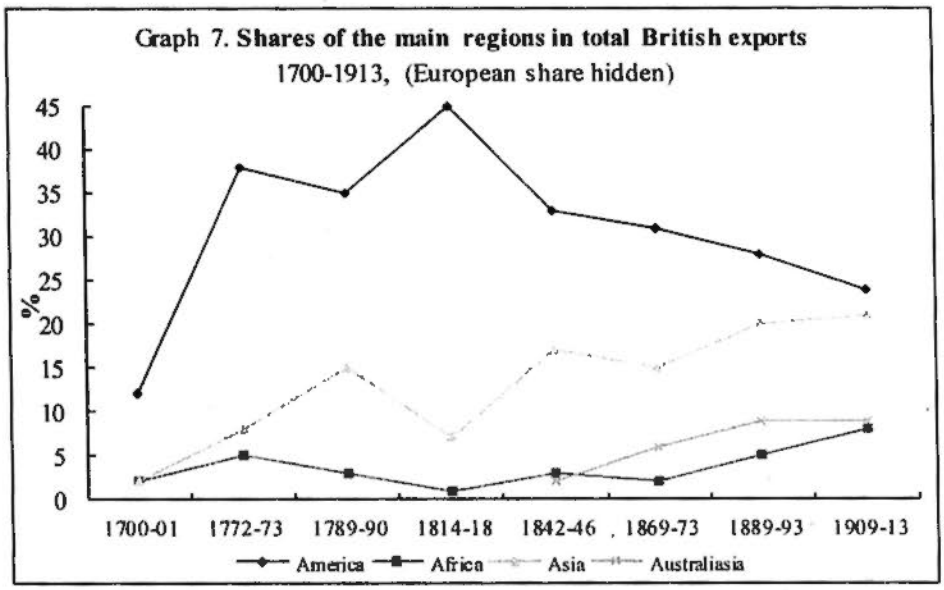
Data source: Author's computation based on Table by B.R. Mitchell (1988, p. 496). Note: Here the content of Europe and Fisheries are omitted; East India i.e. Asia according to the original note.

In 1773–1798, Great Britain's trade with various regions (particularly Asia and North America) maintained a similar trend. Asia still maintained the trade balance, whereas North America did the opposite by reading its individual imports and exports.



Data source: Table 1 by F. Crouzet in Emmer, Pétré-Grenouilleau, and Roitman (2006, p. 183).

Graph 6 shows that in 1700–1913, the British relied mainly on Asia and America for its exports. In addition, a tradeoff between America and Asia occurred twice: in 1814–1818 and 1842–1846, when Asia contributed 60% of the increase in total British exports, whereas America contributed a negative 21%; From the 1860s onwards, the Asian contribution to the increase of total British exports began to surpass that of America.



Data source: Table 2 by F. Crouzet in Emmer, Pétré-Grenouilleau, and Roitman (2006, p. 187).

The structure of the total British exports in 1700–1913 indicates that Asia had an indispensable position, as did America. Especially in 1814–1818 and 1842–1846, Asian shares increased, whereas that of America decreased. Asia maintained its increasing trend from the 1860s onwards, compared to the downward trend of America.

There also existed another kind of settlement that carried out the overseas business with a longer history than that in the Neo-Europes: *merchant settlements*. Curtin (1984) reported that merchant settlements were the result of trade, which slightly relied on mortality or resources, with little need of larger numbers of migration, but with a high frequency to move back and forth. Thus, mortality would never have been a decisive factor in this case, as Acemoglu et al. insisted. Curtin (1984) contended that *trade settlement* was the most common institutional form in cross-cultural trade after the onset of city life

"Commercial specialists would remove themselves physically from their home community and go to live as aliens in another town, usually not a fringe town, but a town important in the life of the host community. There, the stranger merchants could settle down and learn the language, serve as cross-cultural brokers, helping and encouraging trade between the host society and people of their own origin who moved along the trade routes. ... The merchants who might have begun with a single settlement abroad tended to set up a whole series of trade settlements in alien towns. The result was an interrelated net of commercial communities forming a trade network, or *trade diaspora*[9] – a term that comes from the Greek word for scattering, as in the sowing of grain.

Trade communities of merchants living among aliens in associated networks are to be found on every continent and back through time to the very beginning of urban

[9] With regard to the detailed description of the trade diasporas, refer to p. 84–106 of *World's Major Diasporas* by Segal (1993). On p. 88, it is stated that "The Chinese diaspora is the largest and most widely distributed of all the world's diasporas...The overseas Chinese are a demographic majority only in Hong Kong, Macao and Singapore."

life. They ... began with the invention of agriculture and ended with the coming of the industrial age. Some of the best evidence of how they worked comes from Africa between the seventeenth century and the nineteenth, but other examples are as various and familiar as the chains of Phoenician and Greek trading towns that spread westward from the Levant or the Aegean coasts. Or, some two thousand years later, merchants from Cologne on the Rhine settled along the trade routes leading down the Rhine and then eastward along the coast of the North Sea and the Baltic, laying the foundations for what was to become the Hanseatic League of independent trading towns.

Some trade diasporas moved overland or followed inland water courses. Among the most familiar are the North American routes up the Great Lakes, pioneered by the French–Canadian *coureurs de bois*, whose pursuit of the fur trade among the Indians carried them to the Mississippi and beyond. Archaeological evidence suggests the probable existence of trade diasporas in the Middle East as early as 3500 B.C. By 2000 B.C., clay tablets covered with cuneiform inscriptions give detailed evidence about the commercial operations of an Assyrian trade settlement in Cappadocia in Asia Minor." (p. 2–3) A recent example for Asia are the Cantonese and Fujianese trade diasporas, first, in the Philippines and, later, in Singapore, which had a long history of Chinese commercial settlements in Southeast Asia (p. 125).

As far as the shaping of colonies in Asia is concerned, which is scattered, unlike the larger area of migration in the Neo-Europes, the direct reason can be traced back to Portuguese trading-post empires in Asia. The image of Asia is recorded in the maps "The Scope of the Dutch Maritime Empire" (Maps 3–7 in App. III) on page xii by Emmer (1998) and "The East India Company's settlements in the Indies 1660–1760" (Maps 3–8 in App. III) on page 42 by Chaudhuri (1978).

"When the Portuguese arrived in Eastern seas, they brought a new current of trade and, even more, a new way of organizing commerce and protection costs. ... It was not the Asian way of trade, nor was it normal for Portuguese trade in Europe itself. ...

For its overseas operations, however, the Portuguese government chose another model, namely, that of the Venetian and Genoese trading-post empires in the Mediterranean. The Portuguese not only knew of the Italian trade practices, but many Genoese and Venetians also were settled in Lisbon. Several had been involved in sugar planting on Madeira, others in the Portuguese push down the African coast in the fifteenth century. Still others were active in the further Portuguese drive into Indian trade at the beginning of the sixteenth. ...

By the 1480s, the earliest pattern of more-or-less peaceful trade had shifted to the model of a trading-post empire. The territorial bases were islands, sometimes islands well off shore like the Cape Verdes or São Tomé in the gulf of Guinea, where African armies were no threat. Otherwise they were coastal islands where surrounding water formed a natural moat. The main island fortresses of this type were Luanda on the coast of present-day Angola and Elmina in Ghana, though there the fort was on a long peninsular separated from the mainland by a lagoon. The Portuguese also tried and failed to capture the island that would later become Saint Louis du Sénégal.

These precedents were clear in the instructions given in 1505 to Francisco de Almeida, the new viceroy of Portugal's Indian Ocean possessions. He was ordered to seize and fortify strategic points, giving precedence to island locations. Garrisons in these forts were to provide security for the fleets that were to begin patrolling the Indian Ocean, first of all, for the protection of Portuguese maritime trade, but second to sell protection to Asian shippers in the form of permits called *cartazes*, which were to be required of all non-Portuguese vessels engaged in local Asian trade.

The trading-post empire that emerged took the shape of earlier Asian trade networks. ...Before the (16^{th}) century's end, the Spanish appeared as well, by way of their own string of fortified trading posts reaching from Seville to Mexico, then from Acapulco across the Pacific to Manila and south to the Spice Islands. ...Between about 1570 and 1600, other Europeans began trading to the Indian Ocean. ...

Even though much of the trade from Asia to Europe passed up the Red Sea or the Persian Gulf, the reputed wealth of trade by sea was enough to attract European competition for the Portuguese. The earliest and least significant in the long run were the Spanish from their base in Manila. The union of the Spanish and Portuguese crowns from 1580-1640 saved both Iberian powers from attack by the other – and strengthened both against the Dutch and English.

Manila thus became a transit market linking a Chinese trade diaspora with the Manila galleons from Acapulco. Like Goa, Manila was under European control, but the trading population there was largely Asian. One estimate for 1571-1600 put the annual average of seasonal Chinese visitors at 7,000, compared with a resident Spanish and Mexican population of less than a thousand. By 1600, the resident Chinese population had reached 8,000. ...

A Portuguese trading-post empire therefore continued alongside whatever new elements the northern Europeans might introduce. ...In 1602, the government of the United Provinces chartered *the Vereenigde Oostindische Compagnie*, the Dutch East India Company, or VOC. ... The VOC therefore began with its military force more important than its trade goods. It was less a capitalist trading firm than it was a syndicate for piracy, aimed at Portuguese power in Asia, dominated by government interests, but drawing its funding from investors rather than taxpayers.

Once in Asian waters, ... setting up a parallel system. The main base was the fortified city of Jakarta, renamed Batavia, on the northwestern coast of Java. It was the functional equivalent to Melaka, though it used the Sunda Straits, not the Straits of Melaka, for its main passage between the Indian Ocean and the South China Sea. The VOC then tried to seize Taiwan, as its functional equivalent of Macao or manila for entry into the Chinese market. It seized parts of coastal Ceylon as functional equivalent to southern Indian ports like Goa or Calicut, while Cape Town near the southern tip of Africa served as the equivalent of Mozambique and Brazil as way stations between Europe and India. All this was not, of course, the work of a few decades or careful planning from scratch. It was a sequence of gradual changes that took up much of the seventeenth century. Many people in VOC management regarded these posts as mere stopgaps until they might have power enough to seize all the Portuguese entrepôt as well. ...

As the Dutch developed their centers of trade and power, they also imitated the Portuguese attempt to monopolize trade. They too sold passes equivalent to a cartaz, and so did the English East India Company. ...by the end of the (17^{th}) century, the three cities that were to become the seats of the three presidencies of British India were already in place - Bombay, Madras, and Calcutta – along with a number of less permanent factories and forts. In spite of the slow start, England at last had its own trading-post empire equivalent to those of the Portuguese and Dutch.

Even then, the English company moved carefully to get the greatest value from its comparatively small capital. Unlike the VOC, it left the inter-Asia or 'country' trade to private merchants, both Asian merchants and some of the company's own officials acting in their private capacity. ...

Plunder is an effective, but potentially very expensive way to acquire wealth. It was a lesson the European trading companies were slow to learn, but they did gradually learn. The Asian trade the Europeans tried to control or suppress continued to grow through the sixteenth and into the seventeenth century. The seventeenth century was, indeed, a kind of golden age for Indian maritime trade. Then, with the early eighteenth century, stagnation and then decline began to set in. It was partly brought on by the decline in centralized power for both the Mughal and Persian empires, but it was also a matter of increasing European power from the middle of the eighteenth century. By the second half of the century, the Asian-European relationship began to change dramatically as the trading-post empires on Java and in Bengal turned into full *territorial empires* with the dawn of a 'European Age.' ..." (p. 137–157)

"But the Westernization of world commerce between about 1740 and 1860 was something new. It not only deprived the existing Western trade diasporas of an effective role; it ended once and for all the long era in history when trade diasporas had been the dominant institutional form in cross-cultural trade. ...

This transition from trading-post empire to territorial empire over India lasted to 1858, in theory. ...The VOC passed through a similar transition from trading-post to territorial empire, with a similar basis in the new European military power. ... In 1799, the VOC sunk to its end in commercial failure in spite of (perhaps, because of) its territorial rule on Java. ... In 1816, the Dutch government took over and set up a colonial regime called the Netherlands Indies. ...

These transitions to territorial empire in Bengal and Java are only two of many possible examples of the way Europe's new industrial power impinged on the non-Western world. The new strength of European influence was less obvious in commerce than it was in politics, but it was immense. Where, in the era of the companies, the Europeans had been involved in elaborate forms of cross-cultural brokerage, cross-cultural brokerage was no longer in much demand, when one party could call the tune.

Nor were the European trading companies the only institutions to receive a windfall of power as a result of European industrialization. Between about 1780 and 1880, Africa passed through a transition analogous to the economic and military transition in Asia, only in Africa the Europeans were fewer on the ground. ..." (p.

230–240)

"Somewhat earlier in the nineteenth century and in spite of the territorialization of trading-post empires in Bengal and Java, the Europeans overseas were moving in new directions. Just as they avoided overt conquest in Africa until the 1880s, conquest and administration were not the normal goals of European powers anywhere in the non-Western world until late in the nineteenth century. One possibility – and probably the dominant goal through the first three-quarters of the century – was to exert influence based on the new European power, but without the forms of a colonial government. The Europeans of this period preferred 'informal empire' because it seemed to protect all interests that were really vital or profitable without the considerable cost of ruling over an alien society.

The ways and means of informal empire could vary greatly. ...

One new device for exerting power and influence with minimal force was a new kind of trading-post empire, developed most effectively by Great Britain in East Asia. Instead of using a chartered company as a semiofficial but armed trade diaspora, it was even more effective, in the new context of European power, to establish government-run trade entrepôts. They could serve as a naval base, a point of safety for warehousing and distributing the new output of the industrial revolution and for bulking raw materials for European industry. Incidentally, they furthered the new patterns of ecumenical trade in the Western mode. ...Singapore was a free port from the beginning. It sought prosperity by maximizing the trade, in Singapore, of all nations, not the exclusive trade of one. ...

The evolution of a trading-post empire along the Chinese coast took a different course. ...By the late 1830s, the scene was set for a more forceful 'opening' of China to the new, Western system of open trade, relatively free from restrictions by non-Western authorities. ...to achieve free entry into the Chinese market for British manufactures in general. ...Hong Kong and the treaty ports were like Singapore in their superficial resemblance to nodes of a preindustrial trading-post empire, but the function was very different. Rather than serving the narrow interests of a particular nation or trading group, they were open to the full impact of international capitalism on the Western model. And the ecumenical trade on that model was not confined to Europeans. Indian merchants of many descriptions had been in the opium trade and went on to participate in the opening of China, just as Chinese and Arabs, Bugis, and Indians were involved in the fortunes of Singapore from the beginning. As of 1851, the 'British' community in Canton included far more Indians than natives of Great Britain. Indeed, it counted more Parsees than Britons." (p. 240–245)

Thus far, a sketch of the development of Asian colonies had been shown, with their special historical background totally different from the case of the Neo-Europes.

Easton (1964) stated, "None of the Far Eastern countries were regarded as colonies intended for permanent settlement by Europeans. Although there were great numbers of British in India and Dutch in the Netherlands East Indies, almost all were employees of the great companies or of the government and did not look upon the colonies as their permanent homes. They sent their children to be educated in their homelands, and they themselves took periodic leaves abroad. They lived and worked

in the colonies because they could enjoy a far better standard of living than at home, and because they made money. In this respect, the Far Eastern colonies differed from such colonies of settlement as Southern Rhodesia, South Africa, and Algeria, which the Europeans regarded as their permanent homes, where they bought land and organized educational institutions for their exclusive use. They bear no resemblance at all to the great British colonies of Canada, Australia, and New Zealand, where the immigrants were in an overwhelming majority and were soon granted complete self-government." (p. 16)

For Great Britain, Walker (1953) said, "Roughly speaking, for nearly a century and three-quarters after the founding of its first settlements beyond the Atlantic the colonial half of the empire lay to the westward of Great Britain and the commercial half to the eastward. Even before the loss of the principal American colonies in 1783, however, the balance of imperial interest had begun to swing towards the east, and during the next fifty years or so the British built up an Indian Empire on the ruins of that of Great Moguls, possessed themselves of stepping-stones on the way to Asia, and laid the foundations of Australia and New Zealand. The long Victorian Age saw, first, the consolidation of the Indian Empire and the peopling of great colonies of settlement in North America, South Africa and Australasia, and then, with the speeding-up of the Industrial Revolution and the consequent competition of other colonizing Powers, the acquisition of vast protectorates and protected states for the most part in tropical Africa, South-East Asia and the Pacific. The addition of mandated and trusteeship territories does not alter the fact that it is this Victorian Empire that the British have since been seeking to adapt to rapidly changing circumstances." (Introduction); "Commerce and colonization, 'trade and plantations', were thus two sides of the same thing and were naturally supervised by a single committee of the Privy Council. The actual business of settlement was sometimes done by a proprietor or group of proprietors who might hope to find a return in quit rents, the judicious sale of offices and so forth. More usually it was done by companies, modeled on the contemporary trading companies, whose charters empowered them to issue land titles and to govern Englishmen, still liegemen of the King for all that they had left England. Virginia was founded by a company in 1607, and then Bermuda. ... In other continents the English confined themselves to trading ventures. ..." (p. 5–6); "British ministries of those days were much more interested in naval base and commercial entrepôts than in colonies of settlement. In their eyes colonies were mainly factors in the problem of war, and it was no accident that in 1801 'Colonies' were transferred from the Home Secretary to the newly-created Secretary of State for War and remained in his hands for more than fifty years. ..." (p. 35–36); "...designed to buttress British power in India on both sides. To the westward Aden was taken in 1839, partly by treaty and partly by force, to strengthen Britain's hold on the Suez route along which the P. and O. steamships were beginning to ply on either side of the isthmus. ... British interests and control also increased steadily to the eastward. Singapore had grown so fast on its once scarcely inhabited island that in 1836 it became the capital of the Penang Presidency. Then the commercial quarrels over opium in the main, which arose from the recent opening of the China trade to all

British subjects, and less widely known political difficulties with the Pekin government led to a war with China. This ended in 1842 with the cession to Great Britain of the barren island of Hong Kong near Canton and the opening of Shanghai and other treaty ports to Western traders. The gap between Southern China and India was soon bridged by more or less British stepping-stones. In the year of the ending of the China war James Brooke became the Rajah of Sarawak in North Borneo by treaty with the Sultan of Brunei, who in 1846 also ceded to the Crown the neighbouring desolate island of Labuan. At the close of the second Burmese war in 1852 John Company annexed the delta of the Irrawaddy with its splendid port of Rangoon, while five years later the Crown acquired the Cocos Islands midway between Ceylon and Western Australia." (p. 75–76)

The tradition of "colony for trade" could be traced back to the Phoenicians. As Curtin (1984, p. 78) recorded, "As the Phoenicians had done, Greek cities also founded colonies over seas, but they were mainly for agriculture rather than commerce". Colonies for plantation, except in the case of Neo-Europes for settlement, would be extractive; thus, it should make a one-way treasure transport to the home country. However, the extractive mechanism definitely failed in the case of Asia (if the Western trading posts in Asia could be classified into colonies, as Acemoglu et al. believed) when Maddison (2006) showed a clear contradiction in Asia, evidenced by the following tables:

The Impact of Western Development on the Rest of the World

Table 2-10. Exports of Silver and Gold from Western Europe, 1601–1780
(tonnes of "silver equivalent")

	To the Baltic	*To Eastern Mediterranean*	*Dutch (VOC) to Asia*	*British (EIC) to Asia*	*Total*
1601–50	2 475	2 500	425	250	5 650
1651–1700	2 800	2 500	775	1 050	7 125
1701–50	2 800	2 500	2 200	2 450	9 950
1751–80	1 980	1 500	1 445	1 450	6 375
Total 1601–1780	10 055	9 000	4 845	5 200	29 100

Source: Barrett, in Tracy (1990, p. 251 [he does not show his equivalence conversion ratio for gold]

http://dx.doi.org/10.1787/723137538677

Data source: Maddison, 2006, p. 67.

Table 2–20. Commodity Composition of European Exports from Asia to Europe, 1513–1780

Portugal (Estado da India — state trading, headquarters Goa)
(per cent by weight)

	1513–19	*1608–10*
Pepper	80.0	69.0
Moluccan Spices	9.0	0.03
Other Spices	9.4	10.9
Textiles	0.2	7.8
Indigo	0.6	7.7
Other	1.4	4.6

Dutch East India Company (VOC corporate monopoly, headquarters Batavia)
(per cent by value)

	1619–21	*1778–80*
Pepper	56.4	11.0
Other Spices	17.6	24.4
Textiles & Raw Silk	16.1	32.7
Coffee & Tea	0.0	22.9
Other	9.9	9.0

English East India Company (EIC corporate monopoly operating mainly from Bombay, Calcutta and Madras)
(per cent by value)

	1668–70	*1758–60*
Pepper	25.3	4.4
Textiles	56.6	53.5
Raw Silk	0.6	12.3
Tea	0.03	25.3
Other	17.5	4.5

Source: Prakash (1998), pp. 36, 115 and 120.

http://dx.doi.org/10.1787/723137538677

Data source: Maddison, 2006, p. 86.

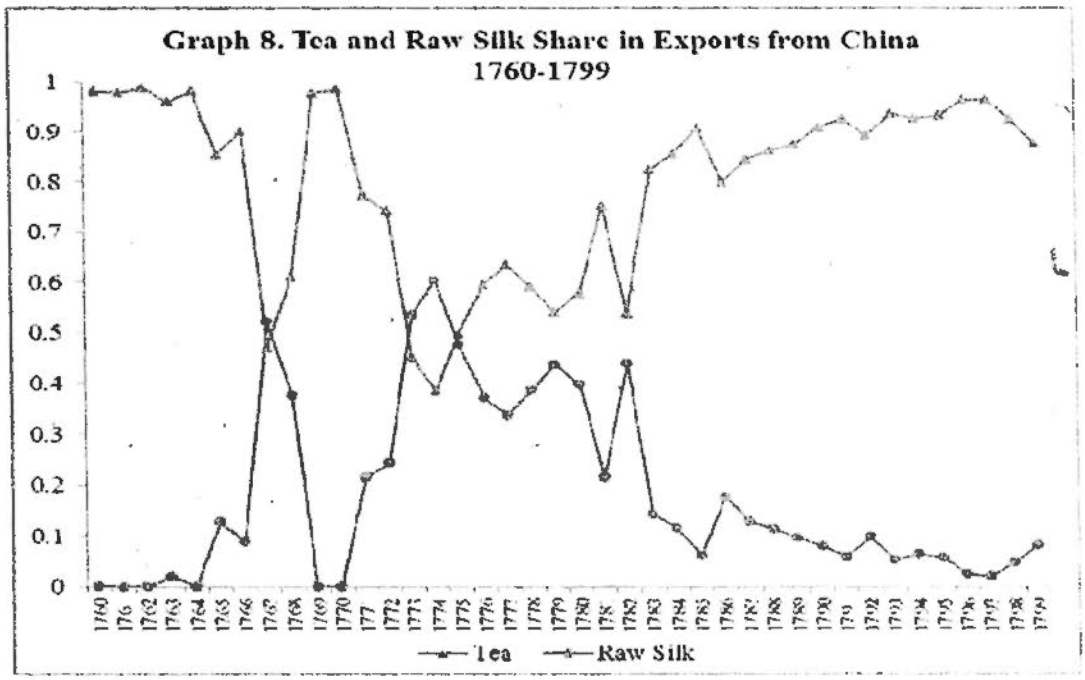
Trade in Asia existed among the European countries from 1500 onwards. "Table 2–10. Exports of Silver and Gold from Western Europe, 1601–1780" on page 67 shows the total silver and gold shipped to Asia by VOC and EIC. At the time, that volume constituted about one-third of the total exports of silver and gold from Western Europe, compared to exports of the same to the Baltic and Eastern Mediterranean, respectively—10,045: 10,055: 9000 in tonnes. Only trade could make the treasure shipment, which made it close to the modern sense of trade—trade combined with investment. What kind of trade made the large reverse fortune transportation from Western Europe to Asia? "Table 2–20. Commodity Composition of European Exports from Asia to Europe, 1513–1780" on page 86 demonstrates the active and vivid image of trading pepper and spices, a wide variety of cotton textile, coffee and tea, and so on. Furthermore, from the trade aspect, we can find that trade has always been the most fundamental factor in economy: the industrialization of the Neo-Europes came about during the trading process, considering the active Atlantic trade both for home country and Western Europe. According to Cairncross (1961), the United States and Canada "have been at one time or another dependent on just as narrow a range of" grain exports and "Australia and New Zealand, although enjoying

a high standard of living and far from negligible as producers of manufactured goods remain, as exporters, almost exclusively dependent on primary produce." Hence, Neo-European settlement was also due to trade, in this sense. As Nurkse (1961) concluded, the growth experience of new countries in the 19th century was through the export of primary products. To such-and-such extent, we can tell that all the colonies were generally due to trade.

According to Chapters 5 and 6 by Curtin (1984), the trade history between the West and East had a longer tradition than that of the Mediterranean and China before the Columbus' discovery. Even before the westerners entered the Asian trade round, the Cape of Good Hope, the inter-Asia trade, especially in the Indian Ocean and South China Sea, had been flourishing for centuries that westerners had to adjust themselves at first to be able to trade locally. As Chaudhuri concluded in his famous book, *The Trading World of Asia and the English East India Company, 1660 1760*: "The European East India Companies were the symbols and manifestation of the new developments that were taking place in the history of Western nations from the beginning of the seventeenth century. These were expressed in the art of shipbuilding and navigation, in settlements of colonies in the New World, the ability to organize and manage distant commercial ventures, and in new forms of financial institutions. The trading companies contributed to all these activities. In Asia the impact was no less significant. In areas such as the Indonesian archipelago both the Dutch and the English followed a mixture of commercial and coercive methods to procure their return cargo of pepper and spices. But in India and China normal market transactions were the main form of trade." (last paragraph on p. 462) The map "World silver flows 1650–1750" (Maps 3–9 in App. III) on page 154 confirms the fact that net silver flowed into India and China at the time.

Specific details on the evidence of trade in China's coast mainly came from the EIC's trade records in Canton by H.B. Morse, recording the trade deficit in the British trade with China. As shown in history, the EIC predominantly monopolized the British trade with China until the 1790s.

Thus, the imbalance of the British trade (tea and raw silk purchase) with China can be found from the tables based on the statistics of the EIC. Read the above Table 2-20 cited from Maddison (2006, p. 86), you may question that tea and raw silk share in VOC and EIC is not impressive in Asian level. But it's really important in China's exports. Based on the table about "Exports from China (Prime Cost)" at p.391-396 of Vol. 6 in Tuck (2000), tea and raw silk are the major items of exports from China from 1760 to1799 among the composition of tea, raw silk, Chinaware & Sago, and Nankeens. Here is the graph to describe the trade situation, and later the work of Hyde (1973)—"Table 4. The Trade Structure of China from 1868 to 1913," also confirms the dominance of tea and silk in China's exports until 1913. (Details refer to App. I-2) Actually, it is tea and silk in China's exports vs. opium in China's imports that made the whole story happened in China from 1840-1917, just as the current paper would evidence right now and highlight by embodying in the exports and imports of foreign powers of the model further.



Data source: Column 6 of Appendix Ⅰ-Ⅳ, Column 5 of Appendix Ⅳ, Column 3 of Appendix Ⅴ, Column 3-5 of Appendix Ⅵ in sequence (Tuck, 2000, Vol.6, p. 391-396).

H.B. Morse concluded that "[t]he disproportion between goods and bullion was characteristic, and endured for two centuries."[10] That is, the trade imbalance in the East India Company lasted from 1601 to about 1820.

Table 1. The Export Structure of the East India Company in 1601-1620

Item	Total (£)	Annual Average (£)	Value Ratio (%)
Woollens, metals, and other English products	292,286	15,383	34.78
Silver bullion and coin	548,090	28,847	65.22
Total Value	840,376	44,230	100

Data source: The first table (Tuck, 2000, Vol. 1, p. 8).

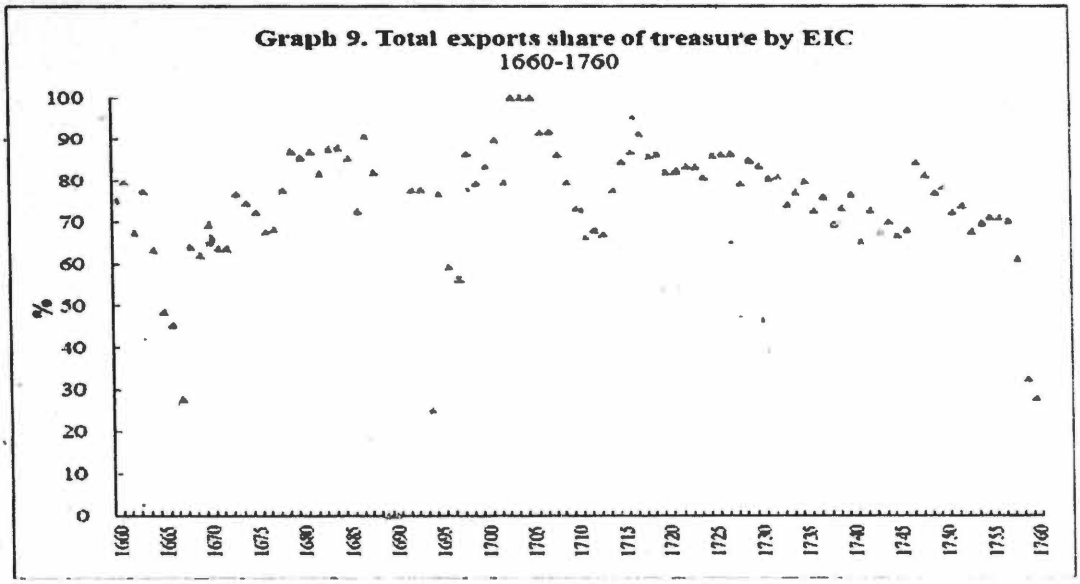
From the introduction by Tuck (2000), Vol. 1 by H.B. Morse, the first 19 years of the East India Company, 1601–1620, were characterized by the same value of the export trade to the East Indies, in which silver bullion and coin accounted for 65.22% of the total export volume and the other 34.78% were composed of woollens, metals, and other English products.

Table 2. The Export Structure of the East India Company in 1710-1759

Item	Total (£)	Annual Average (£)	Value Ratio (%)
Goods	9,248,306	184,966	25.63
Bullion and Coin	26,833,614	536,672	74.37
Total Value	36,081,920	721,638	100

Data source: The second to the last paragraph (Tuck, 2000, Vol.1, p. 8).

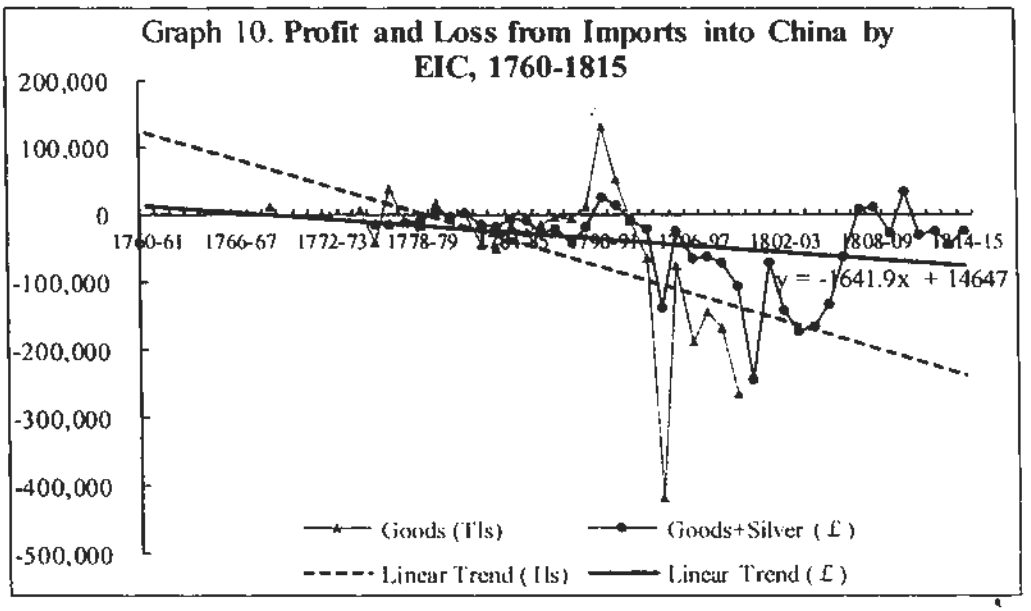
[10] The fourth paragraph on page 8 by Tuck (2000), Vol. 1.



Data source: Table C.3 on p. 511 and Table C.4 on p. 512 (Chaudhuri, 1978).

After the amalgamation of the two companies (GMLTEI and ECTEI) in 1709, the export of the East India Company from England to the East Indies in the following 50 years (from 1710 to 1759) was characterized by the increase in bullion and coin shares to 74.37%, with the 25.63% coming from the goods. The evidence given by Chaudhuri (1978) in "Table C.3. Total commodity exports (excluding treasure)" and "Table C.4. Total export of treasure" in "Appendix 5: Statistical Tables" (p. 511–12) further confirmed the above trend in the EIC's years between 1660 and 1760.

From 1760 to 1800, the appendices on pages 391–400 of Vol. 6 by Tuck (2000) recorded the value and volume of trade items exported from China (e.g., tea, raw silk, Chinaware and sago, Nankeens, and so on) and imported into China (e.g., woollens, metal, Indian goods—raw cotton, pepper, sandalwood, redwood, and many more) by the EIC. We could also find that the woollens imported into China by the EIC [shown in column 6 of Appendix I "Woollens Imported into China by the East India Company (1760–1800)"] merely suffered a loss for the whole period, and the total goods imported into China from England and India by the EIC [shown in the last column of Appendix IV "Total Goods Imported into China from England and India by the East India Company (1760–1800)"] also suffered a loss for most of the period. However, the Indian goods imported into China by the EIC [shown in the last column of Appendix III "Indian Goods Imported into China by the East India Company (1760–1800)"] made a profit for most of the period. In comparison, tea exported from China and sold by the EIC [shown in column 3 of Appendix V "Tea Imported from China and Sold by the East India Company (1760–1800)"] contributed a major part to the British deficit, along with raw silk, Nankeens, Chinaware, sago, and so on [shown in Appendix VI "Goods and Stores Exported from China by the East India Company (1760–1800)"]. Hence, a great amount of silver was imported into China from England and India by the EIC [recorded in Appendix IX "Silver Imported into China from England and India by the East India Company (1760–1800)"] to finance and smooth out the trade deficit.



Source: Column (5) "Total Profits and Losses" of Appendix IV "Total Goods Imported into China from England and India by the East India Company (1760–1800)" and Column (2) "Profits and Losses—on Imports into China" (with the note that it is the sum of Appendices IV and IX, i.e., total goods imported into China and silver imported into China, respectively) of Appendix VIII "Net Profit of the East India Company upon Its trade with China (1775–1815)" shown in sequence on pages 394 and 398 of Vol. 6 by Tuck (2000).

These contents are intensively reflected in Graph 10: the dashed line shows that the goods from England and India exported to China suffered a loss in 1760–1800, and even the silver exports could not make up for the imbalance with a stable line until 1815.

The following statements reinforce the above situation by explaining how it happened. The "Tea from China provided about one-tenth of the total revenue of England and the whole profit of the East India Company"[11] because it worked "as the only available article which could be forced into universal consumption without competing against home manufacture."[12,13] This one-sided imbalance problem went on and was further augmented by "the self-efficiency of China's agrarian economy, huge internal trade and urban handicrafts," which led to the China's lack of effective demand on English goods. Although "England's commerce had been built up on the sale of wool, and, later, woollen cloths, to European markets, it was the principal commodity the country had to offer before the spectacular rise of cotton." At Canton, however, English goods were generally sold either at a loss or in "trucking"—"a way that the loss was concealed by a process of barter for China goods," that is, "the English woolens, etc., were sold at prices on which the prices of tea and silk

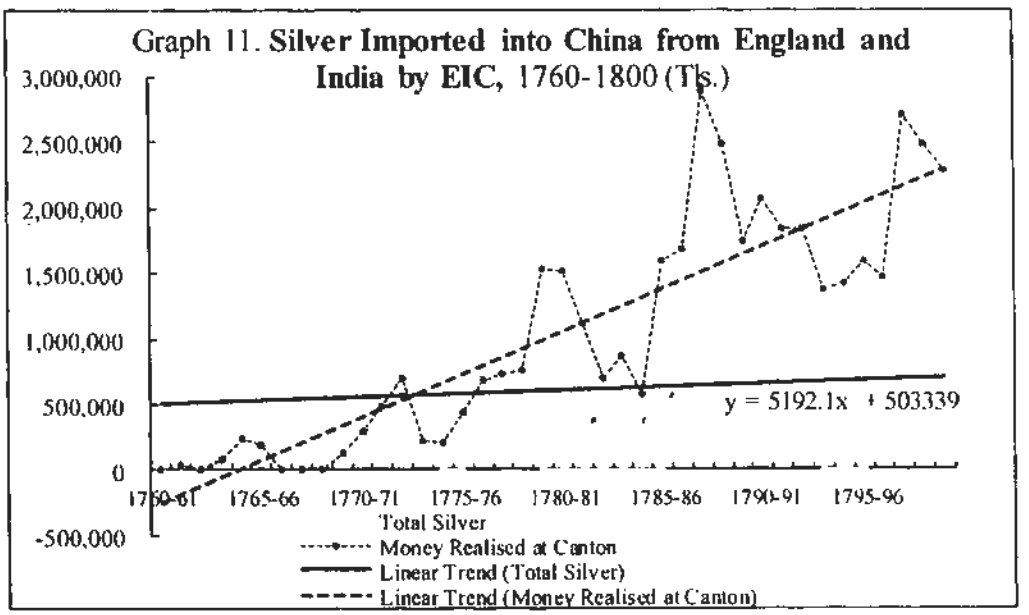
[11] The last sentence of the second paragraph on page 3 by Tuck (2000), Vol. 9, Part 1

[12] The first sentence of the second paragraph on page 3 by Tuck (2000), Vol. 9, Part 1

[13] Tea trade from China lasted from 1689, when a tea import from Amoy was first recorded in the account of the EIC, to the 1820s, when "the Company began experimenting with tea cultivation in its own Indian territories. Shrubs were brought from China and transplanted in the Himalayas," in the second and third sentences of the second paragraph on page 4 by Tuck (2000), Vol. 9, Part 1

depended."[14] "In view of China's indifference to European staples, its products could only be bought by gold and silver, bullion and coin. A China that lacked adequate media of exchange (the copper 'cash' being useless for large-scale transactions and 'sycee' silver shoes too unwieldy) developed a capacity for absorbing dollars, silver dollars minted in Old and New Spain. The early Spanish and Portuguese traders were able to use the plunder of the Americas, in so far as they retained it, to pay in part for China goods. Periodic Portuguese piracy in the Eastern Seas added to the 'stock' available for Macao. The English East India Company found itself from the beginning faced with the necessity of taking out large quantities of bullion and coin to finance its Eastern trade."[15]

Later on, "[t]he solution was finally found in India. It was discovered that while the Chinese had little taste for British goods, they were eager to accept the produce of British India, particularly raw cotton and opium, though China itself produced the one and prohibited the other. The resources of India could be used to finance the China investment. That this was being realised in the last decades of the 18th century is shown by the declaration in the instructions to the first British mission to China, the abortive Cathcart Embassy of 1787, that the prosperity of India 'would be promoted by procuring a secure vent for (its) products and manufactures in the extensive Empire of China, at the same time that the produce of such sales would furnish resources for the Investment (teas, etc.) to Europe'."[16]



Source: Column 5 under "Realised on Silver Imported at Canton" of Appendix IX "Silver Imported into China from England and India by the East India Company (1760–1800)," Column 7 "Total Receipts" of Appendix X "Money Realised at Canton through Bills, Certificates, Bonds, Freights, etc. (1760–1800)" (money earned in the British trade with China and transferred to London through the EIC) shown in sequence on pages 399–400 of Vol. 6 by Tuck (2000).

As shown by the "Total Silver" line (real one) in Graph 11, with the linear

[14] The paragraph on page 7 by Tuck (2000), Vol. 9, Part I
[15] The paragraph on pages 5–6 by Tuck (2000), Vol. 9, Part I
[16] The second paragraph on page 9 by Tuck (2000), Vol. 9, Part I

increasing trend, a huge amount of silver outflow was brought out from England and India to China. Evidently, Indian goods were not enough to cover the whole deficit for many years. Based on the previous related tables, opium was therefore encouraged in the trade. (Note that money made from the imports in China is shown as the dashed line. However, part of the money realized had been transferred back to China in silver because of the small amount of export to China, shown as the gap between the simultaneous dashed line and real line, which contradicts the essence of mercantilism.)

Evidence of active trade in Asia was again established, based on the following facts: (1) a large number of shipping, from "Table 2–6. Number of Ships Sailing to Asia from Seven European Countries, 1500–1800" by Maddison (2006, p. 65); (2) one million men were sent to Asia by the VOC for trade between 1600 and 1800, (3) a significant part of silver absorbed by China in 1550–1700 due to "Table 2–9. Chinese Imports of Silver by Country Origin, 1550–1700"; and (4) "Table 2–10. Exports of Silver and Gold from Western Europe, 1601–1780" by Maddison (2006, pp. 66–67), the scale of which obtained approximately 69% of the total silver and gold shipped to Asia by the VOC and EIC. To circumvent the messy interwoven relationship between trade and the extractive system, as described by Curtin (1998), Emmer (1998), and Walker (1953), the following focus transferred to the China coast at the time. A relatively pure pattern of trade was carried out, similar to the way the settlement mechanism in the Neo-Europes, to highlight the trade channel that worked in creating Asian colonies, C&S, and L.T. in China, which thus far had been hidden in history and will discussed in the following content.

D. Colony for Trade: The Case of Singapore and Hong Kong

The development of Hong Kong and Singapore originated from the triangular trade among England, India, and China, according to history. Taking Hong Kong for example, the trade channel made a predominant contribution to the development history of Hong Kong in the Smithian tradition—the importance of "freedom of trade," contrary to national exclusiveness and interference laid by the mercantile system, in Adam Smith's famous book, *The Wealth of Nations*, rather than the settlements channel. And Frankel, Romer and Cyrus (1996) used trade (measured in openness also) instrumented by geographical factors based on the gravity model to verify the trade-led growth hypothesis in East Asian countries: they found openness played a substantial role in East Asian growth, especially for Hong Kong and Singapore both with high trade/GDP share, but the story was different—Hong Kong by virtue of the high rates of factor accumulation on the part of the neighbors as well as Korea and Taiwan with the same trend for East Asia in the aggregate while Singapore strongly by way of outward-oriented policies like Malaysia.

The brief experience of Singapore by Easton (1964, p. 25–26) shows the case: "In 1796, by a combination of shrewd negotiation and occasional force, the British persuaded the Malay Sultan of Kedah to grant them the island of Penang, off the coast of northwest Malay, together with a bridgehead on the mainland known as Province Wellesley. This acquisition was rapidly built up into a thriving port under a British governor responsible to the British East India Company. In 1819, Sir Stamford Raffles,

the Company's agent, was granted by the Sultan of Johore the uninhabited island of Singapore, then largely a mangrove swamp. The Dutch Governor of Java protested. But Raffles was backed by the Governor–General of India, within whose domain Singapore would fall. When Singapore began to prosper as a free port, the British and the Company withdrew their objections, and Singapore was recognized by the Dutch, in the treaty of 1824, as a British possession. Singapore, Penang, and Malacca, all three ports, were given the name of the Straits Settlements. They remained under the British East India Company until its abolition in 1858. They continued to be administrated by the government of India until 1867, when they became a crown colony."

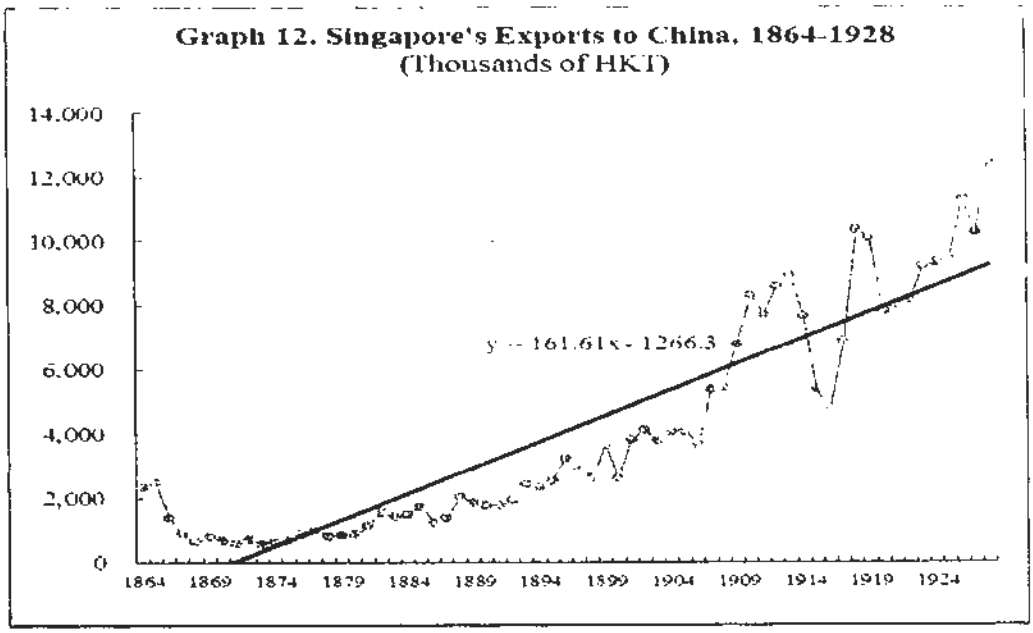
A brief history of Singapore's development originating from and centering on trade can be further evidenced in Curtin's (1984, p. 240–242) work. Some of the key points are as follows:

"Singapore was a free port from the beginning. It sought prosperity by maximizing the trade, in Singapore, of all nations, not the exclusive trade of one. In the early nineteenth century, however, it was taken for granted that a fair proportion of the goods traded would be British made.

In 1826, the British government transferred Singapore from the East India Company to the Colonial Office, to serve as the capital of the new colony, namely, the Straits of Settlements, including Melaka and Penang. Singapore soon became the most important of the three, with more than 35,000 people by 1840. Only a small minority was British. The rest were the representatives of all the trade diaspora that had recently traded in the region: Arabs and Parsees from the far west, Bengalis and Klings from eastern India, Bugis and Javanese from what was to be Indonesia, but most of all Chinese."

The increasing trend of the export volume from Singapore (i.e., Straits Settlements and Federated Malay States) to China in 1864–1928 shows glimpses of the truth.

Graph 12. Singapore's Exports to China, 1864–1928
(Thousands of HKT)



Data source: Hong Kong and Straits Settlements from Table 6 on p. 148–151, China's

Foreign Trade from Table I on p. 22–25 of Hsiao, Liang-Lin, *China's Foreign Trade Statistics, 1864–1949*, Harvard University Press, 1974. **Note:** 1864–1867 in Taels, 1868–1932 in Haikwan Taels (i.e., HKT).

As for Hong Kong, according to the words written by Welsh (1993, p. 7–8):

"..., for Hong Kong is a British colony only in a special sense (the British government do not even like to call it a colony: in official pronouncements Hong Kong is referred to as a 'territory', but this is more due to a desire to shuffle off responsibility than to semantic accuracy). ... Hong Kong remains a Crown Colony, one where the inhabitants have only the most restricted representation. It would therefore be more accurate to describe Hong Kong as a Chinese colony that happens to be run by Britain. ...

Hong Kong was given a flying start by the immigration from Canton and Macao of almost all the foreign community, who flocked to the 'barren island' on the heels of the Royal Navy's first landing party. The colony's early history is therefore a continuation of that of the Canton trade, and some explanation of how that important branch of international commerce worked is essential. ..."

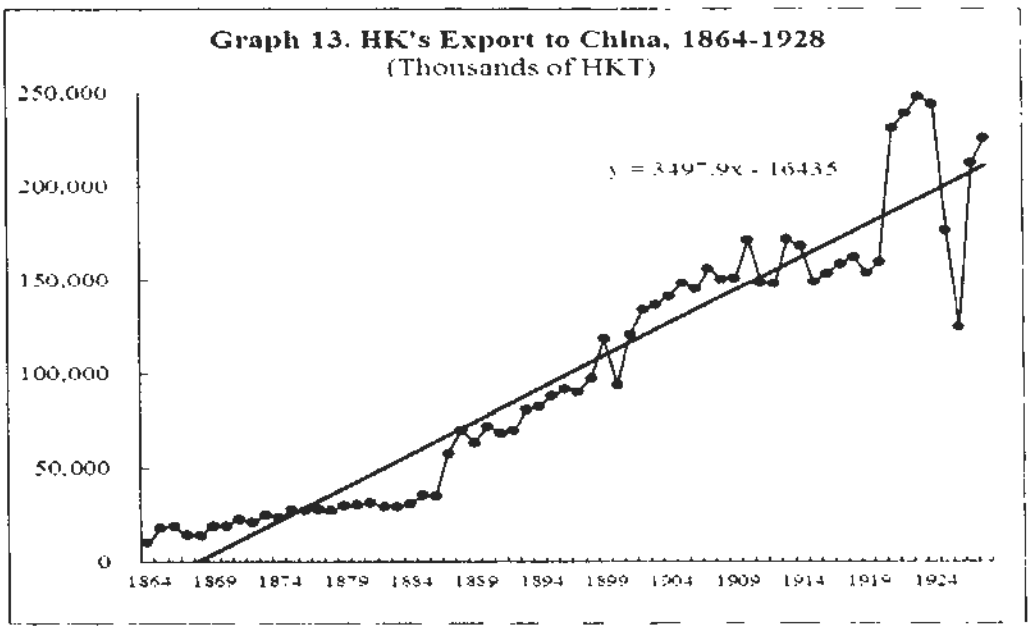
The preface by Endacott (1973) stated the following paragraph:

"Governors of Hong Kong usually commented Hong Kong was a peculiar colony, unlike any other, and this peculiarity was recognized by the Colonial Office in its earliest instructions to Pottinger. It was not a settlement, to which British migrated to make their homes; it was a 'factory' in the Indian sense, a mercantile station, in which length of residence was determined almost entirely by economic considerations. A permanent resident community grew up only slowly. Yet, looking back, the history of Hong Kong was not peculiar, but very typical of British overseas activity of the early Victorian epoch. What was sought was a commercial and not a territorial empire, and the island was taken over reluctantly, primarily for the purpose of establishing the necessary organs of law and order and administration, free from Chinese intervention or control. Its function was no different from that of the settlements in treaty ports in which the British Consul could supervise trade and settle disputes, free from interference. A healthy trade demanded settled conditions, suppression of robbery, guarantee of contract and of impartial justice. Since the Chinese were thought to be unable to provide these conditions, the British had to provide them. This is fundamental to any understanding of the history of Hong Kong. The colony was not thought of in terms of territorial gain, but as the minimum space required for what were thought to be the necessary British institutions. Its function was to be the headquarters of British trade, administration and general influence in the Far East. It remained linked with the control of diplomacy in China until the Elgin Mission of 1857 during the Second Anglo-Chinese War, and with the control of trade until the retirement of Bowring in 1859."

The last paragraph by Bedikton Co. (1935, p. 55) depicted the image of Hong Kong after its cession as a colony:

> "Hongkong itself produces little, being mainly a treaty port and trade clearing house for an immense area of Eastern Asia. It is the centre upon which converges for distribution the merchandise of the rich and densely inhabited territories of South China and whence radiates a very large proportion of the products of the Western World destined for Oriental consumers, of whom the neighbouring province of Kwangtung along has forty millions to provide for. The varied products of the provinces and countries adjacent to Hongkong find their way to the outside world through the well-established business 'Hongs' of the Colony."

The increasing trend of export volume from Hong Kong into China in 1864–1928 further confirms the above statements.



Data source: Hong Kong and the Strait Settlements from Table 6 on p. 148–151, China's Foreign Trade from Table 1 on p. 22–25 of Hsiao, Liang-Lin, *China's Foreign Trade Statistics, 1864–1949*, Harvard University Press, 1974. **Note:** 1864–1867 in Taels, 1868–1932 in Haikwan Taels (i.e., HKT).

Curtin (1984, p. 242–251) pointed out that Hong Kong began "the evolution of a trading-post empire along the Chinese coast" to open the epoch of the treaty-port system in China comprising Hong Kong, Macao, and the C&S in mainland China.

Based on the discussion and comparison of what had been stated above, the topic on which the current paper focuses is the story of institutions originating from trade other than settlements due to mortality and natural resources. Essentially, the story concerns the third form of colonialism after the settlement colony and plantation colony by the Europeans, with a background on Hong Kong's development[17] and its continuation in China's C&S—the Treaty-Port System derived from trade in China:

[17] Singapore had a similar experience and would be the second case added and extended once the data are available and ready for further work.

Hong Kong from 1840, China's C&S after 1860, and Macao after 1887. The advantage of the trade mechanism, compared to the settlement channel, is that trade does need permanent settlement, which eliminates the relevance to mortality as historical facts show. Thus, it could help explain the zero descent among African and Asian colonies in 1975 (no descent approximately means no settlements with little chance of being exiled by Independence Movements before 1975), shown in "Appendix Table A5: Construction of Settlement Variables" (p. 62–64, Acemoglu et al., 2000), which could not be explained in the settlements argument by resorting to the mortality mechanism pointed out above.

The large-scale migration experience of the Neo-Europes is unique in history. Settlement is significant in the evolution of institutions: permanent Western settlement in the case of Neo-Europes leads to good institutions, whereas short-term Western settlement, in the example of extractive states in Africa, results in bad institutions. However, there still exists midterm Western settlement in history due to trade, except for the above two cases highlighted by Acemoglu et al. Settlement caused by trade based on economic consideration took place more often with a longer history and a more common tradition than the trade diaspora, the trading-post empire to the territorial empire, especially in East Indies, such as Portuguese Macao, Spanish Manila, Dutch East Indies, and the early British Madras, Bombay, and Calcutta. In fact, trade has an overlapping content with natural resources in inducing settlement and colony. Thus, trade and colony, and trade and settlement could be equal to some extent; settlement also equals colony. This is the logic originally hidden in some cases of the settlement argument by Acemoglu et al. However, trade settlement does not always result in a colony. This is the origin of the confusing regression results stated in Part A. Trade settlement results in trade diaspora; thus, the trading-post empire, even the territorial empire, usually only had a local effect on institutions through economic channels constrained in the local community. The case of trade settlement is different from that of the colonies, in which political control is in full power. In addition, trade is always exclusive within its own allies. Trade is not open to other countries until there is a mainstream of free trade. From this angle, it is understandable why Asian colonies, especially Hong Kong and Singapore, had so much trade content that the treaty-port system in China, with its local and open style, could be explained by trade in the following part. Other non-Western settlements were seldom mentioned. Thus far, only the good examples, such as Hong Kong and Singapore settled by the Chinese, as opposed to the less desirable cases, such as Haiti settled by African slaves, are often discussed in history. Thus, settlement has complicated forms and has no accurate definition: western settlement and non-western settlement, according to the effective colony agent; and permanent, midterm, and short-term settlement based on the duration. Moreover, settlement is not a sufficient cause for colony because trade could also be direct without resorting to Western settlement, as in the case of the Neo-Europes. Settlement could also be indirect, through non-western settlement, to endow a colony with an economic incentive focused more on economic benefits rather than political or territorial control.

II. Background: Trade Tradition of Europeans in China

Pritchard (1970, Preface) said that "the commercial intercourse which lay at the basis of the whole relationship" underscored Anglo–Chinese relations during the 17th and 18th centuries.

Considering the following topic of the treaty-port system in China comprising Macao, Hong Kong, and C&S, there is clearly an image of trade. In the maps of Macao, Hong Kong, and Shanghai, the Portuguese trading-post empire strategy bore a geographical resemblance (refer to Maps 3-3, 3-4 and 3-7, 3-8 in App. III): Island locations or coastal islands surrounded by water, forming a natural moat, were occupied as strategic points to protect maritime trade—a direct evidence of the trading-post empire.

