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The Rise of Chinese Mercantile Power in VOC Dutch East Indies

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Abstract: In the VOC times, Chinese merchants not only kept on playing a prominent intermediary role in the traditional external trade of the East Indies with East Asia, but also began to play a prominent intermediary role in the internal trade all over the archipelagos. This article argues, from an organizational perspective, that economic complementarity between the Dutch East India Company and Chinese business networks was responsible for Chinese mercantile success. It also shows how incentive constraints and adaptive inefficiency led to the decline and fall of the VOC.

Introduction[1]

The Dutch United East India Company (*Verenigde Oost-Indische Compagnie*, hereafter the VOC) was established in 1602, annulled and nationalized in 1795. As its charter remained in force until 31December 1799, the VOC formally came to an end at the turn of the century. From 1800 to 1949, when the Republic of Indonesia officially came into being, for one and a half centuries the East Indies was ruled as a colony by the Dutch, constituting the colonial period of the archipelagos. The Dutch began to dispatch ships to Asia for trade in 1595, and thereafter separate fleets had been sent by various early Dutch companies from 1595 to 1602. In 1602 the VOC was formed and awarded a charter by the States-General, which authorized the company to monopolize all Dutch-Asiatic trade. In 1619 the VOC seized the port city of Jakarta from the Sultan of Banten and renamed it Batavia.[2] It set up its Asian headquarters there to supervise all its business operations in Asia. In the period between 1602 and 1799 the history of the East Indies was essentially shaped under the influence or domination of the VOC. This article investigates the rise of Chinese mercantile power in the East Indies during these two centuries.

Long before the arrival of the Dutch ships in Asia, Chinese traders had already been a dominant mercantile power in maritime East Asia. They were again one of the major mercantile powers in maritime Southeast Asia. With the intrusion of the VOC into Asian trade, Chinese mercantile power was further enhanced. Other than the Dutch, ethnic Chinese became the most powerful economic group not just in maritime Southeast Asia, but in the East Indies in particular. The human environment of the VOC East Indies was unconsciously oriented to favour the growth of Chinese commercial interests. Chinese mercantile power continued to develop during the colonial period, and it is still an element to be reckoned with in the Indonesian economy today. With the rise of China's economy in recent decades, the economic role of ethnic Chinese has been increasingly significant in the archipelagos. As the foundation of Chinese economic prominence in Indonesia was essentially laid in the VOC times, a study of the rise of Chinese mercantile power then may also shed light on Chinese contemporary performance and even further into the future.

Both Chinese and Dutch were alien residents in the East Indies. From the early seventeenth to the mid-twentieth century, for nearly three and a half centuries, they were the two entrenched ethnic groups with the greatest economic interests there. Their economic interests did no go completely without competition or conflict, but it is generally

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[2] The Batavians were a German tribe and ancestors of the Dutch.

recognized that economic complementarity between them seems to have far outweighed any contradictions. Despite the fact that the VOC, due to calculations of its own interest or out of expediency, had implemented various restrictive policies on Chinese economic activities, Chinese and Dutch economic complementarity was visible throughout the Company's time as well as during the colonial period. This article focuses on the complementarity of Chinese business networks and the VOC to explain the rise of Chinese mercantile power.

Network and Firm

In the East Indies of the seventeenth and eighteenth century, Dutch economic interests were nearly all monopolized by the VOC, while Chinese economic interests were spread among countless individual actors in the market. The VOC was a trading company formed by many private Dutch investors; in terms of economic participation, individual Chinese collectively came to constitute a business network. For analytical convenience we therefore simplify the economic activities of Dutch and Chinese people into the operation of a trade firm and a business network respectively. Given this simplification, it is necessary to give a brief discussion on the differing economic characteristics of firm and network.

Economic organizations are usually categorized into three simple kinds: market, network and firm. A network is characterized as something that partakes of some qualities of market and firm, and is thus viewed as a hybrid of the other two organizations. In the firm there exists as a rule a hierarchy in internal human relationships, in contrast with its absence in market and network. With respect to resource allocation, an ideal market is decentralized, impersonal and casual and primarily characterized by economic transactions taking place among profit-maximizing individuals. The most striking economic characteristic of a firm is internal coordination. In order to achieve the target of coordination the organization of the firm operates by means of centralized power, hierarchical command and internal convention. (By convention we mean a corporate culture which is consciously or unconsciously formed to help partially solve the problems arising from incomplete contract.[3]) Organizational theories often regard firm and market as two opposite methods governing resource allocation in a capitalist economy. In-between there exist various forms of governance, which sometimes are lumped together into a category called "hybrids". All these hybrid organizations share the characteristic of close personal relations, on which most economic transactions take place. They belong to the third method of governance which we call "network". Norm, reciprocity, personal trust instead of contract provisions, informal social sanctions instead of formal legal constraints, are the elements that make a network economy work.[4]

Hierarchical transactions occur within a firm's command structure; market transactions on the other hand are carried out hand-to-hand between anonymous individuals. The operation of a network economy is characterized by the absence of these two ways of transacting. In their place, a network transaction is carried out completely under social supervision. Described from the viewpoint of transaction costs, Oliver Williamson concludes that the choice of these three capitalist economic organizations is made primarily on the consideration of economizing governance cost.[5] When changes in property

[3] Paul Milgrom and John Roberts, *Economic Organization and Management* (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1992), pp. 129-40 and 265.
[4] Joel M. Podolny and Karen. L. Page, "Network Forms of Organization," *Annual Review of Sociology*, 24 (1998): 57-75; Steve Lovett, Lee Simmons and Raja Kali, "Guanxi versus Market: Ethics and Efficiency," *Journal of International Business Studies*, 30:2 (1999): 231-47.
[5] Oliver E. Williamson, "Transaction Cost Economics and Economic Organization Theory," in *The Handbook of Economic Sociology*, ed. Niel J. Smelser and Richard Swedberg (Princeton, N.J.: Princeton University Press, 1994), pp. 77-107. Also see by the same author, "The Economics of Governance," *American Economic Review*, 95: 2 (2005): 1-17.

rights, contract laws, and norms and conventions result in changing the comparative costs of governance, economic organizations would change accordingly to meet the need of cost shifts. The transition from one organization to another involves a trade-off of efficiency, expressed in the difference in transaction costs. An organization with relatively decentralized authority, such as a market, is capable of creating strong incentives within individual participants, and can actively adapt to autonomous disturbances. It is, however, not suitable for coordinated cooperative adaptation. In contrast, despite the fact that a hierarchical organization is handicapped with weak incentive structure for individuals, and is relatively incapable of autonomous adaptation, it would function better in coordinated collective adaptation. Different organizations thus have different adaptive strengths and weaknesses. When the need for mutual dependency and cooperative adaptation increases, there would be trouble with a market. Thus, if the need for cooperative adaptation intensifies, a market will yield to the hybrid organization of the network, and the latter will again yield to the hierarchical organization of firm. Here firm is the organization of the last resort, and no further solution can be found. By substituting simple spot market exchange with contracted intra-firm exchange, we are faced with a trade-off of efficiency between market and hierarchical organization. In other words, one kind of inefficiency (bureaucratic governance) is substituted for another (cooperative maladjustment).

In VOC times the economic interests of the East Indies, especially that of the distribution sector, was mostly shared by the VOC and Chinese people. If the VOC was so constrained by competition and cost-benefit considerations as not to be able to thoroughly carry out its envisioned monopoly policies in the East Indies, the objective of those policies was nevertheless largely achieved in the end when, after the foundation of Batavia as the Company's overseas capital, it actively sought Chinese partners. Thereafter, the two parties began to monopolize the trade profits of the archipelagos. Their monopoly would not have been possible had there not been the complementary interplays between VOC hierarchical organization and Chinese business networks.

Firm and network have their respective adaptive strengths and weaknesses. Firm is efficient in coordinated cooperation, but it suffers from a loss of incentive intensity and added bureaucratic costs. As the interests of individuals and that of the firm are not always consistent, opportunism is unavoidable. The problem of agency and monitoring therefore plagued the VOC all the time. Network is a hybrid organization between firm and market. For the Chinese business network, incentive, though less intense than in a market, was not a problem. In fact, it was intense enough to motivate individual economic participation. The weakness of the Chinese business network was adaptive inefficiency in cooperative coordination. This was especially true in times of emergency when large-scale cooperative coordination was called for. Thus although there was competition of economic interest between the Dutch and Chinese, there was economic complementarity between them due to their different methods of economic governance, as represented by the VOC and Chinese business networks. And with the increasing consolidation of VOC political control over the islands, economic competition between Dutch and Chinese people gradually weakened while economic complementarity was increasingly strengthened. The process of strengthening complementarity explains the growth of Chinese mercantile power.

The VOC's Trade Strategy in the East Indies

In 1603 the VOC began to dispatch trading ships to Asia and took part in the commercial competition of maritime Asia. Its competitors consisted of various groups of traditional Asian merchants, as well as European new arrivals including merchants from England, France, Demark, and Portugal. In 1609 the highest decision-making unit of the VOC, the committee of seventeen directors called "the Gentlemen Seventeen", devised a set of basic policies for the Company's Asiatic trade. The following were most noteworthy: first, to assign a governor general to oversee all their Asiatic trade, to be assisted by a Council of the Indies; second, to find a suitable fixed point as a rendezvous for VOC ships, where a commanding headquarters in Asia would be located and a port city could be created as the centre of commodity distribution; and third, to monopolize all spice trade. The blueprint for these policies was drawn up by Cornelis Matelieff, who in 1605 commanded a VOC fleet to Asia. After returning to Holland in 1607 he served as board director on behalf of the Rotterdam Chamber, one of the six chambers from which representatives of board directors were sent to form the Gentlemen Seventeen. In 1608-1609 Matelieff wrote a series of four essays in which he enthusiastically advocated that the VOC imitate the Portuguese system in Asia. The following two points were the most crucial: centralization of power, and promotion of intra-Asia trade.[6] His proposal was adopted by the Gentlemen Seventeen, which in 1609 dispatched a governor to Asia with his seat at Banten, then the biggest international trade centre of maritime Southeast Asia.[7] As the open trade policy of the Banten sultan was not favourable for the VOC's trade policy in Asia, from the outset its Asian governors keenly searched for a substitute port for the Company's headquarters. It was only after a series of patient negotiations and military campaigns that the fourth governor, Jan Pietersz Coen, eventually seized the port city of Jakarta by force from the Banten sultan and renamed it Batavia. There Coen set up a government, which operated until the VOC dissolution in 1799, for the Company to direct and administer its trade in Asia.

Headquartered at Batavia, from Coen onward every governor general made an effort to establish the VOC trade system in Asia, to implement VOC policies of intra-Asia trade and monopoly on spices. As early as 1619, in a letter Coen wrote to the Gentlemen Seventeen he laid out how to put the intra-Asia trade policy into effect:[8]

> Gujerat textiles must be traded for pepper and gold on the shores of Sumatra; pepper from Banten for reals and textiles from the coast (of Coromandel); Chinese goods and gold for sandalwood, pepper and reals; silver can be got from Japan for Chinese goods; the textiles from the Coromandel coast for spices, other merchandise and pieces of eight; pieces of eight from Arabia for spices and other small goods, making sure that one compensates the other, and that all is done on ships without money from the Netherlands.

In a nutshell, Coen reckoned that by means of an extensive trade system and its shipping advantage, the VOC would be able to make a great profit from intra-Asian trade, which could then be used to support the VOC's Euro–Asiatic trade. He further pointed out that in this way the Netherlands might even be spared the burden of exporting precious metals for Asian trade, as was suffered by all other European maritime powers. What the Netherlands had to do was supply ships, equipment and servicemen. Though Coen's letter much exaggerated the profit to be expected from intra-Asian trade, from 1630 the success of this trade had substantially reduced VOC reliance on the export of precious metals from its mother country. It was not until the 1680s that Netherlands export of precious metals began to pick up again, because of intensified competition in intra-Asian trade and the expansion of the Dutch Euro–Asiatic trade.[9]

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[6] Femme S. Gaastra, *The Dutch East India Company* (Zutphen, the Netherlands: Walburg Pers, 2003), pp. 39-40.

[7] Zhang Xie 張燮，*東西洋考 (On the East and West Oceans)* (Beijing: Zhonghua BookCo., 1981[1618]), pp. 41 and 179. On the rise and fall of Banten, and Chinese economic activities over there, see Ts'ao Yung-ho 曹永和，"明末華人在爪哇萬丹的活動 (Chinese Activities at Java's Banten in the Late Ming)", in his book *中國海洋史論集 (Collected Writings on Chinese Maritime History)* (Taipei: Lianjing Publishing Co., 2000), pp. 233-72. Iwao Seiichi 岩生成一,"下港の支那町について(A Historical Study of Chinese Town in Bantam)," *東洋學報(Tōyō Gakuho)*, 31:4 (1948), pp. 441-71.

[8] Gaastra, *Dutch East India Company,* p. 121.

[9] Ibid, pp, 132 and 139; Kristof Glamann, *Dutch-Asiatic Trade 1620-1740* (The Hague: Martinus Nijhoff, 1958), pp. 50-71 and 290, Appendix D, Table IX.