Here is a brief description of the buildup process and the content by Maddison (2006):

> "... [However,] Western colonialism in China was very different from that in India, and it was Japan, not the Western colonial powers, which attempted conquest.
>
> Colonial penetration was inaugurated with the capture of Hong Kong by British gunboats in 1842. The immediate motive was to guarantee free access to Canton to exchange Indian opium for Chinese tea. A second Anglo–French attack in 1858–60 opened access to the interior of China via the Yangtse and the huge network of internal waterways which debouched at Shanghai.
>
> This was the era of free trade imperialism. Western traders were individual firms, not monopoly companies. In sharp contrast to their hostile and mutually exclusive trade regimes in the eighteenth century, the British and French had made their Cobden–Chevalier Treaty to open European commerce on a most-favoured-nation basis. They applied the same principle in the treaties imposed on China. Hence 12 other European countries, Japan, the United States, and three Latin American countries acquired the same trading privileges before the first world war.
>
> The treaties forced China to maintain low tariffs. They legalized the opium trade. They allowed foreigners to travel and trade in China, giving them extra-territorial rights and consular jurisdiction in 92 'treaty ports' which were opened between 1842–1917. To monitor the Chinese commitment to low tariffs, a Maritime Customs Inspectorate was created (with Sir Robert Hart as Inspector General from 1861 to 1908) to collect tariff revenue for the Chinese government. A large part of this was embarked to pay 'indemnities' which the colonialists demanded to defray the costs of their attacks on China.
>
> The center of this multilateral colonial regime was the international settlement in Shanghai. ... Apart from the British colony of Hong Kong, there were five 'leased' territories ceded to Britain, France, Germany, Japan and Russia. These included Britain's 100 year lease on the New Territories adjacent to Hong Kong, granted in 1898.

> Foreign residents and trading companies were the main beneficiaries of this brand of free trade imperialism and extra-territorial privileges. ..." (p. 119–20, *d)* China)

With regard to the economic feature, Curtin (1984, p. 242) said, "Hong Kong and the treaty ports were like Singapore in their superficial resemblance to nodes of a preindustrial trading-post empire, but the function was very different. Rather than serving the narrow interests of a particular nation or trading group, they were open to the full impact of international capitalism on the Western model." Furthermore, other characters in the system are listed in *The Cambridge History of China* (Vol. 10, p. 259), edited by Fairbank (1978):

> **The unequal treaty system thus inaugurated by gunboat diplomacy – meaning military and naval coercion – gave to the foreign treaty powers a considerable measure of sovereign licence in China. These features were established by 1860: consular jurisdiction over treaty power nationals (extraterritoriality), foreign administrative control of concession areas in treaty ports, foreign warships in Chinese waters and troops on Chinese soil, foreign shipping in China's coastal trade and inland navigation, and tariffs limited by treaty. In later years additional foreign rights and privileges would further reduce the scope of Chinese sovereignty.**[52]

Further detailed content could be found in Chapter 5 of *The Creation of the Treaty System* by Fairbank (1978, p. 213–263). Under the treaty-port system, the treaty settlement in the form of C&S, the foreign community in the ports used a strategy similar to that of the Portuguese in setting up trading-posts in Singapore, Hong Kong, and Macao. Fairbank (1978, p. 227–228) described the foreign community in the ports as follows:

> **At each port the foreign community centred about the foreshore or bund, where shipments moved ashore to the godowns (warehouses) within the compounds of the foreign trading firms. Each foreign community was outside the local Chinese city in a position on the water, whence might come its help, and somewhat defensible by land. The British consuls early demanded the right to hoist their flags over consulate buildings leased within the walled cities and they succeeded in doing so everywhere except at Canton. But at Amoy the foreign settlement actually grew up on 'Drum Wave Island', Kulangsu, in the harbour; at Foochow on the island of Chung-chou in the Min River; and at Ningpo on the riverbank across another stream from the walled city. When the foreigners settled on the banks of the Whangpu north of the walled city of Shanghai, they were between two subsidiary streams, and on their inland frontier they dug out still another, known as Defence Creek.**

As Fairbank (1978) claimed, "By mid-century China's treaty port community totalled about five hundred foreigners. They were mainly organized in some two hundred firms, including both those that provided local services of all ports and those engaged in the international trade." (the first two sentences in the second paragraph on

p. 228, *ibid*) This tradition of treaty settlement could even be traced back to the Canton factories before 1840 by referring to the work of Morse in Vol. 4 by Tuck (2000) where there was a record of "the residents (Consuls and Citizens) at Canton outside the EIC."

Along with the operations of the EIC in Asia from the Indian Ocean to the Far East, trade always predominated in the British expansion strategy in Asia. This tradition was extended and prolonged after the EIC ended in India in 1813 and in China in 1833 due to the mainstream of free trade, which gave the new trading-post empires territorial control in Asia, that is, Singapore and Hong Kong, as mentioned by Curtin (1984). The free trade scheme was the background of Hong Kong's colonialism beginning 1840, and the guide to the building of the C&S in China after 1860.

Official historical documents recorded on the embassy of Lord Macartney to the court of Peking in 1793 and the embassy of Lord Amherst to China in 1816 show that trade was always the target of British attempts at diplomacy with China before 1839, defined as "purely commercial, having not even a wish for territory" (as Lord Marcartney was instructed by Henry Dundas). Refer to the content on p. 214–227 of Vol. 2 by Tuck (2000), Appendix G "Instructions to Lord Macartney, Sept. 8, 1792" by Hendry Dundas on p. 232–242 of Vol. 2 by Tuck (2000), "Results of the Embassy" of Introduction on p. 30 of Vol. 8 by Tuck (2000) and Appendix V on p. 278–306 of Vol.3 by Tuck (2000), respectively.

Except for the above general image of the treaty-port system, there are detailed descriptions of its composition, that is, the individual history of Macao, Hong Kong, and the C&S in relation to trade, respectively. This trade tradition could be traced back to the early times, when the Portuguese, Spanish, and Dutch operated their maritime trade in Asia, as described by Curtin (1984). This trade tradition was inherited by Macao, Hong Kong, and the C&S of mainland China, paving the way for the treaty-port system.

A. Macao and the Early European Trade in Asia

Aside from the description of the Portuguese trade-post empires alluded to above and covered by Curtin (1984, p. 137–144), this part shows in detail the experience of Macao's position in trade. Reference is the content of *The Pacific and East Asia* by Findlay and O'Rourke (2007, p. 167–173):

"... It is not clear, however, what immediate economic advantage the Spanish Empire derived from all the heroic voyages her mariners made in the vast expanse of these waters in search for treasure, spices, and souls for conversion to the true faith. The only lucrative opportunity, but one that was to persist for centuries, was the exchange of American silver for Chinese silks, with many other items of lesser value thrown in, taking place through Manila in the Philippines, the only Spanish colony in the Pacific. ...

[For the Ming authorities] The potential gains from trade between Southeast Asia and China were so great, however, that the opportunities for skimming revenue and collecting bribes was too great for officials in Guangdong and other coastal regions to resist. It was within this framework of officially illegal but tacitly sanctioned trade

that the Portuguese began to operate after they took Melaka in 1511.

After some initially clumsy and futile attempts to force their way into the China trade the Portuguese finally hit on an effective compromise, worked out by two eminently sensible men, a private Portuguese merchant, Leonel de Sousa, and a Chinese official named Wang Po. As recounted in Wills (1998), the Portuguese were given a place on the Pearl River estuary to construct warehouses and build a church, but had no direct access to any source of food other than what the Chinese would permit them. In addition to an annual fee, taxes were paid on the trade, or at least some part of it, with the revenue shared between the local officials and the central government. The Portuguese were not supposed to permit any outsiders, particularly the dangerous Japanese, to enter their narrowly prescribed zone. This was the origin in 1557 of the celebrated Portuguese outpost of Macao, ["revived in the Peking convention of December 1, 1887, whereby Macao was ceded in perpetuity to Portugal (art. 2), in return for the latter's engagement 'to co-operate with China in the collection of duties on opium exported from Macao into Chinese ports, in the same way, and as long as England co-operates with China in the collection of duties on opium exported from Hongkong into Chinese ports' (art. 4)" in Tyau (1966, p. 8)] which only reverted officially to China more than four centuries later.

Fortunately for the Portuguese a veritable bonanza or 'middleman's paradise' opened up for them to exploit with respect to Sino–Japanese trade. China had a very strong comparative advantage in silk, both its raw form and as fabric and apparel, greatly desired by the Japanese despite their own large domestic sector since that was of inferior quality. Japan at this time was opening up very productive silver mines and demand for that metal was high in China for monetary and other uses. The problem was how to effect this mutually agreeable transfer, since the Ming authorities were loath to either permit Japanese to come to China or Chinese to go to Japan, for what we would today call 'national security' reasons. Thus both Manila and Macao had the same opportunity to provide the Chinese with silver in exchange for their silk, Manila with the galleons from Acapulco [in Mexico], and Macao with silver from Japan.

Every year at least one 'great ship', carracks of 1,600 or even 2,000 tons, built of Malabar teak, would sail from Goa to Melaka laden with Indian cloth and other manufactures. These were sold for spices, sandalwood, and other Southeast Asian products, which were then shipped to Macao, where they were exchanged for silks. The ship would then head for Japanese ports, where the silks would be sold for silver, which was then transported back to Macao. Finally, spices were again purchased in Melaka to take back to Goa, from where they could be sent by other ships to Europe around the Cape. The beauty of this arrangement was that the Portuguese input in material terms was practically zero, other than bearing the undoubtedly high risk of the voyages and providing the necessary 'managerial services.' The ships were built in Indian and the crews, including the pilots, were largely Asians or Africans, while the goods traded were all or mostly of Asian origin. ...

Transpacific trade was essentially confined to that conducted between the Spanish American colonies and China through Manila, a trade long identified with the legendary *Manila Galleon*, which is also the title of the classic account by W.L.

Schurz (1939) of this unique episode in the history of global commerce. The basic exchange between the two continents was Chinese silk, as well as porcelain and Southeast Asian spices to some extent, for the silver that was pouring out of the mines of Potosí and Mexico. Chinese traders, mostly from the southern ports of Amoy (Hsia–men) and Canton, took raw silk, fabrics, and apparel to Manila, where these cargoes were sold for silver and carried back for sale in the New World."

Maddison (2006) also described the historical episode. "The Portuguese displaced Asian traders who had supplied spices to Red Sea and Persian Gulf ports for onwards sale to Venetian, Genoese and Catalan traders. But this was only a fraction, perhaps a quarter, of Asian trade in one group of commodities. ..., the spice trade was not the only trading opportunity for the Portuguese, or for other later European traders (Dutch, British, French and others) who followed. Silk and porcelain played an increased role, and in the seventeenth and eighteenth centuries, cotton textile and tea became very important. There were possibilities of participating in intra-Asian trades as well. In the 1550s and the 1630s this kind of trade between China and Japan was a particularly profitable source of income for Portugal." (p. 67, V: *The Trading World of the Indian Ocean*)

"In 1567, the Chinese authorities ended the prohibition on private trade but banned trade with Japan. This gave the Portuguese an unbelievably favourable window of opportunity." (p. 71, VI: *The Trading World of China, Japan and the Philippines*) "The route between Acapulco (on the west coast of Mexico) and Manila had a monopoly in trading Spanish silver against Chinese silk and porcelain. Spaniards took little direct part in China trade, which was mainly conducted by Chinese ships, using the large overseas Chinese population of Manila as intermediaries. At the end of sixteenth century there were 2000 Spanish living in Manila and 10000 Chinese." (p. 72, *ibid*)

"The Dutch were extremely well informed about Asian trading prospects, for many had worked on Portuguese ships. ... In 1602, under official pressure, all Dutch merchants in this trade were compelled to join the United East India Company (VOC) which was given monopoly trading rights and authority to establish military outposts and negotiate with foreign rulers. ... The English East India Company (EIC) was a more important competitor than the Portuguese. They entered the Asian trade at the same time as the Dutch. Their main bases were at two towns they created in India (Madras 1639, and Calcutta in the 1690s) and Bombay which was a wedding gift from Portugal to Charles II in 1661. EIC operations in the seventeenth century were about half the size of those of the VOC, and about two thirds in the eighteenth. The French entered the Asian trade with the *Compagnie des Indes Orientales* which Colbert created in 1664. They established a base at Pondicherry (on the Coromandel coast) in 1673. By the eighteenth century, a new French company, created in 1719, had become a very significant presence. Later, participants were Danish and Swedish companies, and from 1715–32, the Ostend company operating from the new port which the Austrian administration had created in the Southern Netherlands.

The total volume of European shipping in Asia in eighteenth century was about nine times as big as it had been in the sixteenth, but the scope for the traditional

exports of pepper and spices was limited. This meant that the Dutch, who were more heavily involved in this trade than the English, French and other new comers, had to be careful to control supply in order to maintain prices. The opportunities for new exports to Europe—a wide variety of cotton textiles, coffee and tea—were much more promising and their share of trade rose rapidly, for all of the participants in the market (see Table 2–20).

The initial thrust of the VOC was to bypass the Portuguese, using a new route via the Cape and sailing direct to Indonesia. This brought them directly to the Moluccan islands where the most valuable spices (cloves, nutmeg and mace) could be found. ... There was an early move to establish trading links with China and Japan which had been so lucrative for Portugal. Unlike the Portuguese, The Dutch felt no vocation for religious evangelism, and were the only Europeans allowed to trade in Japan between 1639 and 1853. From 1641 they were confined to a very small island (Deshima) in the harbour of Nagasaki. ... The VOC did not succeed in dislodging the Portuguese from Macao. In the 1620s they got a base in the Pescadores and from 1642 were allowed to shift to Taiwan. In 1662 they were forced to leave and never acquired another Chinese base. ...

The VOC operated from the 1630s in Bengal because of its rich variety of high quality textiles (cotton and silk). ... At first the VOC concentrated on exporting Bengali raw silk and mixed cotton–silk textiles to Japan, and opium to Indonesia. ... Bengali textiles were also of major interest to the British and French companies from the last quarter of the seventeenth century, and their textile exports were even bigger than those of the Dutch. However, both the French (1686) and the British (1700) forbade import of printed and painted cottons in order to protect their domestic textile producers. Both countries continued to import these goods for re-export (though a large part of these were smuggled back into England). ...

The Chinese had opened Canton to foreign traders in 1685. British tea imports rose from about 100 kilos in 1669 to 28000 tons in 1760 (see Chaudhuri, 1978, p. 539). The Dutch bought most of their tea from Chinese junks trading to Batavia, though there was a direct shipment from Canton to Amsterdam in 1729. The British company were able to finance their tea purchases in Canton by selling Bengali opium and raw cotton, but the Dutch were obliged to pay in bullion (see Glamann, 1981, p. 212–243). ..." (p. 85–88, *c)* Asia, Dutch Economic Activity Outside Europe, VIII: *The Netherlands*)

B. Free Trade and Its Influence in Asian Colonies

McIntyre (1966) said, "Free trade was the achievement of the political economists at home; responsible government was the demand of frustrated politicians in the colonies. ...

After the 1840s, ideas of individual liberty, limited government, free trade and international peace became reverted as a great system of moral law. David Ricardo reiterated Smith's argument that the colonial monopoly diverted capital which would be distributed more productively 'by a universally free trade'. Richard Cobden believed that artificial props like the trade and navigation act were unnecessary. Jeremy Bentham ridiculed the Old Colonial System by his famous question: 'What

are colonies for? For nursing so vast a navy. What is our navy for? For keeping and conquering colonies.' In face of arguments like these the monopolies were ended by a process of gradual erosion.

To start with, exceptions were made for particular interests or regions. In the Caribbean, for example, a series of 'free ports' was created –colonial ports where the customs duties were not levied. Jamaican and Dominican free ports were designed to 'tap' the trade of the French and Spanish colonies, and after the American War of Independence further ports were 'opened' in Bermuda, the Bahamas and Nova Scotia. After 1795 small American ships were permitted to trade direct to the British West Indies. In the East, foreign traders were admitted to the territories of the East India Company when its trade monopoly in India was abolished in 1813. Singapore was acquired in 1819 as a free port to tap the trade of the Indonesian archipelago and the China Sea. ...

By the 1840s the main core of the protection system began to crumble. The single-minded campaign of the Anti-Corn Law League combined with the Irish potato famine in 1845 to convince Sir Robert Peel to abandon his land-owning supporters and repeal the Corn Laws. In 1849 the repeal of the Navigation Acts followed. During the next few years the sugar and coffee duties were equalized and the timber duties abolished. The Australian colonies were permitted to levy their own tariffs; Canadians made a reciprocity agreement with the United States and even put up a tariff against English manufactures. By 1853 Disraeli declared that the Old Colonial System was in 'rags and tatters'. The free trade movement reached its climax in 1860 with Cobden's treaty with France and Gladstone's budget, when customs duties were removed from all but forty-eight articles.

The commercial system which had been erected to foster British wealth and power in the seventeenth century now gave way to a system better fitted to the commerce of the leading industrial nation. ..." (p. 35–38)

Maddison (2006) stated, "In the course of the nineteenth century, there were major changes in British commercial policy. In 1846 protective duties on agricultural imports were removed and in 1849 the Navigation Acts were terminated. By 1860 all trade and tariff restrictions had been removed unilaterally. Dutch policy was similar to the British. In 1860 there were reciprocal arrangements for freer trade with France under the Cobden–Chevalier Treaty. The French made similar treaties with Belgium, Italy, Spain and Switzerland. These treaties had most-favoured nation clauses which meant that bilateral liberalization applied equally to all countries. In the continental countries there was a reversal of this liberalization later in the nineteenth century, but the United Kingdom stuck with free trade until 1931.

Free trade was adopted in India and other British colonies, and the same was true in Britain's informal empire. China, Persia, Thailand and Turkey were not colonies, but were obliged to maintain low tariffs by treaties which reduced their sovereignty in commercial matters, and granted extraterritorial rights to foreigners. In China, Britain took over the administration of its customs service, to ensure that China would service its debts." (p. 99)

McIntyre (1966) said, "The colonies in Asia were all by-products of the Indian

empire. Ceylon was acquired for strategic reasons during the Napoleonic wars. Burma was, until 1937, treated as an adjunct to India. The rest of the Asian colonies were by-products of the East India Company's trade to China and the Indonesian islands: they formed a line of bases on the sea route to Canton. Penang (1786), Singapore (1819), Hong Kong (1842) and Labuan (1846) were all originally conceived as strategic posts to shelter British ships, protect traders, attract island merchants, challenge the Netherlands in the East Indies, and , above all, to foster and protect the China Trade.

Yet trade led to empire. Each strategic foothold became the basis for local empire-building. Ceylon, as we have seen, developed into a 'model tropical dependency'. Progressive annexations in Burma Tenasserim, Arakan, Assam and Manipur (1826), Pegu (1852) and Upper Burma (1886) –led to the creation of a new province of India, which was detached as a separate colony in 1937. From the Straits Settlements Britain acquired influence in the states of the Malay Peninsula. In 1824 she acquired the Dutch colony of Malacca. In 1874 she began to exert political pressure on the Malay States, until, by the 1914–18 wars, they were all 'protected states', ruled by their sultans under British advice. Similarly, in North Borneo, British influence was not confined to the useless island of Labuan. In 1841 James Brooke, a former East India Company officer who was in search of adventure, was appointed Raja of Sarawak by the Sultan of Brunei. In 1881 the British North Borneo Company was granted a charter to develop north-eastern Borneo (Sabah). Between them the 'white rajas' and the Chartered Company reduced the Sultanate of Brunei to its present small enclave and in 1888 all three territories became British protectorates. Finally, the rocky, thirty-square-mile island of Hong Kong grew under British rule to become a great trading and manufacturing city. With small territories on the mainland added, it supported by 1960 a population of more than 3 million.

From this eastern empire has come the independent state of Burma (which never joined the Commonwealth), the state (still in 1965 technically the Kingdom) of Ceylon, the Federation of Malaysia and the small states of Brunei and Singapore. Hong Kong alone remains a Crown colony." (p. 219)

C. Hong Kong Derived from Free Trade with the Birth of Treaty-Port System

The story of Hong Kong had to be stated from the history of the EIC and Cohong at Canton.

"In the first three centuries of European trade expansion, China had been much more difficult to penetrate than the Americas, Africa or the rest of Asia. Such trade as there was, was on conditions laid down by China."(p. 119 -120, *d)* China, Maddison, 2006)

"The British connection with India started in 1600 with a creation of a monopoly trading company (the East India Company—EIC). For the first century and a half, it operated around the Indian coast from bases in Calcutta, Madras and Bombay. By the middle of eighteenth century the main exports were textiles and raw silk from India, and tea from China. Purchases of Indian products were financed mainly by exports of bullion, and from China by exports of opium and raw cotton from Bengal (see Table

2–20 and the above discussion of rivalry between the British, Dutch and French trading companies). ...

They conquered the Moghul province of Bengal in 1757, took over the provinces of Madras and Bombay in 1803, and seized the Punjab from the Sikhs in 1848. They also succeeded in driving their European commercial rivals—the French and Dutch—from India. The British government did not establish its own direct rule until after the Indian mutiny in 1857 when the East India Company dissolved." (p. 110–111, *c)* India, Maddison, 2006)

The following recalls the process of the EIC's ending and Cohong's abolishment in China, where British private traders at Canton and domestic industrial interests, such as Manchester, Blackburn, Liverpool, Birmingham, Glasgow, and others (textile centers born with IR) were the powerful hands of free trade. Details are found in the content from Chapter VII on p. 175–195 of Vol. 9 by Tuck (2000). Here is a sketch.

"... A private letter of December 1833 from a British merchant established in China for the previous fifteen years agreed that 'the opening of the home trade in April, 1834, will form a grand epoch in the Annals of Canton'; ...more than half of British trade with China was already in private hands before 1834, ...

It will be recalled that by the 1820s the 'private English' had succeeded in obtaining an established footing at Canton within the framework of the Company's monopoly, and that these two groups of British merchants in China were able to exist together for a time because their respective trades moved in 'different spheres'. But the rapid growth of the Country Trade[1] upset the balance and produced a divergence of interest. Moreover, the use of Singapore to effect direct shipments to and from England and the equally important development of their own credit structure based on the American Bills on London gave the private merchants of Canton a considerable measure of independence from the Company. Whereas old W.S. Davidson, who had come out to China in 1807 and left in 1824, when speaking of the early days of the Country Trade, though he complained that it was 'merely a trade on sufferance', yet admitted deriving an advantage from the existence of the Company's China Factory; young James Matheson, who came out in 1819 and left in 1841, in one of his first letters denounced 'that destructive monopoly which has so long existed'. William Jardine repeatedly attacked the Company for its 'vacillating' opium policy, and its 'unbusinesslike' financial methods, which at one point caused Company Bills to be bandied about at a discount. ...

Above all, the new spirit of the private merchants expressed itself in opposition to the Company's passive policy towards the Canton Commercial System. *The Canton*

[1] Refer to Note 1 on p. 341 by Furber (1976): "In English, no word more succinctly defines this trade than 'country'—the term in constant use until at least 1900. 'Intra-Asian,' now sometimes used, is not broad enough in meaning, for a voyage between any port on the east coast of Africa and any other port in East Africa or Asia is just as much as a 'country' voyage as one between two or more ports in Asia." And about country trader, "Nearly all Europeans active in East Indies before 1800 were living two lives—one as servants of European governments or East India companies, another as individuals participating for their own advantage directly or indirectly in the port-to-port trade within the eastern seas known as 'country' trade." (Chapter 5, East India Goods, *ibid*)

The relationships among the EIC, private trade, and country trade are detailed in Appendix I on p.216 by Tuck (2000), Vol. 9, Part 1. In the current study, we merely cite the main points to help clarify private trade and country trade: "...the 'privilege' trade of the Company's marine officers, mainly in all kinds of minor articles with which the Company did not wish to trouble itself, is called by most writers 'Private trade'... the term 'Country trade' is used to note that part of India-China commerce carried on by the private merchants."

Register put the issue squarely. 'The Company's last monopoly, since its homeward investment are confined to tea, may not find much material injury though their cotton cargoes turn out dreadfully deficient compared with former values. But the commerce of the Company in China, when taken in view of the whole trade of the port, does not bear such a mighty comparison. The American and Country trade is very extensively and deeply affected by every mal-arrangement. It seems impossible from the fettered state of all mercantile operations here, that intercourse can be increased substantially.'

The issue was forced in 1829 by the action of the merchants of Bombay and Bengal, who had suffered great losses in their cotton shipments to China for several years. In May of that year 44 Parsees of Bombay, 'nearly all the native wealth and commercial influence of that side of India', petitioned the Governor-General to bring pressure to bear on the Canton Select Committee 'to avert a severe calamity' by exerting itself to secure improved conditions of trade with China. ...

Jardine wrote bitterly to Thomas Weeding: 'The good people in England think of nothing connected with China but tea and the revenue derived from it, and to obtain these quietly will submit to any degradation ... the general opinion in Canton is in favour of many valuable concessions being procurable from the Chinese if properly asked for'. ...

In December 1830 a remarkable petition to the House of Commons was drawn up and signed by 47 private British subjects in China, including ships' captains. It argued that the China trade had increased in defiance of Chinese restrictions 'to a point of such magnitude as will raise the anxiety of your Honourable House to place it upon a permanent and honourable basis; that the total failure of both Embassies to Pekin [i.e. the Macartney and Amherst Missions] will forcibly suggest to your Honourable House how little is to be gained in China by any refinements of diplomacy'; that the Cohong was 'a limited medium of intercourse not even in efficient state'. ... At the least, it was hoped that the British Government 'would adopt a resolution worthy of the nation and by the acquisition of an insular possession near the coast of China, place British commerce in this remote quarter of the globe beyond the reach of future despotism and oppression'. Hongkong was not yet thought as the best 'insular possession'. Matheson favoured one of the Lintin group, Jardine Formosa. To the news of a formidable insurrection in Formosa in 1832 Jardine's reaction was 'what an opportunity for us to lend them a little hand and gain a footing on the island'.

The private merchants were demanding stronger political support than the East India Company would or could give. This was perhaps the main reason why they desired the abolition of the Company's charter. ...

Moreover, the Canton 'free' merchants were convinced that the abolition of the Company's monopoly would not of itself unlock the gates of the Chinese market. ...

The decisive pressure against the East India Company's monopoly came not from Canton but from Manchester. Right down to the end of the 18th century, the Company had been attacked by English textile merchants for *importing* fine Indian cloths with which they could not pet compete. The grounds of opposition had shifted as the technical supremacy of British manufacture began to dominate the industrial situation. The Company's monopoly was now regarded as an obstacle to that continuous

development of new export markets which was held to be essential for the expansion of machine-powered industry.

In 1813, when the Company's charter had come up for renewal, petitions from Manchester, Blackburn, Glasgow and other textile centres had demanded 'freedom of commerce as the birthright of all Britons'. The throwing open of the India trade (with certain restrictions) in 1813 had been followed by a rapid increase in the export of cotton goods, much greater than that of other articles. ...

In 1829 the campaign against the Company's monopoly was begun in earnest. ...

Against the arguments of the Company's representations, the free traders stressed several points: (1) The commercial disposition of the Chinese and the extraordinary facilities of the port of Canton. (2) The great opening in China for the sale of British manufactures. (3) The certainty of a lowering of the price of tea to the English consumer upon the cessation of the monopoly. (4) The benefit which would accrue to shipping and commercial interests 'which otherwise must continue paralysed', since the China monopoly 'impedes those lines of trade with which it appears at first sight to have at least connection'. ...

It is notable that when a deputation from the merchants of Calcutta, Manchester, Liverpool and Birmingham saw the Prime Minister, Earl Grey, they argued that the opening of the China trade would be of much greater benefit to the commercial world than the opening of the India trade had been. ...

Forty per cent more teas were shipped to England in the first season after the abolition of the Company's monopoly than in the previous one. As Forbes remarked, every merchant and ship-owner who had ever seen a chest of tea immediately turned his attention to China. ... within the inelastic framework of the Canton Commercial System, the influx of new firms to China (the British community increased from 66 in 1833 to 156 in 1837) naturally produced a general rise in the prices of exports and a fall in those of imports. ...

Abolition of the Company's charter was thus followed by a period of acute difficulty in the China trade, quite apart from the question of opium. 'The truth is', wrote by Jardine in 1837, 'the China trade has been too much run on: the Company's advances have afforded too much facility for wild speculations'. ... [Matheson's] general attitude and that of the other Canon merchants was still that of 1830: that the fruits of free trade could not be gathered until the whole foreign commerce in China had been put on a new footing. The logic of free trade required the abolition of the Cohong.

Paradoxically, the most immediate result of the victory of the free traders was to bring the power of the British state to bear directly on the China trade. After 1834 the Foreign Office replaced the Court of Directors, and the 'Superintendents of British Trade in China' superseded the Select Committee of Supercargoes. To the diplomatic historian this change is so fundamental as to constitute a starting point in China's 'international relations'. Whence follows the familiar argument that conflict was 'inevitable', because the Chinese persisted in regarding as a mere *taepan*, or chief merchant, the direct representative of British Government. The significant thing from our point view is that in fact Lord Napier, the direct representative of the British

Government, was superintendent of British trade in China. His instructions were to assist the British subjects in their mercantile pursuits and to explore the possibilities of extending trade to other parts of China. ...

When Napier's successors, Robinson and Davis, decided to pursue the famous 'policy of quiescence' the response of the British merchants in China was to intensify their demands for a 'forward policy'. They had, on Lord Napier's recommendation, organized themselves into a Chamber of Commerce 'for the purpose of giving form and efficiency to the British mercantile community'. They now proceeded to conduct a campaign in India and England against the two pressing evils of the Canton Commercial System and the East India Company's Finance Committee [voluntarily withdrew at the outbreak of the Opium War]. In December 1834 they drew up a petition to be presented to the King-in-Council, asking for the appointment of a plenipotentiary supported by three warships to demand: (1) redress for the trade stoppage, (2) the opening of the Northern ports to foreign commerce, and (3) the ending of the Cohong monopoly. These measures were necessary to maintain 'the advantages which a safe and uninterrupted commerce with China is calculated to yield to the revenues of Great Britain and to the important classes interested in its arts and manufactures'. James Matheson believed that 'the point of direct communication with the [Council] Government without the corrupt interventions of the Hong merchants is of *such vital importance to the well-being of the trade that the British Government cannot rest until it is obtained*'. ...

... [T]he Manchester Chamber of Commerce drew up in February 1836 the all-important memorial to the Foreign Secretary, on 'the unprotected state of our Trade with China'.

This memorial, which was followed by similar documents from Liverpool and Glasgow, began by drawing attention to the great importance of the China trade to the mercantile manufacturing and shipping interests of Great Britain, and the unprotected situation of the British merchants resident in China, through whose medium the trade was conducted. It then pointed out that the China trade not only provided employment to 100,000 tons of British shipping and a market for British manufactures, but also afforded an outlet for the products of India to the extent of over £3 million per annum, 'which enables our Indian subjects to consume our manufactures on a largely increased sale'. Secondly, it argued, the China trade was capable of great extension, since its products were suited to English wants and vice versa: 'We cannot contemplate without the most serious alarm the uncertain and unprotected stat in which this most important trade is placed particularly since the failure of Lord Napier's 'Mission'.' Without adequate protection, it argued, the trade was liable to be stopped at the caprice of the Hong merchants or Mandarins. British property was in daily jeopardy, our industry liable to be paralysed, our revenue exposed to the loss of £5 million a year. This accumulation of evils called for the protecting influence of the British Government. Therefore the memorialists prayed for the Government's serious consideration of the state of our political relations with China.

In other words, by 1836 the weight of the 'home' manufacturing interests of Britain was thrown behind a 'forward policy' in China. This was perhaps the most

important consequence of 1834."

The change of trade due to the end of the EIC's monopoly could be found from the following table. Both imports and exports increased in absolute volume not only for English but also for American traders.

The Influence of the EIC's End	*English*	*American*	*Total*
Imports, 1831–2	20,520,027	2,383,685	22,903,712
Imports, 1836–7	34,435,622	3,214,726	37,650,348
Increase	13,915,595	831,041	14,746,636
Increasing share	67.81%	34.86%	64.39%
Exports, 1831–2	13,216,483	5,999,732	19,216,215
Exports, 1836–7	25,339,284	9,527,139	34,866,423
Increase	12,122,801	3,527,407	15,650,208
Increasing share	91.72%	58.79%	81.44%

Source: Table on p. 16 of Gull (1943).

Note: "Increasing share" is computed by author based on the table. Figures are in dollars and movements of treasure are excluded.

Finally, even the end of the EIC in China after 1833 was followed by the country trade boom. The private English competing against the monopoly of the Company, and the abolishment of Canton system with only one port for trade and replaced by the treaty-port system, which had many ports for trade depending on the preference of the private British, are all ascribed to the need for trade to foster and occupy the huge Chinese market for British manufactures after the IR. From this perspective, the colony of Hong Kong and latter international settlements in some treaty ports were all servicing the need to increase the volume of trade with China, inherited from the trade tradition of Macao.

Gull (1943) gave the following description of the selection of Hong Kong.

"... [T]he use made of Hongkong waters in conducting the opium trade with the ideas and suggestions which, in retrospect at all event, link the island and Kowloon with their post-1842 history.

Between 1815 and 1836 various recommendations were made for the establishment of some *point d'appui* near the China coast from which pressure might be brought to bear on the Chinese Government, or whence trade might be conducted. In 1815 the President of the Select Committee of the East India Company's Supercargoes at Canton, Elphinstone, suggested that a high diplomatic plenipotentiary should be established 'on a convenient station on the Eastern coast of China'. In 1833 Sir George Staunton, the translator of China's Penal Code, moved a resolution in the House of Commons to the effect that, in the event of its proving impracticable to replace the influence f the East India Company by any system of national protection, it would be wise to withdraw altogether from the control of the Chinese authorities and 'to establish the trade in some insular position on the Chinese coast'. In the same year Sir J. B. Urmston, who had been at the head of the British factory in Canton in 1819–20, published a pamphlet advocating the use of Chusan as a commercial centre. An anonymous writer in Canton then reviewed, amongst other suggestions, the

occupation of the island of Lantao, near Hongkong. In 1834, in a official dispatch to Lord Palmerston, Lord Napier recommended that a small British force 'should take possession of the island of Hongkong, in the eastern entrance of the Canton river' pending the conclusion of a commercial treaty, and two years later a correspondent of the *Canton Register* urged that 'if the lion's paw is to be put down on any part of the south side of China, let it be Hongkong'.

In the spring of 1839, ... events began to follow in the train of these ideas. Confronted with the crisis of the opium question, Captain Elliot ordered all British ships to proceed to Hongkong and placed them under the protection of the Navy. In the summer, during a riot on the Kowloon side of the harbour, ..., the Chinese authorities, refusing to acknowledge the jurisdiction of the court which tried the British sailors involved in the riot, took steps to force the British residents who had left Canton under Captain Elliot's instructions out of Macao. From Macao they sailed for Hongkong in small boats, schooners and *lorchas*, crowded with passengers, the little fleet presenting 'an affecting spectacles as it moved slowly away from the harbour'. ...

And then, ... H.M.S. *Volage* and *Hyacinth* sailed for the Bogue and there ensued the naval Battle of Chuenpi [穿鼻], which led to the cession of Hongkong." (p. 19–20)

D. Concessions and Settlements Hatched in the Treaty-Port System

"The island of Hongkong was ceded to Great Britain, 'it being obviously necessary and desirable, that British subjects should have some port whereat they may careen and refit their ships, when required, and keep stores for that purpose' (art. 3). The Co-hong monopoly was to be abolished and there was to be complete freedom of trade (art. 5)." (Tyau, 1966, p. 5) "The stipulation is as follows:--'The government of China having compelled the British merchants trading at Canton to deal exclusively with certain Chinese merchants, called Hong-merchants (or Co-hong), who had been licensed by the Chinese government for that purpose, the Emperor of China agrees to abolish that practice in future at all ports where the British merchants may reside, and to permit them to carry on their mercantile transactions with whatever persons they please.' [Art. 5, British 1842 (the Treaty of Nanking)]" by Tyau (1966, p. 95).

As far as the abolishment of Co-hong was concerned, it is interesting to recall the reasons why the EIC and Co-hong were initiated. "...We are apt to overlook the fact that the abolition of the East India Company's monopoly was a breach with the tradition that 'the simplest expedient for maintaining a hold upon foreign commerce, so as to regulate it on wise lines, was to confer special trading privileges on a body of merchants who should be responsible for conducting the traffic in the manner that was most advantageous to the realm. This was one reason for the organization of commercial companies, which were much more extensively developed among English traders than among those of any other nation.' (Cunningham, *Growth of English Industry and Commerce: Modern Times*. Part I, Mercantile System, p. 215 (Cambridge University Press, 1903).) Those sentences require some, but not much, alteration to make them an accurate description of China's point of view in endeavouring to control foreign trade at Canton through the Co-hong, which, if it was

not an official creation, undoubtedly had, from its beginning in 1720, official support. ... the similarity between the ideas which resulted, in England, in the establishing of monopolistic trading companies and, in China, in the Co-hong is undeniable. The similarity seems all the closer when considered in relation to the fact that from 1757 to 1842 Canton occupied the same position in China's economy as the 'staple' had in ours, the 'staple' being, it is hardly necessary to recall, an appointed place to which merchants were required to take their wool and other staple commodities for sale. 'Its purpose', says Ashley, 'was to bring merchants so closely together that trade might be more easily regulated and supervised, and, especially, on order that the customs duties might be easily levied.' (*An Introduction to English Economic History and Theory*, vol. i, p.111). This further similarity between our methods and China's should not, however, be pressed too far because, [prior to 1757] trade had been conducted at other ports— Macao, Amoy, Foochow, Ningpo and in Formosa. Moreover, the idea of having a 'staple' does not appear to have existed in the seventeenth century, for in 1685 an imperial decree opened all ports in China to foreign trade. The East India Company's early efforts included the establishment of a factory at Amoy; it was nearly twenty years later that their first ship was sent to Canton. Furthermore, trade appears to have gravitated to Canton voluntarily, because taxation there was less systematized than at other places.

None of these circumstances, however, destroys the correspondence between the ideas which our traders encountered at Canton and those to which their forefathers had been accustomed in England." (p. 11-12, Gull, 1943)

After the Treaty of Nanking (1842), the age of the treaty-port system began, which was significantly represented by a series of treaties signed between China and the foreign powers. The issue was very complicated because it concerned 18 states[2] (refer to the following table) in sequence in 1842–1917. As Tyau (1966) pointed out, some treaties were negotiated individually, others collectively; some concerned individual affairs, that is, frontier problems, opium issues, and so on, and others had common purposes, that is, commercial, navigational, residential, and judicial rights. However, trade still made its way based on the work of Gull (1943), Tyau (1966), Morse (1966), and Fei (1991). The following characterized the treaty-port system after 1860.

(a) MFN, ETR and Tariff Imposts/Customs Regulations

Among the items of the treaty-port system, there were three staring elements: the Most-Favoured-Nation clause (MFN) with respect to the doctrine of the "open door," extraterritoriality rights (ETR) concerning jurisdiction and tax, and treaty tariff with low rates—all concerned with trade just as *Inauguration of the Treaty Century after 1842* by Fairbank and Goldman (2006, p. 201–205). The details follow.

Recorded by Tyau (1966, p. 6), "The 'precious little' most-favoured-nation clause

[2] Refer to p. 1 by Tyau (1966): "...such states comprise those whose commercial interests in China are either (a) large, or (b) small, or (c) non-existent. In the first division we may place the eleven signatories of 1901 protocol —viz., Austria-Hungary, Belgium, France, Germany, Great Britain, Italy, Japan, the Netherlands, Russia, Spain, and the United States; and in the third, the four Central and South American republics of Brazil, Chile, Mexico, and Peru. The other three states—Denmark, Portugal and Sweden—occupy an intermediate position; for, notwithstanding their non-signature of the above protocol, they are likewise direct beneficiaries of its indemnity clauses."

first appeared in the supplementary treaty of Hoomun Chai, Article III of which reads as follows: --'The Emperor of China having been graciously pleased to grant to all foreign countries whose subjects, or citizens, have hitherto traded at Canton, the privilege of resorting for purposes of trade to the other four ports of Foochow, Amoy, Ningpo [redacted] Shanghai, on the same terms of English, it is further agreed that should the Emperor *hereafter*, from any cause whatever, be pleased to grant additional privileges or immunities to any of the subjects or citizens of such foreign countries, the same privileges and immunities will be extended to and enjoyed by British subjects; but it is to be understood that demands or requests are not, on this plea, to be unnecessarily brought forward.'[3] "

Countries that Entered into Treaty Relations with China

Country	Place	Treaty Time
Great Britain*	Nanking	August 29, 1842
United States*	Wanghia	July 3, 1844
France*	Whampoa	October 24, 1844
Belgium	(a viceregal letter)	July 25, 1845
Sweden and Norway	Canton	March 20, 1847
Russia*	Tientsin	June 13, 1858
Germany*	Tientsin	September 2, 1861
Portugal	Tientsin	August 13, 1862
Denmark	Tientsin	July 13, 1863
the Netherlands	Tientsin	October 6, 1863
Spain	Tientsin	October 10, 1864
Italy*	Peking	October 26, 1866
Austria-Hungary*	Peking	September 2, 1869
Japan*	Tientsin	September 13, 1871
Peru	Tientsin	June 26, 1874
Brazil	Tientsin	October 3, 1881
Mexico	Washington	December 14, 1899
Chile	London	February 18, 1915

Data source: The content shown on p. 5, 6, 7, 8, 15, and 21 in "Introduction" by Tyau (1966).

Note: "*" marks the member of eight-country troops in the later Boxer Outrage of 1900.

"It appeared next in the American Treaty of Wanghia, 1844, the French Treaty of Whampoa, 1844, and the Treaty of Tientsin. As Morse says, '...This is the charter of privileges of the smaller Powers which, completing today a total of eighteen Powers having treaties with China, have all included it in their treaties.'" (p. 32, Gull, 1943)

The reason why MFN happened is shown in the "Classification of Treaties" by Tyau (1966, p. 2): "In the majority of cases the treaty relations entered into between China and separate states individually resemble one another. ... as between China and the states whose commercial interests therein are either appreciable or of great proportions, such features are represented by provisions respecting commerce, navigation, tariff imposts, consular matters, customs regulations, etc. ... as between

[3] Art. 54 of the Tientsin treaty extended the grant to include advantages "that *may have been or may be hereafter* granted" by China to other nations.

China and those states who do no trade with her, the detailed clauses regarding commerce and navigation, etc., are replaced by those guaranteeing to the Chinese residing within the territories of the latter the most-favoured-nation treatment in respect of the enjoyment and protection of their rights and privileges. The most-favoured-nation clause is, however, retained, so that the commercial clauses not stipulated in their own treaties may be invoked whenever they are ready to avail themselves of their benefits."

As written in Chapter VII by Morse (1966, p. 175 202), the rights of extraterritoriality is reviewed from its origin to modern working manners. "...For China, the principle of extraterritoriality—"the penalties are prescribed by negotiation between the two powers concerned, but the culprits are to be handed over to their own natural authorities—are to be judged and condemned according to the legal procedure of their native land," -- could be found in Art. VI of the Treaty of Nipchu, signed in 1689; Art. X of the treaty of Kiakhta, signed in 1727; and the supplementary treaty of Kiakhta, signed in 1768, consequently long "before the first of the treaties with any of the maritime powers." (For details, refer to p. 180–181) Through the British treaty of Nanking (1842)[4], the supplementary treaty of Hoomunchai (1843)[5], the treaty of Wanghea [望厦] (1844)[6], the treaty of Whampoa (1844)[7], and the Chefoo [烟台] Convention (1876), it was more clearly expressed (and again in the American Supplementary Treaty of Peking 1880) as follows:

"When controversies arise in the Chinese Empire between citizens of the United States and the subjects of His Imperial Majesty which need to be examined and decided by the public officers of the two nations, it is agreed between the Governments of the United States and China that such cases shall be tried by the proper official of the nationality of the defendant. The properly authorized official of the plaintiff's nationality shall be freely permitted to attend the trial, and shall be treated with the courtesy due to his position. He shall be granted all proper facilities for watching the proceedings in the interests of justice. If he so desires, he shall have the right to present, to examine, and to cross-examine witnesses. If he is dissatisfied with the proceedings, he shall be permitted to protest against them in detail. The law administrated will be the law of the nationality of the officer trying the case."

"This is the principle adopted since that time in all treaty negotiations entered into with China by each one of the treaty powers, which, in the order of the dates of the

[4] In Art. II, Consuls are "to be the medium of communication between the Chinese authorities and the said merchants, and to see that the just duties and other dues of the Chinese Government as hereafter provided for are duly discharged by Her Britannic Majesty's subjects." (p. 181)

[5] With the provision: --"Regarding the punishment of English criminals, the English Government will enact the laws necessary to attain that end, and the Consul will be empowered to put them in force; and regarding the punishment of Chinese criminals, these will be tried and punished by their own laws, in the way provided for by the correspondence which took place at Nanking after the concluding of the peace." (p. 182)

[6] In Art. XXI, "Subjects of China who may be guilty of any criminal act towards citizens of the United States shall be arrested and punished by the Chinese authorities according to the laws of China, and citizens of the United States who may commit any crime in China shall be subject to be tried and punished only by the Consul or other public functionary of the United States thereto authorised according to the laws of the United States; and in order to the prevention of all controversy and disaffection, justice shall be equitably and impartially administrated on both sides." (p. 182)

[7] Further enunciation of the principle of extraterritoriality: --"Il en sera de même en toute circonstance analogue et non prevue dans la présente Convention, le principe étant que, pour la repression des crimes et dèlits commis apr eux dans les cinq ports, les Francais seront constamment régis par la loi francaise". (p. 182-183)

first treaty with each, are Russia, Great Britain, the United States, France, Belgium, Sweden and Norway, Germany, Denmark, the Netherlands, Spain, Italy, Austria–Hungary, Japan, Peru, Brazil, Portugal and Mexico.

This is extraterritoriality, secured by two wars and by treaties with seventeen powers, each one of which must consent to its abrogation or modification. By it the foreigner resident in China is subject to no one provision of the law of China, either as to his person or to his property, but at all the times and in all places is entitled to the protection of his own national law administrated by his own national officials. There are no two voices as to the necessity for this right among those resident in China, and the right has been recognized by various Governments as supplying the one condition under which their nationals can remain in that country. ..."

"The charter played its part in making the enjoyment of extra-territorial rights common to the subjects of practically all these Powers and they were alike in withdrawing the citizens concerned from the jurisdiction of Chinese courts. Great Britain led the way. ... The United States, in making their first treaty with China in 1844, went further. (Article 21, 24 and 25 shown on p. 33). ...

Of the above clauses, two reappeared in the British version of the Treaty of Tientsin, i.e., Article 13 of the General Resolutions issued in pursuance of the Treaty of Nanking, and the first part of Article 25 of the American Treaty. In 1876 the Chefoo Agreement between Great Britain and China provided that 'so long as the laws of the two countries differ from each other, there can be but one principle to guide the judicial proceedings in mixed cases in China, namely, that the case is tried by the official of the defendant's nationality, the official of the plaintiff's nationality merely attending to watch the proceedings in the interests of justice. If the officer so attending be dissatisfied with the proceedings it will be in his power to protest against them in detail. The law administrated will be the law of the nationality of the officer trying the case.'

A provision similar to this forms Article 4 of the Sino-American Treaty of 1880." (p. 33, Gull, 1943)

Another issue worth noting is China's tariff autonomy (ceased to be important approximately 15 years earlier, that is, 1928): "..., comprised the tariff arrangements which the Treaties of Nanking and Tientsin made. The Treaty of Nanking provided for a 5 per cent import and export tariff, and arranged that imports after payment of import duties might be conveyed into interior free of all further charges except transit dues. The Treaty of Tientsin provided that the latter might be compounded by paying a single charge of 2.5 per cent *ad valorem*, on payment whereof a certificate known as a 'transit pass' might be issued, exempting the goods from all further inland charges whatsoever. At that time the only inland charges were dues collected by the native, as distinct from the maritime, Customs (which, ..., were early brought under foreign supervision) and dues known as *likin*. Later, however, the Chinese introduced other internal taxes, amongst them one known as *Lo-ti*, a tax leviable on goods after they had reached the destination prescribed in the transit pass, and consumption taxes. ...Moreover, as a consequence of extra-territoriality, British, like American, Japanese, French and other foreign traders resident in China, were for a long time

entirely immune from direct taxation payable, except in the form of land tax, to the Chinese government. To at large extent this was still a characteristic of the treaty-port system at the time of the outbreak of war between ourselves and our Allies with the Japanese." (p. 30–31, Gull, 1943)

Tyau further concluded the economic character of treaties, conventions, and such in Part II: Right of trade and residence [confirmed in Article 5 of the British Treaty of Nanking (1842) and Article 15 of the American Treaty of Wanghia (1844) recorded by Tyau, 1966, p. 95, which directly brought about C&S], right to uniform tariff (alluded to in Articles 10 and 34 of the British Treaty of Tientsin (1858) by Tyau, 1966, p. 124, Article 26 of the Treaty of Tientsin (1858) with a provision: "one uniform system shall be enforced at every port...." Gull (1943, p. 40–42) referred to the operation details, cabotage (provided in Article 44 of Denmark's treaty with China (1863) by Tyau, 1966, p. 131, and Gull, 1943, p. 31[8]), right to navigation of inland waters [stipulated in Article 10 of the Treaty of Tientsin (1858) : "British merchant ships shall have authority to trade upon the Great River (Yangtse)" by Tyau, 1966, p. 135], right to trade and travel to the interior [taken from Article 4, sec. III, the Chefoo Convention (1876) by Tyau, 1966, p. 140], right to landholding, right to railroad construction, and right to mining exploitation and loans.

Except the above economic factors, there is the specific institution form of the treaty-port system which makes them work in reality. So comes C&S – the competing institution setup against colony.

(b) A Brief History of the Concerned C&S

With regard to the origin of C&S, Tyau (1966, p. 58–59) stated, based on Art. 2 of the British Treaty of Nanking (1842) and Art. 7 of the British Supplementary (1843): "The treaty of perpetual peace and friendship provides for British subjects and their families residing at the cities and towns of Canton, Foochow, Amoy, Ningpo and Shanghai without molestation or restraint. It is accordingly determined, that ground and houses—the rent or price of which is to be fairly and equitably arranged for, on either side—shall be set apart by the local officers, in communication with the consul."

They are classified into four kinds: "(1) A concession, or piece of ground conveyed by deed of grant in perpetuity to a lessee state for the residence of its nationals, the same to be administrated by it, 'saving the sovereign rights of the Emperor of China.'[9] (2) A settlement, or site selected for the residence of all foreigners, within which they may organize themselves into a municipality for certain purposes and be governed by their elected representatives. (e.g., Shanghai[10]) (3) A

[8] "Chinese produce may be carried from one open port to another on paying tariff duty at the port of shipment and coast-trade duty (the amount of which shall be one-half of the tariff duty) at the port of discharge. Chinese produce brought in from another port, if re-exported coastwise within twelve months, will be entitled to a drawback certificate for the half-duty paid, and no export duty will be charged on shipment; but the one-half tariff duty or coast-trade duty will again be charged at the port of discharge."

[9] "Concessions, as above defined and dating from 1859-1861, exist at Canton, Chinkiang, Hankow, Kiukiang, Newchwang [牛庄], Tientsin, etc. The number of concessions at a port varies with the importance of the locality from one to six. Tientsin, however, has as many as thirteen. ..." (Footnote 3 at p. 58)

[10] "Originally there are three settlements. In 1862, the French withdraw from the triumvirate arrangement and designated their area as a 'concession' under their exclusive control; the British and American were merged under one administration, and are now known as the International Settlement." (Footnote 4 at p. 58)

voluntary settlement, or one in a port spontaneously opened by China itself for the residence of aliens, of which the control of municipal administration and police remain vested in the local authorities. (e.g., Yochow, Santuao, Changsha etc.) (4) A settlement by sufferance, or one within which the residents have acquired, without any formal agreement on that part of the territorial sovereign, the tacit right to govern themselves as a municipality. (e.g., Chefoo)"

As far as the extent of the powers of foreign municipality is concerned: "The act of marking out a piece of ground for international residence being designed with the view of furthering the aliens' desire to do trade in China, the authority of their municipality is circumscribed. To the foreigners the site is privileged, within which they may govern themselves as they deem best for the promotion of their common objects. But the grant only exempts aliens dwelling therein from the personal jurisdiction of the territorial sovereign; otherwise the latter's prerogatives are reserved."

Regarding the nature of jurisdiction, "The powers exercisable by the municipality are therefore personal, not territorial. They are limited to 'simple municipal matters, roads, police, and taxes for municipal objects.' The settlement does not represent a transfer of the land included therein to the government of the state for the accommodation of whole subjects it is set apart by China. The land encompassed in the delegation remains Chinese territory, subject to China's sovereign rights. The legal position of the foreigners residing within it is the same as that of those residing without it, and foreign holders of real property therein are similarly required to pay a land tax to the Chinese government". "Within this area they may promote the objects they have in common among themselves, so long as these measures do not conflict with or prejudice the interests of the territorial sovereign. They may engage in all articles of trade so long as they are not contraband by the laws of the realm, and they may carry on any form of industry provided that it does no detriment to the paramount well-being of the territorial sovereign."

"Now the object of designing a particular city or port as an open port is to reserve a particular area for the residence of foreigners, within which they may carry on their legitimate trade and be amenable to their own consular officers. Over this area the territorial sovereign has delegated his right of control and jurisdiction. And, therefore, he has also waived his right to tax foreign property therein." (Tyau, 1966, p. 59–50, 62, 97)

The above description again confirms that C&S influenced the design of a city due to the tradition of trade diasporas or the trading-post empire.

(c) The Difference Between the International Settlement and C&S

"[These] concessions came into existence between 1859 and 1861, being variants of the arrangements made for the residence and trade of British, American and French nationals at Shanghai during the period 1843–9." Details about the case of Shanghai are shown in Gull (1943, p. 34–35).

There were "technical differences between the arrangements first made at Shanghai and those made at Tientsin, Hankow [汉口], Kiukiang [九江], Chinkiang [镇江], and Canton".

"In Canton, and in some of the chief Treaty Ports opened for foreign trade under later treaties, the British Sovereign and other Foreign Powers obtained from the Chinese Emperor areas of land, known as 'Concessions', as sites for the trading establishments and residences of their subject. These concession areas were leased by the Chinese Government to the Foreign Power concerned, which then proceeded to lay out the land leased in suitable lots, and granted leases of these lots for long terms to its own subjects, and also in some cases to other foreigners. ... But this was not the system adopted at Shanghai. ... It was arranged that a British purchaser of land, as soon as he had entered into an agreement with a Chinese owner, should report his agreement to the British consul, who, in turn, reported it to the Taotai, and that the Taotai should issue to the British subject concerned, through his consul, a title in the form of a perpetual lease, under which a small annual rent was reserved for payment to the Chinese authorities, the theory being that, as all the land in China belonged to the Emperor, there could be no out-and-out sale of Chinese land to a foreigner, and that foreigners, instead of becoming owners, must be content to be lessees." (Gull, 1943, p. 35–36; citing *Report of the Hon. Mr. Justice Feetham, C.M.G., to the Shanghai Municipal Council*, vol. i, p.27).

Compared to the building experience (local lease of land other than the sanction of the Emperor), the nature of the international settlement at Shanghai was similar to the case of Macao before 1887.

(d) Leased Territories

The hybrid form of colony and C&S is to be treated as colony in the analysis.

"In 1898 the following ports were leased by China to foreign states: March 6, Kiaochow Bay to Germany for ninety-nine years; March 27, Port Arthur [旅順港] and Talien-wan to Russia for twenty-five years; May 27, Kwangchow-wan to France for ninety-nine years; July 1, Weihaiwei to Great Britain 'for so long a period as Port Arthur shall remain in the occupation of Russia.' In their essential features these leases resemble one another; and for the duration of the tenancy the territorial sovereign's administrative rights are suspended, unless expressly reserved, and in their place those of the lessee states substituted." (Tyau, 1966, p. 66)

Leased Territories

Country	Place	Date	Tenancy
Germany	Kiaochow Bay	March 6, 1898	99 years
Russia	Port Arthur and Talien-wan	March 27, 1898	25 years
France	Kwangchow-wan	May 27, 1898	99 years
Great Britain	Weihaiwei	July 1, 1898	"for so long a period as Port Arthur shall remain in the occupation of Russia"

Data Source: p. 66 by Tyau (1966).

According to Fei (1991, p. 309), the Kowloon peninsular was the first L.T. in China, which was leased to Britain in perpetuity from March 20, 1860 until it was ceded half a year later. As far as ETR was concerned, "The majority declared in favour of its waiver, but Japan insisted on the exercise of those rights as secured to her

by her own treaties with China." [Koo, 255-264] "The solicitor of the Washington Department of State, for example, declared as follows:-- 'As it is expressly stipulated in the leases that China retains sovereignty over the territory leased, it would doubtless be asserted that such territory is Chinese territory, and that the provision of our treaties with China granting consular jurisdiction are still applicable therein. But in view of the express relinquishment of jurisdiction by China, I infer that the reservation of sovereignty is merely intended to cut off possible future claims of the lessees that the sovereignty of the territory is permanently vested in them.' But he added significantly that, 'as these territories have practically passed into the control of peoples whose jurisprudence and methods are akin to our own, there would seem to be no substantial reason for claiming the continuance of such jurisdiction during the foreign occupancy or tenure of the leased territories.' [For. Rel., 1900, 382-390] " (p. 73–74)

Considering the tariff China imposed on L.T., only Kiaochow Bay and Port Arthur and Talian-wan had been set up to collect import and export duties for the Chinese territories surrogated by German and Russian (later Japanese) agents, respectively. (Fei, 1991, p. 316)

Thus, the leased territories were more similar to "the territory of lessees" (related to territorial empire and, later, the Crown colony system) in that there was further loss of China's jurisdictional and customs independence, compared to C&S. This recurrence of colony is going to be the content of Proposition 9 stated in later analysis.

III. The Colonization of Hong Kong

As shown by history, the inclusion of Hong Kong into the current geographical constitution in fact originated from three historic treaties between the Qing dynasty of China and the Great Britain in series: the Treaty of Nanjing (1842), the Treaty of Beijing (1860), and the Convention of the Extension of Hong Kong Territory (1898). Thus, Hong Kong consists of three different regions—Hong Kong Island, the Kowloon Promontory, and the New Territories.

Hong Kong Island was formally ceded to Britain in perpetuity on August 29, 1842, and signed the Treaty of Nanjing after the First Opium War in 1839–1842. The Kowloon Promontory was surrendered on October 18, 1860, as a trophy for the Second Opium War in 1856–1860. The New Territories were leased to Great Britain for 99 years, signed at the Beijing Convention on June 9, 1898.[1] From these came the Hong Kong of today.

Hong Kong was definitely not colonized for its natural resources and pleasant dwelling environment.

The colonization story, as the logic path (Charts 0–2 in in App. III. 3–10) shows, includes the following agents:

Hong merchants (1684–1843) who completed their fortune accumulation in the junk trade from 1684 to around 1760 were assigned to compose the Co-Hong [公行, 即广东十三行] from 1720[2] to 1843 to formally trade with foreigners, until they were squeezed out by country trade merchants in 1843;

The EIC[3] began the tea trade with China in 1689 until 1833. The EIC traded in China with the monopoly of the opium sale (from 1773: "The year 1773 provides the earliest record of English merchants importing it [opium] into Canton"[4]) and its manufacture by acting as opium supplier before 1813, when the privilege in India ended;

Country trade merchants, first recorded in 1764[5] and disappeared in 1941 when

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[1] Source: http://zh.wikipedia.org/w/index.php?title=Category:%E9%A6%99%E6%B8%AF%E6%A1%96%E6%B0%91%E5%9C%B0%E5%8F%B2&variant=zh-cn

[2] Refer to p. 12 by Gull (1943)

[3] The reason why we focused on the EIC is written as: "All our modern interests in this part of the world [the Far East] are the outcome of the East India Company's enterprise and undertakings," Gull, 1943, p. 2: "…our economic relations with the Far East arose from the East India Company's activities," Gull, 1943, p. 6.

With regard to the company's nature, "The Company was established as a regulated company, as a company, that is to say, whose members, while allowed to compete amongst themselves, were obliged to conform to corporate rules, the Company operating in a system through which the Government could control foreign trade for a variety of purposes. Amongst them were regulation of the flow of treasure, encouragement and protection of shipping, enforcement of the statutes of employment and mitigation of economic depression by obliging merchants who exported cloth to come to the assistance of the clothiers, and to bear a portion of the loss which might arise from continuing to keep men at work even on unremunerative terms.… The fact that such companies often enjoted monopolistic privileges occasioned much discontent amongst other traders, but the principles underlying the system of controlling foreign trade through companies were more than once examined by commissions, the balance of opinion, including that of the City, during the seventeenth century being in favour of maintaining it," Gull, 1943, p. 8.

[4] Refer to p. 13 by Gull (1943) and "…in 1773 the English merchants made their first imports from Calcutta…" on p. 329 by Morse (1966)

[5] Refer to Appendices XI and XII on p. 401–402 of Vol. 6 by Tuck (2000), and Appendix I on p. 216 of Vol. 9,

the treaty-port system collapsed due to the Japanese invasion, acted as opium sellers before 1813 and, as producers afterward.

Based on the historical and logic schedules (see App. III, 3–10), the economic development history of Hong Kong was divided into five major periods: the Pre-Opium War Period before 1840 (the First Opium War, 1840–1842); the Semi-Legal Opium Trade Period from 1841 to 1860; the Legal Opium Trade Period after the Second Opium War (1856–1860) from 1860 to 1917; the Post-Opium Trade Period from 1917 to 1941; and the Export-Oriented Industrialization after 1945. The current paper emphasizes the first three periods and attempts to explain the reason for the colonialism of Hong Kong effecting the whole treaty-port system. The related names of places used in the following content can be read from the map par of App. III, series 3-3 to 3-6.

One of the important contents here that cannot be skipped is the opium trade (1760s[6]–1917) because it turned the tide of inflow of silver into China down to 1831 and before that "the net balance in the interchange of specie remained in China's favour"[7]. From that moment, silver started its outflow from China when the country directly suppressed the opium trade, which ignited the first opium war from 1839 to 1842. Finally, the Nanking Treaty signed after the war resulted in the cession of Hong Kong Island to Britain. This began the colonization of Hong Kong. The logic path of Hong Kong's cession story can be summarized in Charts 0–2, and its historical background in Charts 0–1 is shown in App. III, 3–10.

The opium trade lasted until 1917, not counting the smuggling, when it was abolished formally, whereas the legal transit trade was the dominant market. Thus, the development of Hong Kong before World War II can be divided into, at least, two parts: one that corresponds to the active opium trade from 1841 to 1917, and another in which the non-opium trade was dominant from 1918 to 1941, when the treaty-port system crashed during the Japanese occupation. The significant year is 1895[8]—the watershed in modern Chinese history—a time when the opium trade was surpassed by the non-opium trade and the Self-strengthening Movement during the Qing dynasty failed with the defeat in the Sino–Japanese war by the Treaty of Shimonoseki.

Part 1 by Tuck (2000)

[6] "The 1760s has been suggested as the time when the smoking of pure opium began in China, and the date is a plausible one,..." (the first sentence of the second paragraph on p. 149 by Tuck, 2000, Vol. 9, Part 2)

[7] Refer to "From 1831 the tide turned," the second paragraph on p.15 by Gull (1943)

[8] According to p. 261–294 in Chapter 11 of Hsü (2000), this is the end of the Dynastic Revival that began from the "T'ung-chih Restoration" (T'ung-chih chung-hsing, 同治中兴) and "the Self-strengthening Movement (洋务运动) through adoption of Western diplomatic practices and military and technological devices."

A. Hong Kong had no natural resources to be extracted

Bedikton Co.'s (1935) book gave the following description of Hong Kong when it was initially ceded as a colony, prior to the occupation as a British Colony:

> "For centuries of Hong Kong was known as a nest of pirates, so much so, that the Portuguese of the neighbouring colony of Macao used to refer to Hong Kong as 'Ladrones'—thieves"[9], and "the British history of Hong Kong begins with the hoisting of the Union Jack at Possession Point on January 26, 1841"[10] when Hong Kong became "the Headquarters of Her Majesty's forces" by "announcing the conclusion of preliminary arrangements for the cession of the island and harbour of Hong Kong to the British Crown"[11] with "The original idea was to hold Hong Kong, not as a Crown Colony but on similar terms to those upon which the Portuguese then held Macao."[12]

Hong Kong "is distant about 40 miles from Macao and 90 from Canton,... may fairly be described as the Commercial gateway of South China..."[13] "It was at that time a ***barren*** island inhabited by a few thousand fishermen, but it had a good deep water harbour, and possession of the island afforded the security so essential to foreign merchants at that time."[14] In fact, "in 1841 Sir Henry Pottinger, formally declared Hong Kong a free port,"[15] until 1909, when the imposition of import duties — intoxicating liquors were first taxed — commenced.[16]

However, the natural environment of Hong Kong is unsuitable for settlement:

In 1844, people were advised to abandon the island altogether "owing to the unhealthy conditions which were developed by the 'breaking of malarious soil' which took such heavy toll in deaths."

In 1894, the most disastrous plague epidemic took place—"the death rate rising rapidly until at one time it exceeded more than 1 hundred a day, the total number of deaths being given as 2,547"... "The dread disease appeared regularly every year but was less virulent in its incidence until from 1924 to 1929..."

> "...In 1901 a very severe water famine occurred which reduced the inhabitants to very great straits;" the land frequently suffered disastrous typhoons, for example, the cases in 1906 and 1908, respectively.[17]

Thus, settlement or extraction could not be the reason that Hong Kong was colonized. What, then, was the incentive behind the colonization of Hong Kong?

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[9] The first paragraph of the third column on p. 2 by Bedikton Co. (1935)
[10] The third paragraph of the first column on p. 3 by Bedikton Co. (1935)
[11] The first paragraph of the first column on p. 4 by Bedikton Co. (1935)
[12] The third paragraph of the first column on p. 4 by Bedikton Co. (1935)
[13] The first paragraph of the first column on p. 54 by Bedikton Co. (1935)
[14] The third to the fifth lines of the third paragraph on p. 135 by Bedikton Co. (1935)
[15] The first paragraph of the first column on p. 5 by Bedikton Co. (1935)
[16] Refer to the second paragraph of the first column on p. 8 by Bedikton Co. (1935)
[17] Respectively refer, in sequence, to the second paragraph of the third column on p. 4, the second and third paragraphs of the first column on p. 7, the last paragraph of the second column on p. 7, the second and third paragraphs of the third column on p. 7 by Bedikton Co. (1935).

The map "The Canton Estuary— Hong Kong and Macao" on p. 141 by Hsü (2000) shows that the colonization of Hong Kong actually followed the policy of armed trading in the Portuguese tradition of the trading-post empire. From the early history of the EIC in India, "Places where the Europeans were allowed to establish fortified settlements were either outside the political control of Mughals or devoid of any commercial importance. Sir Thomas Roe had perceived this very clearly when he pointed out to the Company in 1616 that if a suitable natural harbour was found in an unoccupied territory, it would be discovered at the same time that the surrounding country was barren and untraded. It was not easy task, he commented with a prophetic insight, to attract trade and merchants to such a place from existing and flourishing commercial centres." Chapter 6 in the *Politics of Trade* (Chaudhuri, 1978, p. 109–129) confirms the Portuguese trading-post tradition stated in the instructions of Francisco de Almeida as the new viceroy of Portugal's Indian Ocean possessions in 1505.

The previously stated trading-post strategy used by the Portuguese explains Great Britain's occupation of Hong Kong, in which trade definitely played a predominant role. As the first company to erect godowns in Hong Kong, which were begun in 1841 and completed in 1842, Jardine Matheson & Co. (founded in Canton, that is, Guangzhou, on July 1, 1832; its history is shown in Appendix II on p. 222–223 in Vol. 9, Tuck, 2000) was pleased with the cession of Hong Kong to Britain. Furthermore, its headquarters was moved from Macao to Hong Kong in March 1844.

According to the book of Blake (1999), the geography and natural endowments of Hong Kong can be summarized in the following:[18]

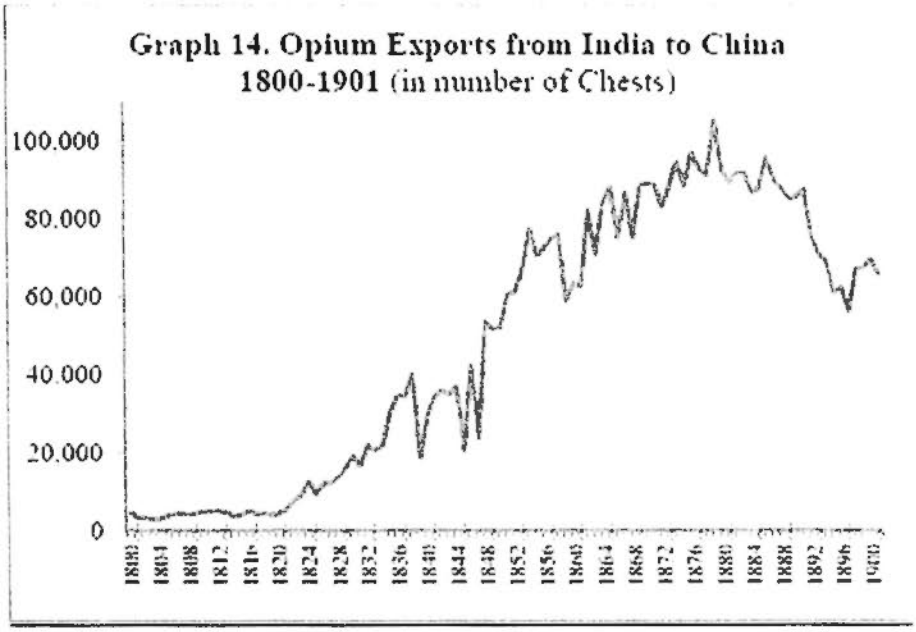
> "A barren, dry, rocky, mountainous, windswept island, 90 miles (144km) south east to Canton, it was far away from the Yangtse estuary, which was likely to become the most important trading area in China. It is eleven miles long and from two to five miles broad, divided upon its long east–west axis by a range of hills which shuts out the cooling south-west breezes, rendering the then inhabitable northern coastal area facing Kowloon intolerably hot during the long summer months.... Hong Kong did however possess one great asset: the best, though almost wholly landlocked, deep-water harbour on the China coast. But even this was, and still is exposed to ferocious and devastating typhoons. It is not surprising that the only indigenous inhabitants in 1841 were some 2000 fishermen and their families living on the margin of subsistence. For Europeans it long remained an insalubrious station which people who had made enough money were only too glad to quit."

So, Hong Kong was colonized in the way of trade settlement originally, that's the primitive of business trip in the modern sense, tracing back to the earlier trade diaspora.

[18] The first paragraph on p. 109 by Blake (1999)

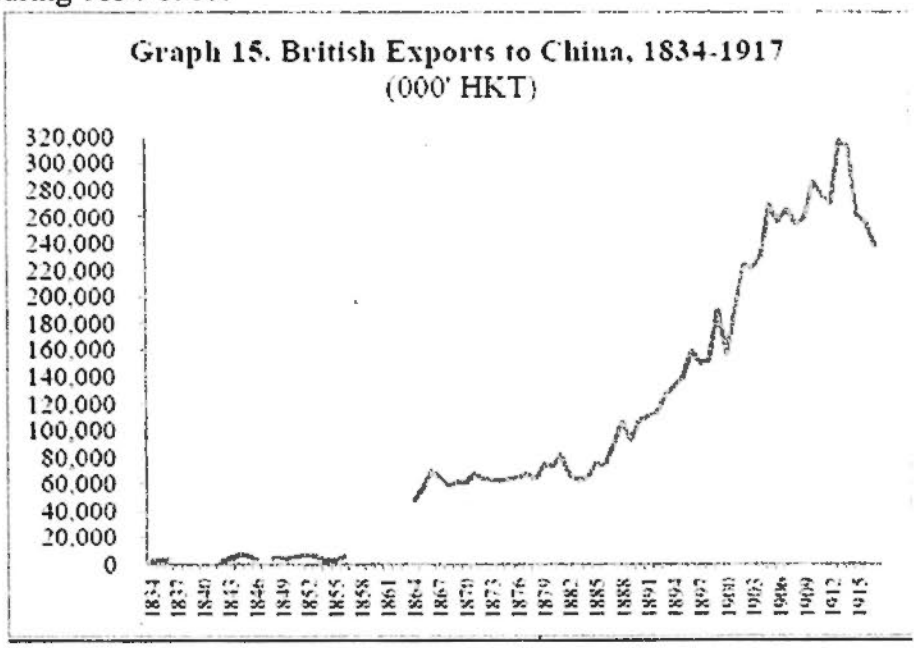
B. Hong Kong was originally colonized for trade, especially for opium trade

First of all, opium inflows into China through the triangular trade among Britain-India-China during 1800-1901, that's Graph 14, according to the work of Rowntree (1905) and Greenberg (1969) (the same treatment as Feige and Miron, 2008).



Data source: The data of 1800-1838 refers to Greenberg at Appendix I shown at pp. 221 of Tuck (2000), Vol. 9, Part 1; from 1839 refers to "Statement of Exports of Opium from India in Chests from 1829-30 to 1901-02" of Appendix II at pp. 286-87 in "The Imperial Drug Trade" by Joshua Rowntree, London: Methuen and Co., 1905.

At the same time, the British exports into China increases (though opium figure was unavailable due to smuggling before 1864, that's Graph 15, refer to Marx and Hsiao) during 1834-1917.



Data source: Data of 1834-1856 (1837, 1839-41 and 1847 missed) transferred from Karl

Marx, "Trade and the Treaty", New York Daily Tribune (October 5, 1858), pp. 60-3, Torr (1951). Note: The exhange rate used is 1 pound for 3 HKT. The digit for 1845 had inconsistence between 2295000 at pp. 61 and 2359000 at pp. 63; for 1836, 1326000 vs. 1326388; From 1864, refers to Hsiao (1974) by summing up the total trade of Great Britain, Hong Kong and India in Table 6 at pp.148-151, "China's Foreign Trade Statistics, 1864-1949", Harvard University Press

In general, opium is the indispensible content in British trade with China in the 19th century, and opium trade positively correlated with British trade with China, which could be verified further after 1860. Details refer to the following statements.

Pre-Opium War Period before 1840 (the First Opium War, 1840–1842)

Before Hong Kong was occupied by Britain and the twilight Canton system[19] changed to the treaty-port arrangement, Britain made use of Hong Kong as its entrepôt (mainly for opium) for the trade with China. During this time, before 1840, Hong Kong started as an illicit and unrecorded outer anchorage[20] off Canton from the triangular trade among China, Britain, and India. At this time, Hong Kong was not independent nor a proactive participant in the triangular trade, but acted as the illegal and informal middleman between Britain and China.

This shows the image of how Britain used the resources of India, especially raw cotton and opium produced in India, in consequence [1823 as the watershed for their respective importance – cotton was the first important article before 1823, and opium after 1823 (Gull, 1943, p. 14; Mazumdar, 1998, p. 105; and LeFevour, 1968, p. 31)][21] to finance the trade imbalance with China [evidenced in Chapters I & II by LeFevour (1968)], thus, the triangular trade accompanied by the opium trade was originally the background of the colonization of Hong Kong.

Underneath the blatant form of the Far Eastern trade, the opium trade plays an indispensable role, especially in the necessity to occupy Hong Kong. As confirmed on the last paragraph of p. 112 by Blake (1999), Jardine Matheson & Co. as "the most powerful, wealthy, enterprising and influential" firm "did play a major part in the series of events which led to the acquisition of one of Britain's strangest and most exotic imperial possessions," along with "the merchant firms which had operated from Macao and Canton." In the Matheson's letter to Jardine on 22 January 1841, the role of Hong Kong is further evidenced as "So independent will Hong Kong be that it will even be allowable to store opium on it as soon as we build warehouses there."[22] However, as early as 1836, Sir George Robinson advised that "occupation of one of the islands in this neighbourhood [i.e. around Canton], so singularly adapted by nature

19 A brief and authoritative description of the trade during this period, called the Canton trade, can be referred to on p. 139–195, Chapters 7–8 by Hsü (2000) and p. 163–212, Chapter 4 by F. Wakemanof, Jr., in Fairbank (1978, ed.), which provide a good background for understanding history after 1840.

20 "...after 1821 Country ships often made several unrecorded journeys a year to illicit 'outer' anchorages" shown on lines 14–16 of Appendix I, p. 216 by Tuck (2000), Vol. 9, Part 1. Details can be referred to in Chapter III of the book.

21 Refer to the original words: "until 1823, raw cotton was the most valuable Indian export to China—more valuable than opium" by Mazumdar (1998); "...until 1823 raw cotton was the major Indian export to China, where it was used in village hand-loom industries as a small supplement to China's own vast crops. After opium replaced raw cotton as China's major import in 1823..." by LeFevour (1968).

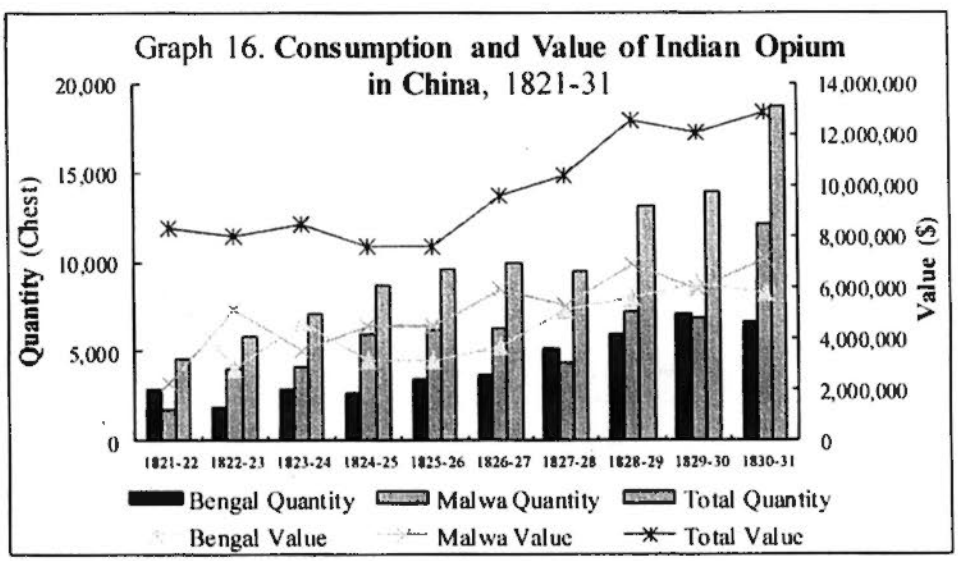
22 The bottom line on p. 108 by Blake (1999)

in every respect for commercial purpose."[23] "The merchants who had first settled here were those who had been instrumental in breaking the former monopoly of the Honorable East India Company at Canton and were staunch advocates for free trade...,"[24] which is the major content of the Country Trade. Hence, the destiny of Hong Kong was determined by two historical streams—its cession directly derived from the opium trade and its development closely correlated to the Country Trade, at least from the time of the opium trade until 1917.

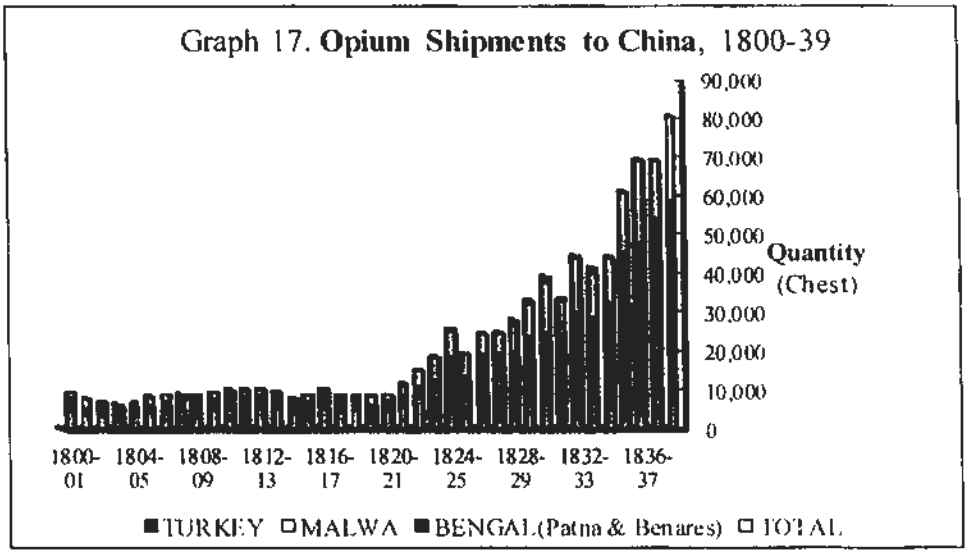
(a) The Role of Opium

It was definitely a great chance for Britain to reverse the tide of outflow of silver from England into China when the smoking of pure opium began in China in the 1760s.[25] Country traders seemed to be the main reason why the opium trade flourished, as first recorded in 1764. "The economic significance of its appearance in the list of our imports into China lay in the fact that, as stated by Mr. [G. E.] Hubbard [the Far Eastern Research Secretary of the Royal Institute of International Affairs] in the first section of his survey [No. 24 of the Information Papers issued by the Royal Institute of International Affairs], it provided an acceptable substitute for silver with which we balanced our trade with China for a long time."[26]

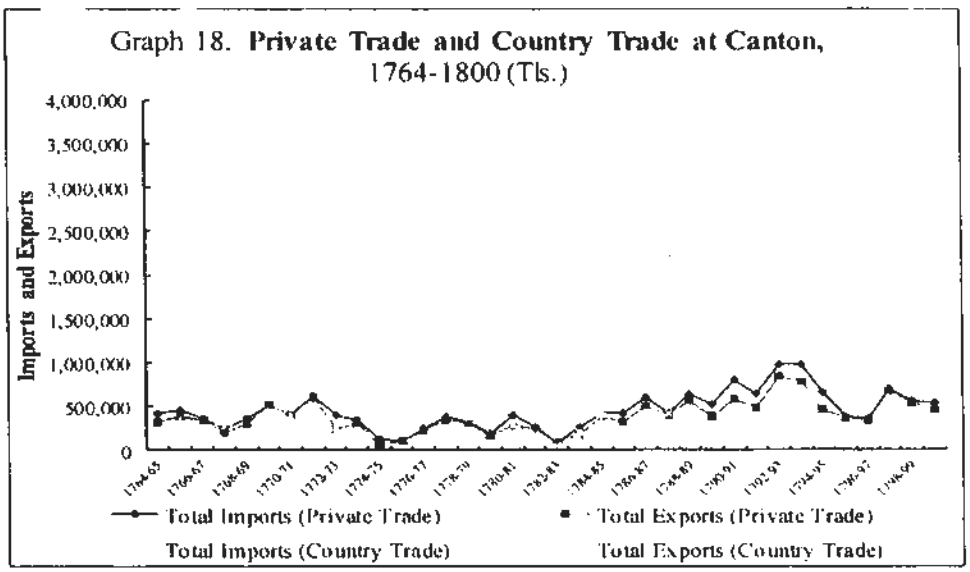
The following graphs clearly show that the consumption of opium in China was gigantic, and increased well into the 19th century. The original tables in the data source provide a detailed estimation of the trend of opium import and consumption; thus, we can imagine the opium trade during that period. "Opium Tables (Consumption in 1821–1831 and Shipments in 1800–1839)" show that the total value of opium consumption in China had increased by 55% in ten years (1821–31) based on the rising trend of the total opium consumption value shown in Graph 16. Opium shipments to China increased by 780% in the first 40 years of the 19th century (1800–39), based on the increasing trend of the total opium shipment quantity in Graph 17.



23 The paragraph in the second column of p. 3 by Bedikton (1935)
24 The first paragraph in the first column on p. 5 by Bedikton (1935)
25 Refer to the second paragraph on p. 149 by Tuck (2000), Vol. 9, Part 2
26 Refer to the first sentence in the last paragraph covering p. 13–14 by Gull (1943)



Source: Appendix I on p. 221 by Tuck (2000), Vol. 9, Part 1. "No absolutely reliable figures are possible because the trade was, after all, a smuggling trade. Such statistical statements as exist differ from one another because they are derived from a variety of sources. The first of the two tables given below refers to the annual *consumption* of the drug in China and the money received from its sale. It is based on the lists compiled by Magniac and Co., and printed in their *Canton Register and Price Current, 1828–1832*, passim. The second table refers to *imports* and is less accurate, being drawn up from Morse's *International Relations*, Vol. I , and based on a variety of contemporary lists which cannot always be reconciled."



Source: Column 8–9 of Appendix XI, Columns 6 and 9 of Appendix XII, in sequence, shown on p. 401–402 of Vol. 6 by Tuck (2000). Here trade means exports from Canton, and imports into Canton by Private and Country, respectively.

Graph 18 indirectly shows that the increasing volume of the opium trade before 1800 started from 1764 by remembering that the major part of the total imports of the country trade was the rising share of opium. E. H. Pritchard, particularly, alluded in Appendices XI and XII on p. 401–402 of Vol. 6 by Tuck (2000) that "[a]lthough

opium was probably the second important articles imported in the Country trade, not even approximately accurate figures are available" due to the contraband nature of the opium trade at that time, chronicling the content and volume of private trade and country trade[27] separately from 1764 to 1800 in Britain's whole trade with China.

"There were three main sources of supply—Bengal [孟加拉], the 'native provinces' of Central India, and Turkey.... The Europeans did not introduce the drug to China; but they organised its production and distribution upon a large scale for the first time.

"In this enterprise the East India Company took the lead. [In 1773 it was assumed a monopoly of the opium's sale in their dominions, and in1797 of its manufacture by the British Government in India.][28] The Company had the monopoly of the manufacture and sale of the 'Patna' and 'Benares' varieties of Bengal opium [i.e., Company opium], and managed its production so well that the Company's trademark was accepted by the Chinese a hallmark of quality in this contraband article as in the legal commodities. 'Malwa,' an inferior opium produced in the Indian Native States, was at first shipped in small quantities and only by the Portuguese, through their settlements on the north-west coast of India, Goa and Daimaun. Turkey opium from Smyrna (in practice generally imported ex bond from London), being prohibited to British speculators, was taken to China by American traders. Though its import alarmed the Company, its quality was inferior and its source was distant. Turkey opium was used only for mixing with the costlier Bengal and until the 1830s it never sold more than 900 chests a year.... It was the Company's policy [decided to prohibit its servants from acting as the agents for the sale of opium in 1809][29] to confine itself to the production of opium in India and not to participate in its distribution in China.... By 1800, the East India Company had perfected the technique of growing opium in India and disowning it in China."[30]

From then on, "Opium was no hole-in-the-corner petty smuggling trade, but probably the largest commerce of the time in any single commodity."[31]

"Already in March 1801 the Court of Directors had explicitly suggested to the Governor-General of Bengal that the production of opium be increased to avoid the necessity of shipping bullion to China. All who were connected with the tea trade were vitally interested in the process of the opium traffic. A contemporary pamphleteer [S. Warren, *Opium*, 1839] wrote: 'From the opium trade the Honourable Company have derived for years an immense revenue and through them the British Government and nation have also reaped an incalculable amount of political and financial advantage. The turn of the balance of trade between Great Britain and China in favour of the former has enabled India to increase tenfold her consumption of British manufacture; contributed directly to support the vast fabric of British

[27] The relationships among the EIC, private trade, and country trade are detailed in Appendix I on p. 216 by Tuck (2000), Vol. 9, Part 1. Here, we merely cite the main points to help clarify private trade and country trade: "the 'privilege' trade of the Company's marine officers, mainly in all kinds of minor articles with which the Company did not wish to trouble itself, is called by most writers 'Private trade'... the term 'Country trade' is used to note that part of India-China commerce was carried on by the private merchants."

[28] Refer to lines 11–13 on p. 105 by Tuck (2000), Vol. 9, Part 1

[29] Refer to lines 6 -7 on p. 29 by Tuck (2000), Vol. 9, Part 1

[30] Refer to the content on p. 108–110 by Tuck (2000), Vol. 9, Part 1

[31] Refer to the last 10th to 12th lines on p. 104 by Tuck (2000), Vol. 9, Part 1

dominion in the East, to defray the expense of His Majesty's establishment in India, and by the operation of exchanges and remittances in teas, to pour an abundant revenue into the British Exchequer and benefit nation to an extent of £ 6 million yearly without impoverishing India. Therefore the Company has done everything in its power to foster the opium trade.'"[32]

"...After 1804 very little or no silver had to be sent from Europe to China by the Company. On the contrary, the rapid increase of Indian imports into Canton soon reversed the flow of treasure. In the three years from 1806–1809 some $7 million of silver bullion and coin was shipped from China to India, to make up the balance of payments; from 1818 to 1833 fully one-fifth of the total exports from China was treasure. By 1817 non-European merchandise brought to Canton totaled over $10 million compared with $3.5 million of British goods; in 1825 the figures were just over $17.5 million and $3.5 million respectively; in 1833, $20 million and $3.5 million. The volume of British goods maintained its level; it was the trade between India and China which revolutionized the balance at Canton."[33] "After 1823 the value of opium imports consistently exceeded that of cotton. Moreover, whereas cotton was sold to the Hong merchants separately under conditions of barter, opium, being contraband, was smuggled to outside brokers, almost always on a cash basis. Most of its proceeds could be remitted, as a rule, only by being paid into the Factory's Treasury in return for Bills of Exchange. Opium thus became the chief India product upon which the Company relied for its tea investment."[34]

Thus far, we have found evidence to confirm the existence of trade between China, India, and Great Britain from the opium aspect by showing that the judgment of Findlay and O'Rourke on opium's peripheral role, as shown in the first paragraph on p. 293 by Findlay and O'Rourke (2007), is incorrect.[35]

(b) Silver Outflow Combined with Opium Inflow in China

Graph 19 clearly gives evidence of the silver net outflows from China with the second order polynomial increasing trend from 1817–1833 through the country trade merchants.

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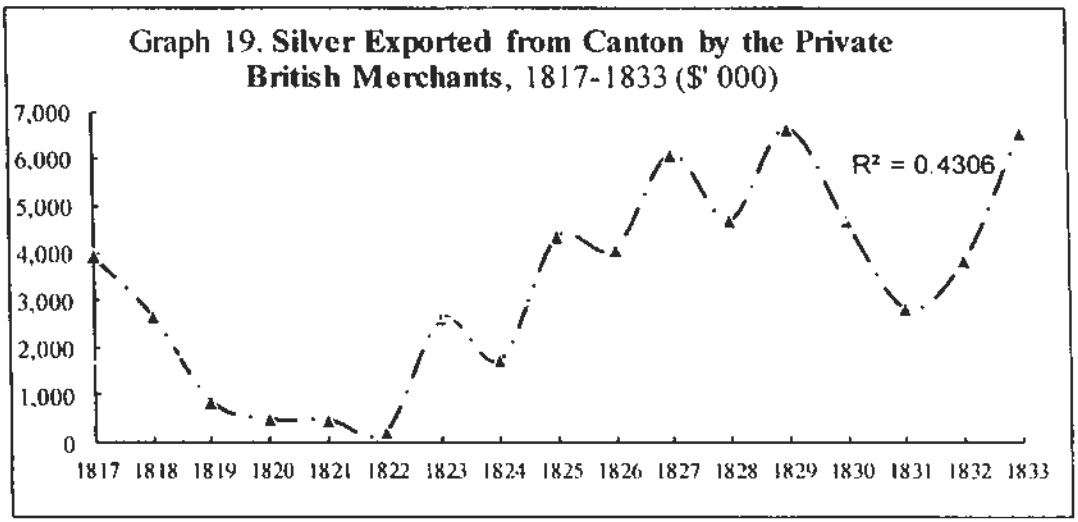
[32] Refer to the part covering p. 106–107 by Tuck (2000), Vol. 9, Part 1

[33] The second paragraph on p. 10 by Tuck (2000), Vol. 9, Part 1

[34] Refer to lines 6–14 on p. 106 by Tuck (2000), Vol. 9, Part 1

[35] "The most striking finding, however, is that, contrary to widespread belief, opium exports from China were not necessary for the EIC to balance its trade with China. Tan's table 5 (p. 420) shows that from 1792 to 1795 British-Indian exports to China excluding opium exceeded the annual 'investment' of the Company in tea and other Chinese goods by an average of over £200,000 annually." I am inclined to believe it is a normative judgment rather than a positive conclusion because Findlay and O'Rourke are too hasty to conclude the opium's role: first, they should have checked E.H. Pritchard's work in Vol. 6 by Tuck (2000) where its Appendix IV, "Total Goods Imported into China from England and India by the East India Company (1760–1800)" on p. 394, had clearly recorded the huge loss of EIC in 1792–1795 in the Column "Total Profits and Losses tls.," which directly contradicts Tan's conclusion. Otherwise, the suggestion of opium production by the Court of Directors in March 1801 that I cited would be redundant if the Indian raw cotton were adequate to finance the EIC's investment in China. Second, even if Tan's result was right, the time period 1792–1795 was too early and short to cover the opium's influence after 1823. Third, their logic is also questionable given that they used the opium's dominance against raw cotton after 1823 to normatively justify the unnecessary opium trade that begun before 1823, neglecting the tradeoff trend between opium and raw cotton that really happened in history. Our above-mentioned evidence clearly confirmed the practical necessity of opium trade for the EIC to balance its trade with China, which is consistent with the widespread belief among the people who know the truth.



Source: Appendix 1 on p. 218 by Tuck (2000), Vol. 9, Part 1

This is in sharp contrast to Graph 11, when silver was shipped out from England to China before 1800. Silver outflow volume was too large to be ignored. The average annual silver outflow from 1817 to 1833 was as much as $5.249 million.

How did it happen? That was the work of country trade.

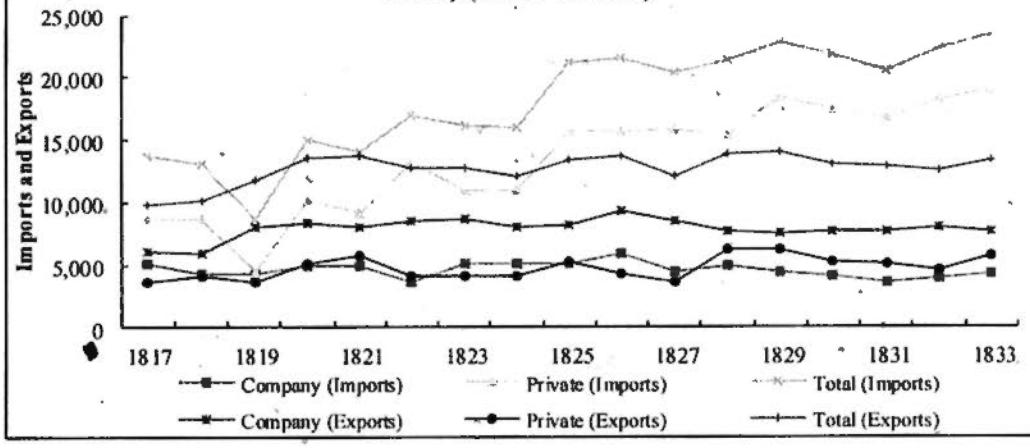
By the end of the 18th century, when the EIC concentrated more on tea, it started to leave the trade of luxury goods imports from China, such as porcelain, lacquered cabinets, silk, and so on, to the "privilege tonnage" of its captains and officers, that is, "[t]he captain of an Indiaman was usually allowed 56 tons free of charge, later 99 tons, and the other officers 47 tons between them. (This space was often eagerly sought by private Country merchants at Canton for £20–£40 per ton.)."[36] This facilitated the boom of "the Country Trade," which was carried out between India, the Eastern Archipelago, and China "from the end of the 17th century until the advent of steam in the middle of the 19th."[37] The EIC spasmodically tried to carry out the Country Trade by itself during the early and mid-18th century, but "decided to leave it to private merchants in India, both natives and English residents, who were to conduct it under license from the Company." The Indian trade was open to private British merchants until 1813, which allowed the Country Trade to flourish greatly. From then on, "[t]he Country Trade became increasingly a private trade." "In 1783 nearly one quarter of a million taels were realised at Canton for the Company's Indian products; but this figure was never again reached until well into next century. In some years, as in 1798, there were no Indian goods at all taken to China on Company's account." This argument is further evidenced by Hsü (2000): "This country trade [granted charters from E.I.C.] accounted for 30 percent of the total British trade at Canton between 1764 and 1800" (third paragraph on p. 143); "[t]his private trade [another source of private trade due to quota given by E.I.C. to their officers] accounted for about 15 percent of the total British trade at Canton between 1764 and 1800, but it increased

[36] The last sentence of the first paragraph on p. 12 by Tuck (2000), Vol. 9, Part 1

[37] "The origin of the term is obscure; applied at first to the coastal trade of India and nearby ports, it came to refer especially to Eastern trade from India, whether carried on by natives or Europeans. To this Country Trade the East India Company looked, as a means of providing funds at Canton for the all-important tea investment," the last fifth to tenth lines and the first sentence of the last paragraph on p. 10 by Tuck (2000), Vol. 9, Part 1

rapidly after the opening of the 19th century." (fourth paragraph on p. 143)[38] "Milburn calculated that in the early years of 19th century the surplus of Indian exports to Canton over imports from China averaged about £1 million per annum. It was this surplus which made the Country Trade complementary to that of the Company; and this complementary character of the two components of the Chinese trade made possible the large-scale banking procedure at Canton, whereby the resources of India were utilized to finance the purchase of China tea for England."[39] Graph 20 shows the comparison between the EIC and country trade in 1817–1833, in which the latter clearly dominated the former in imports. The gap is mainly due to the opium trade, which again echoes and extends the trend in Graph 18.

Graph 20. **Company and Private Trade at Canton (1817-1833)** ($'000 omitted)



Source: Appendix 1 on p. 217 by Tuck (2000), Vol. 9, Part 1. Estimated values, not including shipments of treasure. The lines represent Canton's import and export from and to by Company and Private, respectively. Here private trade includes country trade and private trade in Graph 18, compared with Company trade.

Before the end of the Company's Charter in 1834, Greenberg gave June 30, 1828 as the sample for the typical ratios of the trade balances from 1817 onwards [p. 13–14 of Tuck (2000), Vol. 9, Part 1] (refer to Table 4-1 in Appendix IV). Again, a vivid picture of the trade between China and Britain before 1840 is evident: "A number of important points about the Old China Trade in its last phase emerge: (a) Western products paid for about a quarter of the Company's tea investment [corresponding data in Table 4-1 is $2,189,237 vs. $8,470,285]; (b) the Company's total imports were equal to about half of its tea investments[corresponding data in Table 4-1 is $4,518,957 vs. $8,470,285]; (c) the private trade was practically all 'Country Trade' [corresponding data in Table 4-1 is the unspecified privilege cargoes over the Country

[38] [Hsü referred to] Ear H. Pritchard, *The Crucial Years of Early Anglo-Chinese Relations, 1750–1800* (Pullman, Washington, 1936), 170–174; "Private Trade between England and China in the 18th Century (1680–1833)," *Journal of Economic and Social History of the Orient*, I, 109 (August 1957–April 1958)

[39] The 7th–12th lines and the last 15th–4th lines on p. 11 by Tuck (2000), Vol. 9, Part 1

The description of the banking mechanism provided by the Company in Canton to finance its tea trade—"transfer in treasury" in Canton by remitting the private Country merchants' profits from Indian cotton and opium to England or India through the Company's account, due to the fact that "[t]he private merchants were not allowed to send teas, etc., to England, and they had difficulty in securing profitable return cargoes from China," could be referred to p. 12–13 by Tuck (2000), Vol. 9, Part 1

Trade—$481,043 vs. $15,364,600]; (d) its India exports were now predominantly composed of opium, though raw cotton was still a substantial item, greater than the Company's quantity of the article[corresponding data in Table 4-1 is $11,243,496+$3,480,083 (with the ratio 72.12% vs. 22.32%) >> $4,518,957]; (e) the proceeds of opium sales alone were enough to pay for more than the whole tea investment to the Company[corresponding data in Table 4-1 is $11,243,496 >> $8,470,285]; (f) but since only a portion of this was taken by the Company's Treasury for that purpose, a very large quantity of silver had to be shipped to India in return for Bills of Exchange on private account as remittance to the exporters of the opium[corresponding data in Table 4-1 is the silver item $6,094,646]."[40] "From about 1817 the Country Trade provided three-quarters of the total British imports at Canton [confirmed by corresponding data 77.81% in Table 4-1], a proportion which is maintained, except for two years, till the end of the Company's monopoly. In 1833 it was declared in a debate at East India House that the trade between India and China was three times the value of that of England and China."[41]

Furthermore, Hsü (2000) wrote that "[b]y the late 18th century there was a flourishing triangular trade between Canton, India, and England;"[42] "Evident in the last decades of the 18th century was the increasing activity of the country trade, and the entry of the Americans into the China trade, signed by the arrival of the Empress of China from New York in 1784.The Americans were free traders, as opposed to the monopolistic East India Company" (p. 149–150); "...the Canton trade had been undergoing a drastic metamorphosis in character as a result of the rapid growth of the private and country trade and the phenomenal rise of opium-smuggling from India to China. The private trade at Canton had risen from 688,880 taels in 1780–1781 to 992,444 taels in 1799–1800, and the country trade from 1,020,012 to 3,743,158 in the same period.[43] Their growth was even more rapid after the turn of the century. By 1817–1834 they accounted for three quarters of the total British imports to China.... By 1820 the complexion of the Canton trade had changed: private trade had surpassed the company trade, and opium had superseded regular articles as the chief item of import. These two developments contributed to the breakdown of the outworn Canton system and precipitated the long-delayed clash between Britain and China" (last paragraph on p. 166). "The Country Trade had become the keystone of the whole structure.... Its importance lay in its increasing magnitude, in its vital role as the indispensable means of providing funds at Canton for the tea investment and furnishing a channel of remittance from India to England; but above all in the fact it was a private trade."[44] Table 4-1 records the trade structure of the EIC in Canton in 1828 and showed that silver was exported from China by the Company. How did it happen? Hsü (2000) said, "The Canton trade in the 18th century, as already noted, was

[40] The middle paragraph on p. 14 by Tuck (2000), Vol. 9, Part 1

[41] The paragraph on p.15–16 by Tuck (2000), Vol. 9, Part 1

[42] The triangular trade was described as "The most important exports to England were tea (accounting for 90 percent to 95 percent of the total), raw silk, chinaware, rhubarb, lacquered ware, and cassia; while imports from England included woolens, lead, tin, iron, copper, furs, linen, and various knickknacks. Exports to India consisted of nankeen cloth, alum, camphor, pepper, vermilion, sugar, sugar candy, drugs, and chinaware; while imports included raw cotton, ivory, sándlewood, silver, and opium" (third paragraph of p. 148)

[43] [Hsü referred to] Pritchard, *Crucial Years*, p. 401–402

[44] The third paragraph and the last fifth to ninth lines on p. 16 by Tuck (2000), Vol. 9, Part 1

heavily one-sided in China's favor. Foreign traders came to purchase tea, silk, rhubarb, and other articles, but they paid in gold and silver, the Chinese finding little need for the industrial products of the West—'We possess all things,' as Emperor Ch'ien-lung [乾隆] told King George III. Frequently 90 percent—and sometimes as high as 98 percent—of the East India Company's shipment to China was gold, and only 10 percent commodities. Between 1781 and 1790, 16.4 million taels of silver flowed into China, and between 1800 and 1810, 26 million. This balance in China's favor continued until the mid-1820s when it settled into an equilibrium. After 1826 the balance began to slip the other way: between 1831 and 1833 nearly 10 million taels flowed out of China.[45] The reversal gathered further momentum as time went on. What could cause such a phenomenal inversion in a trade balance? One factor: opium" (first paragraph on p. 168, the beginning of Chapter 8).

In sum, before the opium wars, the silver outflow in China was serious and opium was a very important British export item, as shown in Table 4-1 of App. IV, where the opium trade accounted for over 70% value of the Country Trade. "In the last decade before 1842, opium alone constituted about two-thirds of the value of all British imports into China."[46] Due to the two characters of the opium trade—private and completely outside the Canton Commercial System, "This characteristic of its procedure, together with the financial effects of its huge increase, precipitated the final crisis in which the entire commercial and political relations of China with foreigners was put to ordeal by battle. Opium was no small, incidental question, but the central fact."[47]

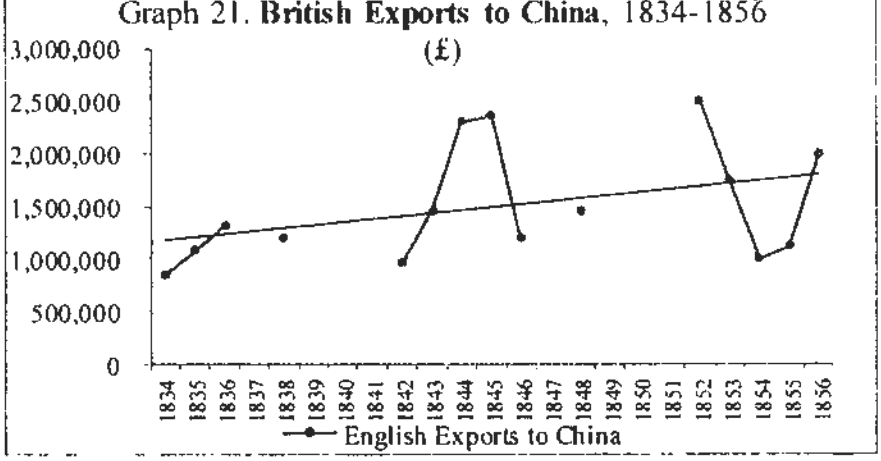
Then, the development of Hong Kong after 1840 also confirmed the trade reason.

C. Trade Evidence for Hong Kong After 1840

Here two periods were emphasized respectively due to the data and history consideration.

(a) Semi-Legal Opium Trade Period (1840–1860)

Graph 21. **British Exports to China**, 1834-1856



Data source: Karl Marx, "Trade and the Treaty," *New York Daily Tribune* (October 5, 1858), Torr, 1951, p. 60–63. **Note:** The digits for 1845 had inconsistencies between 2,295,000 on p. 61

[45] [Hsü referred to] Hsin-pao Chang, Commissioner Lin, and the Opium War (Cambridge, Mass., 1964), 41

[46] From the 11th line on p. 48 to the second paragraph on p. 50 by Tuck (2000), Vol. 9, Part 1

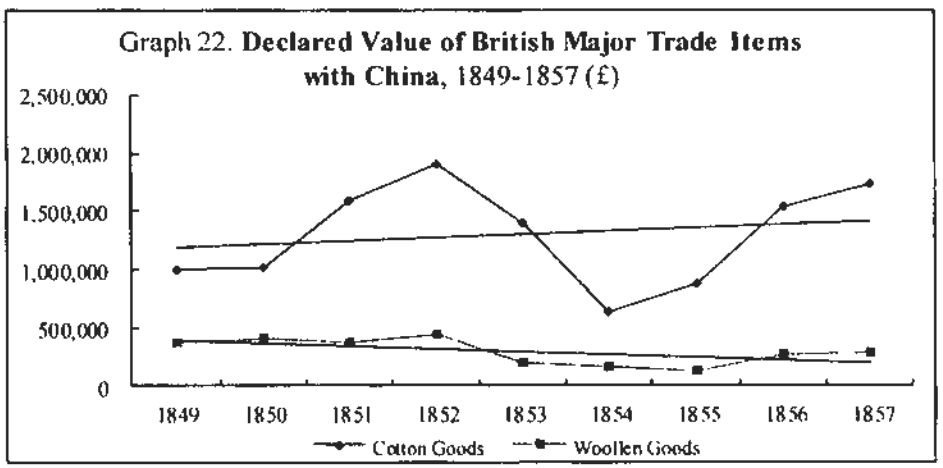
[47] Refer to the content on p. 107 by Tuck (2000), Vol. 9, Part 1

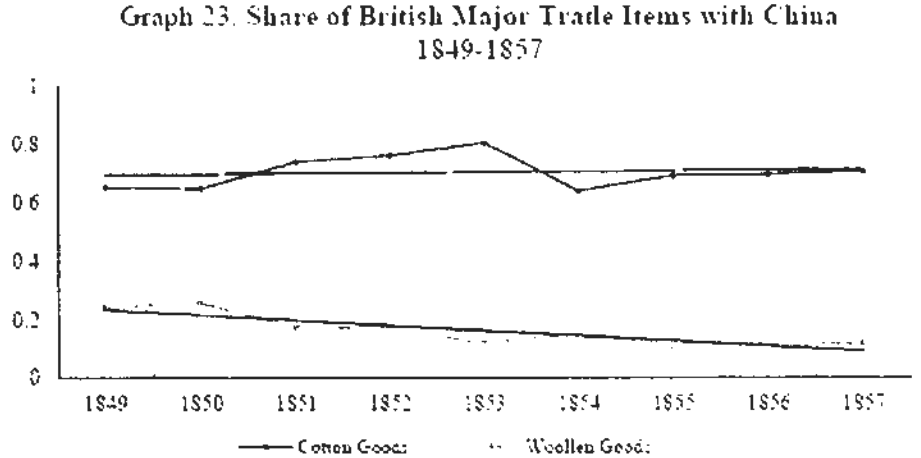
and 2,359,000 on p. 63; for 1836, 1,326,000 vs. 1,326,388.

This period has little systematic data available to describe the trade image of Hong Kong directly. The basic judgment is that trade fluctuated with an increasing trend while the opium part was hard to trace constrained by its smuggling nature.

As shown in the above graph using the data cited by Karl Marx, tracing back to 1834, the British exports into China really had an upward jump after 1842, which would lend a hand to the coming model analysis later. Remember Hong Kong would replace the position of Canton gradually, and Shanghai started up during this period.

Looking at the major British exports into China in 1849–1857, we can find that cotton goods had a slightly increasing trend, whereas woollen goods decreased both in absolute and relative volumes.





Data source: Karl Marx, "Trade with China," *New York Daily Tribune* (December 3, 1859), Torr, 1951, p. 89.

Except the above rough evidence, the following statements also show the trade image of Hong Kong after 1840.

Under the shadow of the opium trade, Hong Kong started up with the worry of Thomas Roe.

Fairbank (1969) summarized the fact on p. 150–151:

"...Aberdeen concluded that the plenipotentiary had best be allowed, if

he wished, 'to suspend for the present any measures for the exclusion of opium vessels from the waters and harbour of Hongkong.' Lord Stanley of the Colonial Office concurring, Pottinger was so instructed. In this manner Hongkong became, as it was to remain for a generation, the recognized receiving point for opium supplies from India, the great warehouse from which schooners and small craft under the British flag supplied the Chinese mainland....

"The result was to split the foreign trade of China into two parts, legal and illegal. Two sets of foreign communities, two channels for trade, two codes of conduct grew up as a consequence. In the words of one unhappy British consul, the officials of both countries were expected to acknowledge the presence of one of the Siamese twins and forget all knowledge of his brother. This dichotomy between the contraband drug traffic trade and the legitimate trade in teas, silks, and foreign manufactures continued until 1858 and colored the whole intervening period.

"...by the end of October 1843...[2)] Hongkong was their own free port, even though not an emporium of legitimate Chinese trade. [3)] By general agreement among officials of both countries and the opium merchants, the drug trade could flourish within certain known limits, even though it remained beyond the reach of the law and the official tax-collector...."

Confronted with the barren and maiden ground of early Hong Kong, the fiscal balance of the local colony was realized until 1855. LeFevour (1968) described it on p. 9–10:

"Since 1843, and especially after 1845 and the collapse of the market for British manufactures in China, many businessmen in Britain and China blamed opium for absorbing the purchasing power of the Chinese to the detriment of all other imports....

Complaints about the opium trade in British manufacturing centers through the forties and fifties were especially loud in 1854 when exports of cotton piece goods and woolens to China totaled less in value and volume than they had eight years previously.[48] Much of complaint was specifically directed against Jardine's as the leading opium firm; therefore a public defense was made to justify the company's expansion in opium:

Instead of tending to restrict what is called the legitimate trade, the traffic in Opium has enormously extended the export of tea and silk from China to British market, and enabled these articles to be supplied to consumers at a lower price than could otherwise have been the case. Indeed, but for it, they could not have been shipped but for a limited extent during the past two years, owing to the absolute want of the means to pay for them. Being ourselves large importers of British manufactures into China, nothing could afford us greater satisfaction than to see this branch of trade extended, but the demand for such goods is dependent upon other considerations and

[48] "See Sargent, p. 133 and Incoming Correspondence, LB London, 1854, from Hayter and Howell, London, Jan. 9, 1854.