The monopoly of the spice trade was another important VOC policy. There were two kinds of spices: ordinary and fine. Ordinary spice referred to pepper, whereas fine spices consisted of cloves, nutmeg, mace, and cinnamon. The production of cloves, nutmeg and mace were traditionally concentrated on the tiny archipelago of Moluccas, while most cinnamon was produced on the island of Ceylon. The production of pepper was widespread in many places, from the Malabar Coast of the Indian subcontinent to Sumatra and Java of the East Indies.[10] As Ceylon lay outside the East Indies, the VOC's control of the cinnamon trade will not be dealt with here; but VOC monopoly of the other three fine spices was achieved in the 1650s. In 1684 when Banten was forced into VOC vassalage, Company control of the production and collection of pepper in the East Indies was largely complete, although this was but a partial monopoly in terms of the pepper market in Asia. In order to monopolize the trade of spices, the VOC had to take control of the production centres and export harbours. Starting from setting up its Asian capital at Batavia, the VOC had step-by-step carried out its plan to control these centres and harbours, as a brief chronology of its expansion shows. In 1621 the VOC took the Banda Islands, in 1641 Malacca, Aceh, Palembang, and Jambi fell, then in 1655 Ambon, in 1667 Macassar, in 1677 Ternate, Pasisir and Mataram, and in 1684 Banten. In the eighteenth century Pasisir and Mataram resisted, but were retaken in 1741-43 and 1749 respectively.[11]

This list includes some critical places and port cities whose control was deemed necessary for the VOC to enforce its monopoly policy. Before the VOC's arrival, fine spices had been widely planted in the Moluccas. For easy control the VOC forced the native people to concentrate their cultivation of cloves on the island of Ambon, and of nutmeg and mace on the Bandas. Plants of fine spices in other places were all uprooted and destroyed. Macassar and Ternate, for example, were formerly famous for their production and trade of fine spices. With the VOC's prohibition, they were deprived of the spice economy and became impoverished. What Ambon and the Bandas produced now represented the total amount of these commodities on the international market. These fine spices were all shipped to Batavia, whereupon the VOC would then distribute them to the world markets. The monopoly of fine spices was thus fully accomplished.

Prior to its occupation by the Portuguese in 1511, Malacca had been the largest emporium between maritime East Asia and the Indian Ocean for over a century. It declined after the Portuguese take-over, but remained a prosperous trade port nonetheless. Many business transactions previously focused on Malacca were thereafter diffused to a few other port cities of the East Indies, such as Banten, Patani, Aceh, Palembang, and Jambi. In 1641 the VOC attacked Malacca and seized it from the Portuguese. That same year the three ports on Sumatra were forced to sign treaties offering the Dutch special privileges in trade. These three port cities, together with Malacca, were then centres for the international pepper trade in the East Indies. The VOC could not afford to leave them free, if it wanted to achieve a monopoly of pepper. The internal power strife of Banten drove its young sultan to invite VOC military intervention in 1684. As a result, the sultan was coerced into yielding to the Company demand to exclude all international traders but the Chinese from visiting Banten, the greatest international trading port in the East Indies in those days. That same year of 1684 marks the completion of the VOC monopoly on ordinary spice in the East Indies.

Throughout VOC times, the spices of the East Indies had been a crucial component of

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[10] Anthony Reid, *Southeast Asia in the Age of Commerce 1450-1680* (New Haven: Yale University Press, 1993), vol. II, pp. 23-24.

[11] The narrative below is mainly based on: Gaastra, *Dutch East India Company*, ch 2, pp. 30-50; Om Prakash, "Restrictive Trading Regimes: VOC and the Asian Spice Trade in the Seventeenth Century," in *Emporia, Commodities and Entrepreneurs in Asian Maritime Trade, c. 1400-1750*, ed. Roderich Ptak and Dietmar Rottermund (Stuttgart, Germany: Franz Steiner Verlag, 1991), pp. 107-26; Hui Kian Kwee, *The Political Economy of Java's Northeast Coast, c. 1740-1800* (Leiden: Brill Academic Publications, 2006), pp. 23-42.

the Company's business, not just in intra-Asian trade but in Euro–Asiatic trade as well. Up to the end of the Company's life, these spices had generated bountiful profits for the VOC, in particular during the seventeenth century. In the total sales value of the Asian commodities shipped backed to the Netherlands in 1668-1670, the share of pepper amounted to 30 percent, next came the share of the fine spices which stood at 28.5 percent. In 1738-1740 their shares were 11 percent and 23.5 percent respectively. The profit accrued from monopolized commodities was especially noteworthy. In the total purchase cost of Asian commodities, the cost of fine spices in 1668-1670 only reached 12 percent, in contrast with the total share of sale value, that is, 28.5 percent. That same three year period saw roughly the same share for pepper in its purchase cost and sale value, which was 30 percent of the total. The profit from pepper fell far below that of fine spices. Unlike the case of fine spices, the VOC was not able to thoroughly control the production and marketing of pepper in the East Indies. Furthermore, pepper was also widely produced outside the East Indies, such as in the Malay Peninsula and India. As a result, the VOC met stiff competition on the pepper market of both Europe and Asia. In 1738-1740, of the total Asian commodities shipped by the company to Europe, the purchase cost and sale value of fine spices stood at 6.1 percent and 23.5 percent respectively, whereas for pepper the respective figures came to 8.1 percent and 11.4 percent. In 1778-1780 the purchase cost of fine spices was merely 3.1 percent of the total purchase cost of Asian commodities shipped back the Netherlands, but their sale value amounted to 24 percent of all Asian imports. It is obvious that during the two centuries of the VOC's business, in contrast with other Asian commodities, the profit margin for spices was very large indeed, especially for the case of fine spices, and this had much to do with the enforcement of the VOC monopoly policy on the spice trade.[12]

In order to enforce its monopoly policy, the VOC had to take under its control strategic sites in the East Indies. With the expansion of business scale, its control gradually extended from points to lines, and then further on to areas. It goes without saying that the expansion of control required massive military and administrative expenses. The VOC was essentially a trading company, the purpose of its business operation being profit maximization. The board of directors was extremely sensitive to cost and benefit calculations, and consequently always instructed the governors general in Asia to avoid getting involved in local conflicts as much as possible. It was afraid the Company's finance would become overburdened with military and administrative expenditure. However, VOC decision-makers soon came to understand that, in order to carry out the two policies of spice monopoly and intra-Asian trade efficiently, it was inevitable for the VOC to engage in military and political interventions in time of need, and these interventions tended to go deeper and deeper. By the time it took control of Banten in 1684, the VOC was no longer a purely commercial company. Rather, it had already transformed itself into a territorial state with a central government in Batavia. A territorial government in Asia was not what the VOC's investors and policy makers had dreamt of, but was deemed a prerequisite for the enforcement of a monopoly policy which all agreed was indispensable for maximizing the Company's trade profits. Unexpectedly, and ironically, the tax revenues of the territorial state increasingly became one of the biggest and most reliable sources of Company income entering the eighteenth century. One estimate points out that, in the seventeenth century, the Company's tax revenues in all Asia amounted to 10 percent of the VOC's gross income. In the early decades of the eighteenth century the share of these revenues jumped to 40 percent, and by the 1760s it had reached more than 50 percent.[13] VOC tax revenues in Asia primarily came from the East Indies in the seventeenth century, and by

[12] These figures come from the Amsterdam Chamber records, whose share was more than half of the VOC's total trade volume. See Gaastra, *Dutch East India Company,* pp. 129-30.
[13] Gaastra, *Dutch East India Company,* p. 129; Kwee, *Political Economy of Java's Northeast Coast*, p. 18.

the eighteenth century were all but completely supplied from there.

The VOC controlled the East Indies in various ways, as Jurrien van Goor pointed out: "The Dutch trading system functioned through direct rule (Amboina, Banda), alliances (Palembang, Jambi, Banten), bonds of vassalage (South Sulawesi, Timor) and recognition of Dutch overlordship (Cheribon, Mataram, Padang, Ternate)." The VOC did not limit its role in the archipelagos to the purely economic. Instead, "all trade was a function of the political system."[14]

The above description shows that, for the purpose of monopolizing spice trade, the VOC was compelled to extend its military and political control in the East Indies from points (port cities) to lines (coasts) and then to areas (territories). In regions under its control the VOC set up local governments one after another, subject to the authority of the governor general in Batavia. Troops were stationed at strategic sites, ships were dispatched for coastal surveillance, fortifications were constructed, and branch administrative offices were created out of expediency. As a result of these arrangements, VOC salaried personnel swelled rapidly, primarily due to the increase of military and administrative servicemen. In 1625 the total number of the Company's salaried personnel was around 7700. In 1700, this number jumped to 25,000, and in 1750 it climaxed at 35,000. Among the Company's personnel the number of people stationed in Asia was about 4500 in 1625. It grew to 18,117 in 1700, and reached 24,879 in 1753. The majority of these salaried personnel dispatched to Asia served in the military, consisting of over 60 percent of the total. Next came the servicemen on the ships, artisans, and administrative personnel.[15] With the increase of military and administrative personnel, and with the input increase in fortifications and other equipment, the expenditure of the Batavia government expanded concomitantly. As the Company was severely constrained in its finances by the rigidity of the huge expenditure of the Batavia government, it could not adjust its budgets in line with cost-benefit accounting, despite the fact that the VOC was heading for a financial crisis after the early decades of the eighteenth century. As Femme Gaastra points out, the maritime expansion of the VOC in the seventeenth century was transformed into territorial expansion in the eighteenth century, the consequence of which was a rapid increase in operational costs and, ultimately, a fatal bankruptcy.[16]

Coen's dream of a prosperous and profitable intra-Asian trade had come true by the mid-seventeenth century, and this trade had already reached its peak by the final decade of that century. Yet no sooner had the moon become full than it began to wane. In the final years of the seventeenth century a decline was first observed in the VOC's intra-Asian trade, which continued with increasing pace into the eighteenth century.[17] Now the VOC could not simply rely on intra-Asian trade to generate sufficient surplus profit to support its Euro–Asiatic trade. Prior to the mid-1690s, the VOC balance sheet showed considerable surplus year by year; thereafter its trade balance began to turn red. Entering the eighteenth century, it was normal to see a deficit in trade balance, and the deficit was to get from bad to worse as time drew on.[18] Although the Batavian government made every effort to create new tax revenues and promote the planting of cash crops like coffee, indigo and sugarcane, the VOC's finances did not improve in the long run. Instead its deterioration accelerated irreversibly in the late eighteenth century. Environmental changes in international trade in Asia and Europe were no doubt partially responsible for this financial decline. More fundamental was the heavy price the VOC had paid for enforcing and sustaining its

[14] Jurrien van Goor, "A Hybrid State: The Dutch Economic and Political Network in Asia", in *From the Mediterranean to the China Sea*, ed. Claude Guillon, Denys Lombard and Roderich Ptak (Viesbaden, Germany: Harrassowitz Verlag, 1998), pp. 193-214, esp. p. 206.
[15] Gaastra, *Dutch East India Company*, pp. 95-98.
[16] Ibid, p. 57; Blussé, p. 72.
[17] Gaastra, *Dutch East India Company*, p. 116, and Table 16 on p. 118.
[18] Ibid, p. 132.

monopoly on the spice trade in the East Indies. It had invested too much in the sunk capital of military and administrative build-ups, in which it had then been entrapped without escape. The outcome was not only the loss-making of the Company, but also its transformation from a commercial firm into a semi-commercial and semi-political organization.[19] In 1795 the VOC was declared bankrupt, with a huge debt totalling 119,000,000 Dutch guilders, nearly twenty times the Company's capital.[20] The Company's charter remained valid until 31 December 1799. On 1 January 1800 the Dutch state officially took over all VOC business operations, and the Company headquarters at Batavia was turned into the colonial central government that would govern the archipelagos until the independence of the Republic of Indonesia in 1949.[21]

The Rise of Chinese Mercantile Power

Long before the birth of the VOC, Chinese merchants were already trading in all corners of maritime Southeast Asia, an area they traditionally called the "South Seas". They followed the two "needle routes" to sail to the South Seas seeking tropical products for Chinese consumption. From Malacca in the west, to the Spice Islands (Moluccas) and Timor in the east, Chinese ships had visited all places in the East Indies where business opportunities were available.[22] Despite the long-lasting commercial link, Chinese communities were only rarely found in the East Indies, in a few relatively prosperous port cities like Malacca, Aceh, Palembang, Banten, and Ambon. As for the rest of the archipelagos, Chinese traders just carried out their business at the ports of call and sailed away as soon as it was done. They carried Chinese products, sailed with the monsoons along the needle routes, went to port after port where they exchanged their commodities for native products, and finally returned with a cargo of overseas products for sale on the Chinese home market. Profit was generated and added in the many rounds of transactions, until the final and biggest profit was harvested in the home market. In East Asia imperial China had the greatest effective demand for the tropical products of the East Indies, especially spices.[23]

When the Dutch joined in the Asian trade they were impressed with the presence of Chinese traders wherever they sailed in the East Indies. Soon they realized Chinese people were a powerful force to be reckoned with in commercial competition. Historically the water world of the East Indies, or even the whole of Asia, was open to all participants. The VOC naturally had to compete with all other rival groups on the market, the greatest among whom were Chinese and Indian merchants. Next there came Europeans like Portuguese, English, French, and Danish merchants. If the VOC wanted to monopolize the spice trade, it first had to exclude these alien merchants from market participation.

In a free market, trade should be a win-win game for both parties. Traditionally, rulers in the Asian maritime world would welcome foreign traders, with a view to promoting the local economy and increasing tax incomes. But there were two exceptions: China and Japan. From 1639 Japan implemented a policy of self-closure, which completely prohibited Japanese civilians from going abroad, and opened just the single port of Nagasaki to

[19] The English East India Company had an analogous experience. Following its military and administrative expansion in India after the mid-eighteenth century, it was gradually transformed into a political entity and met with growing financial troubles. See Philip Lawson, *The East India Company: A History* (London and New York: Longman Group UK Limited, 1993), pp. 103-61.