Beginning in 1851, at least £1,000,000 in silver bullion had been exported from England annually to China in part payment for tea and silk. See India Letter Book, to Charles Skinner, Apr. 18, 1854." (Note 14, p. 158)

it is in no way affected by the Opium Trade."[49]

Until 1856, Hong Kong became the distribution center of South China, where one-fourth of Chinese imports and one-third of Chinese exports were financed and distributed through Hong Kong.[50] Before this period, the illegal opium smuggling trade was the source of Hong Kong's survival. By the end of the opium wars (1840–1842 and 1856–1860, separately), Hong Kong had become the allocating center for smuggling opium into China under the intentional encouragement, protection, and indulgence of the local colony authority. Hence, the opium trade became the main financial source and the major part of the early transit port trade while the normal trade was struggling hard.[51] Even in the government annual report of 1845, the local colony admitted that opium was the major export item of Hong Kong. For example, in 1847, the total export value of Hong Kong was £226,135, in which opium exports accounted for 86.5% or £195,625. According to the Mitchell Report of December 28, 1850 at C.O. 129/34 of the British Colonial File, in 1845–1849, approximately three-fourths of Indian opium transited from Hong Kong to the seashore provinces of China. Until the end of 1847, the annual input of opium was kept at the volume of about 30,000 chests. After 1848, with the further opening of the Yangtse estuary, the opium input increased, especially in 1850–1860. Hong Kong maintained the role of the largest opium smuggling center in the world for 30 years, according to Fairbank[52] [Translated from the content on p. 79–82 by Lu and Lu (2002)].

From 1849 onwards, the trade of Hong Kong reversed the depression trend, due to the opium smuggling trade and the *coolie* trade, and began to sustain the increase after 1850.[53] The work of Liu further confirms the above descriptions: The economy of Hong Kong began to boom, originating from the black trade in 1848. Driven by the Taiping Rebellion (太平天国起义, 1851–1864), many mainland people, especially in South China, flocked to Hong Kong to improve the business and trade development. From that time, normal trade with South China started to rise until Hong Kong grew into the distribution center of South China after 1856. Until 1858, most of the foreign business houses doing business in China set up their headquarters in Hong Kong. In 1859, 1,158 ships from 22 countries, with a total shipping power of 626,536 tons, cast their anchors in Hong Kong, which means that Hong Kong had successfully established its own position in the transit trade with China.[54]

From 1840 to 1860, when the opium trade struggled for legitimization from China with two opium wars, the trade center gradually changed from Canton to Hong Kong and Shanghai. This is due to the colonization of Hong Kong (1842), the opening of Shanghai with other four ports—Canton, Amoy, Foochow [福州], and Ningpo

[49] "British Parliamentary Papers: Papers Relating to the Opium Trade in China, 1842–1856, Sess. 2, 1857, XLIII, 64." (Note 15, p. 158)

[50] Morse, H.B., "The Trade and Administration of China," London, 1913, p. 267–268

[51] Translated from the content on p. 3 by Liu (2004)

[52] Refer to the original words: "...Hongkong became, as it was to remain for a generation, the recognized receiving point for opium suppliers from India, the great warehouse from which schooners and small craft under the British flag supplied the Chinese mainland" on p. 150 by Fairbank, John King (1969), *Trade and Diplomacy on the China Coast: The Opening of the Treaty Ports, 1842–1854*, Stanford University Press

[53] Translated from the content on p. 75 by Lu and Lu (2002)

[54] Translated from the content on p. 4 by Liu (2004)

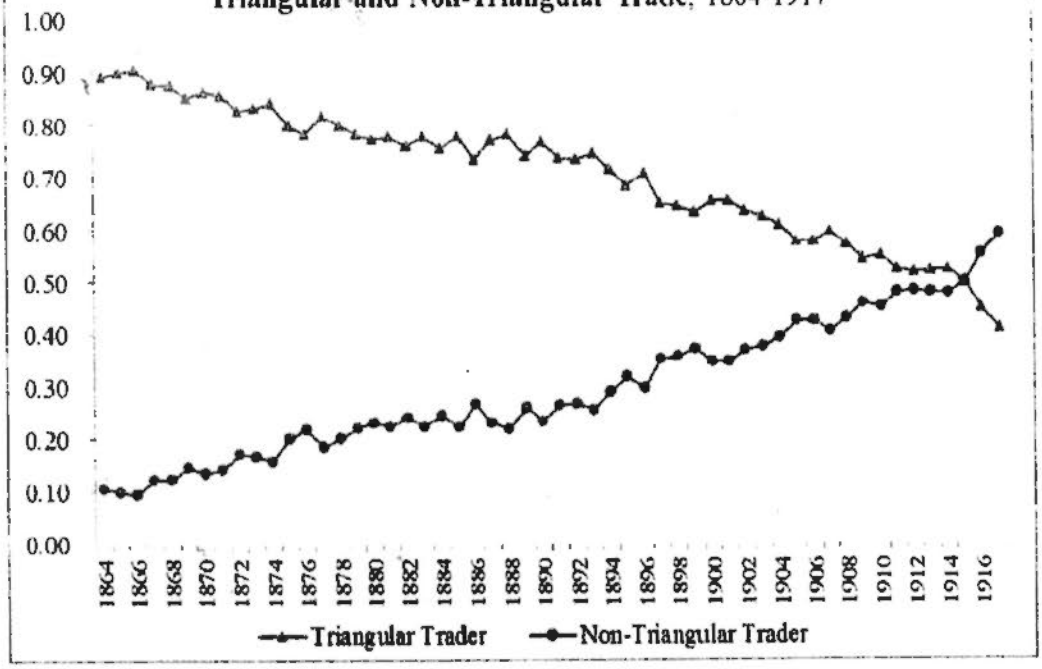
(1843)—and the distortion from the Taiping Rebellion (1851–1864), the background from which Hong Kong began. Gull (1943) maintained, "Throughout this period [1842–1914]—indeed, down to 1941—Shanghai and Hong Kong were the chief centres of our economic activities, followed in importance by Tietsin [天津], Hankow [汉口], and Canton, activities at the other treaty ports being mainly ancillary. Hong Kong, needless to repeat, was not politically part of China, no small proportion of its economic prosperity being due to that fact. On the other hand, its economic life would have had little importance but for its association at practically all points with China's."[55]

(b) Legal Opium Trade Period (1861–1917)

At this time, opium could be traded legally after the Second Opium War (1856–1860). Compared to the unstable trade during the 1840s to the 1850s shown in Graphs 21-23, there occurred a stable increasing trend of British trade with China through Hong Kong after 1860, which strongly and directly shows the trade-oriented development of Hong Kong.

First of all, British total trade (including imports and exports of Great Britain, India, Singapore, and Hong Kong, called Triangular Trader) dominated in China's foreign trade in this period, shown as the following graph: triangular trader dominated non-triangular trader until the World War One although its dominance decreased along the time.

Graph 24. China's Total Trade Distribution between the Triangular and Non-Triangular Trade, 1864-1917



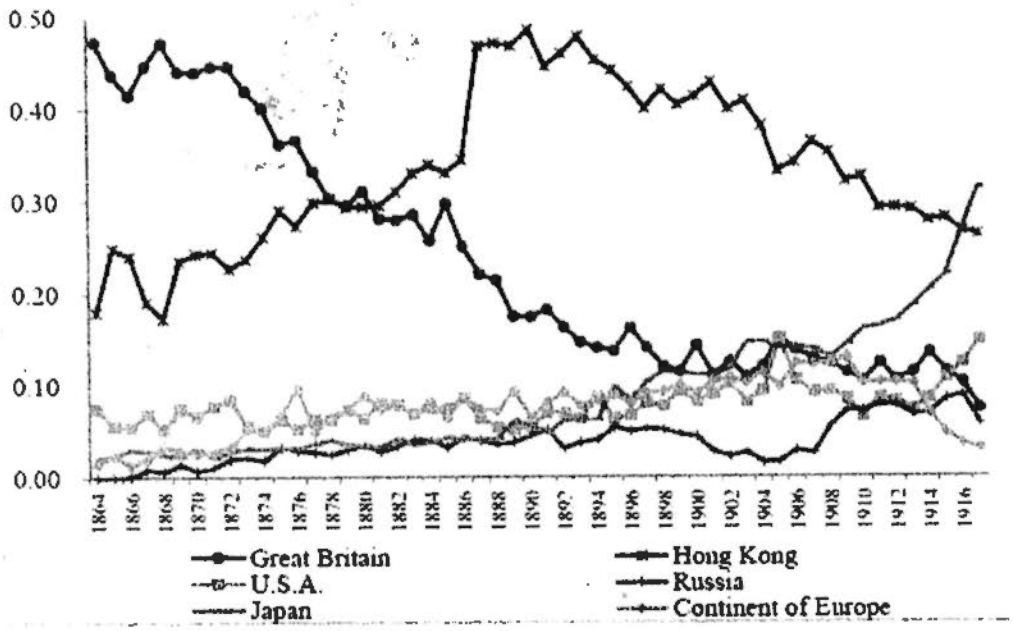
Data source: Author's computation based on the data in Table 6 "China's Imports and Exports, by Principal Countries 1864–1941, 1946–1948 (1864–1867 in Taels, 1868–1932 in Haikwan Taels, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 148–151, 158–161, and Table 1 "China's Foreign Trade: Imports and Exports, 1864–1941, 1946–1948 (before 1933 in

[55] The first three sentences of the second paragraph on p. 49 by Gull (1943)

Haikwan Tael, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 22–25 by Hsiao, Liang–Lin's *China's Foreign Trade Statistics, 1864–1949*, Harvard University Press, 1974. **Note:** "Triangular Trader" includes Great Britain, Hong Kong, India, and Singapore (corresponding to the "Straits Settlements and Federated Malay States" in the original Table 6, which would be omitted in Graph 27-29 and Chart 1-6 followed due to its relatively smaller trade volume); "Non-Triangular Trader" includes the United States, USSR (Russia), Japan, and the continent of Europe. Europe was recorded as a whole until 1909 and separated into individual countries after 1904; hence, the data for the continent of Europe were decomposed into two parts—the original data until 1909 and the author's combination with the original data from France, Germany, Italy, and the Netherlands after 1909. "Share" means the ratio of imports and exports of the triangular traders and the non-triangular traders respectively over their corresponding sums.

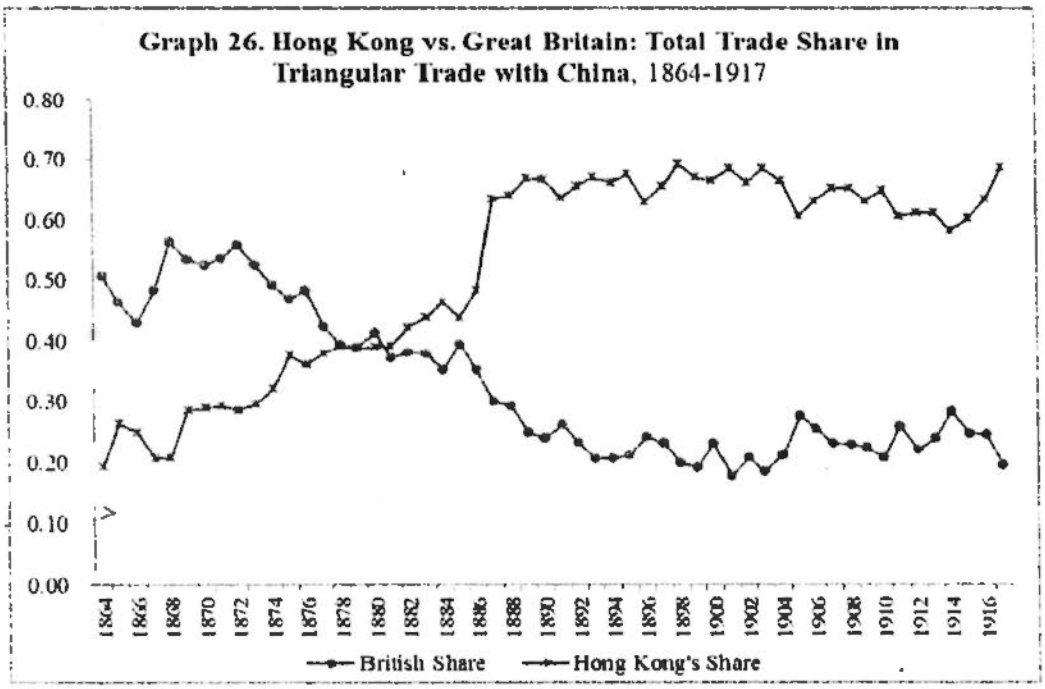
At the same time, Hong Kong began to occupy the central position in China's foreign trade when Great Britain weakened with the level dominating other powers all the time until the World War One. That's the following graph.

Graph 25. Hong Kong's Trade Position in China's Foreign Trade Compared with Powers, 1864-1917



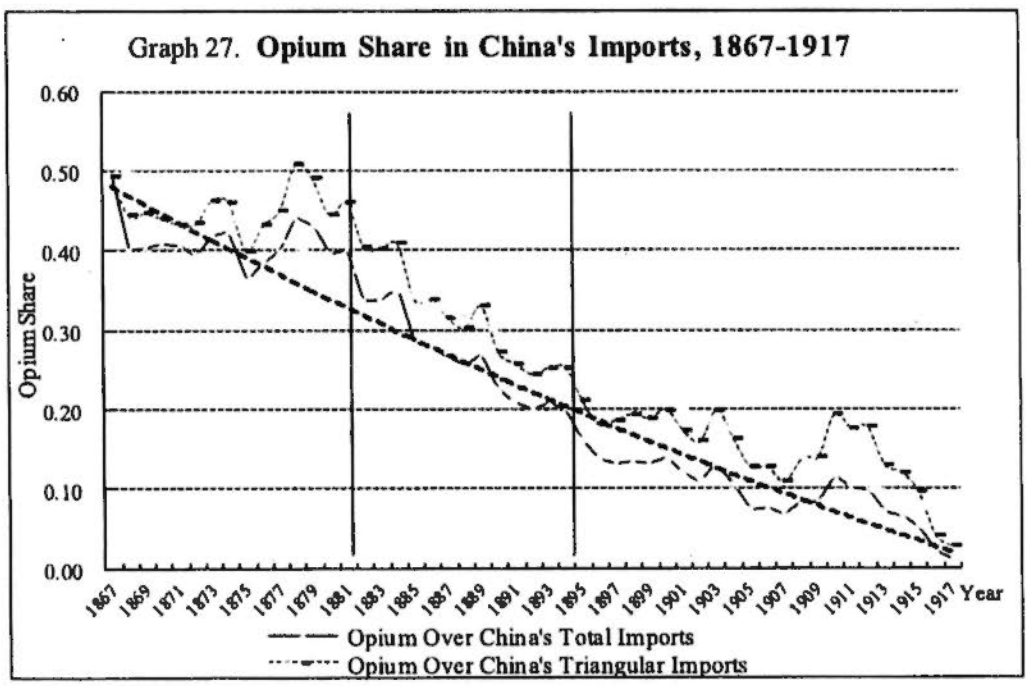
Data source: Author's computation based on the data in Table 6 "China's Imports and Exports, by Principal Countries 1864–1941, 1946–1948 (1864–1867 in Taels, 1868–1932 in Haikwan Taels, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 148–151, 158–161, and Table 1 "China's Foreign Trade: Imports and Exports, 1864–1941, 1946–1948 (before 1933 in Haikwan Tael, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 22–25 by Hsiao, Liang–Lin's *China's Foreign Trade Statistics, 1864–1949*, Harvard University Press, 1974.

Compared with the decreasing trade share of Great Britain in triangular trade, Hong Kong had an increasing trend to occupy the dominating position, which was shown in the following graph.



Data source: Author's computation based on the data in Table 6 "China's Imports and Exports, by Principal Countries 1864–1941, 1946–1948 (1864–1867 in Taels, 1868–1932 in Haikwan Taels, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 148–151, 158–161 by Hsiao, Liang-Lin's *China's Foreign Trade Statistics, 1864–1949*, Harvard University Press, 1974.

As for the reason why the trade share of Great Britain decreased in China's foreign trade, the following opium's same trend accounted the major part.



Source: Author's calculation based on Table 1 on p. 22–25, Table 2 on 52–54, and Table 6 on p. 148–151 of Hsiao, Liang-Lin's *China's Foreign Trade Statistics, 1864–1949*, Harvard University Press, 1974. Note: here China's Total Imports means China's total imports from foreign

countries, and Triangular Imports indicates the sum of China's imports from Great Britain, India, and Hong Kong.

From the above Graphs 21-23, the unstable trade image clearly appeared, unlike the original idea to secure trade by colonizing Hong Kong. However, there was an upward trend for the total exports from before to after the colonization of Hong Kong, leaving the direct incentive behind C&S from 1860 by the Western powers.

With regard to export data after 1860, when other powers began entering the Chinese market, competing with Britain, the work of Hsiao (1974) reported that Chinese Maritime Customs from 1864 to 1941 clearly showed an increasing trend. Furthermore, there appeared a decreasing trend of opium share, compared to composite goods, at the time.

Graph 27, based on the data by Hsiao (1974), showed two significant declines in the opium share of China's total imports and triangular imports. The declines were below 40% around 1880 and below 20% around 1895 (when the right to open up factories in treaty-ports by foreigners was formally admitted in the Treaty of Shimonoseki (1895) after the Sino-Japanese War), respectively. Two second order polynomial decreasing trend lines were evident: After 1880, the boom of the Self-strengthening Movement, corresponding to the increasing share of cotton goods and cotton yarn, opium began to lose its dominant position in China's imports, as shown in "(2) Imports of China" of Table 4 by Hyde (1973). After 1895, the end of the Sino–Japanese War, the annual level of opium import quantity declined to under 60,000 chests, whereas the annual level of the opium import value share decreased to under 20% both in China's total imports and China's imports from Britain, India, and Hong Kong, as shown in the above graph. Considering the scale of opium smuggling despite China's legalization of the opium trade in 1858 and having put its traffic under control from 1886 onwards, here we draw the line between opium trade and legal non-opium trade in 1895 to differentiate their respective importance in Hong Kong's economy (opium dominance before 1895 and non-opium dominance from 1895 to 1917)

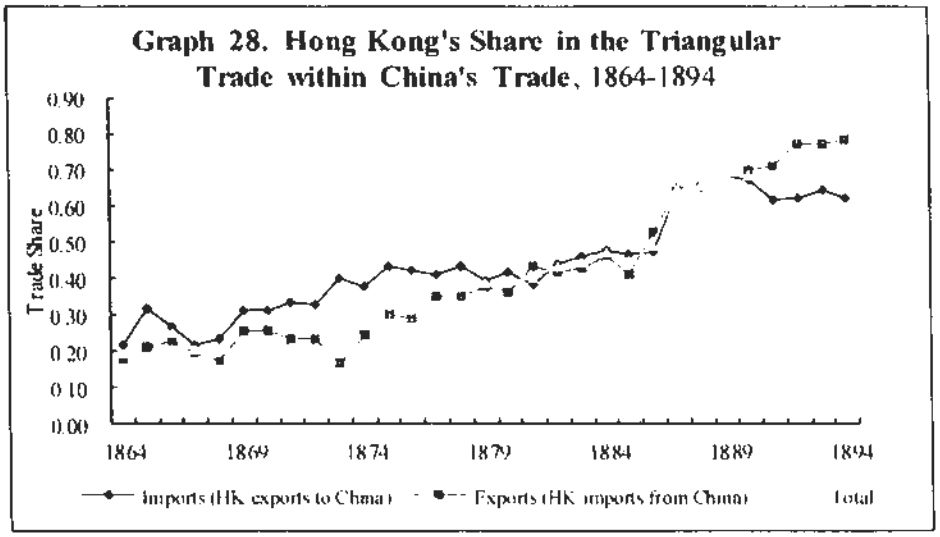
What shown in the above is the fundamental situation judged from the total trade side, while the following content would confirm you from the further details in imports and exports.

The trade trend of Hong Kong in the triangular trade before 1895 is depicted in Graph 28. During this period, Hong Kong gradually raised its position in China's foreign trade, mainly through opium. The trade trend of Hong Kong in the triangular trade from 1895 to 1917 is depicted in Graph 29. During this period, Hong Kong became China's foreign trade port when over half of the triangular trade passed through Hong Kong.

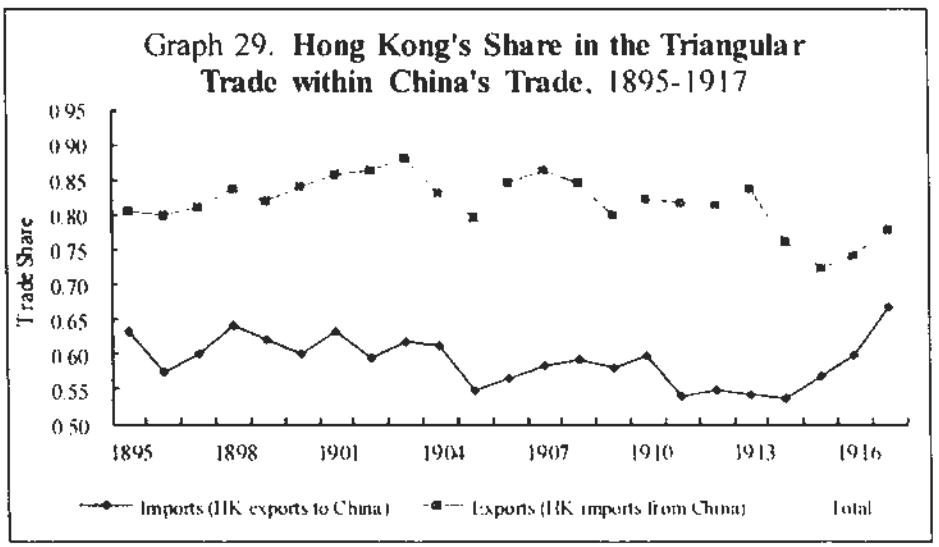
Opium shipments into China in 1839 (pre-Opium War period) was approximately 40,200 chests. In the post-war period, "The steady climb continued, to 76,000 chests in 1865 and 81,000 by 1884. There followed a slow drop until the 1900s, when imports stabilized around 50,000 chests."[56] "A general estimate for turn-of-the-century [circa

[56] Lines 5–7 in the third paragraph on p. 151 by Tuck (2000), Vol. 9, Part 2

1900] interregional trade in domestic production [of China] yielded these figures: rice, 100 million taels; salt, 100 million taels; opium, 130 million taels.[57] Undeniably, opium was being smoked in China on a gigantic scale."[58]



Data source: Author's calculation based on Table 6, p. 148–151 of Hsiao, Liang-Lin's *China's Foreign Trade Statistics, 1864–1949*, Harvard University Press, 1974



Data source: Author's calculation based on Table 6, p. 148–151 of Hsiao, Liang-Lin's *China's Foreign Trade Statistics, 1864–1949*, Harvard University Press, 1974

Significantly, Hong Kong worked as the transit port between Britain, India, and China; the following contents would identify the growth of Hong Kong against the above background.

Hyde (1973) concluded that Hong Kong played an indispensable role as entrepôt for the United Kingdom's trade with China until 1914.

[57] Jonathan Spence cited Footnote 91 on p. 154 by Tuck (2000), Vol. 9, Part 2, as "S.A.M. Adshead, *The Modernization of the Chinese Salt Administration, 1900–1920* (Cambridge: Harvard University Press, 1970), p. 13."

[58] The last two sentences of the first paragraph on p. 154 by Tuck (2000), Vol. 9, Part 2

"As far as trade with China is concerned, origins of imports and exports are obscured by the position of Hong Kong as an entrepot; in much the same way trade with Malaya and the East Indian islands in complicated by the growth of Singapore as a focal point of trade.... Up to about 1900, it is clear that Britain and its imperial territories (excluding Hong Kong) dominated the foreign trade of China, especially the import trade.... In 1868... the share of Britain and its dependencies in Chinese imports *via* Hong Kong amounted to 90 per cent, while the corresponding percentage for exports was 78. These proportions of Hong Kong's trade with China were diminished in later years as that port became a distribution centre for goods originating in Japan, the United States and south-east Asia, the proportion of these imports rose in conjunction with a corresponding increase in exports to these sources [especially after the opening of the trans-Pacific steamship line]. Consequently, Britain's share fell. Nevertheless, when Morse made his analysis of China trade in1906, including Hong Kong in his calculations as an international port within the commercial area of China, British Empire countries were shown as contributing about one-half of China's total imports and absorbing about one-fifth of its exports."[59]

For the role Hong Kong played in the historical situation, Gull (1943) recorded: "During the period 1854–1903 the bulk of the United Kingdom's imports from China came directly from Chinese ports. Only a relatively small proportion came through Hong Kong. On the other hand, down to 1889, nearly half the United Kingdom's exports passed into China through the Colony. After 1889, this proportion changed. The Colony's importance as entrepot for the United Kingdom's export trade with China decreased considerably.... [But the basic situation continued as] The bulk of what was imported from Hong Kong came from China, and most of what was exported to the Colony was passed on to her...."[60]

Given the stylized facts discussed above: Hong Kong started from the triangular trade with two parts—legal for non-opium goods and illegal for opium—and gradually became the distribution center between China, Britain, and India before 1917. The main content of the following section is carried out with focus on the triangular trade to identify the real situation of the opium dominant and non-opium dominant periods, respectively. Notably, the opium amount used here is based on the public record from Customs; hence, a parallel smuggling part is missed. Although not small, it is incalculable to be envisioned.

[59] The part covering p. 189–193 by Hyde (1973) and detailed description of China's trade can be referred to in the previous part on p. 186–189 of the book.
[60] The content of "*Third*" on p. 52 by Gull (1943)

(b-1) Opium Entrepôt for Britain Before 1895

The following three charts of the triangular trade intend to show how Hong Kong played an important role mainly in the opium trade. The charts are derived from the series of Tables by Hsiao (1974, p. 148–151) covering 1864 to 1894, which states how the triangular trade dominated China's trade and describes in detail how opium worked.

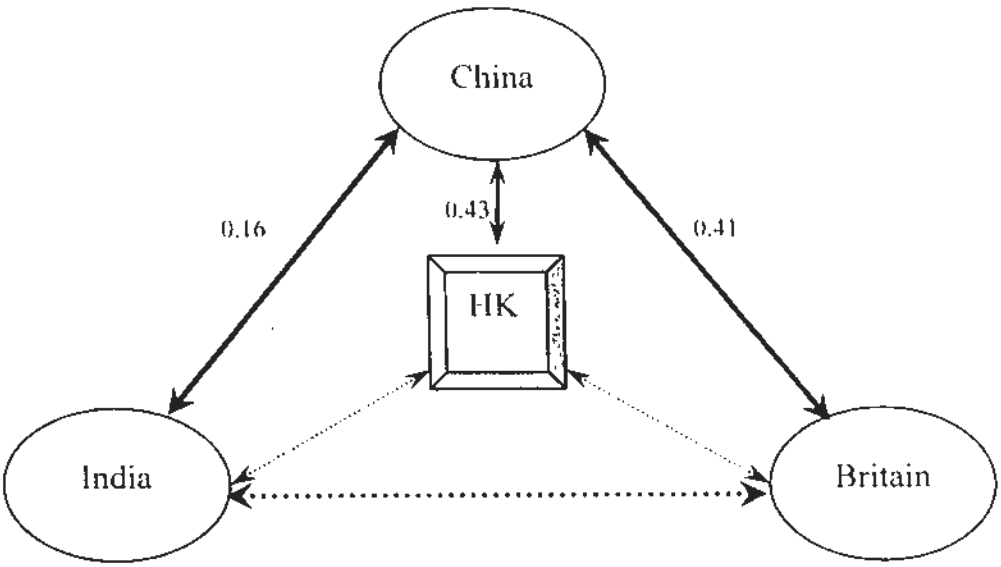


Chart 1. China's Total Trade Flow Chart with Annual Average Share Distribution of China-India-Britain Triangular Trade, 1864 -1894

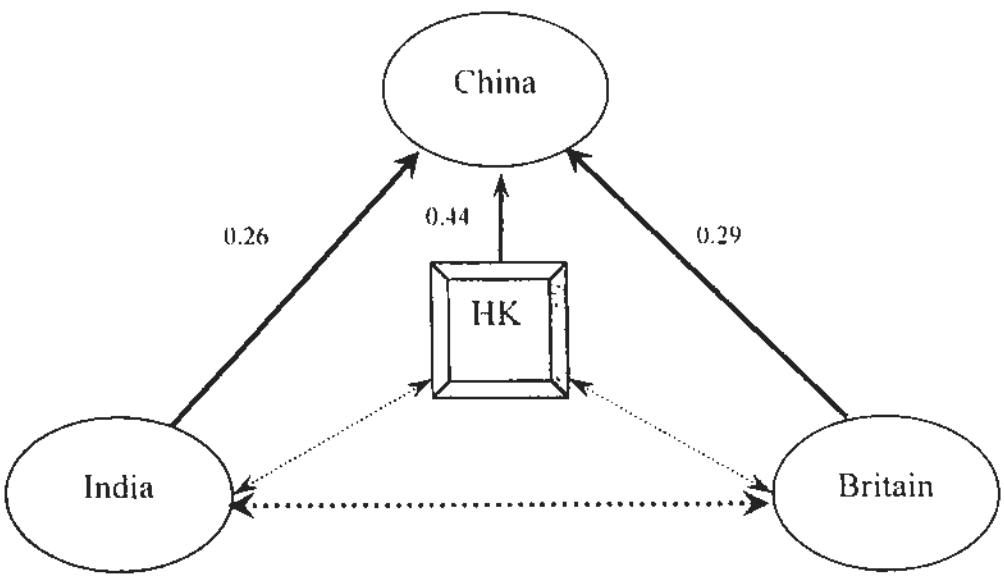


Chart 2. China's Import Flow Chart with Annual Average Share Distribution of China-India-Britain Triangular Trade, 1864 -1894

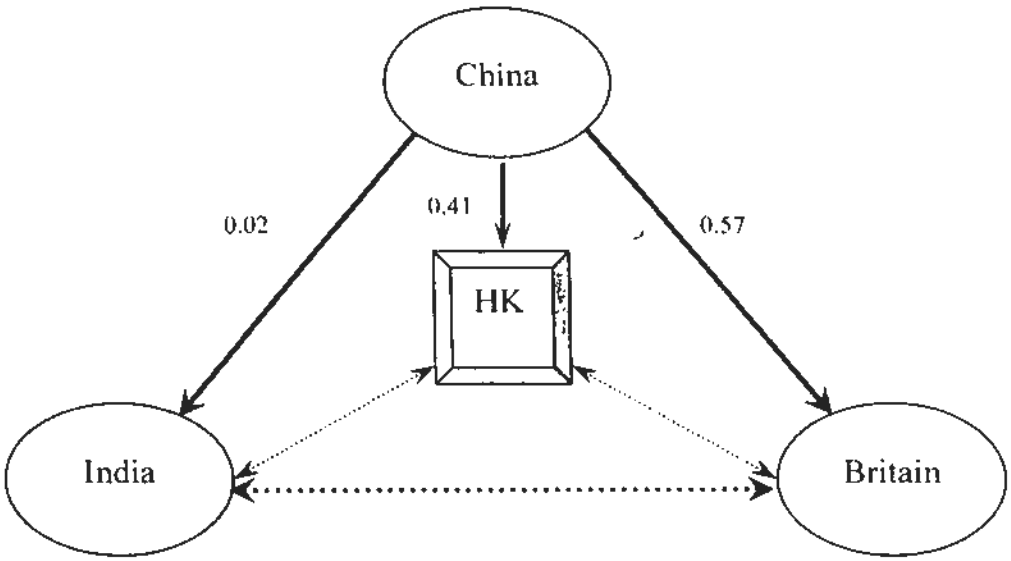


Chart 3. China's Export Flow Chart with Average Share Distribution of China-India-Britain Triangular Trade, 1864–1894

Source: Author's calculation based on Table 6, p. 148–151 of Hsiao, Liang-Lin's *China's Foreign Trade Statistics, 1864–1949*, Harvard University Press, 1974.

In 1864–1894, Hong Kong definitely was the indispensable nexus point in the triangular trade, with a 0.43 share of China's triangular trade, compared to Britain's 0.41; 0.44 of China's triangular imports, compared to Britain's 0.29; and 0.41 of China's triangular exports, compared to Britain's 0.57, considering actual consumption and production capability at the time.

(b-2) Non-Opium Entrepôt for Britain, 1895–1917

The following charts of the triangular trade intend to show how Hong Kong played an important role mainly in non-opium trade. The charts are derived from the series of Tables by Hsiao (1974, p. 148–151) covering 1895 to 1917, which states how the triangular trade dominated China's trade and describes in detail how the non-opium trade worked.

In 1895–1917, Hong Kong kept its distribution center position in China's foreign trade (even when non-opium goods began competing with opium) with a 0.66 share of China's triangular trade, compared with Britain's 0.23; 0.59 of China's triangular imports, compared with Britain's 0.27; 0.82 of China's triangular exports with Britain's 0.15 after the Sino–Japanese War.

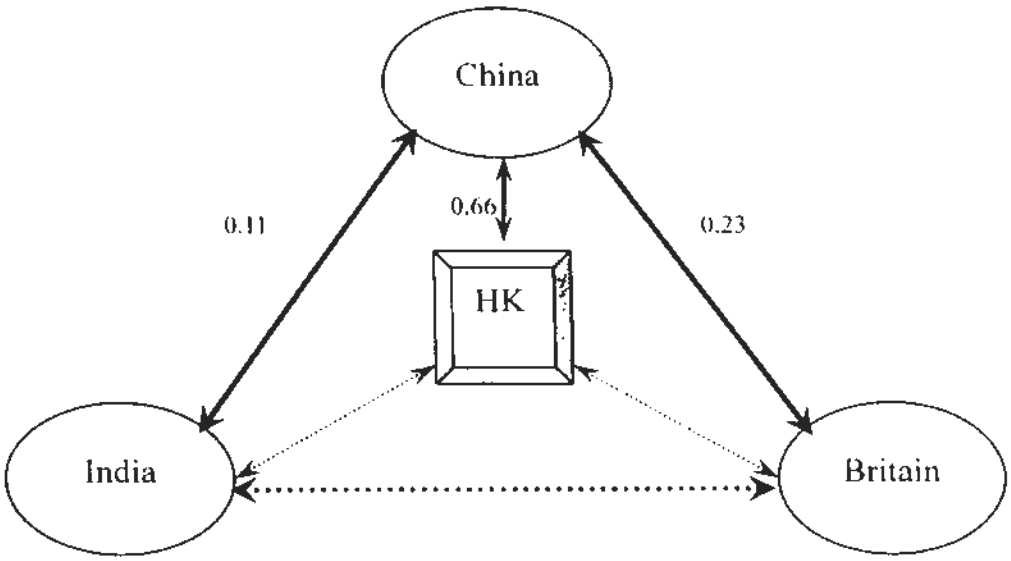


Chart 4. China's Trade Flow Chart with Annual Average Share Distribution of China-India-Britain Triangular Trade, 1895–1917

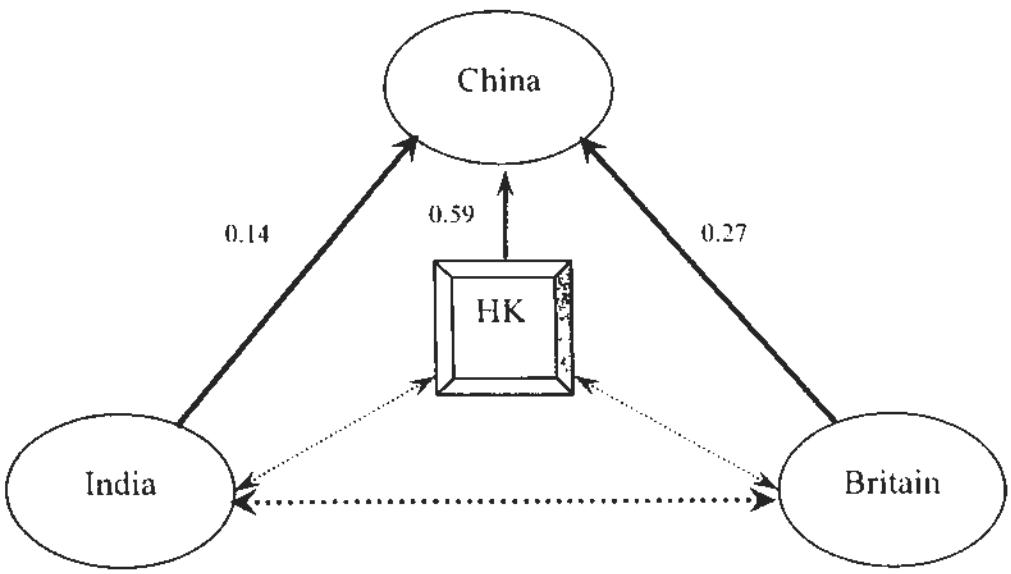


Chart 5. China's Import Flow Chart with Annual Average Share Distribution of China-India-Britain Triangular Trade, 1895–1917

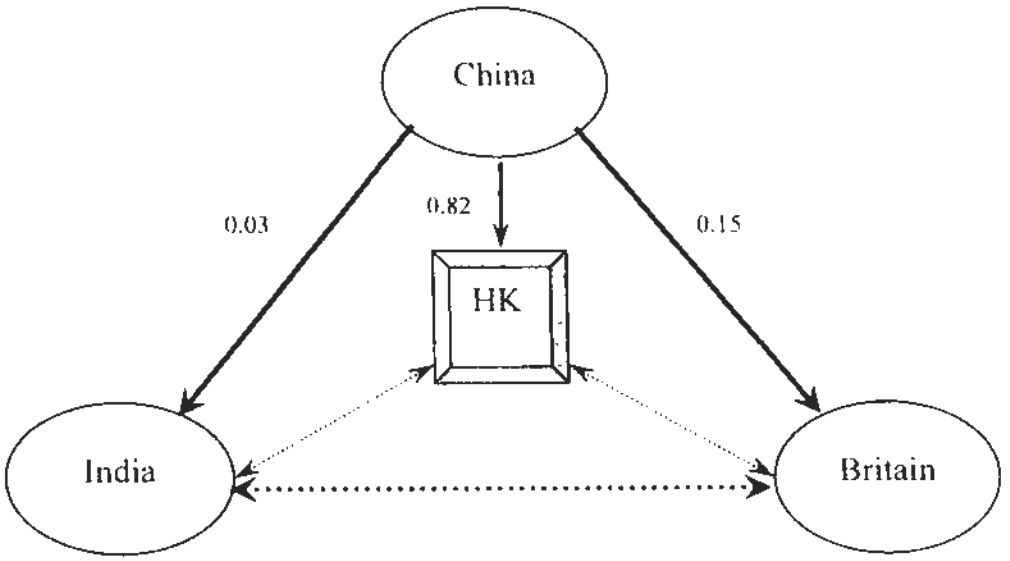


Chart 6. China's Export Flow Chart with Average Share Distribution of China-India-Britain Triangular Trade, 1895–1917

Source: Author's calculation based on Table 6, p. 148–151 of Liang Lins' *China's Foreign Trade Statistics, 1864–1949*, Harvard University Press, 1974.

Finally, the later theoretical analysis in Chapter IV and V would not only show why Hong Kong was colonized in the British interest of trade with China, that is, Proposition 2, but also predict that British exports would increase after the creation of Hong Kong, that is Proposition 1. And the evidence covering the two stages, 1840–1860 and 1863–1917, presented above actually echoes the model prediction further.

What cannot be neglected is the institutions set up after the colonization of Hong Kong before the theoretical analysis, which could serve as a case of trade inducing institutions, and shape the environment where Hong Kong's trade developed.

D. Institutions behind Hong Kong for Trade

As the history shown in Part B of Chapter II *Background*, free trade laid down the background for the colonization of Hong Kong, which imposed its characterizing policies or institutions in building up Hong Kong, and left the long-lived laissez-faire tradition of the Hong Kong's development.

First of all, Hong Kong completely adopted the legal system of Great Britain (and C&S partly), especially her property rights and business laws concerned. Rear (1971) recorded "the area [Hong Kong] was previously without a civilized government and legal system" (p. 339), and "Appendices I and IV to Volume 15 of the Law of Hong Kong (1964 Revised Edition)" related to the Constitution of Hong Kong (p. 340). "The Law Applied in the Colony" (Rear, 1971, p. 400-01) shows that "section 5 of the Supreme Court Ordinance" provided that "Such of laws of England as existed when the Colony obtained a local legislature, that is to say, on the 5th day of April, 1843, shall be in force in the Colony, ..." [also see *The Laws of Hong Kong*, 1950 Revised Edition, CAP. 4, p.142, "Operation of Laws of England"], and "Section 3 of the

Ordinance provides: The common law and the rules of equity shall be in force in Hong Kong, ...". "Jurisdiction of the court at common law" (*The Laws of Hong Kong*, 1950 Revised Edition, CAP. 4, p.142, Section 7) provided that: "The Supreme Court shall have the same jurisdiction in the Colony as His Majesty's Courts of King's Bench, Common Pleas, and Exchequer lawfully have or had in England, and shall be a Court of Oyer and Terminer and Gaol Delivery, Assize, and *Nisi Prius*."

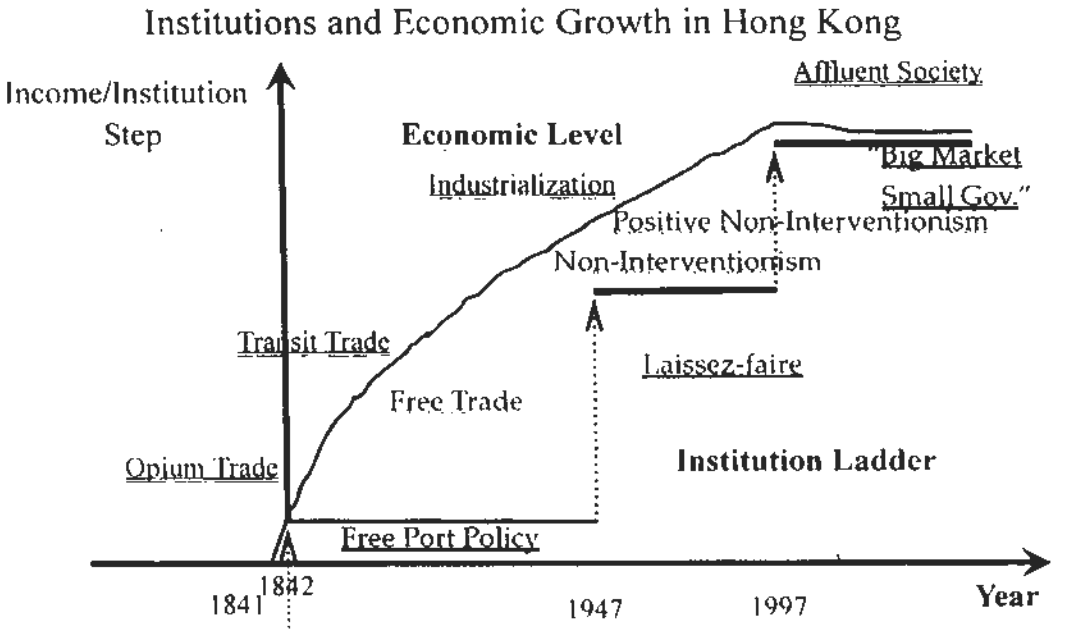
It is the matured system borrowed from the Great Britain that paved the sustainable way of Hong Kong to rise. The British system was derived by economically and politically powerful groups of the Atlantic trade, and advanced compared with institutions in absolute monarchy (e.g., Spain, Portugal and France to a large extent), according to Acemoglu et al. (2005). And Rodrik, Subramanian and Trebbi (2002) concluded that the British system has the market-creating, regulating, stabilizing and legitimizing advantages to protect property rights, enforce contracts, "sustain the growth momentum, build resilience to shocks, and facilitate socially acceptable burden sharing in response to such shocks." For the detailed economic effects of the British system applied in Hong Kong, Chiu (1994, p. 7) said, "it offered an attractive regulatory framework in which businessmen could operate. Laws and statutes followed the British system, with its unambiguous commitment to and definition of private property. The merits of this legal system were to allow private transactions to be relatively free of administrative encumbrance, and yet to offer protection against fraud by the legal enforcement of contracts. The statutes regulating the economy were also clear and simple, facilitating business calculations. The formation of companies, public or private, limited or unlimited, was easy and straightforward. ..., the colonial state was responsible for the maintenance of law and order, as well as the protection of private property. "

Then some policies endowed with free trade initiated to motivate the development of Hong Kong in consequence. These unique characters would be captured in the parameters setup of the model to support and argue for the trade tradition of Hong Kong later. For example, the free port policy, working in 1840-1917 when the current paper focused on, means "No import tariffs are imposed and excise duties are levied only on four categories of goods, including locally manufactured or imported tobacco, alcoholic liquors, methyl alcohol and hydrocarbon oils", said by Shen and Yeung (2004, p. 3). Actually the excise duties were not levied until 1909, not from the beginning of Hong Kong.

Here is the vivid graph to show that institution setup acted as the bracket to build up, support and sustain the economic growth of Hong Kong, which was the fundamental force behind the trade face to sustain the economy in the long term. The development stage of Hong Kong shows above the income curve, and the specific polices with their idiosyncratic names and overlapping implications list under the curve.

According to the content on p. 58 by Lu and Lu (2002), Hong Kong experienced the free port policy during 1841-1860, the economic liberalism policy during 1861-1941 and the positive non-interventionism transferred from non-interventionism during Sept. of 1945- June of 1997 in sequence. And the laissez-faire maxim was

rooted in the Hong Kong economy from its beginning to the rise and after: began from free trade, extended to non-interference, comprised the positive non-interventionism and shaped "Big Market, Small Government" policy after 1997.



From the historical view, Hong Kong was colonized by the United Kingdom with the idea of economic liberalism from classical economists such as Adam Smith, David Ricardo, James Mill and John Stuart Mill etc. Hong Kong began its capitalistic development from Elliot's two proclamations on February 1st and 2nd respectively in 1841[61] to claim the permanent occupation of Hong Kong by the United Kingdom with the law transplanted from England by cutting off the heritage of feudal property from the Qing dynasty where trade and business were suppressed. After 1842 when Hong Kong Island was formally ceded to Britain as a Crown Colony under the Treaty of Nanking, the first Governor of Hong Kong, Henry Pottinger, and his successors started to make the ordinances of Hong Kong with the plan to thrive it under the spirit and tradition of English law, which greatly encouraged and protected trade and business when classical economists defeated mercantilists, through Legislative Council founded in 1843. Trade, what Hong Kong depends on to survive, develop and prosper from beginning to end, was laid on the top concern of the colony authority, which lead to the free port policy with the form of zero tariff for any goods trading through Hong Kong originally to build up the platform for Hong Kong to grow up into the expected entrepot for the British trade with China. In fact, it was the free port strategy that flourished Hong Kong during the black trade period dominated by opium and coolies trade. Then the free port policy avoiding any duty was kept and improved by the successor governors to free trade with minimal tax, fast and easy banking service and free capital flow, which made the great chance for Hong Kong to become the famous transit trade center of the world during the normal trade period. With the

[61] Referred to "A Selection of Constitutional Documents, Conventions and Treaties: Appendix IV", Laws of Hong Kong (Revised Edition 1964), printed and published by The Government Printer Hong Kong.

accumulation of the above periods, Hong Kong naturally realized the rise after the World War II with the complete institutional framework and the mature business environment under the direction of laissez-faire idea characterized as free competition, free trade and free enterprises favoring market forces to shape the economy with "a coherent set of neutral economic, fiscal and budgetary polices for the predominance of the private market sector and the flexibility of the cost-price structure" (Chan, 1998, p. 3). The above judgment can be supported by the content shown at pp. 148 of Lu and Lu (2002): John James Cowperthwaite, Financial Secretary of Hong Kong (1961-1971), had the words that "Hong Kong is an open region with great economic freedom, and 'hidden hand' is the best director of our economy"; Similar statements also came from the 24th Governor of Hong Kong—David Trench that "The Hong Kong government would never actively intervene the development of any enterprises, but leave market—the 'hidden hand' to determine their destines"; Till Charles Philip Haddon-Cave, Financial Secretary of Hong Kong (1971-1981), Positive Non-Interventionism was declared firstly with the active intervention only in case of the great market failures happened in the aggregate economy but any try to regulate private sector to overcome market power in most of cases.[62] While concerning the economic policy after the 1997 resumption of sovereignty by the People's Republic of China, Donald Tsang, the Chief Executive of Hong Kong said at a press conference on 11 September 2006 that "Positive non-interventionism was a policy suggested by a previous Financial Secretary many years ago, but we have never said that we would still use it as our current policy .... We prefer the so-called 'big market, small government' policy.'"[63]

Managed by the economic philosophy of laissez-faire under British colonial control, Hong Kong made great achievements. Especially in the age of 1970s, Hong Kong further began to open its financial sector by a series of liberalizing policies such as removing the foreign exchange regulations with free foreign exchange transactions and free capital flow on Jan. 1st 1973, canceling gold import and export regulations with free gold transactions and free gold flow on Jan. 1st 1974, relaxing the bans on foreign bank opening subsidiary banks in Hong Kong in March of 1977, and founding the Stock Exchange of Hong Kong Limited on April 2nd 1986 (later further united with Hong Kong Futures Exchange Limited and Hong Kong Securities Clearing Company Limited to become Hong Kong Exchanges and Clearing Limited (HKEx) in 2000) to attract more foreign fund into Hong Kong etc. Actually in the late 1970s, Hong Kong had successfully set up a complete ordinance and policy system of economic freedom: For trade, the policy of free port and free trade leaves cargoes, invisible assets, and trade fund free to flow; For finance, the open financial market with free transactions of foreign exchanges, stocks, futures, gold and other noble metal etc., makes capital free to flow without any foreign exchange regulation; For firm, enterprises are free to choose the industry with self-decision, self-management, and self-operation under the legal field; For individual, people have the freedom to consume, invest and get employed protected by the property rights of self-ownership.

[62] Translated from the related content covers pp. 148-160 of Lu and Lu (2002).
[63] http://en.wikipedia.org/wiki/Laissez-faire_capitalism.

Actually it is contributed by free markets, free trade, free capital flow, minimal taxes, least regulations with the fundamental private ownership of property rights. Hong Kong is always appreciated as the representative example of laissez-faire capitalism. Milton Friedman described Hong Kong as laissez-faire state and credited that policy for her rapid move from poverty to prosperity in 50 years. The *Heritage Foundation* ranked Hong Kong No.1 for the 17th straight year in the *Index of Economic Freedom* till 2011. And the *Economic Freedom of the World: 2010 Annual Report*, copublished by the Cato Institute, the Fraser Institute in Canada and more than 70 think tanks around the world, also ranked Hong Kong as the world's freest economy, which marks the 14th consecutive year Hong Kong has topped the ranking.

IV. Basic Model

A. Stylized Facts

Against the background of free trade affecting China, the following elements constituted the treaty-port system in China: trade, war, tariff control, and opium.

Trade had always been the key to abolishing EIC's monopoly in China, abandoning Cohong's intermediation by building up a series of C&S in treaty ports. The difference between free trade and the previous mercantilism is that the powers gradually forsook the beggar-your-neighbour policy to change the hostile and mutually exclusive situation existing in the companies' monopoly. They tried to foster their potential market favoring their industrial products by protecting and encouraging China's purchasing capability. Thus, exports and imports became the emphasis of their interests in China.

"The victory of the free traders over the East India Company, so far from resolving the contradictions of the China trade, had accentuated them. The more the trade increased, the more obvious became the inadequacy of the Cohong to cope with it. The more desirable China appeared as a potential market for British manufactures, the more restrictive and intolerable seemed the Canton Commercial System. The greater the resource to illicit trading from the receiving-ships at Lintin and along the coast, the greater the danger of the Chinese Government stopping the trade. Lastly, the more extensive the opium trade became, and with it the outflow of treasure, the nearer came the day when the Chinese authorities would have to take action. Wherefore, in the years after 1834 there flowed a constant stream of propaganda in pamphlets, newspapers and letters, drawing attention to the 'precarious and defenceless position' of the British merchants in China, and calling for the British Government's 'prompt interference and vigorous superintendence in reconstructing the system of our commercial relations with China' to place the trade 'upon a safe, advantageous, honourable and permanent footing'." (Tuck, 2000, Vol. 9, Chapter 8, the first paragraph of "A. The Opium War" p. 196)

War followed the step of free trade in trying to secure the powers' trade position in China. The cession of Hong Kong Island (1840) and the Kowloon peninsular (1860) followed two opium wars, the building up of C&S (1860, 1895) followed the second opium war in 1860 and the Sino–Japanese war in 1895 (corresponding to two booms, respectively), and the creation of L.T. (1898) followed the Sino–Japanese war in 1895. The only exception was Macao, which ceded in peace. Particularly for colony and L.T., there still existed the extra war risk from exclusive occupation and privilege, which had a great chance of causing a war between China and the powers, and—potentially—among the competing powers.

"Thus, if England failed to obtain a treaty of trade, or to improve her relations with China, the Chinese empire equally failed to take her first steps on the road to modernization which alone could have saved her from the humiliations of the Anglo–Chinese war of 1839–42, the Anglo–French campaign of 1858–60, her decisive defeat by Japan in 1894–5, and the general economic subservience to Japan

and the West during the first forty years of the present century. At the end of the eighteenth century, helped by a treaty of trade and friendship with the foremost country of the West, China could have begun the painful but momentous changeover from a simple economy based primarily on land towards a complex modern economy, and the Manchu dynasty might have avoided the long and humiliating decline of the Chinese empire throughout the nineteenth century. But in 1793 China was stuck fast in a cycle of conservatism and exclusion which made certain the complete rejection without trial of all ideas from outside. In its historical setting this failure to face up to the challenge of the West was inevitable, but it was nonetheless a tragic failure because from that time onward isolation was no longer a sound policy and China's relations with the West needed putting on a modern basis. From the English point of view Macartney's embassy failed to obtain better conditions for trade, but on the Chinese side the failure was more fundamental: it was a failure of perception, a failure to respond to challenge." (Tuck, 2000, Vol. 8, p. 37–38)

As far as **war risk** is concerned, the real examples came from the following history: as early as 1801, Walker (1953, p. 35–36) recorded that Great Britain had believed "colonies were mainly factors in the problem of war." Thus, "'[C]olonies' were transferred from the Home Secretary to the newly-created Secretary of State for War and remained in his hands for more than fifty years." When Taiwan and the Pescadores group were conquered by Japan in 1895, the Liaotung peninsular was redeemed by the Qing government after the intervention of France, Germany and Russia. Later, in 1898, it became the L.T. of Russia. Competition for occupation of the Liaotung peninsula led to the Russo–Japanese war in 1904–1905.

Peace in China was favored as Karl Marx had cited in the *Economist* (May 21, 1853): "The great Powers of the West are expected to interfere for the preservation of order in the East... We derive from China the materials of our breakfasts" in the "Revolution in China and in Europe" [*New York Daily Tribune* (June 14, 1853), pp. 6, Torr, 1951] because Indian tea did not become common until the 1880s (Introduction, pp. XI, Torr, 1951). In the process of building up leased territories in China, a balance of power existed, which prevented war through some arrangements or understandings documenting "how each will respect the other's special rights and privileges. [For the Anglo–German and Anglo–Russian understandings, see Rockhill, 62, 180, 183–184; China, 1899, No. 1, 27–31; *ibid.*, No. 2; 1900, No. 5.]" (Tyau, 1966, p. 90)

Tariff impost was determined by a series of treaties that laid down the foundation of the treaty-port system, which was forced to impose the same low rate on exports and imports: "..., comprised the tariff arrangements which the Treaties of Nanking and Tientsin made. The Treaty of Nanking provided for a 5 per cent import and export tariff, and arranged that imports after payment of import duties might be conveyed into interior free of all further charges except transit dues. The Treaty of Tientsin provided that the latter might be compounded by paying a single charge of 2.5 per cent *ad valorem*, on payment whereof a certificate known as a 'transit pass' might be issued, exempting the goods from all further inland charges whatsoever. At that time the only inland charges were dues collected by the native, as distinct from the maritime, Customs (which, ..., were early brought under foreign supervision) and

dues known as *likin*. Later, however, the Chinese introduced other internal taxes, amongst them one known as *Lo-ti*, a tax leviable on goods after they had reached the destination prescribed in the transit pass, and consumption taxes. ...Moreover, as a consequence of extra-territoriality, British, like American, Japanese, French and other foreign traders resident in China, were for a long time entirely immune from direct taxation payable, except in the form of land tax, to the Chinese government. To at large extent this was still a characteristic of the treaty-port system at the time of the outbreak of war between ourselves and our Allies with the Japanese." (Gull, 1943, pp. 30–31)

Tyau (1966) said, "All alien merchants importing goods into China, or exporting therefrom, are required to pay the dues or duties established by the treaty tariff. Each is entitled to has his goods assessed at no higher rate than is imposed upon or paid by those of other alien or, in some cases, native, merchants; nor is he to be required to pay additional levies thereto. This is known as the most-favoured-nation treatment. Moreover, the duties leviable on imports and exports will be collected by standardized methods common to all the ports [Art. 10, British 1857, Tariff Rules], so as 'to secure uniformity and prevent confusion [Art. 34, British 1858].'" (the definition of "Right to Uniform Tariff" is on p. 124) ; "As a general statement it may be said that the amount of levy on goods entering or leaving, in the first stance, any open port is five per cent. a*d valorem*. [Art.1, 1902 Import Tariff Rules]" (p. 125); "...China is obviously at a disadvantage. Her products entering the ports of the treaty states are dutiable to the extent of from twenty to forty per cent[1], whereas she can only impose a levy of, at the maximum, an effective five per cent on their goods." (p. 130)

Trade composition imported into China by the foreign powers could be divided into two parts: opium and non-opium (normal industrial composite goods, e.g. various cotton products), which were run parallel to each other until 1917, when the Indian opium imported into China was ceased on schedule according to the 1911 Sino-British antiopium accord.[2]

As for the substitution between opium and non-opium, Karl Marx pointed out "The Chinese cannot take both goods and drug; under actual circumstances, extension of the Chinese trade resolves into extension of the opium trade; the growth of the latter is incompatible with the development of legitimate commerce ..." in "Trade or Opium?", where he further cited a report from a Committee of the House of Commons "We find that the difficulties of the trade do not arise from any want of demand in China for articles, of British manufacture or from the increasing competition of other nations. ... The payment for opium ... absorbs the silver to the great inconvenience of the general traffic of the Chinese; and tea and silk must in fact pay the rest." Marx also cited the declaration of Taoutai at Shanghai: "Cease to send us so much opium, and we will be able to take your manufactures." [Torr, 1951, *New York Daily Tribune* (September 20, 1858), p. 53–54] Torr judged the situation as

[1] This situation was clear in comparison to the case of the United States by reading "Series U 207-212. Value of Merchandise Imports and Duties: 1821 to 1970" on p. 888 of *The Statistical History of the United States: from Colonial Times to the Present* (the United States Bureau of the Census, New York, 1976).