[20] The original capital invested in 1602 was *f* 6,424,588. "Except for a few minor adjustments, which finally raised the capital to *f* 6,440,220 in 1693, this share capital was never increased." See Gaastra, *Dutch East India Company*, p. 24 and p. 26, Table 3.

[21] Ibid, p. 170.

[22] Zhang Xie, 張燮, *東西洋考 (On the East and West Oceans),* pp. 171-85.

[23] Chinese maritime traders had been very active before the VOC times, as shown in the records of Zhang Xie, and in the previously cited articles by Iwao Seiichi and Ts'ao Yung-ho. Iwao's other article is also illuminating,"アンボイナ (Amboina)の初期支那町について(On the Chinese Quarter at Amboyna in the Early Days)," *東洋學報(Tōyō Gakuho)*, 33: 3-4 (1951): 269-311.

Chinese and Dutch ships alone. This policy was effectively maintained until 1854, when American gun-ships forced Japan to give it up. As for the Chinese case, foreign ships other than tributary missions were all forbidden to drop anchor and Chinese civilians were not allowed to sail overseas until 1567, when the Ming opened the port of Haicheng for Chinese overseas trade. The VOC could carry out its business almost without barriers in Asian waters, even in Nagasaki, but not in China. Only there was the VOC banned from anchoring its ships and, much to its dismay, China was then the biggest market in Asia.

In Asia from time immemorial the East Indies' biggest trading partners had been the two economies of India and China. No wonder the Dutch most often encountered Indian and Chinese people when they navigated in the archipelagos; and the Dutch would soon become aware of their power in terms of numbers and wealth in the East Indies. Chinese and Indian traders had virtually controlled all the economic interflow between the East Indies and South Asia, and between the East Indies and East Asia, respectively. In 1619 the VOC's Asian Governor Coen began enthusiastically to pursue the spice monopoly policy. Due to the openness of the Indian market, the VOC was able to drive out Indians and other secondary traders by market competition and take over their intermediary role in the trade between the East Indies and the sub-continent. Barred by the restrictive maritime policy of imperial China, however, the VOC was unable to find direct access to the Chinese market. After several failed attempts, it was ultimately forced to leave Chinese traders to continue their traditional role as middlemen for the East Indies–China trade. Soon it further discovered that the services rendered by resident Chinese were indispensable to the VOC's political and economic interests in the East Indies. As soon as it decided to settle its Asian capital at Batavia in 1619, the VOC actively sought Chinese cooperation which was deemed essential to local economic prosperity and the Company's profits. After the Dutch replaced the Indians as brokers of the market exchanges between the East Indies and India, roughly in the mid-seventeenth century, the VOC concentrated its business operations in the maritime world west of Malacca, leaving the area to its east in the hands of Chinese people. Against the background of this VOC business strategy, Chinese were to become the only alien group who would join hand-in-hand with the VOC to exploit and share most of the economic benefits in the East Indies.[24]

The VOC's strategy not only left Chinese people to continue their traditional dominance of East Asian maritime trade, but it also helped them to fill the economic lacunae created by the disappearance of Indian traders in the East Indies. Chinese mercantile power was henceforth further entrenched. The substitution of the VOC for Indians operated primarily in the field of trade between the East Indies and the Indian Ocean world, as well as in the field of wholesale trade within the archipelagos. The retail trade and small businesses traditionally run by Indians were now taken over by resident Chinese. For example, in Pasisir before 1677, and Banten before 1684, Indian traders had been visible everywhere and were very active in local markets. Their businesses depended on the traditional import-export trade run by their fellow countrymen. They disappeared altogether thereafter, because the VOC prohibited international trade by Indians in the archipelagos and resident Indians were thus cut off from their upward business linkage.[25]

The VOC was generally consdiered to have achieved its aim of a trade monopoly after it took control of Banten in 1684. To make the monopoly policy effective, the VOC had intensified its military and political control in the East Indies, from points like Malacca, Aceh, Banten, etc., to lines like the northern coast of Java, and further on to areas like the interior

[24] Leonard Blussé, *Strange Company* (Dordrecht, Holland: Foris Publications, 1986), pp. 73-155.
[25] The most active ethnic Indians were the following groups: Gujeratis, Bengalis, Klings (or called Chetties) and Chulias. See Anthony Reid, "Economic and Social Change, c. 1400-1800," in *The Cambridge History of Southeast Asia*, ed. Nicholas Tarling (Cambridge: Cambridge University Press, 1992), vol. I, pp. 460-507, esp. p. 494; Om Prakash, "Restrictive Trading Regimes", pp. 107-26.

of Java. In the process of intensified control, the VOC underwent a quality change in itself, being transformed from a pure commercial firm into a political body governing expansive territories in the East Indies. Along with this transformation, Chinese mercantile power expanded rapidly, chiefly on the basis of huge investment in two newly opened areas of economic opportunities: tax farming and retail business in the countryside.[26]

Chinese merchants had been renowned for their "junk trade" in the East Indies. Their trading junks stayed at ports of call where cargoes were unloaded and reloaded during the period of monsoon change. In the interim of different monsoons, a few merchants would go into the nearby hinterland of the port, selling their merchandise and collecting spices and other tropical products at a cheaper rate, and then coming back in time to board the homeward ship. This retail business in the countryside was but an extension of junk trade at the port city. In the countryside neighbouring Ambon, Banten and Palembang, Chinese traders engaged in such retail business before the arrival of the VOC's ships. Barter was the normal mode of exchange, but Chinese copper coins were also used.[27] These small transactions were casual, took place near the port cities, and were concluded as soon as Chinese junks set sail. The Chinese traders had never travelled deep into the interior and developed a long-lasting retail network there.

This extensive retail business network under Chinese control was born and developed in the VOC times, following in the VOC's footsteps of territorial governance. It first emerged in the surroundings of Batavia, and then was extended to the western region and the northeast coast of Java. By the mid-eighteenth century, Chinese retail shops were visible all over Java, eastern and northern Sumatra, and the Spice Islands. Whenever its political control advanced into a new territory, the Batavian government would encourage Chinese immigrants to move in and live. The Dutch authorities were well aware that they needed Chinese business networks to create a prosperous local economy, and they also relied heavily upon Chinese provision of services and information. Chinese business networks were indispensable in collecting such cash crops as indigo and coffee for the VOC to export, and again they facilitated the distribution of VOC imports like opium and cotton textiles. Using Chinese business networks served to ensure a relatively stable profit for VOC monopoly businesses. It was however in the field of tax farming that Chinese business networks made an even greater contribution to the VOC's economic interests.[28]

In the prosperous port cities of the Asian maritime world, alien traders often settled down in communities for a long time. For each community of ethnic aliens, native governments would select one or two leading figures as government agents to handle matters relating to the community and to collect taxes for the government. The most important duty of these agents was, of course, to facilitate the business transactions of their seafaring countrymen, who would arrive and depart with their ships after stays of short duration. This custom of ethnic self-governance at port cities was common in Asia, and the East Indies were no exception. Resident Chinese head merchants therefore had been collecting taxes for local governments in the archipelagos from before the presence of the VOC, as was evident in the great international port cities of Malacca, Aceh and Banten. Following the Asian custom, the VOC appointed a head merchant Su Minggang as the first Chinese captain of Batavia in 1620 and authorized him to take charge of matters in relation to the Chinese community, including tax collection. Differing from Asian custom, the VOC soon introduced the Dutch institution of tax farming by putting taxes up for open tender. Each item of tax was auctioned to the highest bidder, who after having paid the agreed sum would proceed to collect as much as possible of the authorized tax. Captain Su

[26] Blussé, *Strange Company*, pp. 73-96;and Kwee, *Political Economy of Java's Northeast Coast*, pp. 29-42.
[27] Blussé, *Strange Company*, pp. 35-48.
[28] Anthony Reid, "The Origins of Revenue Farming in Southeast Asia," in *The Rise and Fall of Revenue Farming*, ed. John Butcher and Howard Dick (New York: Martin's Press, 1993), pp. 69-79.

Minggang, for example, won the bid to collect one-year's worth of tax imposed on the scale houses in the market in Batavia in 1626. After the VOC implemented the institution of tax farming, Chinese captains, and later on their assistants, were no longer authorized to collect taxes; instead, they were charged only with the duty of maintaining law and order for the Chinese community.[29]

To increase its tax income, the VOC created new tax items, on the one hand, and, on the other, expanded taxable domains. Numerous items of taxes were farmed out by open bidding, such as the market tax, traffic tax, harbour tax, butchery tax, wine tax, gambling tax, and above all, the poll tax. As VOC control in the East Indies deepened, the Chinese role in tax collection was transformed. Tax farmers were not just Company tax agents collecting taxes from resident Chinese but they also collected taxes from all native peoples who engaged in the tax-relevant economic activities. For instance, if a Chinese tax farmer won the market tax of a certain area, he would be entitled to impose it on all peddlers trading within the area, natives and aliens alike. The successful bidder for a butchery tax was authorized to levy tax on buffalo slaughtering, a job traditionally done by native people. Although tax bidding was open to all willing to offer a down-payment in advance, most winners turned out to be Chinese. Chinese people therefore became the VOC's major tax agents, and were well-known in this profession of tax farming since the 1620s. In 1644 twenty-one items of tax were auctioned by the Batavian government, from which Chinese won seventeen. The institution of farming out taxes by open bidding was extended along with the intrusion of VOC political control into new territories of the East Indies. Areas covered by farmed taxes expanded, and the scale of tax farming became bigger and bigger. As a result, by the later decades of the seventeenth century, due to the enormous down-payment required and risks involved, only very resourceful merchants were capable of taking part in open bidding. Merchants of this sort were limited in number, and they eventually formed a certain informal alliance for oligopoly. An outstanding example was the duopoly of tax farming formed by two Chinese clans bearing the family names of Chen and Han. In the later half of the eighteenth century several tax farming tycoons emerged in central and eastern Java, nearly all of them coming from these two clans. It is worth noting that these Chinese families were also closely tied by intermarriage. Their cooperation was so successful that they monopolized most tax farming business in those regions.[30]

Being involved in the tax collection business was very helpful for Chinese traders in developing their commercial power. First and foremost, as the VOC endowed a tax farmer with the right to collect tax, he would not act simply as a businessman. Instead, he was also empowered for law enforcement and, accordingly, was regarded by local people as a government official. Sometimes a tax farmer would hire assistants and send them around his tax domain to levy the tax; sometimes he might sell his right to a second farmer. As a rule, the tax assistants or second farmers came mostly from the same family or hometown as the original farmer. Taxed items that were closely related to retail businesses, such as taxes imposed on liquor, tobacco and opium, were often commissioned to the retailers, but a tax farmer might even run retail stores to collect the taxes directly. All these tax collectors were called the VOC's "unpaid officials". The tax farming institution thus enabled the VOC to derive a huge amount of tax revenues without the burden of actual collection. On the

[29] Blussé, *Strange Company*, pp. 49-72.

[30] Kwee, *Political Economy of Java's Northeast Coast*, pp. 89-96. Chinese revenue farming was even more prosperous in the nineteenth century, and contributed nearly a quarter of the total tax income of the colonial government. Among the farmed revenues the sale of opium contributed the most. An estimate indicates that in 1820 more than 7000 Chinese were engaged in revenue farming, compared to the total number (6087) of Dutch servicemen in the colonial government. Revenue farming was gradually scaled down and abolished by the colonial government in the 1890s. See F. W. Diehl, "Revenue Farming and Colonial Finances in the Netherlands East Indies, 1816-1925," in Butcher and Dick, *Rise and Fall of Revenue Farming*, pp. 196-232; James R. Rush, *Opium to Java* (Ithaca and London: Cornell University Press, 1990), pp. 43-64 and 83-107.

other hand, in addition to profiting from the surplus of the bidding sums, the delegated tax collectors could exploit their semi-official position to facilitate their economic activities, the most evident being the operation of retail businesses in the countryside. Eventually, tax farming helped extend and consolidate Chinese business networks and increase Chinese influence on the economic production and distribution of the East Indies.[31]

Next, if a tax farmer won the monopoly right to sell or purchase specified commodities in his tax domain, such as the sale of opium or the purchase of coffee, as well as running retail business he would take the chance to control rural production by offering credit to native peasants. Some tax farmers were wealthy enough to lease expansive private lands from native landlords, or public land from the VOC, and took up farm production for export. Although all Chinese enterprisers in large-scale farm production were not tax farmers, many of them did accumulate their wealth through tax farming or related businesses. In the later half of the eighteenth century, they were found to have diversified their business investments, from retail and wholesale to import and export, and from trade in the archipelagos to international trade. Such diversification was evident, for instance, in the 1787 will of a Chinese lieutenant of Batavia named Gao Genguan, which listed the details of property division among his wives and children. The two big clans of the Chens and the Hans in Eastern Java, which we mentioned before, were another example of successful business diversification.[32]

It is common knowledge that Chinese maritime traders had historically been the major market intermediaries between China and the East Indies, and that they had never entered the production sector in the archipelagos. It was only after the VOC established a government in Batavia that they began to participate in rural production for local or international markets.