[2] The detailed process of suppressing opium in China can be read from William O. Walker III, "'A Grave Danger to the Peace of the East': Opium and Imperial Rivalry in China, 1895-1920", Mills and Barton (2007), Chapter 11, p. 185-203.

opium "put money into the wrong pockets;" hence, "the manufacturers had not profited enough from the First Opium War." (Torr, 1951, Introduction, p. XI)

Opium has a long trade history in Asia as a sensitive and important item. "Europe manufactured no products for which there was a great demand in Asia or which could compete with Asiatic products" (Bruijn, Gaastra, and Schöffer, 1987, p. 179) in the early times; hence, opium was used to finance the purchase of tea and silk from China. Its trade route into China can be found in Maps 3- 5 in App. III, as cited from Hsü (2000, p.170).

"... China's [opium] importations were effected through delivery orders, issued in disregard of the 1800 edict, to Chinese merchants who were not members of the Co-hong and received it at Macao, or from the ship's side at Whampoa. Later, owing to a contretemps between the officials concerned, this practice was discontinued, and the opium was discharged into receiving ships stationed at first outside Chinese waters and later at Lintin, which was actually inside them, the ships moving to Kapsingmoon, Kapsuimoon, and Hongkong anchorages during the south-west monsoon." (Gull, 1943, p. 15)

In the case of the famous company, Jardine, the role that opium played in history could be taken from LeFevour (1968): "Opium consumption in China became a matter of grave concern to the Ch'ing government in the late 1830's. The private 'country traders' at Canton eroded, then supplanted, the East India Company's monopoly and within six years (1834–1840) expanded trade in opium so rapidly that the consequent outflow of silver bullion alarmed the mercantilists within the Chinese government. The drain of silver to India was believed to be causing a depreciation of copper cash, the ordinary medium for payment of land taxes, against silver; commodity prices were rising in many provinces and discontent increased proportionately. The annual export of perhaps ten million dollars in silver in 1839 finally brought the imperial government to decisive action of appointing Lin Tse-hsü commissioner. War followed.

The Opium War was an attempt by both the Chinese and the British to settle the problems of diplomatic and commercial intercourse which grew out of the replacement of East India Company authority by that of the British government in China, and out of the burgeoning opium traffic. Commissioner Lin and the imperial government sought to preserve the framework of tribute by destroying a disruptive illegal trade and disciplining the 'barbarians'; British authority seized upon the Chinese action as an opportunity to settle the matter by force on Western terms.

Upon signing the Treaty of Nanking and the supplementary treaties, China entered the comity of Western nations. Among the provisions setting forth the legal basis of the new system in which Chinese diplomatic and commercial rights were delineated, there is no mention of opium. There were two reasons for this omission: Chinese refusal to countenance legalization and British refusal to discontinue production in India. ...

But the character of pre-treaty trade carried over into new era. The overwhelming dominance of tea among exports (silk via Shanghai became important after 1845), and of opium among imports, continued through the next quarter century. Opium

remained the most profitable trade commodity for decades.

The social disorder which had probably first stimulated demand increased rapidly after the war. In 1845 the annual value of opium imported was estimated to have been twenty-five to forty million dollars for some years past and in that year the trade probably put China £2,000,000 into debt. The auditor-general of the new colony of Hong Kong reported to the governor in November of that year that there were eighty clippers engaged in carrying opium to and from Hong Kong, nineteen of which were registered to Jardine, Matheson and Company. Jardine's correspondence often contained remarks such as 'this year will long be remembered in China for the depression which has existed in trade, with the single exception f opium.' While other imports stagnated from 1846, opium imports grew so rapidly that illegal trade dominated all foreign trade during the interwar decade, as it had prior to 1842, and all authorities agree that the drug was the most important item among China's imports until the final decade of the century. " (Chapter 1, *The Opium Trade*, p. 6 30)

Moreover, the history of Jardine's company represented the trade of both opium and industrial goods until 1873. LeFevour (1968) wrote:

"Jardine, Matheson and Company's continued investment in the trade was inevitable. Profit from opium had given the firm a commanding lead as agent and merchant in both export from India and import to China, and its coastal distribution system, based upon a large shipping fleet, ensured that this lead would be held whether opium imports were legalized or not. The firm favored the 'opening of China' to other goods but, from 1846, in common with the entire foreign merchant community, it attributed lack of demand for manufactured goods to Chinese taxes along the inland trade routes and to the heavy tax on tea in England which restricted demand for China's major export. Thus the firm's assessment of Chinese markets through the late forties and the fifties encouraged continued investment in Indian opium and toleration of poorly-selling British exports. ...

Anglo–Chinese trade had persisted in the triangular patter established during the 1830's, but within the 'trilateral circuit' changes followed upon the increased volume of exports and the continued expansion of the opium trade. ...

Marx, among other contemporary observers, overestimated the volume of the Western goods selling in China, thereby assuming that handicraft industries were being destroyed and that the balance of trade was increasingly against China.[3] However, the archive shows that the drain of precious metals from China had been stopped and reversed in 1851–1852, and judging by the firm's account sales it is unlikely that such small quantities of manufactured goods as were imported, even when multiplied by the number of foreign firms in China, could have had an influence wide enough to unbalance the traditional economy and cause social distress.[4] Contemporary reports from China mention that a Chinese dressed in foreign cotton

[3] "See D. Torr, ed. 'Marx on China, 1853-1860,' Articles from *The New York Daily Tribune* (London, 1951), p. 3. Marx believed that imports of British cottons had caused social distress during the 1850's: 'In China the spinners and weavers have suffered greatly under this foreign competition and the community have become unsettled in proportion.' He was probably misled by India's experience with foreign manufactured goods." (Note 20, p.158)

[4] "See Box, Accounts Sh., 1854–1855." (Note 21, p.159)

was a rare sight, even in the treaty ports.[5] Marx was correct about the trend, but the specific results of Western enterprise in China that eventually confirmed this analysis were those of the twentieth century." (Chapter 1, *The Opium Trade*, p. 6–30)

The United States, the first power to abandon the opium trade, continued it until 1895.[6]

Even until the middle of 1924, when the British government wanted to suppress opium smoking, "The British authorities in Hong Kong admitted that they could function without the revenue derived from opium sales, but they also maintained that enforcing such a ban would entail jailing 20 per cent of the population. The Straits Settlements calculated that, with great effort, they could probably do without the opium revenue in 10 years. Otherwise their position mirrored that of Hong Kong. In the Malay States the financial situation was even worse. The government depended on opium revenue to operate many of the colony's medical, educational, and social services. Local officials also feared disorder if a ban was enforced immediately. ... India wanted to preserve for colonies the right to decide about regulating opium smoking and insisted on its prerogative to continue exports to any government that legally requested them, even to territories suspected of fostering illicit diversion. ...

At the same time, other governments with significant colonial interests exhibited symptoms of this same bifurcation in policy. The French, Dutch, Portuguese, and Japanese displayed a reticence to impose significant restrictions on the Far Eastern trade in opium, while at the same time desiring to maintain at least the appearance of international cooperation." (Mills and Barton, 2007; William B. McAllister, Chapter 12 "'Wolf by the Ears': The Dilemmas of Imperial Opium Policymaking in the Twentieth Century", p. 204–219)

With regard to the opium traders before 1895, McAllister's statement, "The principal suppliers and shippers operated under the British and Portuguese flags" (p. 204), as well as Gray's declaration, "British private merchants led and the Americans followed —cautiously[7]" (p. 221), and further based on the work by H.B. Morse (i.e., Tuck, 2000, Vols. 1–5), we can find that almost all Western powers were involved in the opium trade. However, a great part of it was invisible due to smuggling, the complex composition of sailors' nationalities, and the abuse of the flags, as stated by Furber (1976, p. 229, 259): "The use of Portuguese, Danish, Polish, or other 'flags of convenience' normally sufficed." Trade under foreign flags at Indian ports could not be stopped, along with "...the so-called 'opium contractors' among the company servants who supplied the country traders. The other East India companies then received their small allotments through agreements with the English company. Opium had suffered the same fate as saltpeter.[8] The only difference was that saltpeter's

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[5] "J. Scarth, Twelve Years in China: the People, The Rebels and The Mandarins, by a British Resident, p. 117. (Edinburgh, 1860)." (Note 22, p. 159)

[6] "By 1895 the United States, alone among the powers, forbade its nationals from participating in the opium business." (Mills and Barton, 2007, p. 188)

[7] "J.M. Downs, 'American Merchants and the Chinese Opium Trade, 1800–1840' in *Business History Review*, 42, 1968, p. 429." (Note 12, p. 237)

[8] "Thereafter [1759], the Dutch, like everyone else European and non-European alike, were forced to accept the annual allotments of saltpeter which the English assigned them." (Furber, 1976, p. 257, lines 20–22).

destination was Europe and opium's was China." These nationalities included the Dutch, English, French, Danish, Scottish, Flemish, Germany, Swedish, Spanish, and other nationalities in "Europe." Furthermore, the Danish, Spanish, French, American, Imperial, Swedish, British, Dutch, and Greek appear in the "Plan of the Canton Factories" (see Maps 3–1 and 3–2 in App. III) facing 1 in Vol. 3 by Tuck (2000) (From a survey by W. Bramston, 1840, in the Collection of Sir C. P. Chater, Kt., C.M.G. of Hong Kong).

The specific forms taken by **historical constraints** imposed by the foreign powers can be traced in the following table, which shows the comparison among different regions controlled by foreign powers under the treaty-port system in modern China.

Macao had been open for trade the whole time, but had never been a formal colony until 1887; Hong Kong, whose middleman role was similar to that of Macao, was ceded for British trade convenience. Both Macao and Hong Kong were the special cases of colony -built up for trade. Macao acted as the middleman for the China–Manila–Japan triangle, and Hong Kong for the China–India–British triangle. The C&S following the treaty ports can be viewed as the direct variants of colony, as in the case of Hong Kong, and the later case of the L.T., which was closer to a colony due to the suspended sovereignty of China during the tenancy from 1898[9] onwards that Morse (1966, p. 262) regarded them as "colonies." Hong Kong was ceded from the mainland; otherwise, it would have been a member of the treaty-port system. However, Hong Kong did enter into the latter after the opening of the Chinese Customs Office in Kowloon in 1887, along with Macao's Lappa. Considering the shaping history of Hong Kong, the simultaneous interaction between Hong Kong and the treaty-port system was explicit: they grew up side by side; from the Treaty of Nanking (1842), they were born; through the Treaty of Peking (1860), the Kowloon peninsular was ceded from its previously leased state, whereas the treaty-port system formally came into being. After the Convention of the Extension of Hong Kong Territory (1898), the New Territory was leased to Great Britain. At the same time, the L.T. appeared to guard the powers' individual interest spheres in China, followed by the coming of the politically competitive period. All these were derived from trade. To this extent, it was trade that predominantly influenced the creation of modern China from 1840 to 1917.

	Region	Time	Tariff & Land Tax	Sovereignty
	Macao	1887	No land tax but opium tariff	suspended
Hong Kong	Hong Kong Island	1842	suspended	suspended
	Kowloon Peninsula	1860	opium tariff	
	New Territory	1898	suspended	
Concessions and Settlements (租界)		1860-	required	saved
Leased Territory (租借地)		1898	No land tax but partial tariff	Nominally saved
International Settlement (公共租界)		1863/1902	required	saved

[9] "In 1898—during the politically competitive period described by Mr. Hubbard—China's inland waters were thrown open to navigation." (Gull, 1943, p. 31).

The most interesting question is why the Western powers did not directly colonize China the way they did the New World. Instead, they indirectly controlled China piece by piece, such as in the C&S under the treaty-port system. Is it because of the "open door" doctrine embodied in the MFN clause? As Morse said, "There was a general community of interest among the Western powers in China and each declared that it had no desire to obtain exclusive concessions. At the same time, no power had a wish to allow exclusive concessions to others, and in each treaty was inserted a provision to the effect that this government and its subjects were to be 'allowed free and equal participation in all privileges, immunities and advantages that may have been or may be hereafter granted by China to any other nation.'" (Gull, 1943, p. 32) The "general community of interest among the Western Powers" was their trade in China as shown in the following: China was the Golden Goose that had earlier provided Westerners with a taste of the great benefits of trade in the country, and the vast potential of the Chinese market was a gold mine for huge IR production, in the Westerners' eyes. That was the keystone of free trade and the reason why the Western powers could cooperate in peacefully sharing the cake of China with each other, unlike with the other regions before 1840 when they were locked in combat with one another. With ETR, China was the paradise for business due to the great tax reduction or exemption for foreigners. They needed to live in China to make their profits, and this had been clearly shown in the purpose of the treaty ports and the behaviors of C&S that followed. Exclusively colonizing China would only result in wars among the competing Western powers. Wars would then lead to a double-loss dilemma that the Western powers definitely did not want to have at the time. Nevertheless, political competition would later cause the First World War.

B. Basic Model

The idea is to show how the trade interests of foreign powers in China gave birth to Hong Kong, Macao, and the C&S in China. The trade interests of the foreign powers represent their exports into and imports from China, especially the exports. The foreign powers had always wanted to open the Chinese markets for their industrial goods since the 1840s onwards. This could be indirectly supported by the Asian share (60%) vs. the one for Canada and the United States (-45%) in the increase of total British exports from 1814–1818 to 1842–1846, as shown in "Table 1. Contributions by the main regions to the increase of total British exports: percent of the overall net increase" on p. 183 by F. Crouzet in Emmer, Pétré-Grenouilleau, and Roitman (2006).

The focus of the model lies on the side of the foreign powers. The agents of the model each represents a foreign power—Hong Kong for Great Britain, Macao for Portugal, and the C&S for foreign powers—who derives direct utility from the net balance of trade R_t (i.e., $X_t - M_t - Z^* G^*$, exports minus imports and war expense G^* in case of war $Z^* = 1$) and puts the weight $\theta > 1$ on the total trade volume T_t (i.e., $X_t + M_t$, exports plus imports). This is the key character of the model to capture

the free trade situation at the time when foreign powers prioritized exports more than imports to open the Chinese markets. As far as the British exports into China were concerned, country trade (that is, private trade) began to dominate company trade—the major content of which was opium, along with some industrial goods—after entering the 19th century.

We define the following variables used in the model to describe the reality correspondingly:

Let Y^o be the output of opium and Y^c the composite part denoting all other goods, especially industrial goods, such as cotton and cotton products, because opium was in parallel with the composite goods.

Define p the relative price of opium over composite goods; thus, the following variables can be measured universally in terms of the value of the composite goods.

Assume the capital and labor required in the production so that A_t, as total capital stock at t time, divided into two parts of K_t, and L_t, as total labor amount, assigned into two parts shown in Equation (0) with the superscript $\{c,o\}$ denoting composite goods and opium, respectively

$$A_t = K_t^c + K_t^o, \quad L_t = L_t^c + L_t^o \tag{0}$$

Define R_t net trade balance, T_t total trade volume, X_t exports, M_t imports, G^w expense of war, correspondingly.

$$R_t = \overbrace{\left[1-\left(1-Z^r\right)\cdot\tau\right]}^{d}\left(X_t - M_t\right) - Z^w G^w \tag{1}$$

$$T_t = \overbrace{\left[1-\left(1-Z^r\right)\cdot\tau\right]}^{d}\left(X_t + M_t\right) \tag{2}$$

where the parameter $d = 1-\left(1-Z^r\right)\cdot\tau$ denotes the tariff effect, which differentiates colony/L.T. (named Colony for simple in the following content since they are close in economic sense mentioned before) from the C&S after war with the indicator

$$Z^r = \begin{cases} 1, & \text{Colony or Leased Territory;} \\ 0, & \text{Concessions and Settlements.} \end{cases}$$

In addition, τ measures the level of tariff imposed by China. A colony has no tariff revenue collected by China, whereas C&S are imposed tariff regulations by China. As far as the tariff setup is concerned, the level of exports and imports is equal according to the description of Gull (1943) and Tyau (1966).

As for the war indicator $Z_j^w = \begin{cases} 0, & \text{no war;} \\ 1, & \text{war.} \end{cases}$, which captures the importance of war in opening the Chinese markets, currently $j = T$ (*phase* 1) and the war risk following the colony and L.T. forms $j = T+1$ (*phase* 2) (which only makes sense in the comparison between C&S and colonies) as shown in history: the First Opium War caused the cession of Hong Kong, the Second Opium War led to the appearance of C&S, and the Sino-Japanese war initiated a new C&S boom, and the occurrence of L.T., in that sequence.

Outputs have individual productions with the Leontief form defined in Equations (3) and (4) combined with the output coefficients α, β, γ with $\alpha > \gamma$.

$$K_t^o = \alpha\left(Z^o Y_t^o\right), \quad K_t^c = \gamma Y_t^c \tag{3}$$

$$L_t^o = \beta\left(Z^o Y_t^o\right), \quad L_t^c = \beta Y_t^c \tag{4}$$

where the opium indicator $Z^o = \begin{cases} 0, & \text{no opium;} \\ 1, & \text{opium.} \end{cases}$

Let production cost functions take standard quadratic form

$\frac{q^i}{2}\left(Y_t^i\right)^2$, where q^i is the unit cost with $i = \{c, o\}$.

The total capital stock evolves in this way:

$$A_{t+1} = R_t + (1+r_t)A_t - W_t L_t - \frac{q^c}{2}\left(Y_t^c\right)^2 - \frac{q^o}{2}\left(Z^o Y_t^o\right)^2 \tag{5}$$

where the total capital stock of the next time period is determined by the sum of the current trade balance and the current capital stock, combined with its return, minus the production cost in both opium and non-opium productions. Here r_t (the nominal interest rate of capital) and W_t (the wage of labor) are externally given.

The equation for the exports of foreign powers is

$$X_t = \overbrace{\left[1-\left(1-Z_j^w\right)^{\theta_j}\left(Z_j^w Z^r\right)^{1-\theta_j}\bar{\sigma}\right]}^{a} Y_t^c + p_t\left(Z^o Y_t^o\right)\overbrace{\left[1-\left(1-Z_j^w\right)^{\theta_j}\left(Z_j^w Z^r\right)^{1-\theta_j}\bar{\delta}\right]}^{b} \tag{6}$$

$$where \quad \theta_j = \begin{cases} 1, & \text{j} = T \text{ (phase 1);} \\ 0, & \text{j} = T+1 \text{ (phase 2).} \end{cases}$$

where p_t is the relative price of opium over composite goods, parameters

a and b characterize the change before and after the war to open the Chinese markets, along with the form taken to protect the interests of the foreign powers: $\bar{\sigma} \in (0,1)$ denotes the market access barrier imposed by nature (e.g., consumers' habits and purchasing power) to normal composite goods before the war to open the markets, including the opium wars; $\bar{\delta} \in (0,1)$ captures the market access barrier of opium imposed by the Chinese government in the absence of war; and both have the economic implication "the higher value, the more unsmooth trade in China".

Furthermore,

Assumption 1: $\bar{\sigma} > \bar{\delta}$ (Market Access Barrier Difference).

Normal composite goods suffered from greater trade block from natural resistance than opium did from official forbiddance before the Chinese market was opened. Notably, trade was smoother after, than before, the war (captured in a and b term). Colonies or L.T. have a great chance of causing war again after opening the market due to their exclusiveness, which could regress the trade progress (this sequence is implied in timing/phase indicator θ_t term, which marks the breakthrough in time before and after war). (Remark: Parameters a and b have the original value $1-\bar{\sigma}$ and $1-\bar{\delta}$ ad hoc as the benchmark for capturing the role of war in opening the market in the later application analysis, which is given outside the model to work as the benchmark for choice.)

The Bellman equation associated with the value function of the representative government is

$$V(A_t) = \max_{\{M_t, Y_t\}} \left\{ U(R_t) + \theta T_t - \bar{\zeta} Z^n p_t Y_t^n + \frac{1}{1+\rho} V(A_{t+1}) \right\} \tag{7}$$

where $U(\cdot)$ is the standard utility function with $U' > 0$ and $U'' < 0$. Let $\theta > 1$ capture the importance of trade in the powers' value functions, $\bar{\zeta}$ means the extra moral cost of opium trade (which only worked after 1917 when opium trade was officially suspended internationally) and $\rho > \max\{r_t\}$ is the aggressive time preference rate.

Finally, the key model has the following optimization problems generally faced up by the Western powers in China:

$$V(A_t) = \max_{\{M_t, Y_t^c\}} \left\{ U(R_t) + \theta T_t - \bar{\zeta} Z^o p_t Y_t^o + \frac{1}{1+\rho} V(A_{t+1}) \right\} \tag{7}$$

s.t.

$$A_t = K_t^c + K_t^o, \quad L_t = L_t^c + L_t^o \tag{0}$$

$$R_t = \overbrace{\left[1-(1-Z^t)\cdot\tau\right]^{1-\theta_t}}^{d} (X_t - M_t) - Z_t^w G^w \tag{1}$$

$$T_t = \overbrace{\left[1-(1-Z^t)\cdot\tau\right]^{1-\theta_t}}^{d} (X_t + M_t) \tag{2}$$

$$K_t^o = \alpha\left(Z^o Y_t^o\right), \quad K_t^c = \gamma Y_t^c \tag{3}$$

$$L_t^o = \beta\left(Z^o Y_t^o\right), \quad L_t^c = \beta Y_t^c \tag{4}$$

$$A_{t+1} = R_t + (1+r_t) A_t - W_t L_t - \frac{q^c}{2}\left(Y_t^c\right)^2 - \frac{q^o}{2}\left(Z^o Y_t^o\right)^2 \tag{5}$$

$$X_t = \overbrace{\left[1-\left(1-Z_t^w\right)^{\theta_t}\left(Z_j^w Z^t\right)^{1-\theta_t}\bar{\sigma}\right]}^{a} Y_t^c + p_t\left(Z^o Y_t^o\right)\overbrace{\left[1-\left(1-Z_t^w\right)^{\theta_t}\left(Z_j^w Z^t\right)^{1-\theta_t}\bar{\delta}\right]}^{b} \tag{6}$$

and the non-negativity constraint: $Y_t^c \geq 0$.

with the parameters defined as

$$Z_j^w = \begin{cases} 0, & \text{no war;} \\ 1, & \text{war.} \end{cases}; \quad Z^t = \begin{cases} 1, & \text{Colony or Leased Territory;} \\ 0, & \text{Concessions and Settlements.} \end{cases};$$

$$Z^o = \begin{cases} 0, & \text{no opium;} \\ 1, & \text{opium.} \end{cases}; \quad \theta_t = \begin{cases} 1, & j = T \text{ (phase 1);} \\ 0, & j = T+1 \text{ (phase 2).} \end{cases}$$

$$a \equiv 1-\left(1-Z_j^w\right)^{\theta_t}\left(Z_j^w Z^t\right)^{1-\theta_t}\bar{\sigma}, \quad b \equiv 1-\left(1-Z_j^w\right)^{\theta_t}\left(Z_j^w Z^t\right)^{1-\theta_t}\bar{\delta}, \quad d \equiv \left[1-(1-Z^t)\cdot\tau\right]^{1-\theta_t}.$$

We focus on foreign imports from China M_t and composite goods exports into China after IR Y_t^c to act as control variables as the foreign powers did. The parameters a, b, d identify the different institutions between Colony and C&S after war with the timing indicator—phase 1 means before war and phase 2 after with specific institutions induced.

(Remark: Equation (7) is the Bellman equation characterizing the decision process with two control variables—imports from China and composite goods for exports into China; Equation (5) is the major constraint that describes the evolution of the state variable, capital, meaning that the capital stock of the next time period is determined by the sum of the current trade balance and the current capital stock, combined with its return, minus production cost both in opium and non-opium productions; Equation (6) is the composition of exports where composite goods and

opium first benefit from the war to open the Chinese market, but suffer from frequent war risks due to colony or L.T. control. The absence of war to create colonies or C&S would make them both uneven.)

With regard to the degeneration from the 2^3 cases to the specific ones concerning the interaction among the indicators of war, opium and institution, we focus on the following: generally, territory appeal claimed by any foreign power would have a great chance to cause a war between China and the powers (e.g., frontier wars happened between China and Russia due to the Mohammedan rebellion, when the dominion of Ili in Xinjiang from 1876 to 1877 was "temporarily occupied", between China and Great Britain due to Tibet and Yunnan conflicts in 1874, and between France and China due to Vietnamese and Guangxi clashes from 1883 to 1885, and so on) or among foreign powers (e.g., the Russo–Japanese war from 1904 to 1905). There was also a civil war (e.g., Taiping Rebellion from 1851 to 1864) in China at the time. The reasons for wars are complex, and we do intend to explain that not all the wars in history took place in China. However, the war or war risk concerned with trade is implied in the colony or L.T. cases. What we want to emphasize or capture is the following:

$$\underbrace{\text{War}}_{j=1\ (phase\ 1)} \overset{open\ China\ market}{\Rightarrow} \overbrace{\begin{cases} \text{Colony or Leased Territory} & \rightarrow & \text{War Risk} \\ \text{Concessionsa nd Settlements} & \rightarrow & \text{Peace} \end{cases}}^{j=1+3\ (phase\ 2)}$$

combined with trade reason, as implied in the term a and b. And war after opening the Chinese markets has two channels to affect trade in our model:

$$\overbrace{\text{Colony or L.T.}}^{Z^L=1} \underset{potentially}{\overset{Risk}{\Rightarrow}} \overbrace{\text{War}}^{Z^W_{T+1}=1} \Rightarrow \begin{cases} (a,b)\downarrow \\ d\uparrow \end{cases} \text{ compared with C\&S case.}$$

Here, opium did not cause war as we focus on the period when opium trade had been legalized after 1860. Thus, $\bar{\varsigma}=0$ before 1917, and 1895 especially for the United States.

The basic situations are abbreviated into the above table by resorting to ETR—no tax on foreigners and their belongings[10]: before the setup of colony and C&S, $d=1, a=1-\bar{\sigma}, b=1-\bar{\delta}$, which implies the absence of war, non-existence of the colony, L.T., and C&S, leaving only the trade barriers; after the conquest by war, colony and L.T. with $d=1, a=1, b=1$ and C&S with $d=1-\tau, a=1, b=1$ (implying that the market was opened by war with the above ad hoc setup outside the model) where tariff is one difference between them. For colony and L.T. cases, another difference is the extra war risk.

[10] "By it the foreigner resident in China is subject to no one provision of the law of China, either as to his person or to his property, but at all the times and in all places is entitled to the protection of his own national law administrated by his own national officials." (details on p. 175–202, Morse, 1966) And there also really happened some kinds of expenditure due to measuring and transporting goods in exports and imports in China all the time, but they were actually not tariff or tax at all so that tariff is treated as zero before the China market is opened in the model since it did not exist at that time.

Parameters Setup	*Before the war*	*After the war*		**No war($Z_j^w=0$)**
	Benchmark	Hong Kong 1840	C&S 1860&1898	Macao 1887
d	1	1	$1-\tau$	/
a	$1-\bar{\sigma}$	1	1	1
b	$1-\bar{\delta}$	1	1	1
Suppliers	1	1	n	1
Equilibrium: Demand=Supply	$Y^o=D^o$ $Y^c=D^c$	$Y^o=D^o$ $Y^c=D^c$	$nY^o=D^o$ $nY^c=D^c$	$Y^o=D^o$ $Y^c=D^c$
War Risk	/	yes	no	no
Tariff Setup	Equal tariff $X_t=aY_t^c+bp_t\left(Z^cY_t^c\right)$ $T_t=d(X_t+M_t)$ $R_t=d(X_t-M_t)-Z_j^wG^w$	Equal tariff …	Equal tariff …	Tax opium $X_t=aY_t^c+d^obp_t\left(Z^cY_t^c\right)$ $T_t=X_t+M_t$ $R_t=(X_t-M_t)-Z_t^wG^w$

Parameters	***Phase 1***	***Phase 2***
$a=1-\left(1-Z_j^w\right)^{\theta_j}\left(Z_j^wZ^t\right)^{1-\theta_j}\bar{\sigma}$	$1-\left(1-Z_T^w\right)\bar{\sigma}$	$1-Z_{T+1}^wZ^t\bar{\sigma}$
$b=1-\left(1-Z_j^w\right)^{\theta_j}\left(Z_j^wZ^t\right)^{1-\theta_j}\bar{\delta}$	$1-\left(1-Z_T^w\right)\bar{\delta}$	$1-Z_{T+1}^wZ^t\bar{\delta}$
$d=\left[1-\left(1-Z^t\right)\cdot\tau\right]^{1-\theta_j}$	1	$1-\left(1-Z^t\right)\cdot\tau$
Phase 1: War Choice (Z_T^w)	***No War*** ($Z_t^w=0$)	***War*** ($Z_T^w=1$)
$a=1-\left(1-Z_t^w\right)\bar{\sigma}$	$1-\bar{\sigma}$	1
$b=1-\left(1-Z_t^w\right)\bar{\delta}$	$1-\bar{\delta}$	1
$d=1$	1	1
Phase 2: Form Choice (Z^t)	***Colony/L.T.*** ($Z^t=1$) with War Risk (Z_{T+1}^w)	***C&S*** ($Z^t=0$)
$a=1-Z_{T+1}^wZ^t\bar{\sigma}$	$1-Z_{T+1}^w\bar{\sigma}$	1
$b=1-Z_{T+1}^wZ^t\bar{\delta}$	$1-Z_{T+1}^w\bar{\delta}$	1
$d=1-\left(1-Z^t\right)\cdot\tau$	1	$1-\tau$

Thus, the potential $a=1-Z_{T+1}^w\cdot\bar{\sigma}, b=1-Z_{T+1}^w\cdot\bar{\delta}$ for colony and L.T. with war risk,

compared to the case where C&S sustain peace with the smooth trade in opium and composite goods, according to the history. And supply and demand of opium and composite goods shown above would be the trick used in solving the model (details in Appendix II: Technical Part 2) with $\partial D^o(p,I)/\partial p < 0$ and $\partial D^c(p,I)/\partial p > 0$. Macao has the different setup of tariff imposed by China compared with Hong Kong and C&S while C&S has many competing powers unlike the case of Hong Kong and Macao with only one. The parameters then evolve into the above way.

Using the above framework, the current paper will focus on the application in historical reality with the following content: the colonialism of Hong Kong corresponds to the case of colony or L.T. (including Hong Kong Island, Kowloon peninsular and, later, L.T.) and the C&S in the mainland (e.g., Shanghai after 1860) for the rest part. Here the major difference between the colony or L.T. and C&S is embodied in tariff and war risk: colony or L.T. has no tariff imposed, with extra war risk, which would potentially interrupt the trade of opium and composite goods. On the other hand, C&S are imposed a low level of tariff with continuous peace, which smoothens trade.

(Note: For the convenience of analysis in applying the general framework in the real world later, the foreign spheres in mainland China are classified into two kinds as the focus from the trade perspective: colony and C&S. L.T. was included in colony partly in the experience of Hong Kong with indirect treatment and international C&S (in Shanghai 1863 and Amoy 1902) was implied in C&S as its premature state. Taiwan, the Pescadores group, the railway concessions, and other foreign spheres are beyond the explanatory power of the framework due to less trade content.)

C. Solution

After the transformation process by substituting (1)–(4) and (6) into (5) and (7), we have Equation (8), which is the value function (7) in the form of the control variables, and Equation (9), which is the constraint (5) plugged in the control variables. We can then get the final form of the original problem denoted by the control variables—Equation (10) can be solved (details in the Appendix: Technical Part 1. Transfer process). Following the procedure used in Appendix: Technical Part 2. Solving Process, we can get

$$p = \frac{a\left[\alpha(\rho - r) + \beta W + q^o Z^o Y^o\right](\theta - U')}{b\left[\gamma(\rho - r) + \beta W + q^c Y^c\right](\theta - U') - \bar{\varsigma} a} \equiv \Pi(p) \qquad (*)$$

In the case of $\bar{\varsigma} = 0$, which means that the opium trade was smooth and justified in China at the time, that is, before 1917 when opium surely existed with $Z^o = 1$, which becomes the situation and time highlighted in the paper, we can easily get

$$^0\Pi(p) \equiv \frac{a\left[\alpha(\rho - r) + \beta W + q^o Z^o D^o\right]}{b\left[\gamma(\rho - r) + \beta W + q^c D^c\right]} = p^* > 0 \qquad (A0)$$

And Equation (A0) has the equilibrium demand of opium and composite goods defined in (14) and (15) of Appendix II, which implies that the optimal opium price relative to composite goods has two elements: the relative market access extent between composite goods and opium, and the relative marginal cost of producing opium and composite goods. The former means the smoother access to China markets for composite goods (the higher value of a), the higher opium price induced since the more exports of composite goods into China compared with opium; the same logic for opium resorting to the higher value of b has the adverse effect on opium price. The latter implies the relative opium price over composite goods is fundamentally determined by their ratio of marginal cost since we can define cost of opium and composite goods respectively as

$$C_o = \left[\alpha(\rho - r) + \beta W\right] \cdot D^o + \frac{1}{2} q^o Z^o \left(D^o\right)^2$$

$$C_c = \left[\gamma(\rho - r) + \beta W\right] \cdot D^c + \frac{1}{2} q^c \left(D^c\right)^2$$

so as to

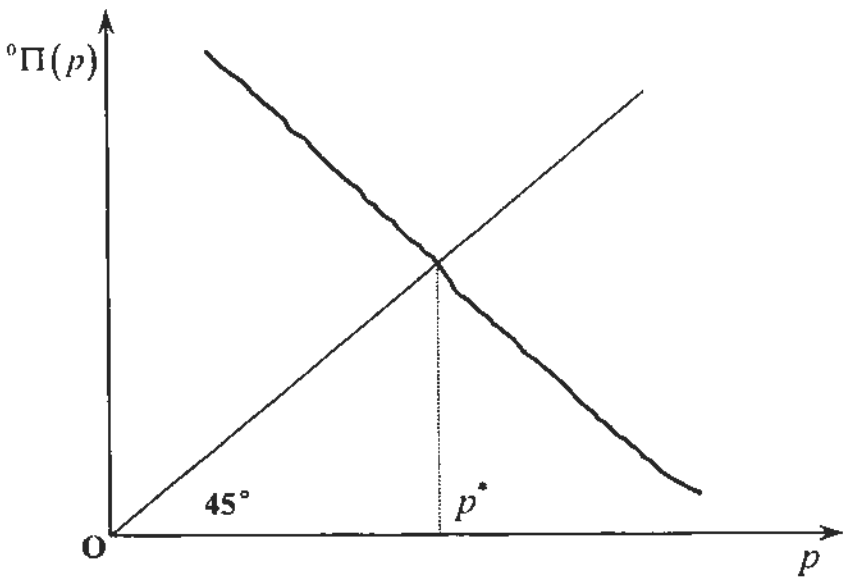
$$MC_o = \alpha(\rho - r) + \beta W + q^o Z^o D^o$$

$$MC_c = \gamma(\rho - r) + \beta W + q^c D^c$$

which is consistent with the standard explanation and intuition in price composition. And the cases for Hong Kong, C&S, and Macao have the similar price decomposition in economics, that's the Equation (A1), (A2), and (A3) in later applications. (Note: the opium indicator should be read as $Z^o = 1$ wherever it appears in this paper hereafter.)

We now have the following graph to show the uniqueness and existence of the optimal solution resorting to the fixed-point theory.

Fig. 3. The Uniqueness and Existence of Opium Price



(Details in the Appendix II: Technical Part, 3.1 Proof of Theorem, and the case of Macao has the similar graph proved in 3.11Proof of Proposition 10)

Theorem: *Before 1917 when there was no moral cost for opium trade among the Western powers, there existed a unique optimal opium price relative to composite goods.*

Once the model is solved, there comes the static analysis of the optimal price with respect to trade barrier change before and after the building of the treaty-port system.

$$\frac{dp^*}{da} = \frac{p^*}{a} > 0,$$
$$\frac{dp^*}{db} = -\frac{p^*}{b} < 0.$$

Based on the above parameters' evolution table with Assumption 1, we can find that, after war, the opium price tends to increase[11]. The war risk, combined with colony/L.T., is inclined to pull the price down. (Details in the proof of Propositions 1 and 6 in Appendix II)

Lemma 1: *Once the Chinese market was opened, the opium price increased.*

From (6), we get the exports as

$$X^* = aD^c + bZ^o p^* D^o$$

and using the definition of (14) and (15) in Appendix II, here attains

$$\frac{dX^*}{dp^*} = a\frac{dD^c}{dp^*} + bZ^o\left(D^o + p^*\frac{dD^o}{dp^*}\right) > 0 \text{ if } \left|\varepsilon_p^o\right| < 1 \text{ (Opium has price inelasticity)}$$

with the elasticity definition $\varepsilon_p^o \equiv \frac{p^*}{D^o}\frac{dD^o}{dp^*}$.

Thus, based on Lemma 1, there is

Lemma 2: *Once the Chinese market was opened, the exports into China increased.*

From (18), we get the imports as

$$M^* = d^{-1}\left[\left(\eta^* + r\right)A^* - \left(\mu - \psi^*\right)D^c - \frac{q^o}{2}\left(Z^o D^o\right)^2 - \frac{q^c}{2}\left(D^c\right)^2\right]$$

with the uncertain sign of the derivative with respect to opium price (see proof of Proposition 3 in Appendix II).

Lemmas 1 and 2 would govern Propositions 1 and 4 for Hong Kong and the C&S, respectively.

From (7), we get the optimal value function as

$$V^* \equiv V^*\Big|_{\{a,b,J\}} = \left(1 + \frac{1}{\rho}\right)\left[U\left(R^*\right) + \theta T^*\right]$$

---

[11] $\Delta a = \bar{\sigma} > 0, \Delta b = \bar{\delta} > 0 \quad \Rightarrow \quad \Delta p = \frac{dp^*}{da}\Delta a + \frac{dp^*}{db}\Delta b > 0 \quad \Rightarrow \quad p^* \uparrow$

then $V_X^* > 0$, $V_M^* > 0$ (easily derived here) means that the exports and imports were both preferred by the Western powers in China, which is consistent with the idea of free trade and the real history concerned.

Assumption 2: $\dfrac{dX^*}{dp^*} > \left|\dfrac{dM^*}{dp^*}\right|$.

Export is more sensitive to price than import (or export has the lager marginal price effect than import) in absolute values, for the reason that British exports into China (e.g., woollen and opium) had local substitutes in the Chinese market, whereas British imports from China were a necessity that Britain lacked [e.g., tea, because Indian tea did not become common until the 1880s (Torr, 1951, p. XI)]

Then

$$\frac{dV^*}{dp^*} = d\left(1+\frac{1}{\rho}\right)\left[\frac{dX^*}{dp^*}(U'+\theta)+\frac{dM^*}{dp^*}(\theta-U')\right] > 0$$

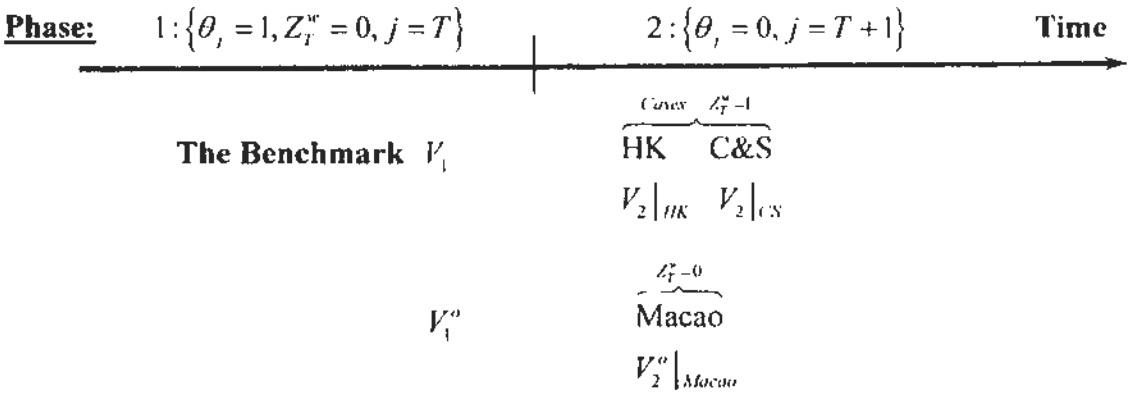
$(\because \theta - U' > 0$ from equation (11))

leads to

Lemma 3: *If the foreign powers believed that their exports to China would have a larger boom in absolute sale than the imports did, the Chinese market would be opened in force.*

Lemma 3 would govern Propositions 2 and 5 for Hong Kong and the C&S, respectively.

The basic idea used in the analysis is the static analysis: first, the mathematical model is solved generally, which leads to V_1; second, changing the parameters, which captures the specific institution setup to get V_2, to verify the institution choices in different times by comparing $V_1 < V_2$ generally.



The Time Line

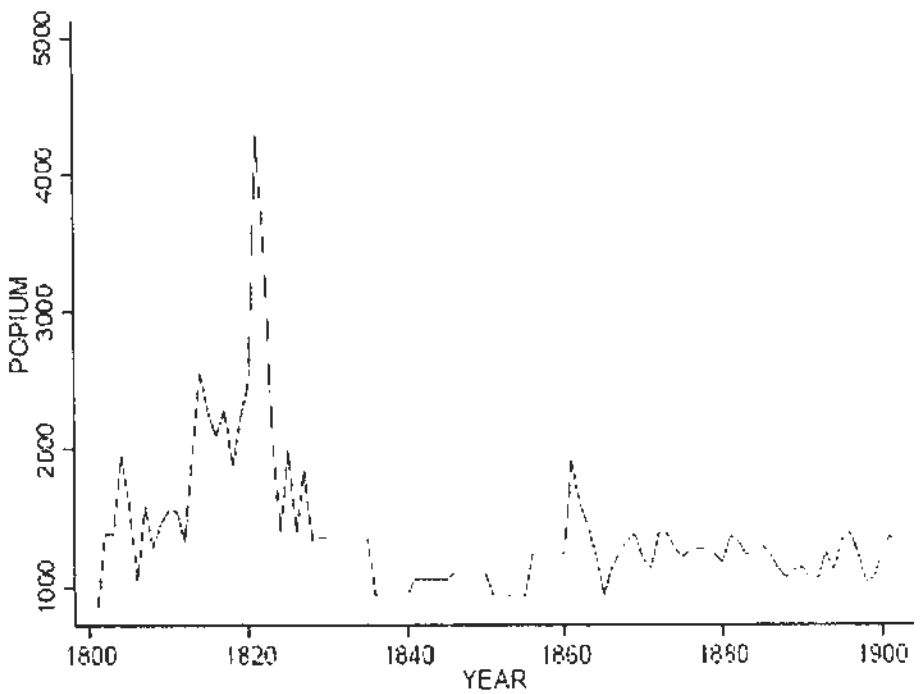
The state before the colonization of Hong Kong is defined as state 1, and the one after colonization is state 2, whose value functions correspond to $V_1^* = V^*\big|_{(1-\bar{\sigma},1-\bar{\delta},1)}$, ${}^{HK}V_2^* = V^*\big|_{(1,1,1)}$, ${}^{CS}V_2^* = V^*\big|_{(1,1,1-\tau)}$, respectively. Equilibrium opium

price, exports, and imports with similar notations denote the change due to the static analysis that captures the institutional evolution, along with the treaty-port system, in the applications of the framework to the cases of Hong Kong, Shanghai and Macao.

D. Prediction and Evidence

From Lemmas 1 and 2, two major predictions of the basic model are that opium price would increase and that exports to China would increase at the same time the Chinese market is opened. Following are the pieces of historical evidence that confirm the predictions:

For opium price, "Figure 2: Price of Opium Exports in India (rupees per chest)" by Feige and Miron (2008), attached here, shows a clear picture of the absolute price jump in 1840 and 1860. Before that is used to argue for the model, here is another fact that completes the whole story, that is, more composite goods export to China (foreign powers had a great ambition and effort to do it as the woollen and cotton goods change shown in the former Graph 13 and 14 based on Marx's work in 1849–1857; later, the decreasing opium share in China's imports in 1867–1917 also confirms the case) after the market is opened, which would pull down the absolute price of composite goods. Hence, the price of opium price over composite goods would relatively increase.



For foreign exports to China, the former Graph "British Exports to China, 1834-1917" in terms of thousands of HKT really shows the increasing trade volume, and Graph "Hong Kong's Trade Position in China's Foreign Trade Compared with Powers, 1864-1917" with the increasing shares definitely supports the increased exports after 1860 again (remember the absolute volume of China's foreign imports, that is the foreign exports, has always grown along the time).

So, the predictions derived from the basic model are consistent with the historical facts.

V. Applications and Comparisons

This part attempts to clarify why foreign powers chose the form of colony (e.g., Hong Kong and Macao), L.T. or C&S (e.g., Shanghai) at a specific time to protect their interests in China resorting to the basic model constructed in Chapter IV. In fact, C&S and L.T. dominated in mainland China in sequence, not the colony, as it was in Hong Kong Island stated in Chapter III, to sustain the foreign powers' interests after 1842. By comparing the difference before and after the creation of each, we intend to identify and highlight the mechanism that contributed greatly and how the foreign powers reacted under the two-regime framework--colony vs. C&S.

Along the time sequence, Hong Kong, C&S, and Macao would be presented in order.

A. Hong Kong for Trade

Inherited from the setup of the above general framework modeling the treaty-port system in Chapter IV, the colonization of Hong Kong involved two agents: Great Britain vs. China with the following feature. The parameters' change before and after the colonization of Hong Kong in 1840 takes the following schedule:

$$\text{HK's colonization}^{1840}\begin{cases}\text{before, } d=1,\ a=1-\bar{\sigma},\ b=1-\bar{\delta}\ \text{(sticky trade);}\\ \text{after,}\quad d=1,\ a=1,\ b=1\ \text{(free trade without war risk).}\end{cases}$$

The same setup and solving procedure, as the general model in Chapter IV, lead to the following analysis.

For the case $\bar{\varsigma}=0$, we have

$$\Pi_{HK}(p)\equiv\frac{a}{b}\cdot\frac{\left[\alpha(\rho-r)+\beta W+Z^{a}q^{a\ HK}D^{a}\right]}{\left[\gamma(\rho-r)+\beta W+q^{c\ HK}D^{c}\right]}=p^{*}_{HK}\qquad(A1)$$

which corresponds to Equation (A0) in basic model implying the optimal opium price relative to composite goods in colony is determined by their market access extent and marginal cost respectively. (The subscript "HK" denotes Hong Kong colony or L.T., especially Hong Kong Island and the Kowloon peninsular, later "CS" for C&S in China's application.) The general model is then solved. (Remark: Parameter d, which differentiates C&S from colony, has no effect on equilibrium price; as Equation (*) shows, the notation is kept the same. The subscript "HK" ("CS" later) is omitted in the detailed analysis for convenient comparison because they would be equal, given the same demand level.)

For exports

$$X^{*}_{HK}=aD^{c}+bZ^{a}p^{*}D^{a}$$

$$\text{with}\ \frac{dX^{*}_{HK}}{dp^{*}}=a\frac{dD^{c}}{dp^{*}}+bZ^{a}\left(D^{a}+p^{*}\frac{dD^{a}}{dp^{*}}\right)>0\ \text{if}\ \left|\varepsilon^{a}_{p}\right|<1.$$

Equilibrium price tends to increase after the colonization because a and b increase when Hong Kong was colonized. However, normal composite goods suffer from greater trade block than opium does before the open market. Opium lacks price elasticity; hence, the increased opium price would enlarge exports. (Details in the proof of Proposition 1 in the Appendix)

The above results directly confirm that the motive for colonizing Hong Kong was to extend their products exports into the Chinese market. Thus, we put forward:

Proposition 1: *The equilibrium price, as well as exports, would increase if Hong Kong was colonized given that opium lacked price elasticity due to its addictive nature. That is,* $\frac{dX^*_{HK}}{dp^*} > 0$ due to $\left|\varepsilon^c_p\right| < 1$.

Considering that Great Britain imported tea and exported industrial goods at the time, exports had a greater slope, with respect to price, than imports did absolutely. Hence, we obtain Proposition 2 based on Proposition 1. That is, the colonization of Hong Kong took place because the value function of Great Britain would increase due to the rise in price when the British government believed exports had a greater slope, with respect to price, than imports did absolutely. Notably, Canton was the major port at the time, and Shanghai would displace its position after the Taiping Rebellion. (Details in the proof of Proposition 2 in the Appendix)

Proposition 2: *Hong Kong was colonized by Great Britain when the British government expected that British exports in Canton would have a larger boom in the absolute scale than imports did.*

Propositions 1 and 2 are consistent with Lemmas 1–3 in the basic model.

Aside from the historical reason for the free port policy in Hong Kong, the model also gave the real economic incentive behind it from the trade perspective, which concerns the tariff issue.

According to LeFevour's (1968) report on the period of the cession of Hong Kong, the silver outflow from Canton occurred with China's trade imbalance, which lasted from 1831 to around 1851. The British opium policy was efficient then [$bp^*Z^cD^c > M^*$ (i.e., export less British normal goods) and only the free port policy could keep imports from declining], compared to the previous no-tariff impost. However, a switch in the situation between China and Great Britain occurred, e.g., after 1852, when the British opium policy became inefficient, such as $bp^*Z^cD^c < M^*$ in 1860 (i.e., there was excessive import of Chinese goods). This is directly evidenced by the following:

"Shipments of silver and gold bullion flowed into the hands of Chinese exporters of tea and silk from 1848–1850 until the early sixties because the demand for opium in China did not keep pace with the European demand for tea and silk. In 1846 Alexander Matheson had written that 'there is a scarcity of money in China as in England and India, $21,000,000 in Sycee have been taken from China to England in

the last three years."[1] However, by 1849, bullion exports to England stopped as silk exports from Shanghai grew in volume beyond all expectations and tea shipments were also increasing. In the next year small shipments of silver bullion began to arrive from England; these became larger and more regular during 1852–1853. In 1854 the firm warned its correspondents of continued balance in China's favor:

> While business in imports continues so restricted as late...the Balance of trade will be against us to the extent of three to four million pounds of sterling. This deficit requires to be provided for by an importation of Bullion which we may have difficulty in getting if war (with Russia) breaks out in Europe. Try to lay down funds in Spanish dollars.[2]

Further correspondence through the decade reported the arrival of several steamers with cargoes of bullion from Europe, one carrying £700,000 on a single voyage[3]" (LeFevour, 1968, p. 10–11)

Karl Marx concluded in 1858 ("Trade and the Treaty," *New York Daily Tribune*, October 5, 1858): "Yet in 1846 the exports did not only sink below the level of 1836, but the disasters overtaking the China house at London during the crisis of 1847 proved the computed value of the exports from 1843 to 1846, such as it appears in the official return tables, to have by no means corresponded to the value actually realized." "...following the overtrade of 1843–45. It is a phenomenon by no means peculiar to the Chinese trade, that a sudden expansion of commerce should be followed by its violent contractions, or that a new market, at its opening, should be choked by British oversupplies; the articles thrown upon it being nor very nicely calculated, in regard either to the actual wants or the paying powers of the consumers." "The phenomenon peculiar to the Chinese market is this: that since its opening by the treaty of 1842, the export to Great Britain of tea and silk, of Chinese produce, has continually been expanding, while the import trade into China of British manufactures has, on the whole, remained stationary." (Torr, 1951, p. 61–62)

A low tariff was propitious to extend imports. The conclusion comes into being as (Details in the proof of Proposition 3 in the Appendix)

Proposition 3: *British imports from Canton would increase when China's tariff level was laid down, such as in the case of opium inefficiency with the British trade imbalance and China's silver inflow; free port policy laid down in Hong Kong catered to the necessity of sustaining British imports from Canton. Otherwise, it would decrease, as in the case of opium efficiency with the British trade balance and China's silver outflow. This is because*

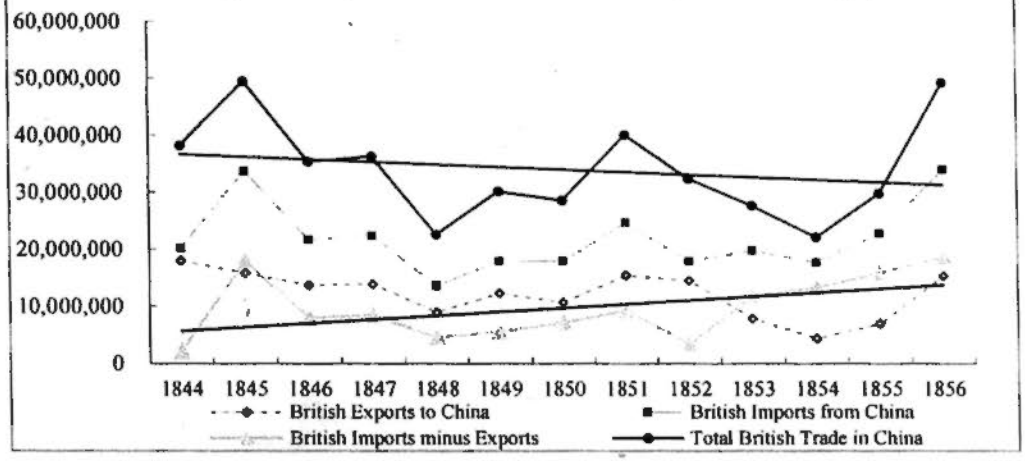
$$M_d^* \begin{cases} < 0, \ bp^* Z^a D^a < M^* \ (\text{Ineffective opium policy, e.g. } \textit{tariff} \text{ in C\&S}); \\ > 0, \ bp^* Z^a D^a > M^* \ (\text{Effective opium policy, e.g. free ports of HK}). \end{cases}$$

The work of Marx directly confirms the meaning behind Proposition 3. Karl Marx described the trade situation of the British exports and imports with China from 1844 to 1856 to show the following picture: British total trade had a slightly

[1] "Private Letter Book: A. M. to James Abel–Smith, Mar. 29, 1846." (Note 16, p. 158)
[2] "India Letter Book: to Charles Skinner, May 5, 1854." (Note 17, p. 158)
[3] "Europe Letter Book: to M & Co., Sept. 23, 1857." (Note 18, p. 158)

downward trend in absolute value, along with the increasing trend of the expanding gap between British imports and exports. This is the British imbalance in which imports were greater than exports and, corresponding with the condition in Proposition 3, the reason for the Second Opium War and the motive for choosing C&S to improve the fluctuation in the trade situation.

Graph 30. British Trade with China, 1844-1856 ($)



Data source: Author's computation based on Karl Marx's (cited the Parliamentary Blue Book on the trade of various places for 1856–1857), "The British Trade and Chinese Treaty," *New York Daily Tribune*, (October 15, 1858) on p. 70 by Torr (1951)

The aboye experience of Hong Kong established the background for the coming C&S.

B. C&S for Trade

As shown in the following historical evidence and model analysis, the most important aspects relate to trade given that C&S was located in treaty ports for trade.

1. Outline

(a) Geographical Feature

From the geographical characters of C&S (Maps 3.6a–3.6e in App. III), the trading-post tradition still worked in mainland China after Macao and Hong Kong.

"The major treaty ports had a striking physical and institutional resemblance to one another. Each had a crowded, noisy waterfront (bund) and godowns (warehouses) swarming with coolies (a foreign word for Chinese laborers), who substitute for machinery. All this activity was under the supervision of Chinese compradors (foreign-hired business managers), who managed affairs beneath the overlordship of the foreign taipans (firm managers). Each treaty port centered in a foreign section newly built on the edge of a teeming Chinese city and dominated by the tall white flagstaff of Her Majesty's consulate. Its foreign institutions included the club, the race course, and the church. It was ruled by a proper British consul and his colleagues of other nations and protected by squat gunboats moored off the bund. At Guangzhou, Xiamen, and Fuzhou the foreign community got further protection by being established on an island. At Ningbo, Shanghai, and other places the foreign area was

separated from the Chinese city by a river, canal, creek, or other waterway.

These coastal enclaves began as offshoots of Western culture—like cities in European colonies, outposts of empire." (Fairbank and Goldman, 2006, p. 201–203)

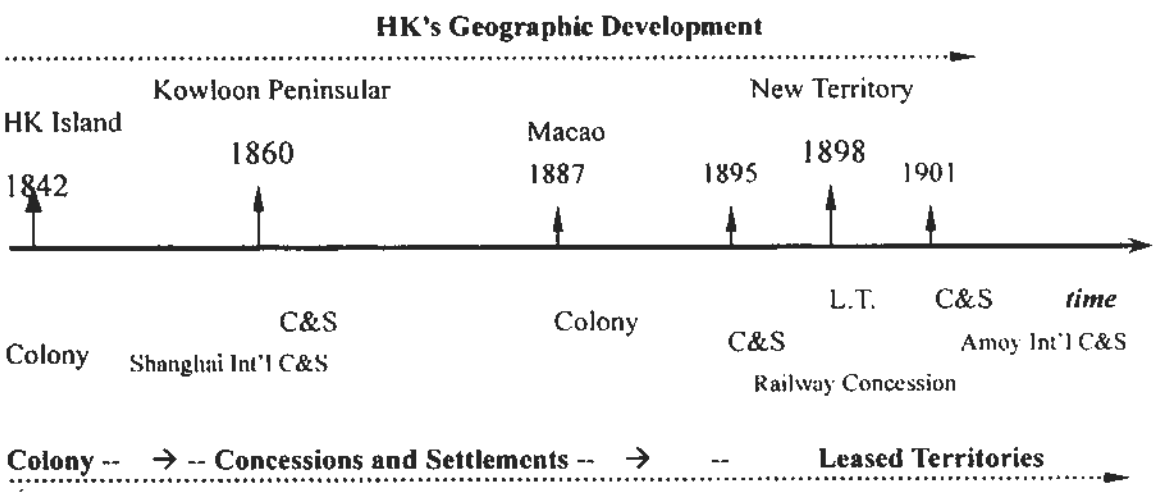
Businessmen and employees of foreign firms trading with China settled in these coastal ports and formed the foreign communities [which can be traced back to the Canton factories shown on p. 144 by Hsü (2000) and Facing 1 of Vol. 3 by Tuck (2000) before 1840], that is, the treaty settlement in the name of "concessions and settlements" (C&S) in mainland China. "The government's aim in the treaty settlement was a general one, to get rid of the institutional structures of the tribute system." "The treaty settlement was thus a *modus vivendi* worked out between representatives of two aristocratic, British and Manchu, empires." (Fairbank, 1978, p. 213, 217)

"Protected by extraterritoriality in both his person and his property, the foreigner in China was thus in a position after 1860 to sustain and augment his role as part of the empire's multi-racial ruling class. The result was less an exploitation of China in a colonial style – which would have stressed the extracting of raw materials and profits and providing of jobs for a Western officialdom – than it was a privileged foreign participation in the attempted Westernization of Chinese life." (Fairbank, 1978, p. 263)

(b) Basic Elements of Treaty-port System Concerned with C&S and L.T.

First of all, from the timeline, 1842 (after the First Opium War), 1860 (after the Second Opium War), and 1898 (especially after the Sino-Japanese war) are the three milestones for the occurrence of colony, C&S, and L.T., respectively, which echoed the parallel process of Hong Kong's geographic development in history.

The Form Evolution from Colony, C&S to L.T.



However, they competed with one another other all the time in the period that followed: in 1842, Hong Kong Island came into being as the first colony; until 1860, C&S followed the early special case of Shanghai International C&S, which was followed by Amoy International C&S in 1902, and the Kowloon peninsular was annexed into the Hong Kong colony in 1860 after the Second Opium War; 1860–1895,

the first boom for C&S by Great Britain, the United States, and France, which excludes the early case of Shanghai's international settlements and the later cases of the L.T. and railway concessions from 1896, from which Macao, as the second colony, showed up in 1887; from 1895, the second boom for C&S building began with the arrival of Japan, Russia, and Germany, as well as the new entry of Italy, Belgium, and Austria until 1902. L.T. formally appeared in 1898.

L.T.'s appearance in 1898 was a kind of hybrid between C&S and colony: cases of Germany and Russia were imposed tariff by China, whereas cases of Great Britain and France were not. Hence, the former was closer to C&S for trade, but the latter was more like a colony. This was attributed to the situation after 1895—Japan ceding Taiwan and the Pescadores group as colony for conquest rather than for trade, Germany and Russia getting L.T. both for trade and military purposes, and Great Britain and France for defending their interests for the balance of power. Based on the above description, there would be three main kinds of foreign residence in mainland China, with three competing forms in the analysis from the trade angle: international settlement, C&S, and leased territories along the timeline. (They would be classified into two regimes—colony and C&S—in our theoretical analysis of the treaty-port system. Detailed differences among them will be discussed and identified in the following content concerned.) From Appendix IV "Table 4-3 Concessions and Settlements (C&S) in China," we can find two booms in history that built C&S, that is after the Second Opium War (1860) and the Sino-Japanese War (1895), from which formal C&S began and L.T. occurred, respectively. This judgment can be roughly supported by Gull (1943): "Between 1860 and 1890 the framework [the treaty-port system] was extended, but nothing new in kind was added to it ill after the Sino-Japanese war of 1894–1895. As a consequence of that and of the political competition amongst the Powers...the treaty-port system, which had hitherto consisted in the main of commercial, navigational, residential and judicial rights, was amplified by industrial rights and became associated on a scale much larger than it had hitherto been with territorial leases and administration" (second paragraph on p. 27).

2. Trade Evidence

Aside from the above evidence shown by Fairbank (1978), the occupation of most of foreigners in the C&S is concerned with the trading firms in China (the first two sentences in the second paragraph on p. 228, *ibid*), which directly supports the judgment.

(a) Their Positions

From the geographical positions, all C&S in the treaty ports opened for trade purposes referred to their origins in Art. 2 of the British treaty of Nanking (1842) and Art. 7 of the British supplementary 1843 stated above, based on the comparison between "Table 4-2 China's Treaty Ports" and "Table 4-3 Concessions and Settlements (C&S) in China" in Appendix IV. As shown in Table 4-3, it was not until 1895 that the country groups with C&S were extended from former Great Britain, United States, France, and Portugal to Japan, Germany, Russia, Belgium, Austria, and Italy (the latter three countries occurred in 1902 in Tientsin after the Boxer Outrage).

Thus, the ten-country group that has had C&S in China came into being, although the above tables show that 18 countries signed treaties with China. Hence, two facts emerged: C&S were opened in the main treaty ports, which can be supported by the time order of their birth in the table, "China's Treaty Ports" from p. 48 by Gull (1943); and C&S were opened for trade purposes, which can be evidenced by the locations of the British treaty ports—first, from south to north, along the China's coast by the treaty of Nanking (1842) and the Treaty of Tientsin (1858), then along the Yangtze river by the Treaty of Tientsin (1858), and, finally, roundly penetrating into the inland of China after the Chefoo Convention (1876)[4]—comprising the horizontal T-shape marching situation with the coast line crossed by the Yangtze river in China, as described on p. 28–29 by Gull (1943)[5] and echoed on p. 96 by Tyau (1966).[6]

Focusing on 1860–1894, the foreign powers with C&S in China were Great Britain, the United States, and France (because Macao is a special case again). These countries enforced an open-door policy to coordinate each other's interests, and tried their best to avoid any risk of war that would destroy the trade revenue in peaceful China before 1894. This is evidenced by the countries' trade share changes at the time, as shown in Part D, and their communications or cooperation in dealing with one another among their individual spheres once L.T. occurred later. After 1894, when Germany, Russia, and Japan entered, especially in 1898, the foreign powers tried to obtain exclusive privileges and individual interests through L.T.—an intermediate form between C&S and colony—creating tense relations among the foreign powers in China.

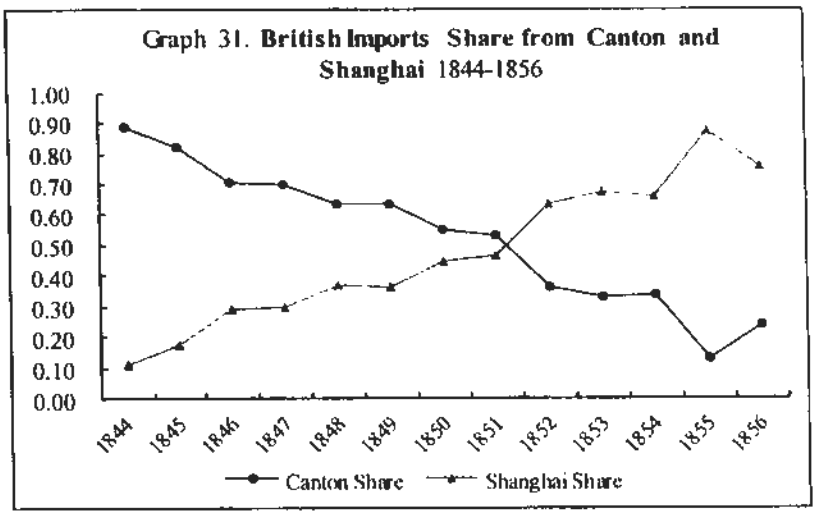
Finally, the messy state of the treaty-port system had three kinds by tracing them vertically from inception to completion—C&S, L.T. (1898 onwards), and international settlements (Shanghai 1863 and Amoy 1902). Their birthing process could be divided into two stages in 1898 by referring to the content of Chapter VIII "The Provinces and the Treaty Ports" on p. 203–269 by Morse (1966), the paragraph on pp. 28–29 and Appendix I on p. 48 by Gull (1943), and Appendices 1–3 on p. 427–57 by Fei (1991).

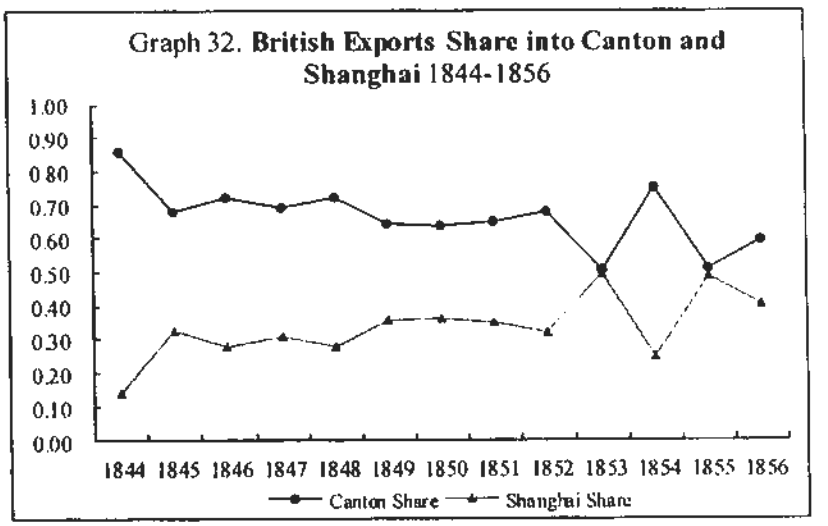
(b) Canton's Fall with the Rise of Shanghai and Hong Kong

[4] "provided that the term 'inland' should 'apply as much as to places on the sea-coasts and river shores as to places in the interior not open to foreign trade.'" on p. 31 by Gull (1943)

[5] "By the Treaty of Nanking, 1842, the gateway ports along the coast from south to north were opened, Canton, Amoy, Foochow, Ningpo, and Shanghai, the island of Hongkong being by the same instrument ceded to us in perpetuity. The Treaty of Tientsin, 1858, added four more ports in the south: on the mainland Swatow, on the island of Hainan, Kiungchow, and, on that of Formosa, Taiwanfu and Tamsui. In the north this treaty added Niuchwang [牛庄] and provided that English merchant ships should have authority to trade upon the Yangtze. On the Yangtze it added Chinkiang, Nanking, Kiukiang, and Hankow, though they were not opened in that year. Tientsin was opened in 1860 in accordance with Article 4 of the Convention of Peking, which also ceded to Great Britain in perpetuity part of Kowloon. By 1877 two further ports, Wuhu and Ichang, had been opened on the Yangtze, together with several ports of call situated on its banks, while the opening of the third port, Chungking, had also been provided for. Two more had been added in the south, Pakgoi and Wenchow. Thus well before the end of Mr. Hubbard's first period there had been a wide and effective distribution of *point d'appui* for British and other foreign commercial, banking, and shipping enterprises in China, notwithstanding their restriction to specified localities. During his second period, from the first Sino-Japanese War of 1894 to the outbreak of the First European War in 1914, *point d'appui* multiplied profusely. Not all of them, by any manner of means, were opened at Great Britain's instance, though it was at hers that Samshui, Kongmoon, Wuchow, Nanning, and Tengyueh were opened during this latter period."

[6] "They [treaty ports] are spread out mainly along the seaboard and the Yangtse river as well as its tributaries and subtributaries. In this way they resemble roughly the shape of the letter 'T' titled horizontally."





Data source: Author's computation based on Karl Marx (cited the Parliamentary Blue Book on the trade of various places for 1856–1857), "The British Trade and Chinese Treaty," *New York Daily Tribune*, (October 15, 1858) on p. 70 by Torr (1951).

The British imports' share from Canton and Shanghai (the two major ports in China for foreign trade at that time), which was firstly used by Karl Marx, clearly shows a downward trend of Canton, compared to Shanghai, in 1844–1856. A similar case occurred for the British exports' share in Canton and Shanghai.

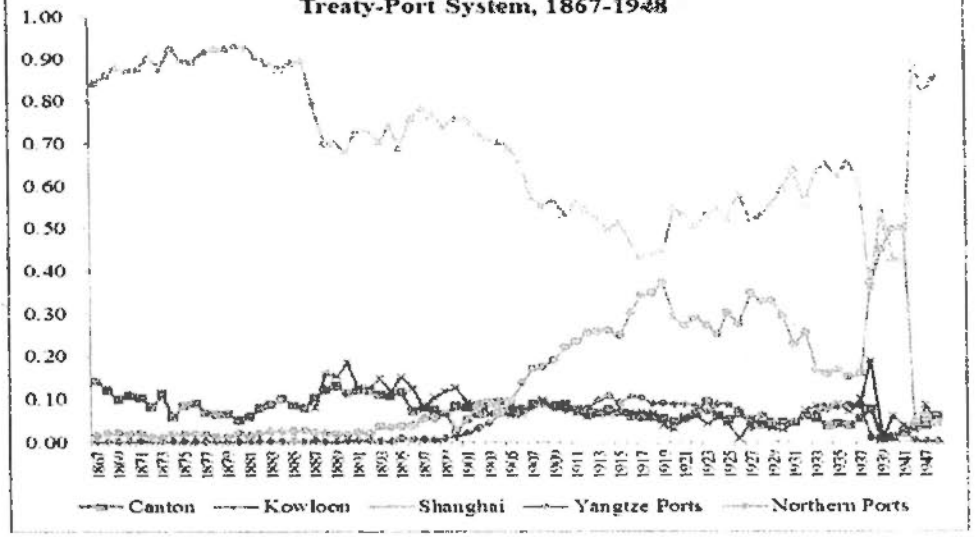
As a result of the Taiping Rebellion (1851–1864), "...a flight of refugee capital and enterprise from the interior to the protection of consular cities and ports, among them Hong Kong and Shanghai. There was a further and, perhaps, more fundamental change in the traditional channels of trade. The revolt of the nine southern provinces diverted not only their taxes from Pekin to Nanking, but also the shipments of northern tea from Canton; green tea and silks were diverted to Shanghai. The destruction of silk weaving looms in Nanking during the course of the rebellion forced raw silk upon the export market through Shanghai in 1852–1853, and encouraged its shipment at very high freights via the overland route. Black teas were diverted from Canton to Foochow which was the nearest port to the Bohia Hills. Shanghai's new foreign settlement attracted native and foreign merchants.... From

1855, Shanghai and Hong Kong were linked together by foreign steamship services... under the Treaty of Tientsin in 1858 which opened the great rivers of China to foreign trade, and permitted merchants and missionaries to penetrate the interior of China, and... through the Treaty of Pekin in 1860 which ended a period of twenty-five years of struggle, and reorganized the basis of relations between Europe and China.... the expansion of Shanghai into a shipping centre of international importance. The diversion of traffic from central China, already begun in 1854, away from the overland routes to Canton into the river and coastal routes to Shanghai, greatly helped in effecting this change of status. After 1863, Shanghai became a terminal port for the European coating trade in Chinese produce... during the 1860s, Shanghai's population, trade and revenue expanded faster than those of Hong Kong, it had become the main centre of European trade in China, benefiting by the opening of Japan to the east, of the Yangtse to the west, and by the inducement which its deep water harbour at Woosung offered to the new steamship owners from Europe. (In short, this port, because of fortuitous political circumstances, realized to the full the potentialities of its geographical position at a time when the insistent pressure of Western enterprise required such a base on the China coast. It controlled the trade of the whole Yangtse basin, a mighty commercial highway stretching for some 3,200 miles from the eastern sea to Tibet, and navigable for more than half its length. Shanghai had access to the 100 million inhabitants of the most fertile, productive and populous region of the Chinese empire. It would collect teas and silks for export and channel opium and Western products inland. Finally, as the most northern ice-free port on the coast, it would serve as the center for transshipment between coastal navigation to the north and the south, as well as between costal and river navigation.)"[7]

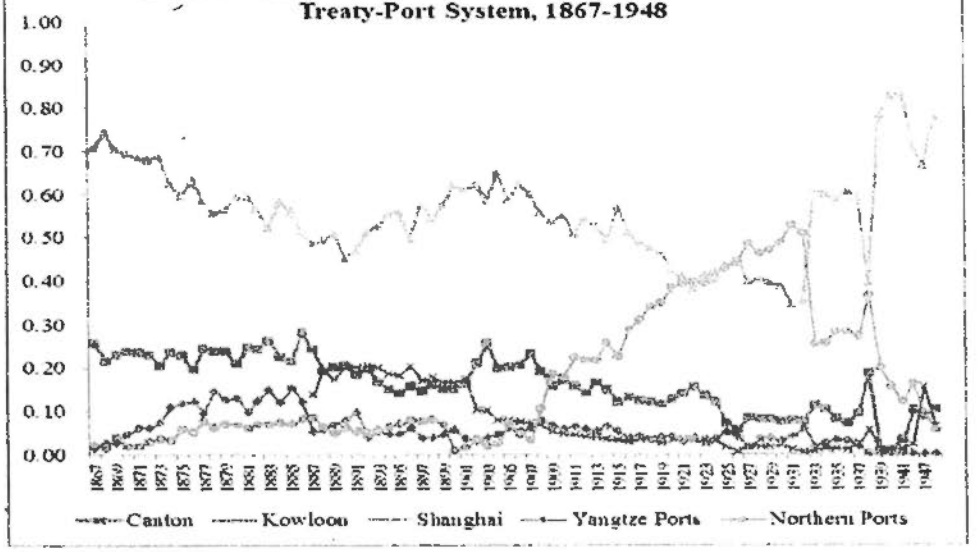
As shown in Table 4-2, 4-3 and 4-4 of Appendix IV, there are many treaty-ports (see Map 3-6 series of App. III) contributing to the foreign trade in China except Shanghai and Canton. The following Graph 33-35 gives the trade share distribution among Shanghai, Canton, Kowloon, Yangtze Ports, and Northern Ports in China after 1860, where the vertical axis represents the share of each port's corresponding trade volume over the sum of all ports': From north to south in China, Shanghai dominated in the treaty-ports, Northern Ports rose and became the second important entering the 20th century, Yangtze Ports increased to the similar level of Canton, whose trends kept similar in imports, exports, and total trade (imports plus exports) implying the opening progress of China from south to north by foreign powers, especially the Great Britain. Here Kowloon station of China's custom was set up in 1887 for opium tariff collection originally, whose digits cannot cover the whole trade volume of Hong Kong.

[7] The content on p. 3-7 by Hyde (1973)

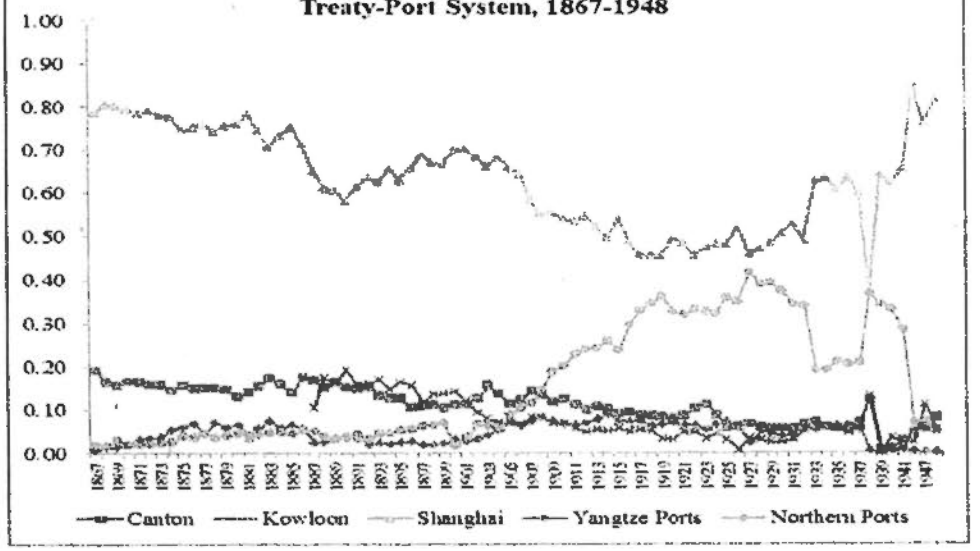
Graph 33. China's Regional Structure of Imports Under the Treaty-Port System, 1867-1948



Graph 34. China's Regional Structure of Exports Under the Treaty-Port System, 1867-1948



Graph 35. China's Regional Structure of Total Trade Under the Treaty-Port System, 1867-1948



Data source: Author's computation based on Table 7a on p.168-179 by Hsiao, Liang-Lin, "China's Foreign Trade Statistics, 1864-1949", Harvard University Press, 1974. **Note:** Before 1874 in Taels,1874-1932 in Haikwan Taels, 1933-1947 in Dollars, 1948 in Gold Yuan. 000 omitted. Antung includes Tatungkow from 1921 to 1935; Harbin indicates "Suifenho" and "Manchouli" in 1908, "Harbin District: Manchouli, Harbin, Suifenho" from 1909 to 1920, and "Lahasusu" was added from 1921 to 1931; Tsingtao changed from Kiaochow in 1935. Yangtze Ports: Sum of "Gross Imports" and "Gross Exports" respectively of Chungking, Hankow, and Nanking in 1946-1948; Sum of "Imports" and "Exports" respectively of Chingkiang, Kiukiang, and Hankow in 1867-1876; Five ports (Ichang and Wuhu were added to the three above-mentioned ports) in 1877-1890; Six ports (Chungking was added) in 1891-1895; Seven ports (Shasi was added) in 1896-1898; Nine ports (Yochow and Nanking were added) in 1899-1903; Ten ports (Changsha was added) in 1904-1916; Eleven ports (Wanhsien was added) in 1917-1940. Northern Ports: Antung, Dairen, Harbin, Tsingtao, and Tientsin (added by author).

(c) Trade Picture

Hyde (1973) painted a picture of the Far Eastern trade between 1860 and 1914, when the steamship services were available, after the Suez Canal was opened in 1869 and trans-Pacific steamship routes were provided with the help of Western capital and technology inflow and the new mechanism for international settlement.

"...the provision of main line steamship services between Europe, China and Japan and the Netherlands East Indies not only created a life-line but also stimulated local commercial development. Costal and river trades were given added importance; considerable cross-trades were given impetus and a vast entrepot trade was centred upon the ports of Singapore, Batavia, Hong Kong, Shanghai and Yokohama. There was also a quickening of commercial tempo through the creation of banks and other financial institutions, and by direct investment. ... whereas Western capital played a dominant role in opening up the Far East to trade, an increasing proportion of promotional activity was, by 1914, passing into local control."[8] "With the opening of the Suez Canal and the establishment of competing steamship services to China and to East Indian ports... The vast expansion of the entrepot trade shifted the lines of communication away from Batavia to the more strategically situated point on the new routes between Suez and Shanghai.... The steamship was the quickener of the new spirit of enterprise.... In the process, Singapore had become the pivot of the chain between the age of steam and steel and the oxcart and rickshaw; between capital-intensive economies and peasant cultivation. In maritime terms, the opening of the Suez Canal sharpened the differences between the first steamship lines and the later ones."[9]

In India, "...a large scale investment of British capital took place after the East India Co. ceased to function in 1857. In commercial terms the traditional trades of India were thrown open to Western enterprise under conditions of free competition. An immediate expansion of Western practice took the form of joint stock legislation in 1858, the use of the managing agency and the establishment of the supremacy of the agent over his board of directors. The resumption of railway construction in 1858

[8] The preface by Hyde (1973)
[9] Lines 1--5 on p. 17--18 by Hyde (1973)

and 1859 helped to stimulate agricultural production for export, because all the main railway lines led to the ports, and British administration had extended over all the fertile valleys of the peninsula. In this process, capital was drawn into the production of new staples of trade: jute in Bengal, tea in Assam, rice in Burma, coffee and tea in Ceylon, and cotton in Bombay.... and Calcutta grew into a vast importing and exporting centre, linking Europe with China via Singapore...."[10]

In China, "...the stimulation of enterprise in India had parallel repercussions. Following the short Opium War in 1841, the Treaty of Nanking was signed, the chief provisions of which opened up the ports of Shanghai, Amoy, Foochow and Ningpo to foreign trade. British consuls were allowed to reside in these ports; import duties were limited to 5 per cent ad valorem and, after 1843, favoured nation treatment was accorded, together with extraterritorial jurisdiction of consuls.... the confirmation of Britain's possession of Hong Kong, one of the finest harbours in eastern Asia. That island port became the centre of the opium trade and the source of expansive enterprise once the steamship had conquered the route to the Pacific.... Furthermore, by creating Singapore as a half-way port between India and China it facilitated the extension of the overland route to Batavia, and enabled the Dutch government, from 1845, to establish links with Singapore for the carriage of passengers and mail to Java. The successful extension of these shipping routes over half the world was an augury of greater development in the future when steamships, powered by compound-tandem engines, were to open up the trade of the Far East to European domination through the use of such ports as Penang, Singapore, Shanghai and Hong Kong."

Cain (1980) provided an image of the subtle relationships among the Western powers from 1875 to 1914

"After 1875 the British economy, although growing in absolute terms, was in relative decline compared with other great powers, notably the USA and Germany. Not only had these countries become larger producers of manufactures by 1900, but in many important sectors of industry they had taken a significant technological lead over the first industrial nation. Britain's relative decline was reflected in a more sluggish rate of growth of exports than hitherto and a sharp fall in Britain's share of world trade. Competition became fiercer not only overseas but even in Britain's domestic market; at the same time, although Britain retained free trade, the trend towards commercial liberalism in the rest of the world, apparent before 1870s, was arrested. Imports rose faster than exports and the deficit on balance of commodity trade grew considerably. This deficit would have been much greater but for the buoyancy of trade with the empire. While total exports at current prices increased by only 6 per cent between 1871–1875 and 1896–1900, exports to the empire rose by 29 per cent and the increase in sales to the white settled areas within the empire was 45 per cent. These figures must be kept in mind when assessing, first, the significance of the reviving interest in closer economic unity with the empire, especially the white-settled parts, after 1875 and the clamour to abandon free trade [kept until 1914]; and, secondly, the business agitation for the incorporation of large areas of Africa and Asia into the formal empire in this period. Besides growing imperial markets, the

[10] The first paragraph on p. 3 by Hyde (1973)

other great offset to Britain's declining competitiveness abroad was the rapid growth of her income from services such as shipping and overseas loans.... The need for overseas markets and supplies increased rapidly after 1850 and the export of capital became a significant adjunct to trade relations. Traders and inve ors became increasingly fearful of the protectionist policies of other industrializing nations and the British government was exhorted by business interests to keep open the channels of trade. Hence the policy of anticipatory annexation in Africa after 1880, and the 'spheres-of-interest' policy in China and other arrears which tried to ensure that the British should not be locked out the battle for financial and economic concessions which threatened to pull these countries out of Britain's economic orbit...."[11]

(d) Opium's Role

For China

"For at least the last fifty years of the nineteenth century, opium played an important role in the Chinese economy, and it did so in the three major areas:

(1) "served as a substitute for money." "Both British and American merchants saw, after the Opium War, how useful opium would be as a medium of exchange in the *interior* of China... in Taiping-induced financial crisis at Shanghai in early 1850s, it was the Western companies with large opium stocks that were able to exploit the tea market most successfully." "Non-comprador Chinese were equally quick to see the advantage of opium as a substitute for cash.... it was early used by small shopkeepers in Hong Kong to remit funds to the mainland, and it was commonly used as currency in western China; even students traveling to Peking for the examinations would take opium with them to pay their expenses along the way."

(2) "helped local officials meet taxation quotas." "Proposals for taxing opium had predated the Opium War. They were revived in 1853, when a censor suggested a rate of forty taels for each imported chest. In 1856 a collection of twelve taels per chest was started by the taotai [道台, the administrative authority over two or three Prefectures[12]] in Shanghai, and in 1857 the same rate was levied in Ningpo. The 1858 tariff agreements between Britain and China settled on an import duty of thirty taels per picul [担][13]; opium had to be sold by the importer at the port and could be transported inland only by Chinese as Chinese property."

(3) "helped finance the self-strengthening program." "Li Hung-chang's [李鸿章] memorials yield the richest amount of evidence. There, between 1862 and 1889, we find opium taxes used to make up deficits in merchants' taxes—Tientsin opium for Chili defense, Tientsin opium taxes to pay for Peking police, Tsingtao opium to pay for new patrol boats, coal for the cruiser *Chen-hai* to be bought with opium funds, opium to pay off interest on foreign loans to the new armies, and so on." "Kwangtung governor-general reported that sixteen gunboats were being built at the Canton Arsenal; the cost to date of 96,980 taels plus the 4,418 taels a month wage and sundries was all drawn from opium-likin [厘金][14] revenue. ... In 1887 the governor

[11] The seventh chapter on p. 43–46 by Cain (1980)

[12] Refer to the Section "Officials at Canton" on p. xx–xxi by Tuck (2000), Vol. I

[13] $1\ picul = 133\frac{1}{3}\ pound$

[14] An inland taxation for commercial goods in transit, including opium, begun in 1853 to solve the Taiping-induced fiscal crisis of the Qing dynasty, and ended on January 1, 1931. Refer to the website

of Taiwan, Liu Ming-ch'uan [刘铭传], was given Takow and Tamsui opium likin revenues to meet his naval and military expense. In the same year the Szechwan Arsenal drew 67,771 taels from opium likin that were used to make machinery, guns, cartridges, and percussion caps."

The fact that "opium had provided fluid capital and fresh revenue sources in a stagnating domestic economy" made it "so resistant to suppression" in China.[15]

For Foreign Powers

As far as foreign business in China is concerned, it is necessary to "mention the all-embracing part which opium played in the exchange of tea and silk. Up to1870, a large part of Britain's imports of these commodities was financed either directly, or indirectly, by sales of opium to China via Hong Kong. Some British houses, such as Dents and Birleys, imported opium direct from India and used it both as a means of exchange and as a profit-making item in their trading list. It was more common, however, for such trade to be taken by Indian agency houses controlled very largely by Parsees. They sent back to India the proceeds from the sale of opium in the form of bills purchased from traders in China. The insidious threads of this trade enmeshed an increasing area of commercial activity.... By 1870's, the new steamship agents were in a much stronger position to offer alternative sources of credit acceptable to Chinese dealers in the financing of produce transactions. The multiplication of new credit facilities eventually brought about change in traditional attitudes and customary practice; thus the relative importance of opium as a currency was undermined and its use as an instrument of trade began to decline."[16]

Once again, the work of Gull (1943) particularly showed the changing trend of the opium trade in China as: In 1854–1914, "opium was one of China's chief imports, as it had been prior to 1842. From 1842 to 1858 opium remained a contraband trade—a contraband, however, which was pretty well as open as the day.... Hong Kong was the chief centre of distribution, Shanghai in 1857 importing some 31,907 chests—more than the import into all China twenty years before. In 1858 the trade was made subject to certain conditions—payment of an import duty of Tls. 30 a picul; sale by the importer at the port only and transmission into the interior by Chinese only and as Chinese property only. Down to 1884 the drug was on the whole the most important item in China's list, its value in 1878 representing over 45 per cent of the total value of imports. Indeed, it was probably more important than the Chinese Customs returns showed it to be, for prior to 1887 the junk traffic between Hong Kong and the mainland was not controlled by the Maritime Customs. The maritime Customs figures for the next year [1888] showed a total import of 171,231 piculs, valued at 32 million haikuan, or Customs taels, which represented 25.9 per cent of the total imports for 1888. By 1898 the import had decreased to a little less than 50,000 piculs, valued at 29 million taels—some 14 per cent of the value of all imports. During the next decade the quantity imported annually was about 50,000 piculs, its value varying from year to year.... Between 1910 and that year [1917 when opium trade abolished] there was a steady decline in the quantity imported. In 1911 the

http://www.wiki.cn/wiki/%E5%8E%98%E9%87%91

[15] Refer to the Section "Economic Function" on p. 167–173 by Tuck (2000), Vol. 9, Part 2

[16] Line 6 on p. 52–54 of Hyde (1973)

combined value of China's import of the chief cotton goods and of opium was £20,876,000, the value of the remainder of the principal imports, which included woollen goods, metals, raw cotton, coal, kerosene oil, rice and sugar, being £16,659,522."

3. Model Analysis

From 1860 onward: Based on the setup of the above general framework modeling the treaty-port system, the creation of C&S involved multiple agents—the foreign powers vs. China—in sequence.

The C&S in mainland China involved not only Great Britain, but also many foreign powers' business. There were two booms that built C&S, along with one trial colony in the form of L.T. in 1898, which proved too great a danger of war to be succeeded later (here, Macao is a special case of colony erected in 1887, exchanged for China's opium tax levying, which had never been the case in Hong Kong). Under the guidance of free trade, the foreign powers played or tried to play an open-door doctrine in China, as declared by the United States in 1899 and 1900[17]. The setup of the previous general model changes to a representative model in the competitive monopoly situation, which can be denoted using the subscript j in the corresponding individual variables of the general model. Thus, (14) and (15) change to

$$nY^a = D^a_{CS}(p, I) \qquad (14')$$

$$nY^c = D^c_{CS}(p, I) \qquad (15')$$

n: the amount of foreign powers involved in China's foreign trade.

The parameters' change before and after the buildup of C&S in mainland China after 1860 takes the following schedule:

$$\text{C\&S's buildup}^{1860-}\begin{cases}\text{before, } d=1,\ a=1-\bar{\sigma},\ b=1-\bar{\delta} & \text{(sticky trade);}\\ \text{after, } \ d=1-\tau,\ a=1,\ b=1 & \text{(smooth trade).}\end{cases}$$

The other setup is similar to the general model. The same solving procedure leads to the following analysis.

$$\Pi_{CS}(p) \equiv \frac{a}{b}\cdot\frac{\left[\alpha(\rho-r)+\beta W+\frac{1}{n}q^a Z^a D^a_{CS}\right]}{\left[\gamma(\rho-r)+\beta W+\frac{1}{n}q^c D^c_{CS}\right]} = p^*_{CS} \qquad \text{(A2)}$$

which correspond to (A0) in basic model implying the optimal opium price relative to composite goods in C&S is determined by their market access extent and marginal cost respectively.

The other results are held as the Hong Kong case, except for the presence of the foreign powers' number in the demand place (if the subscript "CS" is omitted).

Thus, a and b increase again, as in the case of Hong Kong when C&S was built, which leads to the rise of equilibrium price after the setup. Hence,

[17] William O. Walker III, "'A Grave Danger to the Peace of the East': Opium and Imperial Rivalry in China, 1895–1920," Chapter 11, Mills and Barton (2007), p. 185.

$$X^*_{CS} = \frac{1}{n}\left(aD^c + bZ^o p^* D^o\right)$$

with $\frac{dX^*_{CS}}{dp^*} = \frac{1}{n}\left[a\frac{dD^c}{dp^*} + bZ^o\left(D^o + p^*\frac{dD^o}{dp^*}\right)\right] > 0$ if $\left|\varepsilon^o_p\right| < 1$.

which directly induces the same results as Proposition 1 with the similar deducing procedure. Concluded as (Details in the proof of Proposition 4 in the Appendix)

Proposition 4: *Equilibrium price, as well as exports, is increased when C&S was built because opium lacked price elasticity due to its addictive nature. That is,* $\frac{dX^*_{CS}}{dp^*} > 0$ due to $\left|\varepsilon^o_p\right| < 1$.

Similarly, the same proof in Proposition 2 shows: C&S were created because the value function of the foreign powers would increase when their governments believed exports had greater slope, with respect to price, than imports did absolutely. Based on Proposition 4, we obtained (Details in the proof of Proposition 5 in the Appendix)

Proposition 5: *C&S was created by the foreign powers when their governments expected that their exports in China would have a larger boom in an absolute scale than the imports did.*

Again, Proposition 4 and 5 above are consistent with Lemmas 1-3 in basic model.

Compared to the colony or L.T. case, C&S has no war risk, but has a low tariff. On the same level as equilibrium price and its jump between before and after, that is, p^* and $\Delta p^* > 0$ are fixed, thus, colony and C&S have the same value function before and after their individual changes $V^*_{CS} = V^* = V^*_{HK}$ because the general demand level is fixed. We can then derive that C&S would be better than colony because the former both had higher export level and import volume than the latter when the multiple national competitions in China's trade did not change the stability of the market price but led to trade imbalance. (Details in the proof of Proposition 6 in the Appendix)

Proposition 6: *C&S was better than colony or L.T. on the same price level because colony or L.T. was accompanied by a war risk, although C&S was imposed the tariff when the foreign powers put a high weight on total trade volume (exports plus imports)—the larger trade, the better—in the free trade doctrine.*

Recall the historical fact that opium was more favored in China than composite goods in 1840, as shown in Jardine's argument for defending his opium trade when Hong Kong was ceded. However, opium began to lose its importance in 1860 due to the suppression from the British government, which favored British manufacturers and the competition in the Chinese local opium production, as evidenced by the silver inflow in Shanghai described by LeFevour and the decreasing opium share in China's imports in Table 4, when C&S flourished. When the foreign powers chose between a colony and C&S, the latter was the better choice for trade made because the

equilibrium price level for C&S would be higher than that in a colony. Additionally, this would increase the exports, based on the same logic previously used in Propositions 1 and 2. (Details in the proof of Proposition 7 in the Appendix) That is,

Proposition 7: *The equilibrium price in C&S was higher, compared to that in a colony on the same demand level, when opium trade was losing its domination in the trade. That is,* $p^*_{CS} > p^*_{HK}$, when $Z^a q^a D^a < q^c D^c$, *which is consistent with the intuition when opium exports was relatively less than composite goods; thus, the relative price of opium increased until 1860.*

The decrease of opium's share to less 50% in China's import in 1867–1917 could support Proposition 7.

Combined with the above fixed price effects in Proposition 6, the general conclusion is attained by extending the results in Proposition 7, based on Proposition 5 (Details in the proof of Proposition 8 in the Appendix)

Proposition 8: *C&S, rather than colony or L.T., was chosen by the foreign powers to carry out the trade with China when opium lost its dominance over composite goods because the former could augment exports as well as imports.*

Furthermore, the situation $p^*_{CS} < p^*_{HK}$ could be caused by an opium oversupply relative to composite goods (see the proof of Proposition 7, in the Appendix) or the local opium competition, as Jardine had worried after the opium legalization. Here is the evidence from LeFevour (1968):

"Opium legalization proposals, put forward in the Tientsin negotiations, had been accepted calmly by the firm's partners who realized that Chinese-produced opium had begun to undersell Indian; open sales at established agencies seemed the only way to compete with increased supplies of Chinese drug.[18] But the most pertinent result of legalization was the importance given to the organization of the trade in India. After 1860, all dealers in China, regardless of experience, faced with the same tax and the growing competition of Chinese drug, so that prices and costs in India became crucial to continued success in the trade."[19] (p. 25–26)

Thus, without the war risk, there existed the possibility that colony or L.T. would be better than C&S when the decreasing effect from the price gap (due to the foreign powers' oversupply or the Chinese's native competition) was large enough to countervail the increasing effect from tariff impost so that exports were pulled down

[18] "'Lord Elgin is said to view the legalization of Opium import favourably but it is best for us not to interfere. In addressing him with reference to the Treaty we have touched upon it in general terms.' Private Letter Book-India, to J.A. Baumbach, Bombay, Aug. 6, 1858. 'You will note by our circular that it is definitely arranged that the article is to be legalized subject to a duty of Tls. 30 per chest. This will not come into operation until the new tariff does, which may not be for some months yet. The immediate effect should increase the demand for drug rather than otherwise, but it will no doubt also encourage the growth of native poppy. Prices in India must be looked to if we are to compete successfully here.' Joseph Jardine's letter to the Earl of Elgin is in British Parliamentary Papers, 1859, XXXIII, 83. The firm's correspondence advocated legalization and steadily expressed approval of Elgin's diplomacy. See Private Letter Book, India, 1858–1859." (Note 70, p. 164)

[19] "Private Letter Book, India, to R.J. Jeejeebhoy, Bombay, May 29, 1861. Commenting on an increased duty upon Malwa, Alexander Perceval wrote that 'the new tax and the high price of Bengal will doubtless stimulate cultivation of native drug and, in the end, do away with trade in foreign opium altogether.'" (Note 71, p.164)

to reduce the value function. Hence,

Proposition 9: *Without the war risk, colony or L.T. could dominate C&S in a situation where opium oversupply due to extreme competition among the foreign powers coexisting in the C&S or the growing supply of the Chinese native drug, which would pull down the opium price to exacerbate their exports into China. The effective control in an exclusive colony or L.T. could make demand and supply more balanced by creating and sustaining a relatively well-functioned market, thus avoiding the trap of overcompetition.*

Along with the geographical composition of Hong Kong by annexing the Kowloon peninsular (first leased, then ceded in 1860 without war, which could be treated similarly to the cession case of Hong Kong Island through the Second Opium War) and New Territories (leased 99 years in 1898 after the Sino-Japanese war), in sequence, both are treated as colony in the model. Here comes the explanation on the evolution of L.T. against C&S in 1898, treated as a colony derived from the exogenous disequilibrium, because opium should have already lost its dominant role in China's trade by 1898 (e.g., by 1873 Jardine, Matheson & Co. was no longer an important opium dealer in either India or China), causing the foreign powers to be hesitant about choosing between colony/L.T. and C&S. Remembering the hybrid character of L.T. in the Hong Kong case and C&S, Proposition 9 could be understood in its hybrid feature of external attribution.

What follows is the story of Macao. It was controlled by Portugal, an absolute monarchy, so that institutions born of it differed a lot from Hong Kong's. And Macao really lacked significant growth compared with Hong Kong. But the birth of Macao could be explained from the trade perspective.

C. Macao for Trade

Macao's colonization in 1887 with a totally different background where it was levied with an opium tariff without any war or war risk [the peace in Macao can be referred to Ptak (2004)[20]].

Macao was colonized by Portugal in 1887 in exchange of China's levying tax on opium trade in it along with the same setup in Kowloon peninsular which directly lead to the coming up of North Kowloon (i.e. New Territory) as British L.T. in 1898. Here the special character of the Macao's setup is its only taxing opium by China unlike the general case and no war before and no war risk after the buildup unlike the situation of Hong Kong and L.T. (The peace concerned with Macao can be referred to Ptak (2004): "Macau was the first European settlement on the China coast. ... There can be no doubt, China and Macau benefited from mutual acceptance. ... no Chinese army ever moved into Macau. Likewise, ... Portugal never fought any major war against the Middle Kingdom. ... Hong Kong, one may say, was the product of a violent clash, ..." (pp. 47-71, III "China's Medieval *fanfang* [蕃坊] – A Model for Macau

[20] "Macau was the first European settlement on the China coast.... There can be no doubt, China and Macau benefited from mutual acceptance.... no Chinese army ever moved into Macau. Likewise... Portugal never fought any major war against the Middle Kingdom.... Hong Kong, one may say, was the product of a violent clash..." (p. 47–71, III "China's Medieval *fanfang* [蕃坊]—A Model for Macau under the Ming?")

under the Ming?"). That is

$$X_t = aY_t^c + d^o bp_t\left(Z^o Y_t^o\right)$$

$$\overset{(0)+(3)}{\Rightarrow} \text{ Substituting } Z^o Y_t^o,$$

$$X_t = \left(a - d^o \frac{\gamma}{\alpha} bp_t\right) Y_t^c + d^o \frac{A_t}{\alpha} bp_t \qquad (6^o)$$

where opium tariff (the right superscript "o" used to differ from previous ones in general case—the same level of tariff on both exports and imports)

$d^o = 1 - \tau^o$, τ^o is the opium tax rate imposed in Macao and Kowloon.

And

$$R_t = (X_t - M_t) \qquad (1^o)$$

$$T_t = (X_t + M_t) \qquad (2^o)$$

By the same procedure, we have

$$\psi^o(p_t) = a - d^o \frac{\gamma}{\alpha} bp_t$$

which is the only change different from the previous model. So the same solving procedure comes

$$p^o = \frac{a\left[\alpha(\rho - r) + \beta W + q^o Z^o D^o\right]}{d^o \cdot b\left[\gamma(\rho - r) + \beta W + q^c D^c\right]} \equiv \Pi^o(p) \qquad (A3)$$

which correspond to (A0) in basic model implying the optimal opium price relative to composite goods in Macao is determined by tariff rate extra, along with their market access extent and marginal cost respectively. And imports was not imposed any tariff so that opium tariff had no direct effect on it as all the tariff effect was absorbed into the opium price, that is $M_d^* = 0$ here. Now tariff does affect the equilibrium price with the derivative

$$p_d^o = -\frac{p^o}{d^o} < 0 .$$

And other results are the same as previous. The parameter change before and after colonization of Macao in 1887 takes the following schedule:

$$\text{Macao's colonization}^{1887} \begin{cases} \text{before, } d^o = 1,\ a = 1,\ b = 1; \\ \text{after, } \quad d^o = 1 - \tau^o,\ a = 1,\ b = 1. \end{cases}$$

That made the form of colony better than that of C&S (Details in the proof of Proposition 10 in the Appendix). Hence, we put forward:

Proposition 10: *Macao was colonized peacefully by Portugal as a kind of intermediate form between the Hong Kong colony (no tariff) and C&S (taxing exports and imports both) by imposing tariff on opium only, because this kind of colony made a greater contribution to exports than C&S could at the time. The Portuguese believed*

that their exports would have a larger boom in an absolute scale than imports had.

D. Comparison

This part attempts to discuss the individual advantages of the institutions among Hong Kong, C&S, and Macao theoretically.

Comparing the relative opium prices occurred in Equation (A1), (A2), and (A3), given the same demand level of opium and composite goods (just considering the ideal case as discussed in Proposition 6 because the real demand level had never been fixed in history and reality), Macao really had the highest level of equilibrium price due to opium tariff appearing in the denominator, C&S second, and Hong Kong third resorting to the situation of opium losing its dominance from 1860 emphasized in Proposition 7. And this price ranking implies the corresponding ranking of their value functions using the logic deducing Lemma 2 and 3, which confirms the consistent rationality of foreign powers' choosing their institution setups along the time. Following the rational rule of trade, Hong Kong began to be imposed opium tariff by Qing dynasty in Kowloon, which means Hong Kong was actually amended to the same institution as Macao after 1887 to reap the maximum trade profits as possible as the Great Britain could.

Before accepting the above results, what should be reminded is that the actual demand differed in 1840, 1860, and 1887 even 1898 so that the above comparison only makes sense in theory. And the exports structure between opium and composite goods really made the work.

E. Trade in China's Treaty-Port System After 1860

The above theoretical analysis not only shows why C&S was built in the Western interest of trade with China, that is, Proposition 5, but also predicts that Western exports would increase after the creation of C&S, that is, Proposition 4. Here are the pieces of evidence to confirm the predictions for 1864–1948.

First of all, opium began to lose its dominant position in China's imports after 1860, which corresponded to the condition in Proposition 7.

Data from the Chinese Maritime Customs from 1864 to 1941 clearly showed the significance of the triangular trade between Britain, India, and China, in which the opium trade dominated China's imports, particularly before 1917, and non-opium after 1917 (shown in the following chart series in this section and in the graph series in the Post-Opium-Trade period). Based on this stylized fact, we named the time before 1917, with the dominance of the triangular trade led by Britain, as Britain's Age (or the Triangular Trade Age) of Hong Kong's economy.

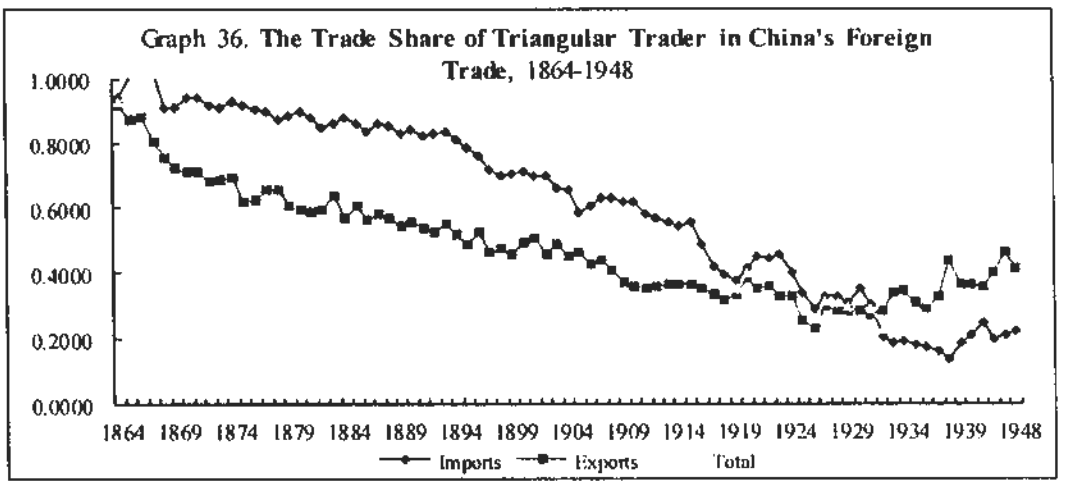
"Table 4. The Trade Structure of China from 1868 to 1913" briefly shows the development process of trade in China after the coming of the steamship services and new navigation lines, which gradually made China a market for foreign industrial products (e.g., cotton and cotton yarn), as well as the transfer of the trade core from opium to non-opium just, as shown by Hyde (1973)[21], which is the direct evidence supporting our trade argument because it shows an active bilateral exchange rather

[21] The last four lines of the second paragraph on p. 48–50, part of p. 189–193, and the detailed description of China's trade can be referred to in the previous part on p. 186–189 of the book.

than a unilateral extractive image of that time.

The above citation definitely shows that the foreign trade in China was not an extractive but a bilateral exchange in the sense of modern trade because China had balance with some powers and imbalance with others. The individual trend change of the foreign powers involved in the trade with China can be confirmed from our calculations based on the statistics from the Chinese Maritime Customs System began by Robert Hart in 1864, which strongly and convincingly shows the importance of trade for the foreign powers in detail by showing their competition with one another for a larger share in China market. This is shown in the following graph series.

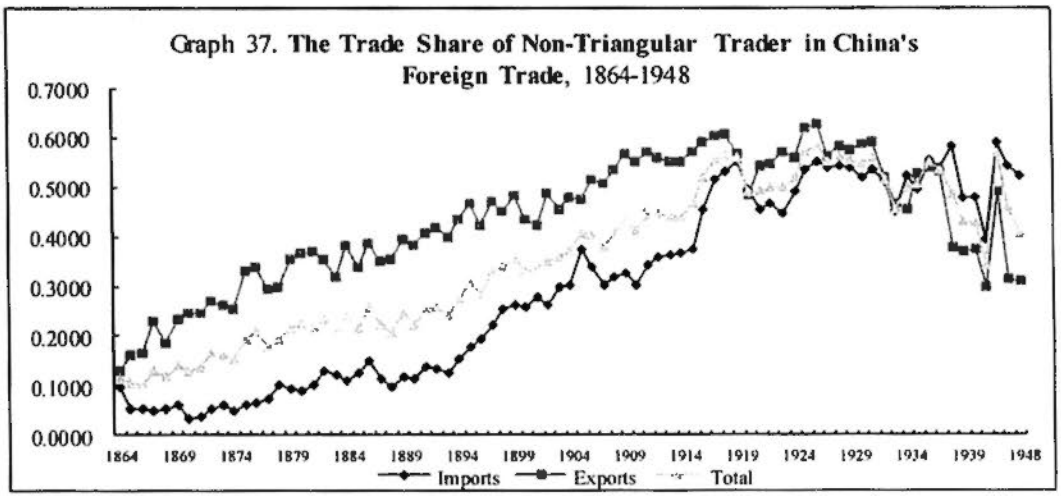
Graph 36 and 37 shows that the traditional triangular trader (Britain, Hong Kong, India and Singapore) has a decreasing trend in China's foreign trade while the non-triangular trader gets an increasing share in China's foreign trade, which was the reason why parameter n appearing in the C&S case to capture the multi-power competition in China after 1860.



Data source: Author's computation based on the data in Table 6 "China's Imports and Exports, by Principal Countries 1864–1941, 1946–1948 (1864–1867 in Taels, 1868–1932 in Haikwan Taels, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 148–151, 158–161, and Table 1 "China's Foreign Trade: Imports and Exports, 1864–1941, 1946–1948 (before 1933 in Haikwan Tael, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 22–25 by Hsiao, Liang-Lin's *China's Foreign Trade Statistics, 1864–1949*, Harvard University Press, 1974. **Note:** "Triangular Trader" includes Great Britain, Hong Kong, India, and Singapore (corresponding to the "Straits Settlements and Federated Malay States" in the original Table 6); "Share" means the sum from the triangular traders in imports, exports, and total over China's corresponding items. Data in 1942–1945 are missing due to missed statistics during the war. Notably, the reason why the imports of the triangular traders were greater than China's imports in 1864–1867 lies in the adjusted results in its data source from tael to Haikwan tael, the details and explanation for which could be referred to "Note a" on p. 24. Tael and Haikwan tael have little difference, as shown in "Note 29"[22] on p. 16, and only the data from 1864–1867 have inconsistent measuring unit

[22] "1 Haikwan tael =1.11400 Shanghai tael = 1.19000 Canton tael = 1.08750 Hankow tael = 1.05550 Tientsin tael = 1.04360 Kiukiang tael" Haikwan tael began from 1875 equals 584 grains of silver if 992.3 fineness. Note 30 on p. 16 shows the Customs Gold Unit to American dollar 0.096517; 1.00; 1.00; 1.00 and one Chinese dollar to American dollar was 0.11198; 0.05; 0.05;0.05 for 1942, 1943, 1944, and 1945.

problems between Table 6 and Table 1; thus, we did not make any changes to adjust them. The same treatment is kept in the following graphs.