As soon as the VOC occupied Batavia it enlisted Chinese skilled workers for the construction and fortification of the city, and relied upon Chinese merchants to smooth the local economy. The VOC sold or rented out public land in the environs of Batavia to Chinese farmers who would produce food for the daily consumption of Dutch and Chinese residents in Batavia. With the consolidation of the Batavian government, the lands under its control expanded. In the 1650s the VOC decided to encourage Chinese people to cultivate sugarcane in the vicinity and produce sugar for the Company. This heralded the beginning of Chinese participation in cash-crop production. When the VOC was expelled from Formosa (Taiwan), the first place where the VOC experimented with sugar plantations, it sped up sugarcane cultivation in the Batavian environs by leasing large tracts of public land to Chinese merchants. It also assisted them to build up small sugar refineries, whose production all had to be sold to the VOC alone.[33]

The VOC was gradually being transformed into a territorial hegemony among the fragmented native polities in the later seventeenth century, and by the mid-eighteenth century it was already the de facto ruler of most parts of the East Indies. Along with the VOC's transformation, Chinese intensified their economic participation in the productive sector. They cultivated, or managed the cultivation of, rice, sugar, coffee, and indigo on the Java plains. They cut forest trees and gathered forest products like camphor and sandalwood. They collected coastal or marine products like birds' nests, sea cucumbers and pearls. They leased salt marshes in northeast Java to produce salt, and exploited gold mines in Sumatra and tin mines in Kalimantan. The processing and manufacturing of all

[31] Howard Dick, "A Fresh Approach to Southeast Asian History", in Butcher and Dick, *Rise and Fall of Revenue Farming*, pp. 3-12.

[32] 包樂史與吳鳳斌校註，*公案簿 (Minutes of the Board Meetings of the Chinese Council),* ed. Leonard Blussé and Wu Fengbin, Vol. 1 (Xiamen, China: Xiamen University Press, 2002), pp. 8-10; Kwee, *Political Economy of Java's Northeast Coast*, pp. 89-92.

[33] Blussé, *Strange Company*, pp. 73-96.

these raw products was again largely handled by Chinese merchants. Save for the products under VOC monopoly like sugar and spices, or those under its direct control like some rice, salt and minerals, Chinese merchants were now free to engage in the production and marketing of other tropical products provided they paid taxes to the Company. In this way, Chinese economic operations in the East Indies had extended from the distribution to the production sector by closely following in the footsteps of the VOC's growing territorial control.[34]

It is worth noting that Chinese participation in rural production, although greatly helpful to scale up their mercantile power in the archipelagos, also forced them to bear greater risks in regard to price fluctuations on the international market. In the VOC period, a most tragic event occurred in the 1730s, when a downturn in international sugar prices persisted for years, mainly due to overproduction in the West Indies. The price impact forced Chinese sugar fields and refineries to stop working, resulting in mass unemployment among the Chinese cultivators. These impoverished Chinese were faced with lives of hardship and uncertainty. In 1740 there broke out a large-scale rebellion of Batavian Chinese, which was harshly suppressed by the VOC in a traumatic massacre. The rebellion started precisely in the Batavian area where Chinese grew sugarcane. The massacre turned out to be a serious blow to the VOC's business and especially to the economy of the East Indies. It took four-to-five years for things to return to normal, after the VOC successfully promoted new Chinese immigration to fill the vacuum.[35]

Complementarity between the VOC and Chinese Business Networking

In the seventeenth and eighteenth centuries the VOC was the greatest European trading company in terms of capital, organization and trade volumes, and Chinese business networking was the greatest informal economic organization in terms of the number of people involved and the quantity of transactions. Extending from the Cape of Good Hope in Africa to Nagasaki in Japan, the VOC trading area covered the whole commercial world of maritime Asia. Visible from Malacca to Nagasaki, Chinese business networks spread across the whole trading world of maritime East Asia, excluding the Indian Ocean. These two alien economic organizations, each being a giant in its generic endowments, operated simultaneously in the East Indies for nearly two centuries, and successfully laid a deep-rooted foundation for Dutch and Chinese economic interests in the archipelagos. As noted previously, the Company era formally ended on the last day of 1799 when the VOC was dissolved and replaced by Dutch colonial rule until Indonesia became independent in 1949. During the colonial period Dutch and Chinese economic interests kept growing on the foundations established in the Company's times. The business operations of the VOC and of Chinese networks were undoubtedly a great success on the islands. In hindsight many factors can be listed as contributing to this success. However, as our discussion here suggests, we regard the complementary effect of the interaction between the VOC and the Chinese business networks as a factor of crucial importance.

In the first section we outlined the economic strengths and weaknesses of firm and network mainly in terms of incentive constraints and adaptive capacities. Economic efficiency was determined according to these constraints and capacities, which were conditional to environmental setup. In what follows we will focus on those aspects of the East Indies' economic environment that was oriented to a favourable interplay of these two alien economic organizations.

The VOC was formed to maximize commercial profits for its investors. The greatest

[34] Kwee, *Political Economy of Java's Northeast Coast*, pp. 158-64, 203-05.

[35] Joannes Theodous Vermeulen, English translation from the Dutch by Tan Yeok Seong, "The Chinese in Batavia and the Troubles of 1740," *Journal of the South Seas Society*, vol. 9 (1953), Part I: 1-68; Blussé, *Strange Company*, pp. 91-95.

source of profit, in the eyes of VOC decision makers, was the spice trade, and spices were primarily produced in the East Indies. For profit maximization, the VOC decided to monopolize this trade, and to do so it had to control the archipelagos by force. Historically, the main spice growing areas of the East Indies were inhabited by countless individual tribes, and characterized by loosely-tied, fragmented and transient polities. There would occasionally emerge a relatively powerful political entity, but it was unstable and would soon dissolve. Governing tribal peoples was difficult and usually short-lived. In the words of the Sulawesi Bugis: "We are like birds sitting on a tree. When the tree falls we leave it and go in search of a large tree where we can settle."[36]

For VOC business operations, the curse of such a world was that the Company could hardly find any reliable native agents to enforce its monopoly policy. Instead, it was soon made aware of the need to create law and order by force, to protect the Company's business operations. The blessing of this world, however, came from its lack of strong political competitors. The VOC could therefore, with relative ease, cultivate itself as the biggest tree for all birds to perch on, as indeed it did within a few decades.

The economic organization of the firm has advantages in cooperative adaptation, or in the efficiency of collective coordination. As it suffers from a weak incentive structure, it is disadvantaged in regard to autonomous adjustment. In the East Indies, the VOC concentrated its business on large-scale wholesales. The biggest problem it had to confront was stabilizing commodities' purchase and sale, that is, increasing market transparency in supply and demand. For example, after it had driven Indian traders out of the archipelagos and taken over their intermediary role, the Company totally controlled economic interflows between the East Indies and the India subcontinent, the most important of which were staple commodities flowing in reverse directions (Indian cotton textiles and East Indies' spices). The precondition for a smooth trade between these two regions was stable supply and demand in each market. In India it was easy for the VOC to get reliable local agents to help handle the Company's business; in the East Indies, by contrast, the VOC had trouble finding suitable local people to act on its behalf. For business agency it eventually had to depend upon Chinese help.