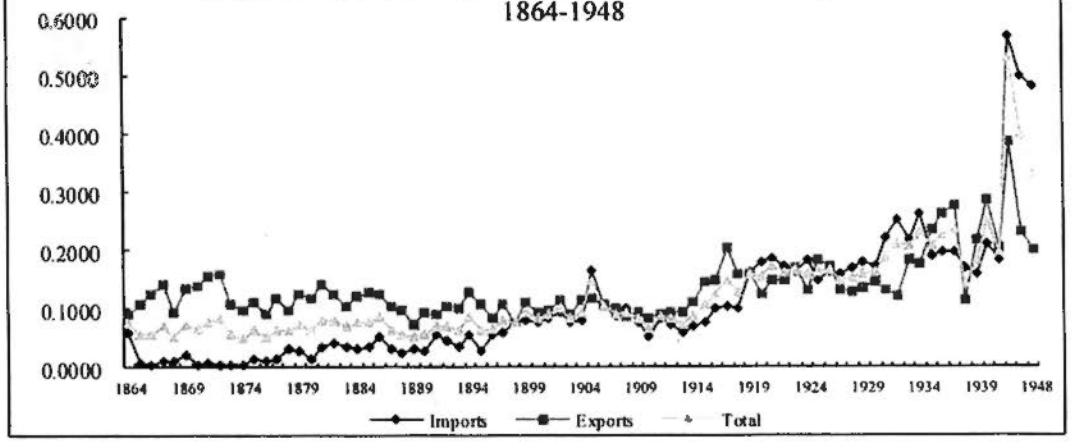


Data source: Author's computation based on the data in Table 6 "China's Imports and Exports, by Principal Countries 1864–1941, 1946–1948 (1864–1867 in Taels, 1868–1932 in Haikwan Taels, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 141–147, 152–157, 162–164 and Table 1 "China's Foreign Trade: Imports and Exports, 1864–1941, 1946–1948 (Before 1933 in Haikwan Tael, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 22–25 of Hsiao, Liang-Lin's *China's Foreign Trade Statistics, 1864–1949*, Harvard University Press, 1974. **Note:** "Non-Triangular Trader" includes the United States, USSR (Russia), Japan, and the continent of Europe. Europe was recorded as a whole until 1909 and separated into individual countries after 1904; hence, the data for the continent of Europe were decomposed into two parts—the original data until 1909 and the author's combination with the original data from France, Germany, Italy, and the Netherlands after 1909. "Share" means the sum of the non-triangular traders' imports, exports, and total over China's corresponding items. Data in 1942–1945 are missing due to missed statistics during the war.

Graph 38-41 shows that individual trade share among main foreign powers covering Britain, USA, Russia and continent of Europe also has a trade-off competing trend between Britain and others, which implies the rising importance of other powers after 1860.

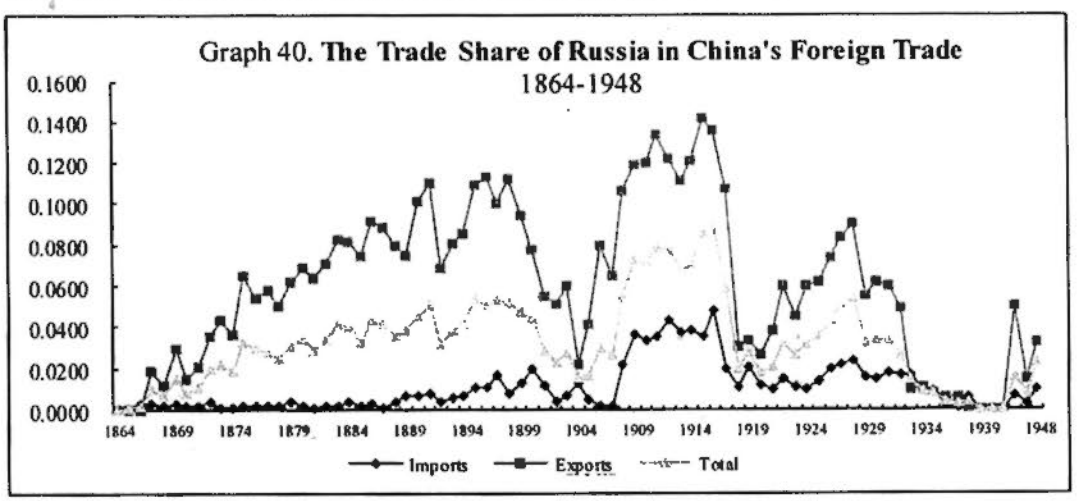
Data source: Author's computation based on the data in Table 6 "China's Imports and Exports, by Principal Countries 1864–1941, 1946–1948 (1864–1867 in Taels, 1868–1932 in Haikwan Taels, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 148–151 and Table 1 "China's Foreign Trade: Imports and Exports, 1864–1941, 1946–1948 (before 1933 in Haikwan Tael, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on pp. 2–25 of Hsiao, Liang-Lin's *China's Foreign Trade Statistics, 1864–1949*, Harvard University Press, 1974. **Note:** "Share" means the imports, exports, and total of Great Britain over China's corresponding items. Data in 1942–1945 are missing due to missed statistics during the war.

Graph 39. **The Trade Share of USA in China's Foreign Trade**
1864-1948



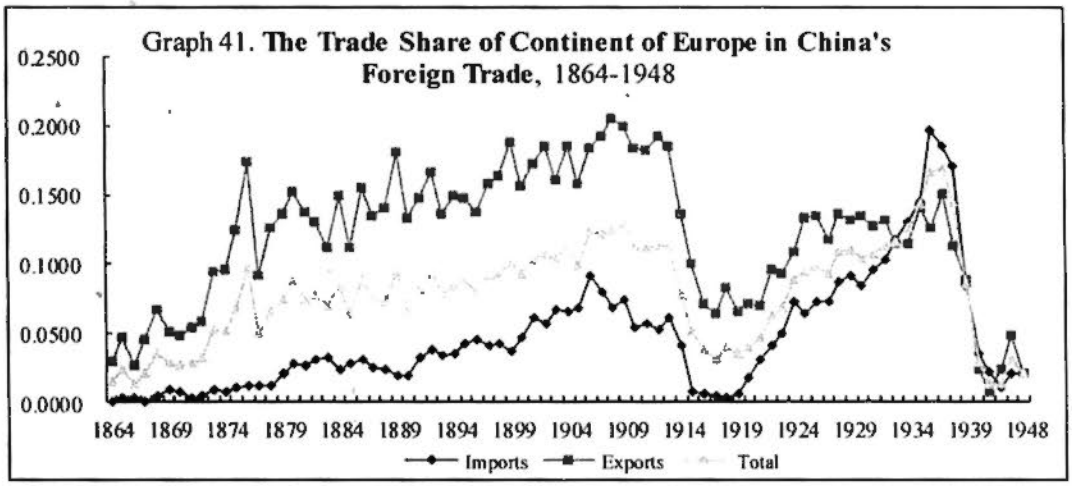
Data source: Author's computation based on the data in Table 6 "China's Imports and Exports, by Principal Countries 1864–1941, 1946–1948 (1864–1867 in Taels, 1868–1932 in Haikwan Taels, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 162–164 and Table 1 "China's Foreign Trade: Imports and Exports, 1864–1941, 1946–1948 (before 1933 in Haikwan Tael, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 22–25 of Hsiao, Liang-Lin's *China's Foreign Trade Statistics, 1864–1949*, Harvard University Press, 1974. **Note:** "Share" means the imports, exports, and total of the United States over China's corresponding items. Data in 1942–1945 are missing due to missed statistics during the war.

Graph 40. **The Trade Share of Russia in China's Foreign Trade**
1864-1948



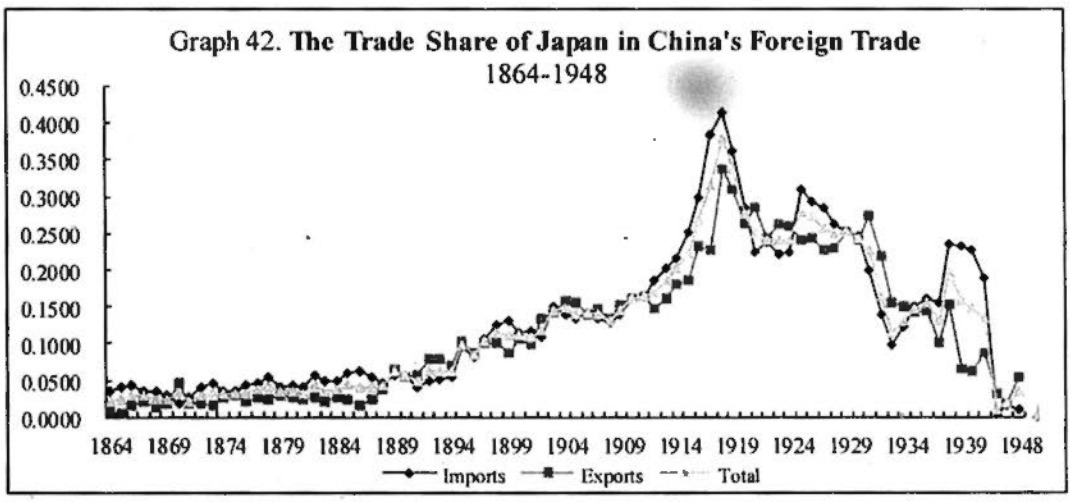
Data source: Author's computation based on the data in Table 6 "China's Imports and Exports, by Principal Countries 1864–1941, 1946–1948 (1864–1867 in Taels, 1868–1932 in Haikwan Taels, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 162–164 and Table 1 "China's

Foreign Trade: Imports and Exports, 1864–1941, 1946–1948 (before 1933 in Haikwan Tael, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 22–25 of Hsiao, Liang-Lin's *China's Foreign Trade Statistics, 1864–1949*, Harvard University Press, 1974. **Note:** "Share" means the imports, exports, and total of the USSR (Russia) over China's corresponding items. Data in 1942–1945 are missing due to missed statistics during the war.



Data source: Author's computation based on the data in Table 6 "China's Imports and Exports, by Principal Countries 1864–1941, 1946–1948 (1864–1867 in Taels, 1868–1932 in Haikwan Taels, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 141–147, 152–157 and Table 1 "China's Foreign Trade: Imports and Exports, 1864–1941, 1946–1948 (before 1933 in Haikwan Tael, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 22–25 of Hsiao, Liang-Lin's *China's Foreign Trade Statistics, 1864–1949*, Harvard University Press, 1974. **Note:** "Share" means the imports, exports, and total of the continent of Europe over China's corresponding items. Data in 1942–1945 are missing due to missed statistics during the war.

Graph 42-43 shows that Japan and Hong Kong get an important share in China's foreign trade after 1860.



Data source: Author's computation based on the data in Table 6 "China's Imports and Exports, by Principal Countries 1864–1941, 1946–1948 (1864–1867 in Taels, 1868–1932 in Haikwan Taels, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 152–155 and Table 1 "China's Foreign Trade: Imports and Exports, 1864–1941, 1946–1948 (before 1933 in Haikwan Tael,

1933-1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 22–25 of Hsiao, Liang-Lin's *China's Foreign Trade Statistics, 1864–1949*, Harvard University Press, 1974. **Note:** "Share" means the imports, exports, and total of Japan over China's corresponding items. Data in 1942–1945 are missing due to missed statistics during the war.

Data source: Author's computation based on the data in Table 6 "China's Imports and Exports, by Principal Countries 1864–1941, 1946–1948 (1864–1867 in Taels, 1868–1932 in Haikwan Taels, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 148–151 and Table 1 "China's Foreign Trade: Imports and Exports, 1864–1941, 1946–1948 (before 1933 in Haikwan Tael, 1933–1947 in Dollars, 1948 in Gold Yuan. 000 omitted)" on p. 2–25 of Hsiao, Liang-Lin's *China's Foreign Trade Statistics, 1864–1949*, Harvard University Press, 1974. **Note:** "Share" means the imports, exports, and total of Hong Kong over China's corresponding items. Data in 1942–1945 are missing due to missed statistics during the war.

Conclusion

There is no need to argue the importance of institutions, as Acemoglu et al. had emphasized, and is not the premise of the current paper. However, the settlement argument is too simple to explain and model the mechanism on how institutions initiated and evolved, especially in Asia where trade settlement made the way other than permanent and short-term ones did in Neo-Europes and extractive states respectively. This is closer to the topic that the current paper attempts to highlight.

There are two basic elements in the settlement argument of Acemoglu et al.: mortality and natural resources. Low mortality plus rich resources lead to settlement, which forms the incentive for building good institutions to improve and sustain economic performance, for example, the Neo-Europes. Meanwhile, high mortality plus rich resources represent little motive for settling down, which results in bad institutions trapping the economy, for example, the extractive states in Africa. The argument really makes sense in the cases of the Neo-Europes and some African colonies. However, there still exist cases of poor resources that could not be ruled out in theory and practice. Consider the geographical shape and position of the African and Asian colonies along the maritime routes from Europe to the Fast East—there are little resources to be extracted locally, especially in Singapore and Hong Kong, which actually worked as the trading posts for the whole European trading-post empires in Asia. In fact, trade and settlement are the two sides of the European expansion: the former was used in the East Indies and the latter played in the West Indies. Trade motivation relied slightly on mortality or local resources, which explained the shape and position of many African and Asian colonies. Trade, as confirmed in the current work, is always the channel for activating and motivating the evolution of institutions, even in the colonial age of Asia. This applies not only in the rise of Western Europe before 1840, but also in the takeoff of Hong Kong and its extension – C&S (the embodiment of trade settlement) in mainland China after 1840.

Even from a logical deduction, there are definitely two channels for the origin of institutions in the argument by Acemoglu et al.: one is the settlement tunnel corresponding to a low mortality case; the other is the zero mortality case This implies another tunnel due to the non-settlement motive without European migration, as mentioned by Engerman, in which we introduced the trade tunnel in the current paper, according to historical facts. For the settlement argument of Acemoglu et al., its

$$\text{"Low Mortality} \Rightarrow \text{Settlement by European Migration"}$$

$$\Leftrightarrow$$

$$\text{"No Settlement} \Rightarrow \text{Not Low Mortality} \Rightarrow \begin{cases} \text{High Mortality} \\ \text{or} \\ \text{No Migration (Zero Mortality)} \end{cases} \text{"}$$

negative and converse proposition is "no settlement with not low mortality", that is, "not low mortality corresponds to high mortality as Acemoglu et al. highlighted as well as no mortality in the case of no settlement incentive". The latter is absent in the

work of Acemoglu et al. and is what the current paper intends to take up.

The non-settlement case in Asia was not caused by high mortality, but by the Europeans' tendency for trading all the time. This comes from the Roman Empire's "bring its silk from China and its pepper from India" approach [Braudel (1978), p. 21]. The trade channel did play an indispensable role in Asia, whereas the settlement mechanism had limited application there. Trade parallels with settlement in the process of the European expansion or colonization. Trade covers the regions of both high mortality and low mortality. Trade has the incentive to build new institutions or the motive to improve current institutions, as it did in Hong Kong and Singapore. Thus, trade has a more fundamental explanatory power in Asia and Africa than settlement does. In the cases of Hong Kong and Singapore, settlements did the work, but they were settled by the Chinese, not the Europeans, according to the population statistics at the time. This suggests a new story to be disclosed and identified further concerning the institutions induced by trade and settlement in Asia.

Even in the growth of the Neo-Europes, the shadow of trade was there, as Nurkes and Cairncross stated, because rich natural resources implied the chance for trade in the argument by Acemoglu et al. Segal (1993) had said, "What was strikingly new was colonization: the deliberate, state-organized movement of peoples for political purposes. The Greek city-states were probably the first to practise it beginning in the ninth century BC. Established cities provided funds, logistics, and prospective settlers. The colonists were sources of trade, cultural exchange, and security. The Roman Republic also colonized to extend its influence throughout Italy and its environs. At first it promised to enfranchise local people as citizens of Rome and to free slaves it conquered. Soon though it turned to administrative controls to extract tributes and tax. The Chinese also resorted to colonization as invaders depopulated the Northwest. Settlers were sent deep into Southern China where there was unused arable land. Colonization often proved cost-effective as it enabled the expansion of political control, taxes and trade without providing military garrisons." (p. 8); "Colonies as vehicles for culture and trade" (p. 10). Trade can organize local resources (e.g., the Neo-Europes) or absorb resources from the neighboring regions where Western powers hardly penetrated (e.g., Hong Kong and Singapore) to profit through exports. This left room to foster the incentive and environment for institutional changes. We could have a better instrument variable (IV) constructed to replace mortality working in Acemoglu's argument, by following this trade idea to read the colonial history in the world: the extractive states with rich natural resources, African and Asian colonies' position in overseas trade routes, the British different administration style in centralized East (monopoly by EIC) and decentralized West (competition of many companies), and the findings of Braudel and Engerman on the constraint from indigenous population [e.g., the different settlement patterns in the Americas, on p. 24 by Engerman (2009)]. It would need future research to check the effectiveness of the trade mechanism highlighted in the current paper using local factor endowment, geographical position, and local population density as the candidate IV to fully capture the fundamental factor behind the institutions built by the Europeans' colonial choices. Once the results are hopefully improved, the trade mechanism in the

institutional construction and arrangement, with permanent incentive, could be generally confirmed.

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Appendix

App. I-1 Conversion Tables of Currencies, Weights, and Measures

(Hsü ,2000, p. xxix)

CURRENCIES (1600-1814)

1 tael 两 = 1 Chinese ounce, or 1.208 English ounce, of pure silver
= £ 1/3 = 6s.8d. (6 shillings and 8 pence)
= U.S. $1.63
= Spanish $1.57
(In 1894 the value of tael dropped to 3s.2d., and in 1904, 2s. 10d.)

1 £ = 3 taels (Tls.) = Spanish $4

1 Spanish $ = 0.72 tael or 5s.

WEIGHTS

1 picul (*shih* 石) = 100 catties (*chin* 斤)
= 133 1/3 lbs.
=60.453 kilograms

1 catty (*chin*) = 16 taels (*liang* 两)
= 1 1/3 lbs.
= 604.53 grams

1 tael (*liang*) = 1 1/3 oz.
= 37.783 grams

16.8 piculs = 1 long ton

16.54 piculs = 1 metric ton

MEASURES

1 *li* 里 = 1/3 mile = 1/2 kilometer

1 *ch'ih* 尺 = 1 Chinese foot or cubit = 14.1 inches

1 *mou* 亩 = 1/6 acre

15 *mou* = 1 hectare

App. I-2 "Table 4. The Trade Structure of China from 1868 to 1913"
(Hyde, 1973, p. 216-217)

Table 4. The Trade Structure of China from 1868 to 1913

(1) Exports of China

Year	Total Value	%	Tea	Silk, Silk Goods	Seeds, Oil	Beans	Hides, Leather, Skins
	(HKT 1,000)		%	%	%	%	%
1868	61,826	100	53.8	39.7	—	1.0	-
1880	77,884	100	45.9	38.0	0.1	0.2	0.5
1890	87,144	100	30.6	33.9	0.6	0.4	1.4
1900	158,997	100	16.0	30.4	2.5	1.9	4.3
1905	227,888	100	11.2	30.1	3.4	3.0	6.6
1913	403,306	100	8.4	25.3	7.8	5.8	6.0

Year	Cotton	Wool	Coal	Eggs, Egg Products	All other items
	%	%	%	%	%
1868	0.9	—	—	—	4.6
1880	0.2	0.4	—	—	14.7
1890	3.4	1.6	—	—	28.1
1900	6.2	1.9	—	—	36.8
1905	5.3	3.7	—	0.9	35.8
1913	4.1	2.4	1.6	1.4	37.2

Table 4. The Trade Structure of China from 1868 to 1913 (continued)

(2) Imports of China

Year	Total Value	%	Opium	Cotton Goods	Cotton Yarn	Cereals, Wheat, Flour	Sugar
	(HKT 1,000)		%	%	%	%	%
1868	63,282	100	33.1	29.0	2.5	0.8	0.8
1880	79,293	100	39.3	24.9	4.6	0.1	0.4
1890	127,093	100	19.5	20.2	15.3	9.6	0.9
1900	211,070	100	14.8	21.5	14.3	7.0	3.0
1905	447,101	100	7.7	25.6	15.0	2.9	5.1
1913	570,163	100	7.4	19.3	12.7	5.2	6.4

Year	Tobacco	Coal	Kerosene	Metals& Minerals	Machinery	Railway Materials,Vehicles	All others
	%	%	%	%	%	%	%
1868	—	2.1	—	4.8	—	—	26.9
1880	—	1.2	—	5.5	—	—	24.0
1890	—	1.6	3.2	5.7	0.3	—	23.7
1900	0.5	3.1	6.6	4.7	0.7	—	23.8
1905	1.4	1.6	4.5	10.4	1.2	1.8	22.8
1913	2.9	1.7	4.5	5.3	1.4	0.8	32.4

Data Source: The appendices at p. 216-217 by Hyde (1973).

"Table 4. The Trade Structure of China from 1868 to 1913" briefly showed us the development process of trade in China after the coming of steamship services and new navigation lines which made China gradually a market for foreign industrial products (e.g. cotton and cotton yarn) as well as the change of trade core transferring from opium to non-opium just as shown in Hyde (1973), which is the direct evidence supporting our trade argument as it shows the active bilateral exchanging other than unilateral extractive image at that time.

(1) "The traditional staples of China's export—tea and silk declined their relative importance from decade to decade. In 1868 they together constituted nearly 95 per cent of all Chinese exports. This percentage share, however, dropped from 84 in 1884 to 46 in 1900. By 1913, the percentage had diminished to 34. In order of priority, tea had held first place in the list of exports up to 1890s, but thereafter silk became China's premier export commodity by value. Just before the outbreak of war in 1914, China was exporting three times as much as silk as it had shipped in 1868 and this account comprised about one-quarter of China's total exports. ... With the improvement of internal communications after the turn of the century, soya beans, vegetable seeds and oils began to acquire a more significant proportion of China's export trade; by 1913, for example, these comparatively new products totaled 55 million Haikwan taels and amounted to about 14 per cent of export by value. Other products, such as cotton, coal, wool, hides and skins, eggs and egg products, rapidly increased their share both in volume and value of the total export trade."

(2) "A similar pattern is discernible in import trade. Up to about 1890, the most important item in the trade was opium amounting to annual value of between 30 and 40 million Haikwan taels. Opium, however, gave way to cotton goods and cotton yarns, the former rising from 20 million Haikwan taels in 1868 to 110 million in 1913 and accounting for approximately 23 per cent of total imports. Cotton yarns registered an even greater increase; in 1868 only some 54,000 piculs. Opium, cotton goods and cotton yarn accounted for just under 70 per cent of total imports in the years before 1900; in the decade before 1913 they still constituted as much as 40 per cent, though other important products such as rice and wheat flour began to acquire an increasing share as the years went on. Sugar, tobacco, coal (for bunkering ships) and kerosene were also increasing in both volume and value and were thus to some extent replacing the gaps caused by the diminishing proportion of the older staples.

...

If value in Haikwan taels is taken as a basis of measurement, the annual average rate of growth of China's exports was 6.3 per cent for the period 1882 to 1921. Within this period, however, there was a faster rate of growth at 7.9 per cent per annum between 1882-1886 and 1902-1906, growth in the latter period being at 4.2 per cent per annum. Apart from this, exports remained steady over the whole period at 6 per cent per annum. ... A sharper definition can be obtained by taking volumes of specific exports. Exports of tea and silk by value show a growth rate of approximately 4 per cent per annum between 1887 and 1921, but if the same calculation is made for volume, the rate is 2.9 per cent per annum."[1]

[1] The last 4 lines to the 2nd paragraph at pp. 48-50 of Hyde (1973).

App. II Technical Part

1. Transfer process

Based on the model setup (1)-(7), we substitute (1)-(4) and (6) into (5) and (7) to get

$$\because \quad A_t = K_t^c + K_t^o \overset{(3)}{\Rightarrow} A_t = \gamma Y_t^c + \alpha Z^o Y_t^o \quad \Rightarrow \quad Z^o Y_t^o = A_t/\alpha - \frac{\gamma}{\alpha} Y_t^c \tag{3'}$$

$$\therefore \overset{(3')+(6)}{\Rightarrow} \quad X_t = aY_t^c + bp_t Z^o Y_t^o$$

$$= aY_t^c + bp_t\left(A_t/\alpha - \frac{\gamma}{\alpha} Y_t^c\right)$$

$$= \left(A_t/\alpha\right) bp_t + \left(a - \frac{\gamma}{\alpha} bp_t\right) Y_t^c \tag{6'}$$

and $\overset{(6')+(7)}{\Rightarrow}$

$$V(A_t) = \max_{\{M_t, Y_t^c\}} \left\{ \begin{array}{l} U\underbrace{\left[d \cdot \left(\overbrace{\left(A_t/\alpha\right) bp_t + \left(a - \frac{\gamma}{\alpha} bp_t\right) Y_t^c}^{X_t} - M_t \right) - Z_j^w G^w \right]}_{R_t} \\ +\theta \underbrace{\left[d \cdot \left(\overbrace{\left(A_t/\alpha\right) bp_t + \left(a - \frac{\gamma}{\alpha} bp_t\right) Y_t^c}^{X_t} + M_t \right) \right]}_{I_t} - \overline{\zeta} p_t \left(\overbrace{A_t/\alpha - \frac{\gamma}{\alpha} Y_t^c}^{Z^o Y_t^o} \right) \\ +\frac{1}{1+\rho} V\left(A_{t+1}\right) \end{array} \right\} \tag{8}$$

$$\because \quad L_t = L_t^c + L_t^o \overset{(4)}{\Rightarrow} L_t = \beta\left(Y_t^c + Z^o Y_t^o\right) \tag{4'}$$

$$\therefore \overset{(4')+(5)+(6')}{\Rightarrow}$$

$$A_{t+1} = d \cdot \left[\overbrace{\left(A_t/\alpha\right) bp_t + \left(a - \frac{\gamma}{\alpha} bp_t\right) Y_t^c}^{X_t} - M_t \right] - Z_j^w G^w - \overbrace{\beta\left(Y_t^c + Z^o Y_t^o\right)}^{L_t} W_t + \left(1 + r_t\right) A_t$$

$$- \frac{q^c}{2}\left(Y_t^c\right)^2 - \frac{q^o}{2}\left(Z^o Y_t^o\right)^2$$

$$
\begin{aligned}
(3') &= d\cdot\left[\overbrace{(A_t/\alpha)bp_t+\left(a-\frac{\gamma}{\alpha}bp_t\right)Y_t^c}^{X_t}-M_t\right]-Z_j^wG^w-\beta W_t\left(\overbrace{A_t/\alpha-\frac{\gamma}{\alpha}Y_t^c}^{Z^nY_t^n}+Y_t^c\right)+(1+r_t)A_t \\
&\quad -\frac{q^c}{2}(Y_t^c)^2-\frac{q^o}{2}\left(\overbrace{A_t/\alpha-\frac{\gamma}{\alpha}Y_t^c}^{Z^nY_t^n}\right)^2 \\
&= \left(1+r_t+\frac{d}{\alpha}bp_t-\frac{\beta W_t}{\alpha}\right)A_t-dM_t-Z_j^wG^w+\left[d\left(a-\frac{\gamma}{\alpha}bp_t\right)-\left(\frac{\alpha-\gamma}{\alpha}\right)\beta W_t\right]Y_t^c \\
&\quad -\frac{q^c}{2}(Y_t^c)^2-\frac{q^o}{2\alpha^2}(A_t-\gamma Y_t^c)^2
\end{aligned}
$$

$\psi(p_t)\triangleq d\left(a-\frac{\gamma}{\alpha}bp_t\right),\eta(p_t)\triangleq\frac{d}{\alpha}bp_t-\frac{\beta W_t}{\alpha},\mu_t\triangleq\left(\frac{\alpha-\gamma}{\alpha}\right)\beta W_t$

$$
= \left[1+r_t+\eta(p_t)\right]A_t-dM_t-Z_j^wG^w+\left[\psi(p_t)-\mu_t\right]Y_t^c-\frac{q^c}{2}(Y_t^c)^2-\frac{q^o}{2\alpha^2}(A_t-\gamma Y_t^c)^2 \quad (9)
$$

with $\mu_t>0$ $(\because \alpha>\gamma)$ and $\frac{d}{\alpha}bp_t=\eta(p_t)+\frac{\beta W_t}{\alpha}$.

Then define $\mathbb{L}t$

$$
= \left\{\begin{aligned}
&U\left[\left(\eta(p_t)+\frac{\beta W_t}{\alpha}\right)A_t+\psi(p_t)Y_t^c-dM_t-Z_j^wG^w\right] \\
&+\theta\left[\left(\eta(p_t)+\frac{\beta W_t}{\alpha}\right)A_t+\psi(p_t)Y_t^c+dM_t\right]-\bar{\zeta}p_t\left(A_t/\alpha-\frac{\gamma}{\alpha}Y_t^c\right)+\frac{1}{1+\rho}V(A_{t+1})
\end{aligned}\right\}+\lambda_tY_t^c
$$

s.t.

$$
A_{t+1}=\left[1+r_t+\eta(p_t)\right]A_t-dM_t-Z_j^nG^w+\left[\psi(p_t)-\mu_t\right]Y_t^c-\frac{q^c}{2}(Y_t^c)^2-\frac{q^o}{2\alpha^2}(A_t-\gamma Y_t^c)^2 \quad (10)
$$

where λ_t is the non-negative Lagrange multiplier.

2. Solving process

From the above problem defined in (10), we have

(10) $\Rightarrow$

FOCs:

$$(M_t) \qquad \frac{1}{1+\rho}V_{+1}' = -U' + \theta \tag{11}$$

$$(Y_t^c) \qquad \psi(U'+\theta) + \bar{\zeta}\frac{\gamma}{\alpha}p + \frac{1}{1+\rho}V_{+1}'\left[\psi - \mu + \frac{\gamma q^o}{\alpha^2}\left(A - \gamma Y^c\right) - q^c Y^c\right] \le 0, \quad Y^c \ge 0,$$

$$\left\{\psi(U'+\theta) + \bar{\zeta}\frac{\gamma}{\alpha}p + \frac{1}{1+\rho}V_{+1}'\left[\psi - \mu + \frac{\gamma q^o}{\alpha^2}\left(A - \gamma Y^c\right) - q^c Y^c\right]\right\} \cdot Y^c = 0 \tag{12}$$

B – S Formula:

$$V' = \left(\eta + \frac{\beta}{\alpha}W\right)(U'+\theta) - \bar{\zeta}\frac{p}{\alpha} + \frac{1}{1+\rho}V_{+1}'\left[1 + \eta + r - \frac{q^c}{\alpha^2}\left(A - \alpha Y^c\right)\right] \tag{13}$$

with the constraint (10) as

$$A_{+1} = (1+\eta+r)A - dM - Z_j^w G^w + (\psi - \mu)Y^c - \frac{q^o}{2\alpha^2}\left(A - \gamma Y^c\right)^2 - \frac{q^c}{2}\left(Y^c\right)^2.$$

Define

$$Y^o = D^o(p, I) \tag{14}$$

$$Y^c = D^c(p, I) \tag{15}$$

where $\partial D^o(p,I)/\partial p < 0$ and $\partial D^c(p,I)/\partial p > 0$.

Then

$$\overset{(11)+(12)}{\Rightarrow} \quad \psi(U'+\theta) = (U'-\theta)\left[\psi - \mu - q^c Y^c + \frac{\gamma q^o}{\alpha^2}\left(A - \gamma Y^c\right)\right] - \bar{\zeta}\frac{\gamma}{\alpha}p \tag{16}$$

$$\overset{(11)+(13)}{\Rightarrow} \quad V' = \left(\eta + \frac{\beta}{\alpha}W\right)(U'+\theta) + (\theta - U')\left[1 + r + \eta - \frac{q^o}{\alpha^2}\left(A - \gamma Y^c\right)\right] - \bar{\zeta}\frac{1}{\alpha}p \tag{17}$$

Using steady state conditions: $V_{+1} = V$ and $A_{+1} = A$

$$\overset{(10)}{\Rightarrow} \quad \left[\eta(p) + r\right]A - dM = \left[\mu - \psi(p)\right]Y^c + Z_j^w G^w + \frac{q^o}{2\alpha^2}\left(A - \gamma Y^c\right)^2 + \frac{q^c}{2}\left(Y^c\right)^2 \tag{18}$$

Substitute V' and $(U'+\theta)$ in (17) to get

$$(1+\rho)(\theta - U') = \left(\eta + \frac{\beta}{\alpha}W\right)\frac{1}{\psi}\left[\psi - \mu - q^c Y^c + \frac{\gamma q^o}{\alpha^2}\left(A - \gamma Y^c\right)\right](U'-\theta) - \bar{\zeta}\frac{\gamma}{\alpha}p\left(\eta + \frac{\beta}{\alpha}W\right)\frac{1}{\psi}$$

$$(\theta - U')\left[1 + r + \eta - \frac{q^o}{\alpha^2}\left(A - \gamma Y^c\right)\right] - \bar{\zeta}\frac{1}{\alpha}p$$

$\Rightarrow$

$$\left[\rho-r-\eta+\frac{q^o}{\alpha^2}\left(A-\gamma Y^c\right)\right](\theta-U')+\frac{1}{\psi}\left[\psi-\mu-q^cY^c+\frac{\gamma q^o}{\alpha^2}\left(A-\gamma Y^c\right)\right]\left(\eta+\frac{\beta}{\alpha}W\right)(\theta-U')$$

$$=-\bar{\varsigma}\frac{1}{\alpha}p\left[\frac{\gamma}{\psi}\left(\eta+\frac{\beta}{\alpha}W\right)+1\right]$$

$$\overset{\eta,\psi}{\Rightarrow}$$

$$\left\{\psi\left[\rho-r-\eta+\frac{q^o}{\alpha^2}\left(A-\gamma Y^c\right)\right]+\left[\psi-\mu-q^cY^c+\frac{\gamma q^o}{\alpha^2}\left(A-\gamma Y^c\right)\right]\left(\eta+\frac{\beta}{\alpha}W\right)\right\}(\theta-U')$$

$$=-\bar{\varsigma}\frac{ad}{\alpha}p$$

$$\overset{\eta}{\Rightarrow}$$

$$\left\{\begin{array}{l}\psi\left[\rho-r+\dfrac{\beta}{\alpha}W+\dfrac{q^o}{\alpha^2}\left(A-\gamma Y^c\right)\right]\\ -\left[\mu+q^cY^c-\dfrac{\gamma q^o}{\alpha^2}\left(A-\gamma Y^c\right)\right]\dfrac{d}{\alpha}bp\end{array}\right\}(\theta-U')=-\bar{\varsigma}\frac{ad}{\alpha}p$$

$$\overset{\psi}{\Rightarrow}$$

$$\left\{\begin{array}{l}\left(a-\dfrac{\gamma}{\alpha}bp\right)\left[\rho-r+\dfrac{\beta}{\alpha}W+\dfrac{q^o}{\alpha^2}\left(A-\gamma Y^c\right)\right]\\ -\left[\mu+q^cY^c-\dfrac{\gamma q^o}{\alpha^2}\left(A-\gamma Y^c\right)\right]\dfrac{1}{\alpha}bp\end{array}\right\}(\theta-U')=-\bar{\varsigma}\frac{a}{\alpha}p$$

$$\overset{\times\alpha}{\Rightarrow}$$

$$\left\{\begin{array}{l}\left(a\alpha-\gamma bp\right)\left[\rho-r+\dfrac{\beta}{\alpha}W+\dfrac{q^o}{\alpha^2}\left(A-\gamma Y^c\right)\right]\\ -\left[\mu+q^cY^c-\dfrac{\gamma q^o}{\alpha^2}\left(A-\gamma Y^c\right)\right]bp\end{array}\right\}(\theta-U')=-\bar{\varsigma}ap$$

$$\Rightarrow$$

$$\left\{\begin{array}{l}a\left[\alpha\left(\rho-r\right)+\beta W+q^oZ^oY^o\right]\\ -bp\left[\gamma\left(\rho-r\right)+\dfrac{\gamma\beta}{\alpha}W+\dfrac{\gamma q^oZ^oY^o}{\alpha}+\mu+q^cY^c-\dfrac{\gamma q^oZ^oY^o}{\alpha}\right]\end{array}\right\}(\theta-U')=-\bar{\varsigma}ap$$

$$\overset{\mu}{\Rightarrow}$$

$$\left\{a\left[\alpha\left(\rho-r\right)+\beta W+q^oZ^oY^o\right]-bp\left[\gamma\left(\rho-r\right)+\beta W+q^cY^c\right]\right\}(\theta-U')=-\bar{\varsigma}ap$$

So,

$$p=\frac{a\left[\alpha(\rho-r)+\beta W+q^{o}Z^{o}Y^{o}\right](\theta-U')}{b\left[\gamma(\rho-r)+\beta W+q^{c}Y^{c}\right](\theta-U')-\bar{\varsigma}a}\equiv\Pi(p) \qquad (*)$$

Use (14) and (15), we

Define $B(p)\triangleq a\left[\alpha(\rho-r)+\beta W+q^{o}Z^{o}D^{o}(p,I)\right](\theta-U')$

$C(p)\triangleq b\left[\gamma(\rho-r)+\beta W+q^{c}D^{c}(p,I)\right](\theta-U')-\bar{\varsigma}a$

$$\because\quad B'(p)=a(\theta-U')q^{o}Z^{o}\frac{\partial D^{o}(p,I)}{\partial p}+a\left[\alpha(\rho-r)+\beta W+q^{o}Z^{o}D^{o}(p,I)\right]\left(-U''d\frac{\partial X}{\partial p}\right),$$

$$C'(p)=b(\theta-U')q^{c}\frac{\partial D^{c}(p,I)}{\partial p}+b\left[\gamma(\rho-r)+\beta W+q^{c}D^{c}(p,I)\right]\left(-U''d\frac{\partial X}{\partial p}\right)$$

$$\therefore\quad \Pi'(p)=\frac{1}{C^{2}}\left[B'(p)\cdot C-C'(p)\cdot B\right]$$

Furthermore, due to $R=d(X-M)-Z^{w}G^{w}$ and $X=aD^{c}(p,I)+bpZ^{o}D^{o}(p,I)$

$$\Rightarrow\quad \frac{\partial X}{\partial p}=a\frac{\partial D^{c}(p,I)}{\partial p}+Z^{o}b\left[p\frac{\partial D^{o}(p,I)}{\partial p}+D^{o}(p,I)\right].$$

$$a\frac{\partial D^{c}(p,I)}{\partial p}+bZ^{o}D^{o}(p,I)\left(1-\varepsilon_{p}^{o}\right)=\frac{aD^{c}(p,I)}{p}\varepsilon_{p}^{c}+bZ^{o}D^{o}(p,I)\left(1-\varepsilon_{p}^{o}\right)$$

where $\varepsilon_{p}^{o}\triangleq-\frac{p}{D^{o}(p,I)}\frac{\partial D^{o}(p,I)}{\partial p}>0$ and $\varepsilon_{p}^{c}\triangleq-\frac{p}{D^{c}(p,I)}\frac{\partial D^{c}(p,I)}{\partial p}>0$

Remark: For the extreme case: $Z^{o}=0$ or $Y_{t}^{o}=0$, for example, the case of the United States after 1895, the opium price may disappear in the model, and the model degenerates into a Ramsey case treated as control variables with respect to $\{M_{t},A_{t+1}\}$ with the state variable A_{t}. But what should be reminded is the fact this special case would not affect the application of the general model in explaining the choice between colony or L.T. and C&S since there are other powers continuing opium trade after 1895 so that opium price survived. And even for the US case, considering its role in history: before 1895 US participated in the opium trade like all the other Western powers, i.e. all foreign powers had opium trade when they involved in the process of creating C&S, which means the opium indicator Z^{o} always equals to 1; after 1895 US no longer created new C&S, even the old ones were merged into C&S of Great Britain or other powers by giving up, and L.T. in China mainland since its focus was transferred to extend its territory to its West by incorporating Louisiana (1803), Florida (1810, 1819), Texas (1845), Oregon (1846), New Mexico and California (1848), Alaska (1867) etc. in sequence. In 1898 US got Hawaii and Philippines when foreign powers created L.T. and new C&S in China. So opium indicator Z^{o} is used as the symbol to show whether opium existed or not in general without any real effect in the later application analysis.

$\because \quad K_t^a = 0, \quad L_t^a = 0$

$\therefore \quad A_t = K_t^c = \gamma Y_t^c, \quad L_t = L_t^c = \beta Y_t^c, \quad X_t = aY_t^c$

$R_t = d\left(aY_t^c - M_t\right) - Z_t^w G^w, \quad T_t = d\left(aY_t^c + M_t\right)$

$$A_{t+1} = R_t + (1+r_t)A_t - W_t L_t - \frac{q^c}{2}\left(Y_t^c\right)^2$$

$$\Rightarrow V(A_t) = \max_{\{M_t\}}\left\{U(R_t) + \theta T_t + \frac{1}{1+\rho}V(A_{t+1})\right\}$$

$\because \quad Y_t^c = \dfrac{A_t}{\gamma}$

$$\therefore \quad V(A_t) = \max_{\{M_t\}}\left\{U\left[d\left(a\frac{A_t}{\gamma} - M_t\right) - Z_t^w G^w\right] + \theta d\left(a\frac{A_t}{\gamma} + M_t\right) + \frac{1}{1+\rho}V(A_{t+1})\right\}$$

s.t.

$$A_{t+1} = ad\frac{A_t}{\gamma} - dM_t - Z_t^w G^w + (1+r_t)A_t - \beta W_t \frac{A_t}{\gamma} - \frac{q^c}{2}\left(\frac{A_t}{\gamma}\right)^2$$

$$= \left[(1+r_t) + \frac{1}{\gamma}(ad - \beta W_t)\right]A_t - dM_t - Z^w G^w - \frac{q^c}{2\gamma^2}(A_t)^2$$

$\Rightarrow \quad FOC:$

$$(M_t) \quad (\theta - U') = \frac{1}{1+\rho}V'_{+1}$$

$B-S \quad Formula:$

$$(A_t) \quad V' = (\theta + U')\frac{ad}{\gamma} + \frac{1}{1+\rho}V'_{+1}\left\{(1+r) + \frac{1}{\gamma}(ad - \beta W) - \frac{q^c}{\gamma^2}A\right\}$$

$\Rightarrow$
Combine them

$$(1+\rho)(\theta - U'_{-1}) = (\theta + U')\frac{ad}{\gamma} + (\theta - U')\left\{(1+r) + \frac{1}{\gamma}(ad - \beta W) - \frac{q^c}{\gamma^2}A\right\}$$

or

Steady State
$\Rightarrow$
$V = V_{+1}$

$$V'\left[\rho - r - \frac{1}{\gamma}(ad - \beta W) + \frac{q^c}{\gamma^2}A\right] = (1+\rho)(\theta + U')\frac{ad}{\gamma}$$

$$\Rightarrow$$

$$\left[\rho - r - \frac{1}{\gamma}(ad - \beta W) + \frac{q^c}{\gamma^2}A\right](\theta - U') = (\theta + U')\frac{ad}{\gamma}$$

$$\Rightarrow \left[\rho - r - \frac{1}{\gamma}(2ad - \beta W) + \frac{q^c}{\gamma^2}A\right]\theta = \left[\rho - r + \frac{\beta W}{\gamma} + \frac{q^c}{\gamma^2}A\right]U'$$

$$\Rightarrow A\frac{q^c}{\gamma^2}(\theta - U') = \left(\rho - r + \frac{\beta W}{\gamma}\right)(U' - \theta) + \frac{2ad}{\gamma}\theta$$

So,

$$A = -(\gamma^2/q^c)\cdot\left(\rho - r + \frac{\beta W}{\gamma}\right) + (2\gamma ad/q^c)\cdot\frac{\theta}{\theta - U'}$$

Then if A is solved, we have Y^c followed, and L, X in consequence; again in FOC condition, we get M and derive A_{+1} finally.

3. Proof of Propositions

3.1 Theorem:

Proof:

From (*), we set $\bar{\varsigma}=0$, which means opium trade was smooth in moral and justified in China at that time, e.g. before 1917, we can easily get

$$^{0}\Pi(p)\equiv\frac{a\left[\alpha(\rho-r)+\beta W+q^{o}Z^{o}D^{o}\right]}{b\left[\gamma(\rho-r)+\beta W+q^{c}D^{c}\right]}=p^{*}>0 \tag{A0}$$

$$^{0}B(p)\equiv a\left[\alpha(\rho-r)+\beta W+q^{o}Z^{o}D^{o}\right]>0,\quad ^{0}C(p)=b\left[\gamma(\rho-r)+\beta W+q^{c}D^{c}\right]>0$$

$$\Rightarrow$$

$$^{0}B'(p)=aq^{o}Z^{o}\frac{\partial D^{o}(p,I)}{\partial p}<0,\quad ^{0}C'(p)=bq^{c}\frac{\partial D^{c}(p,I)}{\partial p}>0$$

So,

$$^{0}\Pi'(p)=\frac{1}{^{0}C^{2}}\left[^{0}B'(p)\,^{0}C(p)-^{0}B(p)\,^{0}C'(p)\right]<0$$

which implies the uniqueness and existence of optimal price p^{*} resorting to the fixed-point theory.

Based on the solution, we can solve the whole model in consequence given $\{r_t, I_t, W_t\}$ and parameters $\{\alpha,\beta,\gamma,\bar{\sigma},\bar{\delta},\tau,\rho,\bar{\varsigma},\theta,q^{o},q^{c}\}$:

$$\text{Solved } p^{*},\begin{cases}\overset{(14)+(15)}{\Rightarrow} D^{o}(p^{*},I)=Y^{o^{*}},\ D^{c}(p^{*},I)=Y^{c^{*}}\begin{cases}\overset{(6)}{\Rightarrow}X^{*}\\ \overset{(3)}{\Rightarrow}Z^{o}K^{o^{*}},K^{c^{*}}\\ \overset{(4)}{\Rightarrow}L^{o^{*}},L^{c^{*}}\end{cases}\Rightarrow A^{*},L^{*}\\ \begin{matrix}\eta,\psi\\ \Rightarrow\end{matrix}\begin{matrix}\eta(p^{*})\\ \psi(p^{*})\end{matrix}\Rightarrow M^{*}\begin{cases}\overset{(1)}{\Rightarrow}R^{*}\\ \overset{(2)}{\Rightarrow}T^{*}\end{cases}\Rightarrow V^{*}\end{cases}$$

(Q.E.D.)

3.2 Proposition 1: (the subscript "HK" is omitted)

Proof:

The parameters change before and after colonization of Hong Kong in 1840 takes the following schedule:

$$\text{HK's colonization}\overset{1840}{\begin{cases}\text{before, } d=1,\ a=1-\bar{\sigma},\ b=1-\bar{\delta}\ \text{(sticky trade);}\\ \text{after, } d=1,\ a=1,\ b=1\ \text{(free trade without war risk).}\end{cases}}$$

Since a and b increase when Hong Kong was colonized,

$$\Delta a = \bar{\sigma} > 0 \quad \Rightarrow \quad a \uparrow \quad \Rightarrow \quad p^* \uparrow \quad \because \frac{dp^*}{da} = \frac{p^*}{a} > 0,$$

$$\Delta b = \bar{\delta} > 0 \quad \Rightarrow \quad b \uparrow \quad \Rightarrow \quad p^* \downarrow \quad \because \frac{dp^*}{db} = -\frac{p^*}{b} < 0,$$

$$\because \quad 1 > \bar{\sigma} > \bar{\delta} > 0 \quad \therefore \quad 0 < a < b \Rightarrow \frac{1}{a} > \frac{1}{b} \Rightarrow \frac{dp^*}{da} > \left|\frac{dp^*}{db}\right|$$

$$\text{So, } a \uparrow b \uparrow \quad \Rightarrow \quad \Delta p = \frac{dp^*}{da}\Delta a + \frac{dp^*}{db}\Delta b > 0 \quad \Rightarrow \quad p^* \uparrow$$

or another intuitive channel to read the static analysis as

$$p^*\Big|_{(a,b)} \Rightarrow \Delta p = p^*\Big|_{(1,1)} - p^*\Big|_{(1-\bar{\sigma},1-\bar{\delta})} \overset{\because 1-\bar{\sigma}/1-\bar{\delta}<1}{\Rightarrow} \quad \Delta p > 0$$

which means equilibrium price intends to increase after the colonization.

Based on the previous solving procedure, we have

$$X^* = aD^e + bZ^o p^* D^o \quad \Rightarrow \quad \frac{dX^*}{dp^*} = a\frac{dD^e}{dp^*} + bZ^o\left(D^o + p^*\frac{dD^o}{dp^*}\right)$$

$\because$ Opium addiction effect makes it lack price elasticity, i.e. $\left|\varepsilon_p^o\right| < 1$

$$\therefore \quad \frac{dX^*}{dp^*} > 0 \quad \left(\text{i.e., } p^* \uparrow \Rightarrow X^* \uparrow\right),$$

which implies the increasing equilibrium price inclines to enlarge exports.

(Q.E.D.)

3.3 Proposition 2: (the subscript "HK" is omitted)

Proof:

Refer to the solution of the general model in content, we get

$$\frac{dV^*}{dp^*} = d\left(1+\frac{1}{\rho}\right)\left[U'\left(\frac{dX^*}{dp^*} - \frac{dM^*}{dp^*}\right) + \theta\left(\frac{dX^*}{dp^*} + \frac{dM^*}{dp^*}\right)\right]$$

$$= d\left(1+\frac{1}{\rho}\right)\left[\frac{dX^*}{dp^*}(U'+\theta) + \frac{dM^*}{dp^*}(\theta - U')\right]$$

$$\Rightarrow \text{ if } \frac{dX^*}{dp^*} > \left|\frac{dM^*}{dp^*}\right| \left(\because \theta - U' > 0 \text{ from equation (11)}\right),$$

$\frac{dV^*}{dp^*} > 0$, that's meaning $V_1^* < V_2^*$ when p^* rose up after colonization,

(Q.E.D.)

3.4 Proposition 3: (the subscript "HK" is omitted)

Proof:

According to (18), we have

$$M^{\bullet}=d^{-1}\left[\left(\eta^{\bullet}+r\right)A^{\bullet}-\left(\mu-\psi^{\bullet}\right)D^{c}-\frac{q^{u}}{2}\left(Z^{u}D^{u}\right)^{2}-\frac{q^{c}}{2}\left(D^{c}\right)^{2}\right]$$

$\Rightarrow$

$$\frac{dM^{\bullet}}{dp^{\bullet}}=\alpha bZ^{u}D^{u}+d^{-1}\left\{\left[\alpha\left(\eta^{\bullet}+r\right)-q^{u}D^{u}\right]Z^{u}\frac{\partial D^{u}}{\partial p}+\left[\gamma\left(\eta^{\bullet}+r\right)-\left(\mu-\psi^{\bullet}\right)-q^{c}D^{c}\right]\frac{\partial D^{c}}{\partial p}\right\}$$

has uncertain sign since $A^{\bullet}=\alpha Z^{u}D^{u}+\gamma D^{c}$, $\eta^{\bullet}=d\frac{bp^{\bullet}}{\alpha}-\frac{\beta W}{\alpha}$, $\psi^{\bullet}=d\left(a-\frac{\gamma}{\alpha}bp^{\bullet}\right)$.

While

$$M_{d}^{\bullet}=\frac{\frac{bp^{\bullet}}{\alpha}A^{\bullet}-\frac{\gamma}{\alpha}bp^{\bullet}D^{c}-M^{\bullet}}{d}=\frac{\frac{bp^{\bullet}}{\alpha}\left(A^{\bullet}-\gamma D^{c}\right)-M^{\bullet}}{d}=\frac{bp^{\bullet}Z^{u}D^{u}-M^{\bullet}}{d}$$

Remember $bp^{\bullet}Z^{u}D^{u}$ is the opium export and $M^{\bullet}$ implies imports recalling the historical facts that China's tariff level was τ, when τ was imposed from zero to some level which corresponds to the case d decreasing from 1 to $1-\tau$ as happened in building up C&S in mainland China after 1860, and opium was used to displace precious metal brought from Great Britain to finance British imports at Canton. So the above sign concerned with the efficiency of opium production.

$\Rightarrow$

$$M_{d}^{\bullet}\begin{cases}<0,\ bp^{\bullet}Z^{u}D^{u}<M^{\bullet}\ \left(\text{Ineffective opium policy, e.g. d}\downarrow\text{ in C\&S}\right);\\ >0,\ bp^{\bullet}Z^{u}D^{u}>M^{\bullet}\ \left(\text{Effective opium policy, e.g. d}\downarrow\text{ in non-free ports of HK}\right).\end{cases}$$

Note: the tariff level is zero when $d=1$ like the case of free port policy in Hong Kong, and $d=1-\tau$ in the case of C&S.

(Q.E.D.)

3.5 Proposition 4: (the subscript "CS" is omitted)

Proof:

With the parameters change before and after the buildup of C&S in the mainland China after 1860 taking the following schedule:

$$\text{C\&S's buildup}^{1860-}\begin{cases}\text{before, } d=1,\ a=1-\bar{\sigma},\ b=1-\bar{\delta}\ \text{(sticky trade);}\\ \text{after, } d=1-\tau,\ a=1,\ b=1\ \text{(smooth trade).}\end{cases}$$

Now the situation changed to competitive monopoly case so that the number of powers occurred in the model to differ from the Hong Kong case: the optimal price changes to (A2) and exports and imports do the same transfer with the number of powers showing in demand side. Others are the same as the corresponding items in Proposition 1.

The proof is similar to the above Proposition 1 case.

(Q.E.D.)

3.6 Proposition 5: (the subscript "CS" is omitted)

Proof:

Define the state before the creation of C&S as state 1, and the one after the setup as

state 2, whose value functions correspond to V_1^* and V_2^*, respectively.

$$\frac{dV^*}{dp^*} = \frac{d}{n}\left(1+\frac{1}{\rho}\right)\left[U'\left(\frac{dX^*}{dp^*}-\frac{dM^*}{dp^*}\right)+\theta\left(\frac{dX^*}{dp^*}+\frac{dM^*}{dp^*}\right)\right]$$

$$= \frac{d}{n}\left(1+\frac{1}{\rho}\right)\left[\frac{dX^*}{dp^*}(U'+\theta)+\frac{dM^*}{dp^*}(\theta-U')\right]$$

$$\Rightarrow \text{ if } \frac{dX^*}{dp^*} > \left|\frac{dM^*}{dp^*}\right| \left(\because \theta - U' > 0 \text{ from equation (11)}\right).$$

$\frac{dV^*}{dp^*} > 0$, that's meaning $V_1^* < V_2^*$ when p^* rose up after building up C&S.

So, based on Proposition 4 the creation of C&S happened when their governments believed exports had greater slope with respect to price than imports did absolutely.

(Q.E.D.)

3.7 Proposition 6: (the subscript "CS" is omitted)

Proof:

Compared with the colony or L.T. case, C&S has no war risk but a little tariff. At the same level of equilibrium price and its jump between before and after, i.e. p^* and $\Delta p^* > 0$ fixed so that colony and C&S have the same value function before and after their individual changes $V_{CS}^* = V^* = V_{HK}^*$ since the general demand level was fixed now, with the fact that

$$\frac{dV^*}{dM^*} = d\left(1+\frac{1}{\rho}\right)(\theta - U') > 0,$$

$$\frac{dV^*}{dX^*} = d\left(1+\frac{1}{\rho}\right)(\theta + U') > 0.$$

which is consistent with the meaning of free trade. Then we can derive the war risk of colony case intends to make exports decline since

$$Z_{t+1}^w = 1 \overset{\text{War Risk Realized}}{\Rightarrow} \left\{\begin{array}{l} \left\{\begin{array}{l} a\downarrow\left(\because 1\to(1-\bar{\sigma})\right)\Rightarrow p^*\downarrow \\ b\downarrow\left(\because 1\to(1-\bar{\delta})\right)\Rightarrow p^*\uparrow \end{array}\right\} \Rightarrow \Delta p < 0 \Rightarrow X^*\downarrow \\ R^*\downarrow\left(\text{War cost } G^* \text{ happened}\right) \end{array}\right\} \overset{\frac{dX^*}{dp^*}>\left|\frac{dM^*}{dp^*}\right|}{\Rightarrow} {}^{HK}V_2^*\downarrow;$$

at the same time C&S case inclines to increase imports when foreign powers' trade was imbalanced like British one (see the argument in the content) since

$$d\downarrow\left(\because 1\to(1-\tau)\right) \overset{M_d^*<0}{\Rightarrow} M^*\uparrow \Rightarrow {}^{CS}V_2^*\uparrow$$

by using Proposition 3; finally ${}^{CS}V_2^* > {}^{HK}V_2^*$, which means C&S would be better than colony because the former both had higher exports level and imports volume than the latter when the multiple national competitions in China's trade did not change the

stability of the market price.

(Q.E.D.)

3.8 Proposition 7:

Proof:

Generally, summing up the separated individual demand of (A2), here derives

$$p^{\bullet}_{CS} = \frac{a}{b} \cdot \frac{\left[n\left(\alpha(\rho - r) + \beta W\right) + Z^o q^o D^o \right]}{\left[n\left(\gamma(\rho - r) + \beta W\right) + q^c D^c \right]} \equiv \Pi_{CS}(p)$$

Compared with the case of Hong Kong,

$$p^{\bullet}_{HK} = \frac{a}{b} \cdot \frac{\left[\alpha(\rho - r) + \beta W + Z^o q^o D^o \right]}{\left[\gamma(\rho - r) + \beta W + q^c D^c \right]}$$

at the same demand level. Define marginal production cost

$$MPC_o = Z^o q^o D^o, \quad MPC_c = q^c D^c$$

and $\nabla(r) = \left[\alpha(\rho - r) + \beta W\right] / \left[\gamma(\rho - r) + \beta W\right]$, we can prove

$p^{\bullet}_{CS} < p^{\bullet}_{HK}$, with the necessary condition $MPC_o / MPC_c > \nabla(r)$;
corresponding to the early case of opium dominating in trade,
which implies higher price level in colony at that time.

$p^{\bullet}_{CS} > p^{\bullet}_{HK}$, with the necessary condition $MPC_o / MPC_c < \nabla(r)$.
corresponding to the later case of opium losing dominance in trade,
which implies higher price level in C&S at that time.

Why does the latter case can be read as opium losing its domination in trade? The reason is that the condition

$\because 1 < \nabla(r) < \alpha / \gamma$

$\therefore MPC_o / MPC_c < \nabla(r) \quad \Rightarrow$ the sufficient condition $Z^o q^o D^o < q^c D^c$,

which implies $D^o < D^c$, the opium demand is less than the composite demand.

(Q.E.D.)

3.9 Proposition 8:

Proof:

Combined the results from equal price of Proposition 6 and inequal price of Proposition 7 due to declined importance of opium, the proof is done resorting to Proposition 5.

(Q.E.D.)

3.10 Proposition 9:

Proof:

Without the war risk, now the over competition of opium in C&S made the price down compared with the case of colony/L.T. so that exports was pulled down according to Proposition 4, which is the negative effect. Then the tariff imposed a positive effect of raising imports in the situation opium cannot cover imports due to

Proposition 3. The composite effect of the two forces left the possibility that colony/L.T. dominate C&S.

(Q.E.D.)

3.11 Proposition 10:

Proof:

Since a and b were kept and just opium tariff was imposed when Macao was colonized, $d^o \downarrow \Rightarrow p^o \uparrow \left(\because p_d^o < 0\right) \Rightarrow X^o \uparrow \Rightarrow V^o \uparrow$ as the government believed that their exports would have a larger boom in absolute scale than imports did. Compared with the C&S case, d^o would be extended to composite goods trade which made the previous setup in general case, that is $X_t = d^o\left[aY_t^c + bp_t\left(Z^o Y_t^o\right)\right]$ leading to the conclusion (A0).

Comparing (A0) with (A3), we can find

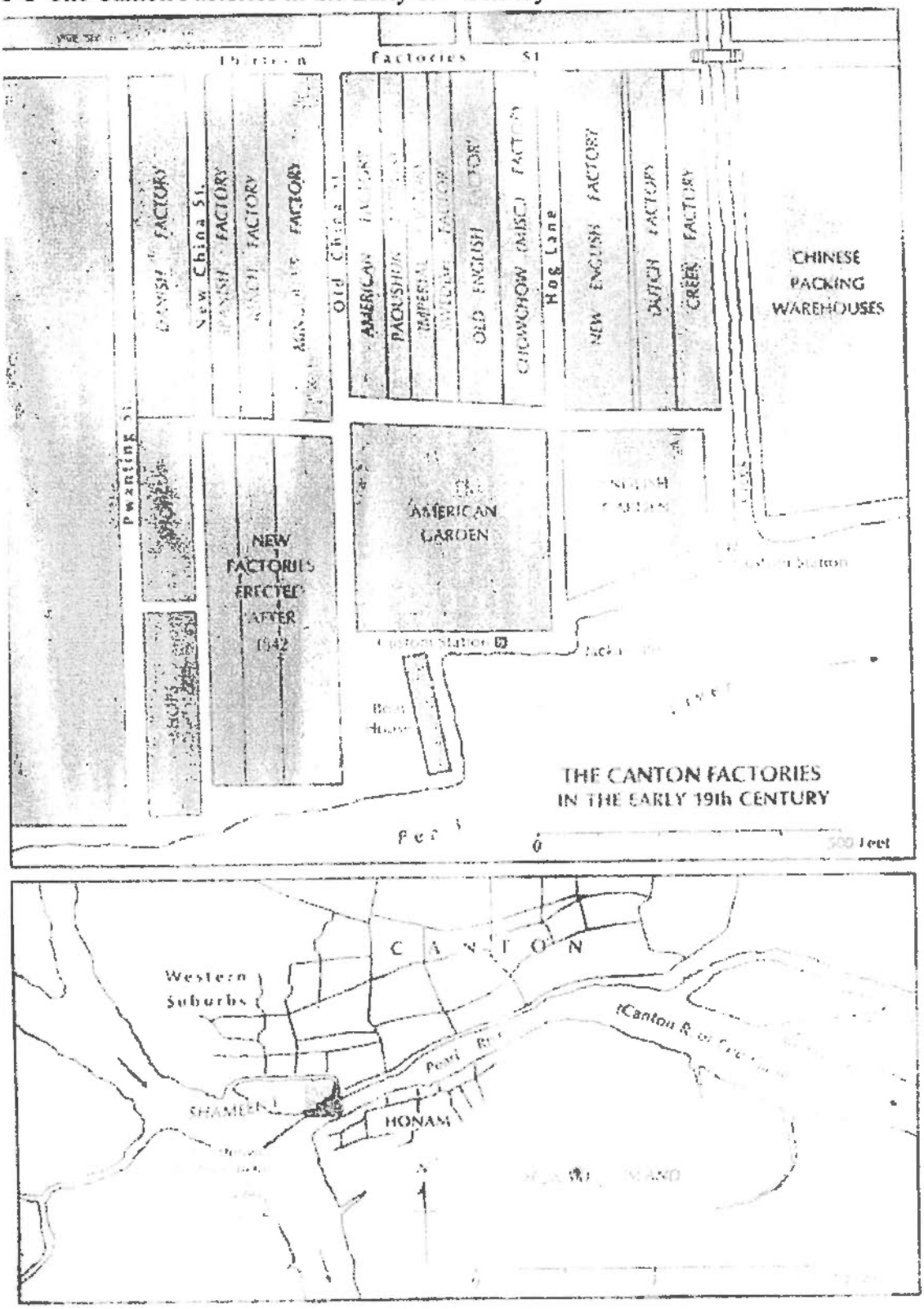
$$p^* < p^o \quad \left(\because d^o = 1 - \tau^o < 1\right)$$

at the same demand level (externally assumed), which means the price rises in colony compared with the one in C&S. Combined the effect from opium tariff with the price jump from C&S to colony which both raised the price level to extend exports so as to improve the value function, so the colonization of Macao for Portugal was better than the choice of C&S.

(Q.E.D.)

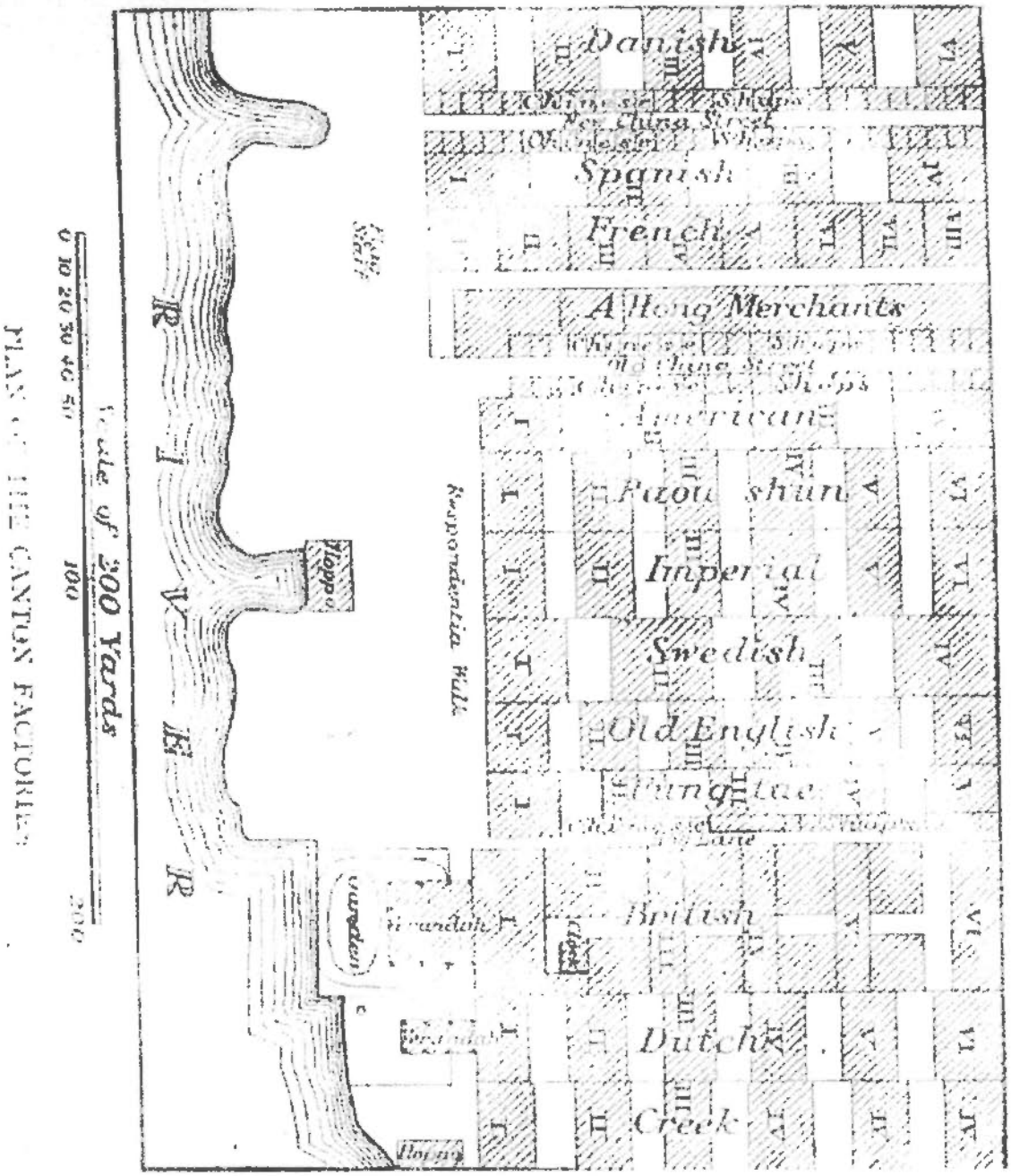
App. III Map Part

3-1 The Canton Factories in the Early 19th Century



Data source: Page 144 by Hsü (2000).

3-2 The Canton Factories

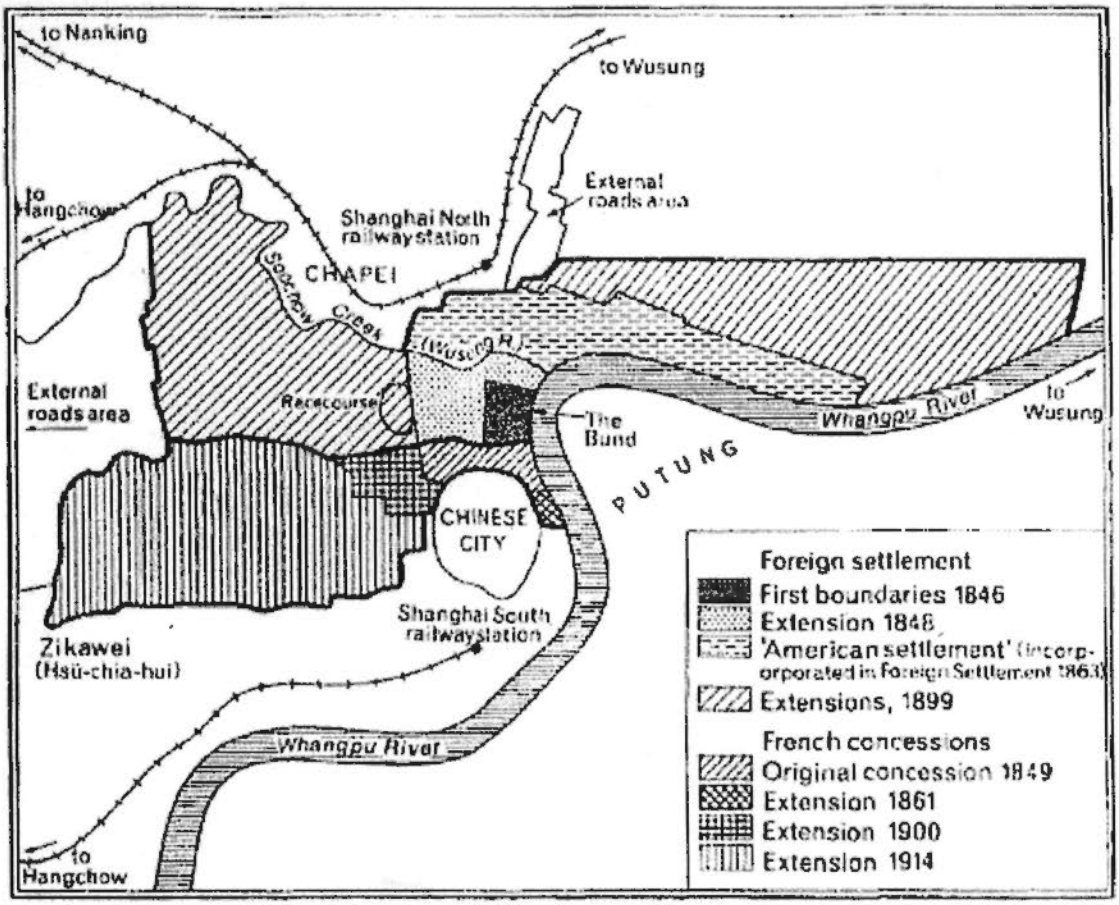


Data source: "Plan of the Canton Factories" facing 1 (From a survey by W. Bramston, 1840, in the Collection of Sir C. P. Chater, Kt., C.M.G., of Hongkong) in Vol. 3 of H.B. Morse, *The Chronicles of the East India Company Trading to China 1635-1834* .

3-3 The Canton Estuary – Hong Kong and Macao

Data source: Page 141 by Hsü (2000).

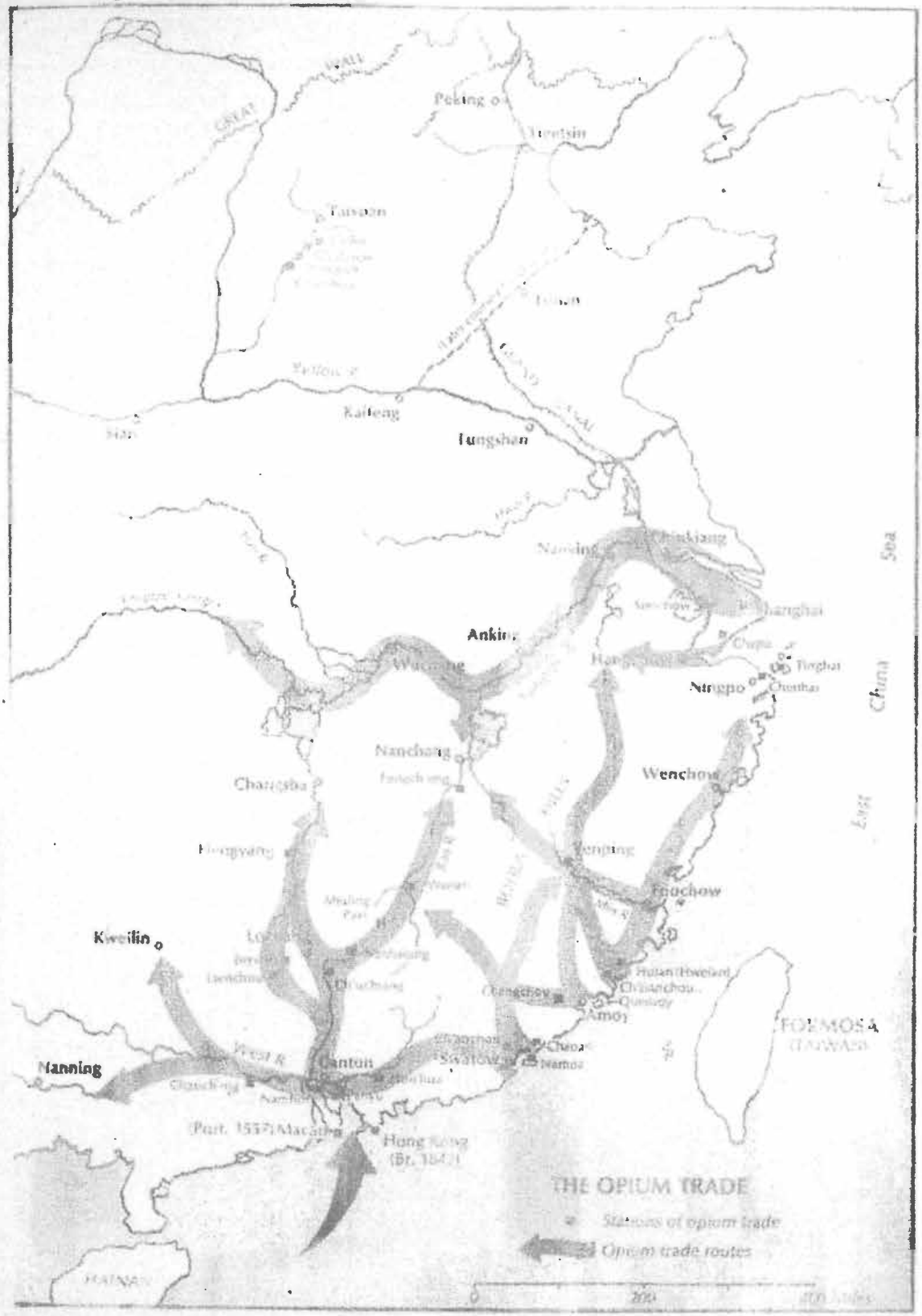
3-4 The Growth of Shanghai



MAP 8. The growth of Shanghai

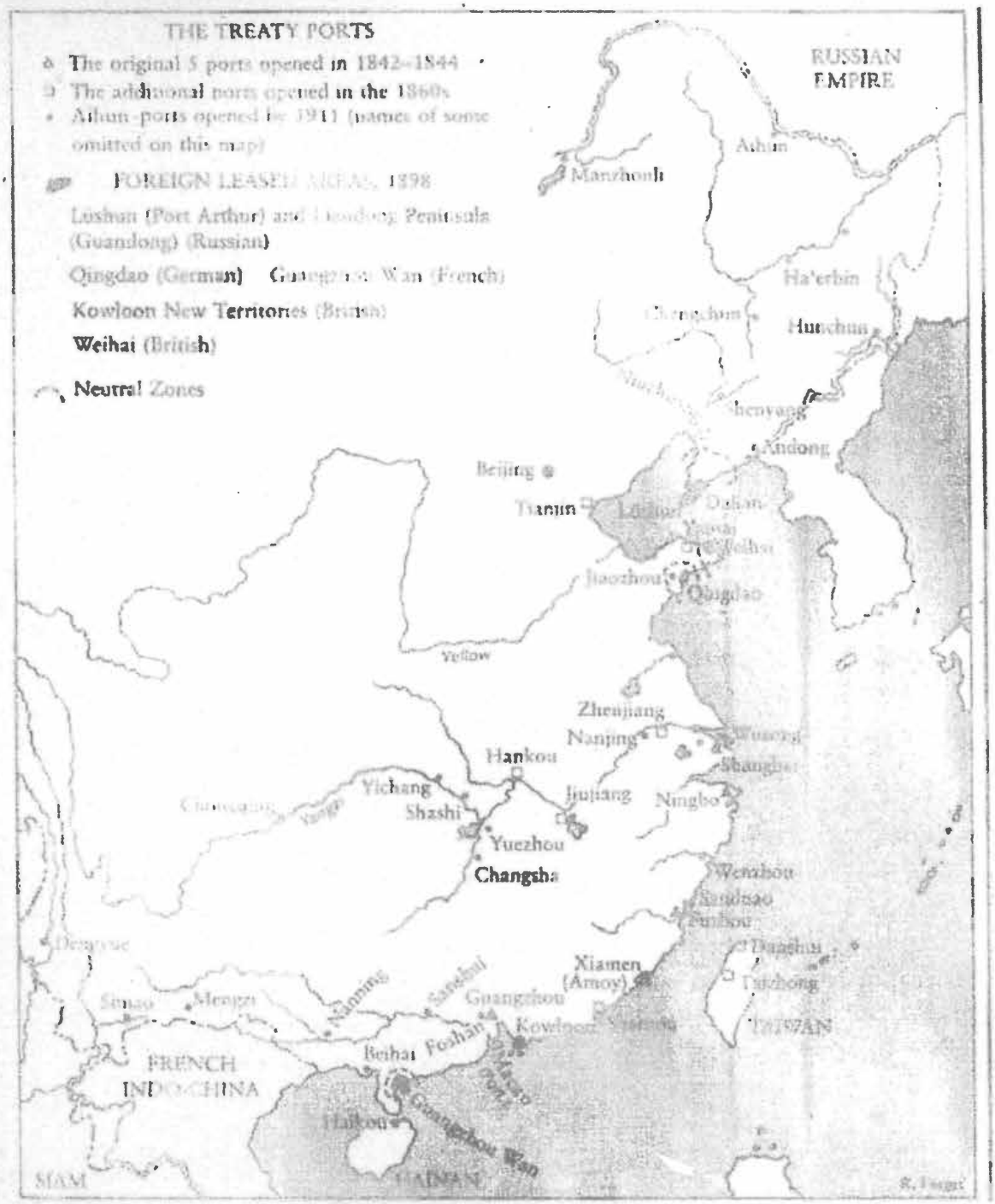
Data source: Page 238 by Fairbank (1978).

3-5 The Opium trade



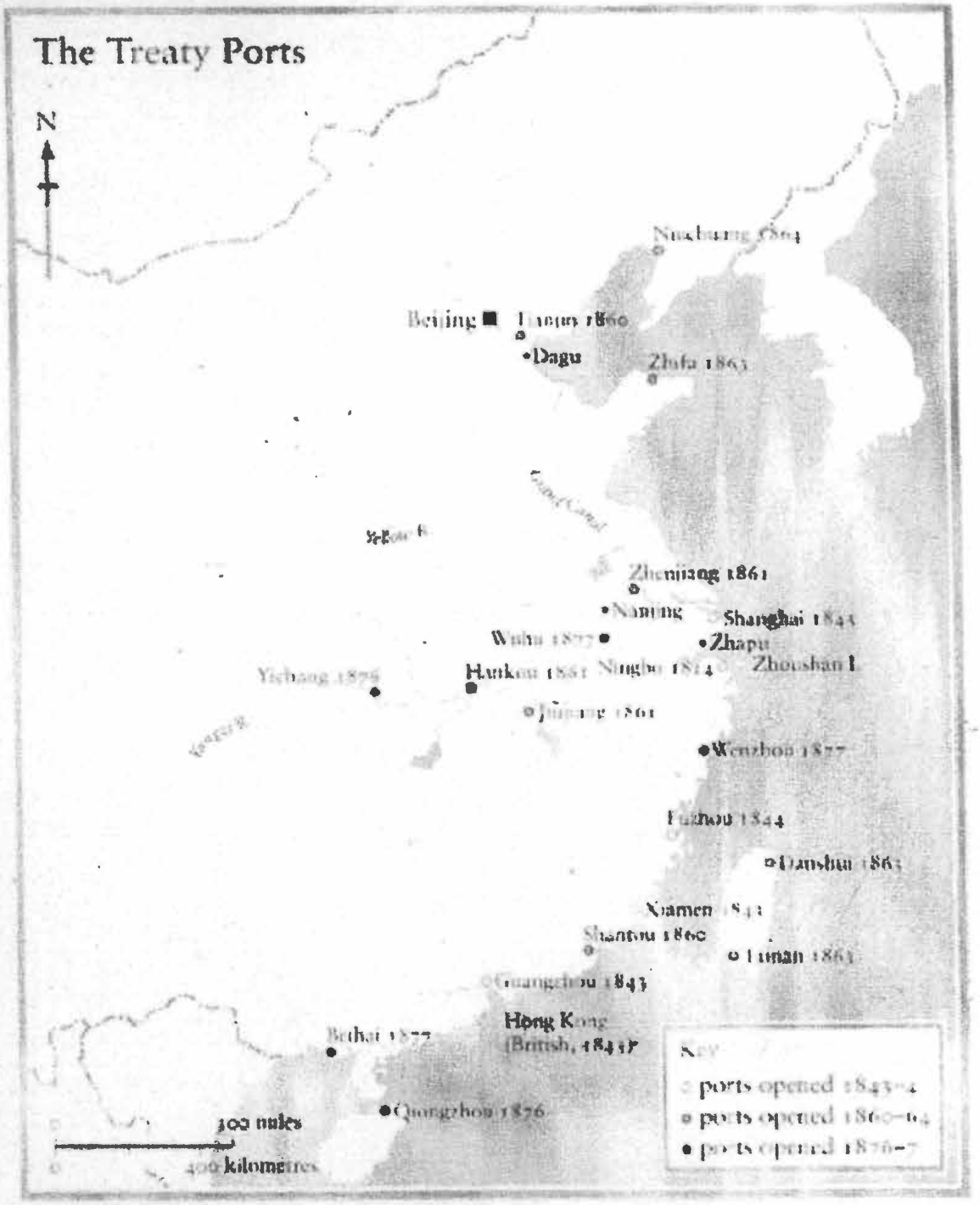
Data source: Page 170 by Hsü (2000).

3-6a Foreign Encroachments



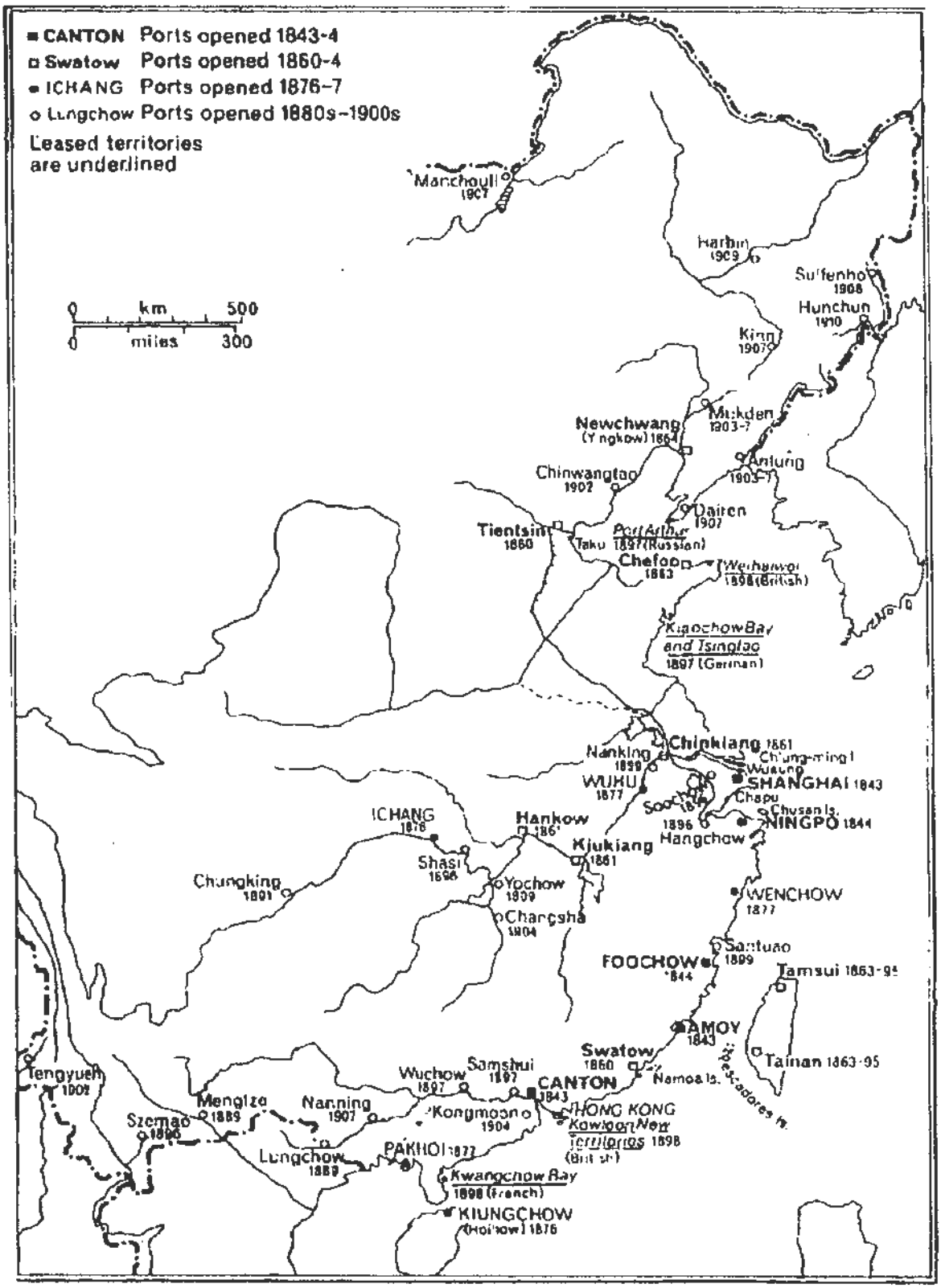
Data source: Page 202 by Fairbank and Goldman (2006).

3-6b Treaty-ports



Data source: Page XX by Fenby (2008).

3-6c Treaty-ports



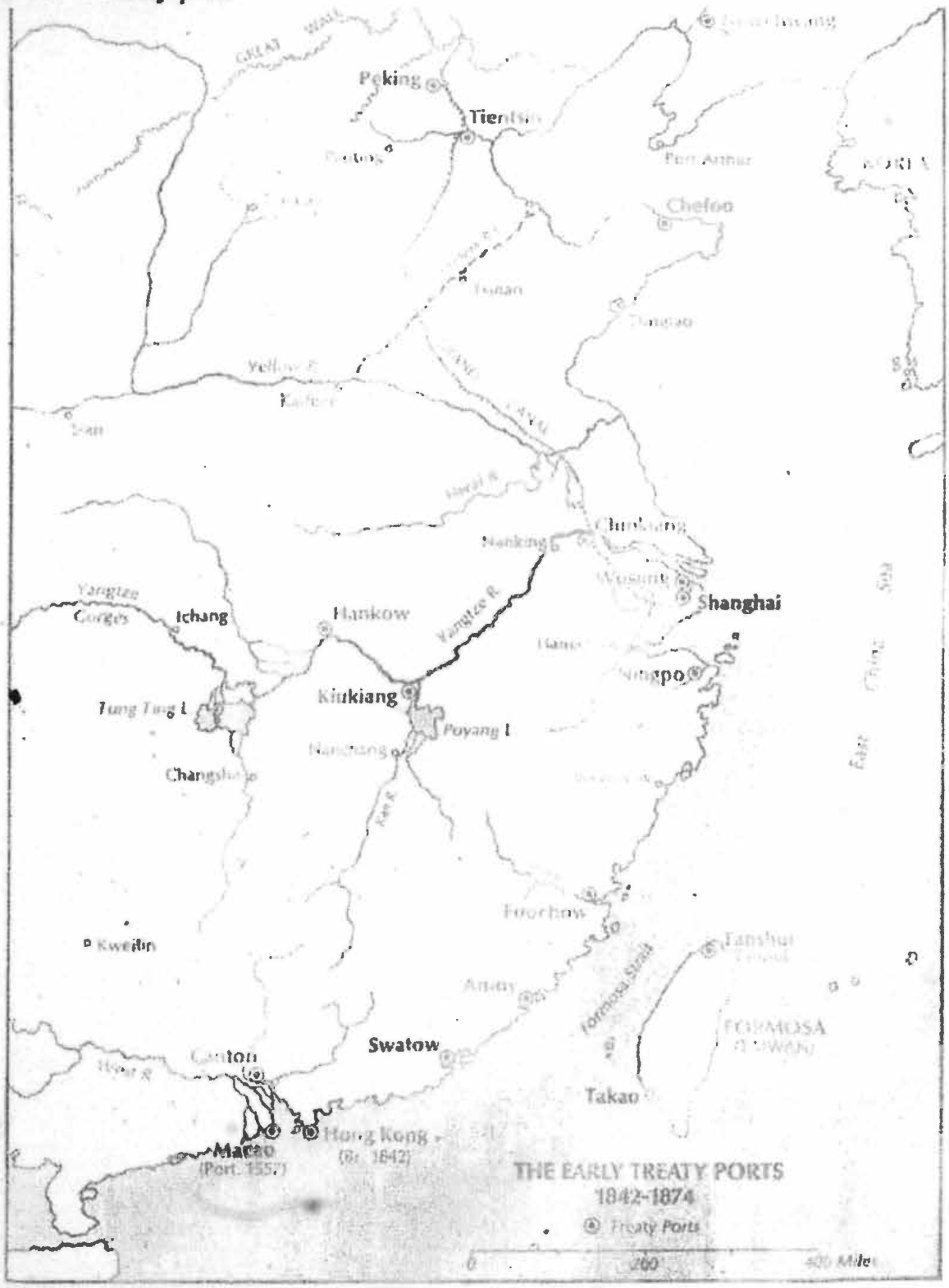
MAP. 16 Growth of the treaty port system

Data source: Page 512 by Fairbank (1978).

3-6d Treaty-ports

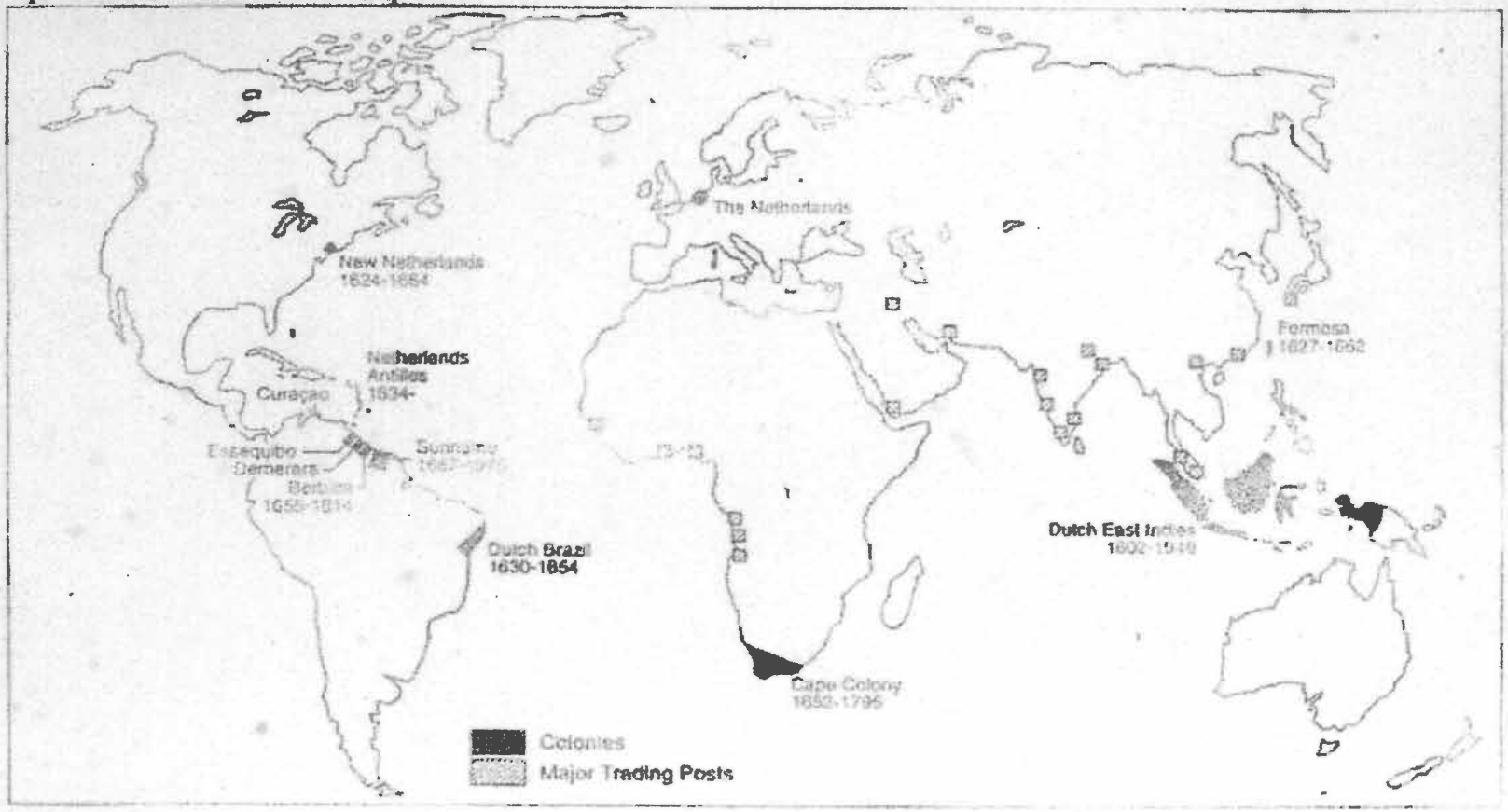
Data source: Page 158 by Fairbank (1969).

3-6e Treaty-ports



Data source: Page 217 by Hsü (2000).

3-7 The Scope of the Dutch Maritime Empire

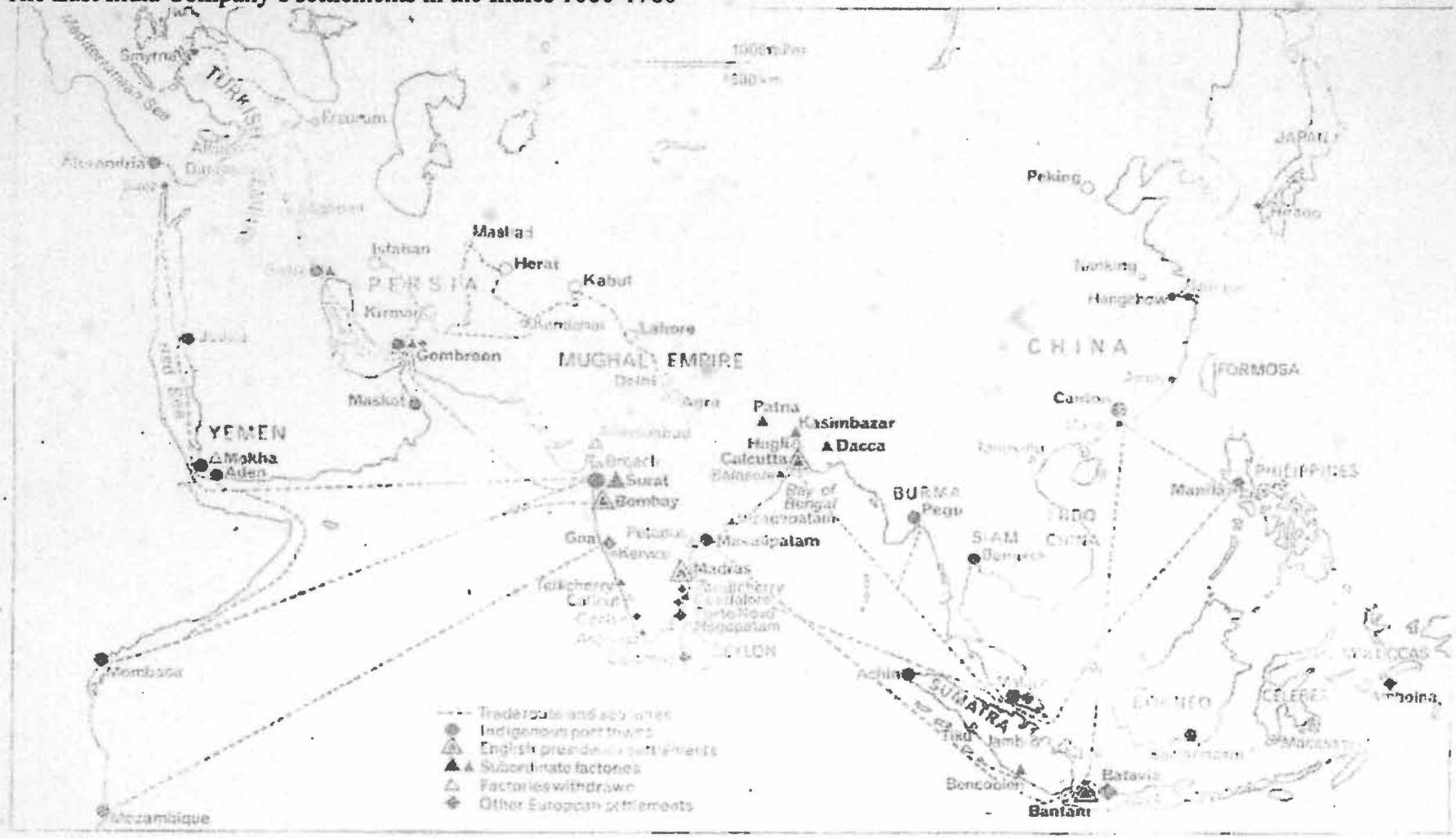


The Scope of the Dutch Maritime Empire

From: G. Oostindie (ed.), *Fifty Years Later. Anti-Slavery, Capitalism and Modernity in the Dutch Orbit* (Leiden, 1995).
Map by G-O graphics, Wijk bij Duurstede.

Data source: Page Xii by Emmer (1998)

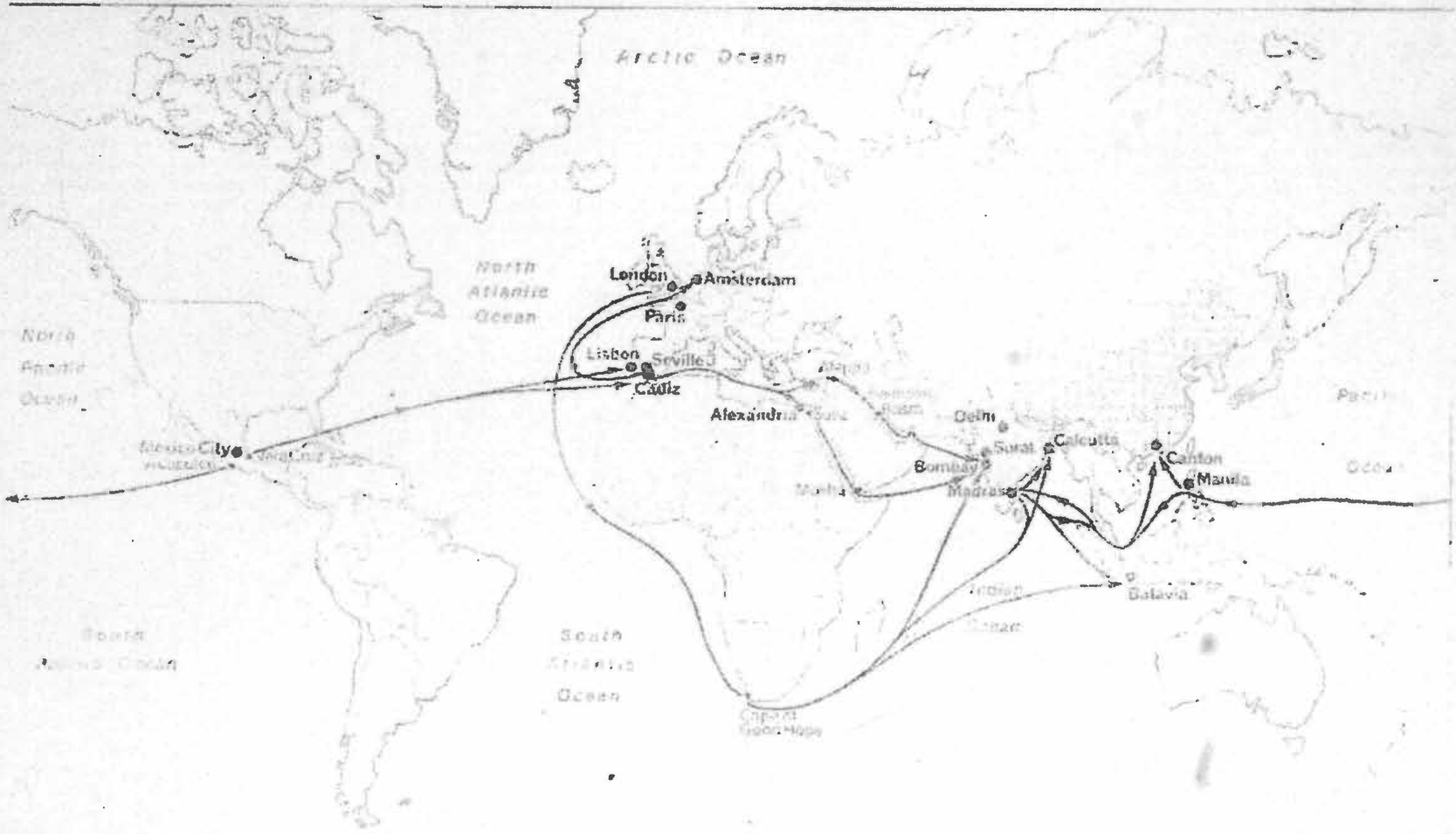
3-8 The East India Company's settlements in the Indies 1660-1760



The East India Company's settlements in the Indies 1660-1760.

Data source: Page 42 by Chaudhuri (1978).

3-9 Wolrd silver flows 1650-1750



World silver flows 1650–1750.

Data source: Page 154 by Chaudhuri (1978)

3-10 The Timing Chart of Hong Kong in Colonization

Chart 0-1. The Historical Path of Hong Kong's Colonization and Development

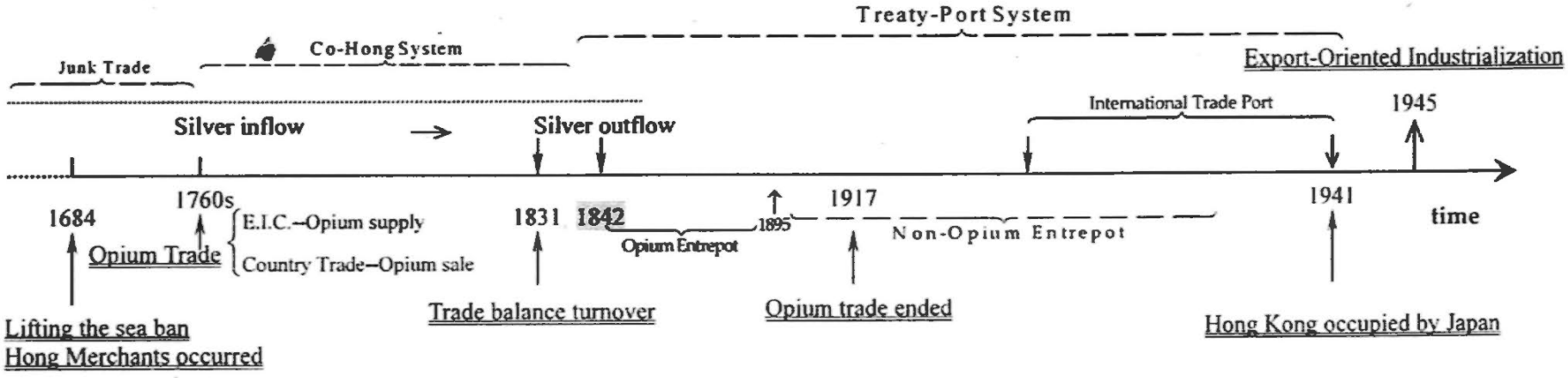
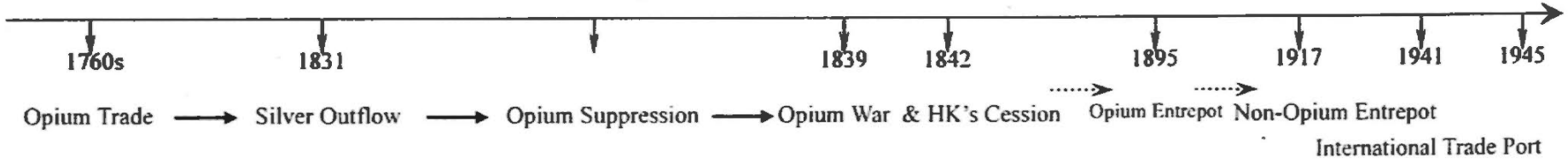


Chart 0-2. The Logic Path of Hong Kong's Cession Story



App. IV Table Part

Table 4-1: The Characters of the Trade Structure of the East India Company at Canton during 1817-1834

The Trade Structure of the East India Company at Canton, 1828 ending June 30th

Item	Imports ($)	Value Ratio (%)	Item	Exports ($)	Value Ratio (%)
Company	4,518,957	22.19	**Company**	8,479,285	46.75
Western Products:	*2,189,237*		[redacted]	8,470,285	*99.89*
Woollens	1,764,217	*80.59*	Others	9,000	*0.11*
Others	425,020	*19.41*	**Private**	9,656,767	53.25
Eastern Produce:	*2,329,720*		Silver	6,094,646	*63.11*
Indian Raw Cotton	2,329,720	100	Raw Silk	1,145,220	*11.86*
Private + "Privilege" Cargoes	15,364,600+481,043=15,845,643	77.81	Others	2,416,901	*25.03*
Western Products:	*255,507*		**Total Value**	18,136,052	100
Eastern Produce:	*15,590,136*		**Remittances through**		
Indian Raw Cotton	3,480,083	*22.32*	**the Honourable Company's Canton Treasury**		
[redacted]	11,243,496	*72.12*	Bills on the Court of Directors, London	7,820	0.27
Sandalwood	125,504	*0.81*	Bills on Bengal Settlement	2,417,560	82.15
Others	741,053	*4.76*	Captains' Certificates	447,143	15.19
Total Value	20,364,600	100	Others	70,381	2.39
			Total Value	2,942,904	100

Data source: The second paragraph on p. 13-14 by Tuck (2000), Vol.9, Part 1.

Table 4-2. China's Treaty Ports

Port	Date of Customs Opening	By Treaty with	Port	Date of Customs Opening	By Treaty with
Canton	October 1859	Great Britain, 1842	**Shasi**	October 1896	Japan, 1895
Amoy	April 1862	Great Britain, 1842	**Soochow**	September 1896	Japan, 1895
Foochow	July 1861	Great Britain, 1842	**Hangchow**	October 1896	Japan, 1895
Ningpo	May 1861	Great Britain, 1842	**Szemao**	January 1897	France, 1895
Shanghai	June 1854	Great Britain, 1842	**Samshui**	June 1897	Great Britain, 1897
Newchwang	May 1864	Great Britain, 1858	**Wuchow**	June 1897	Great Britain, 1897
Chefoo	March 1862	Great Britain, 1858	**Nanning**	January 1897	Great Britain, 1897
Wenchow	April 1877	Great Britain, 1858	**Tengyueh**	May 1902	Great Britain, 1897
Swatow	January 1860	Great Britain, 1858	**Tsingtao (Kiaochow)**	July 1899	Germany 1898
Kiungchow	April 1876	Great Britain, 1858	**Chinwangtao**	December 1901	Imperial Decree 1898
Chinkiang	April 1861	Great Britain, 1858	**Yochow**	November 1899	Imperial Decree 1898
Nanking	May 1899	France, 1858	**Santuao**	May 1899	Imperial Decree 1898
Kiukiang	January 1862	Great Britain, 1858	**Kongmoon**	March 1904	Great Britain 1902
Hankow	January 1862	Great Britain, 1858	**Wanhsien**	June 1915	Great Britain 1902
Tientsin	May 1861	Great Britain, 1860	**Antung**	March 1907	United States, 1903
Wuhu	April 1877	Great Britain, 1870	**Changsha**	July 1904	Japan, 1903
Ichang	April 1877	Great Britain, 1876	**Aigun**	July 1909	Japan, 1905
Pakhoi	April 1877	Great Britain, 1876	**Harbin**	July 1909	Japan, 1905
Kowloon	April 1887*	Great Britain, 1886	**Hunchun**	January 1910	Japan, 1905
Lungchow	June 1889	France, 1886	**Lungchingtsun**	January 1910	Japan, 1905
Mengtsz	August 1889	France, 1886	**Dairen**	July 1907	Japan, 1907
Lappa	June 1887*	Portugal, 1887	**Lungkow**	November 1915	Japan, 1915
Chungking	March 1891	Great Britain, 1890	**Weihaiwei**	October 1930	Great Britain, 1930
Data source: Table on p. 48 by Gull (1943). "*" item is the one corrected.			**Luichow**	January 1936	By China herself

Table 4-3. Concessions & Settlements (C&S) in China

Port & Concessions	Opening	Closing	Port & Concessions	Opening	Closing
Shanghai, British C&S	Great Britain, 1843	1945	Soochow, Japanese C&S	Japan, 1897	1945
Shanghai, American C&S	United States, 1848	1945	Hankow, Japanese C&S	Japan, 1898	1945
Shanghai, French C&S	France, April 1849	1945	Tientsin, Japanese C&S	Japan, 1898	1945
Amoy, British C&S	Great Britain,1862	1930	Tientsin, Russian C&S	Russia, 1901	1924
Tientsin, British C&S	Great Britain, 1860	1945	Chungking, Japanese C&S	Japan, 1901	1937
Chinkiang, British C&S	Great Britain, 1861	1929	Tientsin, Belgian C&S	Belgium, 1902	1931
Hankow, British C&S	Great Britain, 1861	1927	Tientsin, Italian C&S	Italy, 1902	1945
Kiukiang, British C&S	Great Britain, 1861	1927	Tientsin, Austrian C&S	Austria, 1902	1917
Tientsin, French C&S	France, 1861	1945	Shanghai Int'l Settlement	Great Britain and United States, 1863	1945
Canton, British C&S	Great Britain, 1861	1945	Amoy Kulangsu Int'l Settlement	Foreign Powers, 1902	1945
Canton, French C&S	France, 1861	1945	Kiaochow L.T.	Germany,1897	1922
Tientsin, American C&S	United States, 1862	1945	Liaotung Peninsula L.T.	Russia,1898	1945
Hankow, Germanic C&S	Germany, 1895	1917	Weihaiwei L.T.	Great Britain,1898	1930
Tientsin, Germanic C&S	Germany, 1895	1917	Kwangchowwan L.T.	France,1898	1945
Hankow, Russian C&S	Russia, 1896	1924	North Kowloon L.T.	Great Britain,1898	1997
Hankow, French C&S	France, 1896	1945	Macao	Portugal, 1887	1999
Hangchow, Japanese C&S	Japan, 1897	1945	**Data source:** Translated by Author from Appendix 1 on p. 427-430 by Fei (1991).		

Note: "Shanghai, British C&S" and "Shanghai, American C&S" were amalgamated into Shanghai International Settlement,1863; "Tientsin, American C&S" was conditionally amalgamated into "Tientsin, British C&S" in 1902; "Liaotung Peninsula Lease Territory (Russia)" was occupied by Japan in 1905.

Table 4-4. Failed Concessions & Settlements and Other Foreign Spheres in China

Places	Tried	Closed	Places	Tried	Closed
Wenchow, British C&S	1877		Chinwangtao Trade Port	1898	
Wenchow, American C&S	1877		Wuhu Public Trade Sphere	1902	
Shasi, Japanese C&S	1898		Changsha Public Trade Sphere		
Foochow, Japanese C&S	1899		Ningpo Foreign Settlement	1843	1927
Amoy, Japanese C&S	1899		Foochow Foreign Settlement	1855	1943
Tarbagatai, Russian Trade Sphere	1851	1924	Yingkou British Settlement	1861	
Ili, Russian Trade Sphere	1851	1924	Chefoo Foreign Settlement	1861	
Lushan Summer Place	1895	1936	Peking Embassy Ground	1901	1945
Beidaihe Summer Place	1898	1932	Foreign Military Camp		
Moganshan Summer Place	1898	1928	Middle East Railway Concession (Russia)	1896	1920
Jigongshan Summer Place	1907	1935	Antung-Moukden (AM) Railway Concession (Japan)	1904	1945
Soochow Public Trade Sphere	1897		Yingkou New Market	1904	1945
Hangchow Public Trade Sphere	1897		Antung New Market	1904	1945

Data source: Translated by Author from Appendix 2 on p. 431-436 by Fei (1991).
Note: "Lushan Summer Place" was firstly leased in 1885 or 1886; "Beidaihe Summer Place" and "Jigongshan Summer Place" were firstly bought by foreigners in 1893 and 1903, respectively; "Wuhu Public Trade Sphere" was firstly tried as C&S but failed in 1877; "Yingkou New Market" and "Antung New Market" were affiliated into AM in 1923.