In the East Indies, the VOC encountered yet another problem which did not exist in the Indian market—uncertainty in market demand and supply due to political fragmentation. Unless this problem was solved by effective law enforcement and stable social order, a monopoly trade policy would be impossible. By means of superior military power and skilful manipulations by several governors general, the problem was gradually addressed in the seventeenth century, and by the time the sultan of Banten was subdued in 1684, it was largely solved. In the process of assuming political overlordship in the East Indies, the VOC displayed well the advantage of a firm in the efficiency of cooperative coordination. Thanks to its centralized power and hierarchical structure, the VOC was able to mobilize its military and financial resources so efficiently that no native political powers could challenge it in times of crisis. On the other hand, the adaptive efficiency of corporate coordination was also visible in the long-lasting stability of the VOC's Batavian government, which stood in stark contrast to the frequent rise and fall of native regimes.

The social infrastructure of law and order the VOC created in the East Indies was by no means what its Dutch investors desired. Rather, it was forced upon the Company because it was deemed to be a prerequisite for an effective monopoly policy. Throughout the VOC times, the complete monopoly of fine spices and the partial monopoly of ordinary spices had made the Company enormous profit, which without doubt was the reward for the VOC investment in constructing social infrastructure.

[36] Barbara W. Andaya, "Political Development between the Sixteenth and Seventeenth Centuries," in *The Cambridge History of Southeast Asia*, ed. Nicholas Tarling (Cambridge: Cambridge University Press, 1992), vol. I, pp. 402-59. For the quote, see p. 417.

However, there are two sides to every coin. Just as a firm has economic efficiency, at the same time it also suffers from inefficiency, which is shown in the incentive constraints that hamper autonomous adaptation. When the need of mutual dependence and cooperative adaptation diminishes, problems will arise for a hierarchical organization like the firm. Throughout the Company era, the VOC was unable itself to manage well the collection of export products and the distribution of imported commodities, but had to hand this over to Chinese businessmen. This was chiefly because the corporate interests of the VOC did not always agree with those of its individual employees. To put it more explicitly, the Company's servicemen were more inclined to act in their own self-interest, and less likely to work hard on behalf of the Company's interest. The VOC objective to maximize trade profits for its investors would hardly motivate the Company's servicemen, unless the latter were likewise benefited. In a centralized hierarchy like the VOC, an individual serviceman would take his superiors' commands to carry out routine assignments passively, without being motivated to do his best for corporate collective interest. Rather, individual servicemen were inclined to work actively in their own interests, even if by doing so it would jeopardize the Company's interest. Throughout the VOC era the Company was thus hamstrung by such troubles as nepotism, favouritism, opportunism, and many kinds of corruption. All this had been the focus of heated debates at meetings of board directors, as the balance deficit grew year after year and as the VOC's life wore to its close. It was often found that high-level VOC officials in the East Indies would collaborate with resident Chinese in business operations designed to line their own pockets during their tenures, and their subordinates would follow suit to make extra income for themselves. They would then return home to enjoy their fortunes after their tenures had expired.[37] In fact the ruling elites of the Company, both at home and in Batavia, were well aware of these problems in the East Indies. They therefore opted to entrust Chinese to retail VOC imports and collect its exports, rather than allowing VOC servicemen to run these businesses. Other than in his officially assigned duty, any VOC employee was strictly forbidden to engage personally in any economic activities in the archipelagos. The Company thus defined its business domain solely as the operation of monopoly trade, and concentrated its financial resources and human power on what required collective coordination, that is, on large-scale transactions and relevant administration and transportation. Consequently, the distribution of imports and collection of exports were nearly all delegated to the service of resident Chinese agents.

The business agents whom the VOC tended to rely upon were not limited only to Chinese. The VOC even tried to encourage free Dutch civilians (other than the Company's employees) and indigenous elites to become its agents in downstream businesses. In the end, however, there turned out to be no substitute for Chinese intermediaries. In 1677 when the VOC began to rule over northeast Java, its Batavian government initially trusted private Dutch citizens and local native nobilities to retail the opium and textiles it imported from India. But sales were so sluggish that the VOC was forced to stockpile most of these commodities in the warehouse, helplessly. At about the same time, the VOC was unable to ship out a designated consignment of indigo as the native elites it had entrusted to collect it had failed to deliver on time. The Batavian government eventually had to look to Chinese intermediaries.[38]

Chinese were not just commodity agents; they were also the VOC's tax agents, and it

[37] Kwee, *Political Economy of Java's Northeast Coast*, pp. 183-186; Gaastra, *Dutch East India Company*, pp. 50-101. In contrast with the Dutch VOC, the English East India Company was able to avoid some corruption and opportunism among its servicemen as it allowed them to participate in intra-Asian trade individually. Still, the problem of corruption persisted, only to a lesser extent than with the VOC. See Holden Furber, *Rival Empires of Trade in the Orient, 1600-1800* (Minneapolis, Minnesota: The University of Minnesota Press, 1976), pp. 191-201.
[38] Kwee, *Political Economy of Java's Northeast Coast*, pp. 49-51 and 163.

is here that the network effect was even greater.

Chinese tax farming business was mostly won by bidding in VOC open auctions. The Batavian government had originally planned to train native people as tax officials but before long it discovered the experiment was a nightmare. The taxes they had collected were very often soon squandered by the collectors, resulting in inadequate or long overdue tax revenues for the Company. As Company's employees were insufficient in number, hard to monitor, and costly in salary, and as the Company's financial burden was a grave concern from the very beginning, it decided on open auctions in order to maximize tax incomes. The Batavian government was aware that Chinese agents would be cheaper, more efficient and more reliable, and it was not surprised that Chinese emerged as winners in public auctions. By employing Chinese as unpaid officials, the VOC could at no cost obtain a net tax income usually higher than targeted, a sure win indeed.[39] Why the Chinese were able to offer a better price to the VOC has much to do with the advantage of the business network that spontaneously emerged among Chinese immigrants.

What was this advantage? As the Chinese business network was informally formed by voluntary actors, conflicts of interest between individual and group was minimal, and the incentive structure was robust enough to motivate the pursuit of self-interest similar to what was likely to be exhibited in the unregulated market of the East Indies. On the other hand, although less efficient than a hierarchical organization like the VOC, the Chinese business network nonetheless could generate cooperative adaptation for ethnic Chinese, which was not enjoyed by individual market participants. Through the network effect of group cooperation Chinese businessmen benefited by better access to market information, better knowledge of local conditions, better liquidity service, more efficient capital mobilization, and lower operation overheads.[40] In short, the Chinese business network allowed an individual Chinese trader to maximize his own profit at the same time that it facilitated mutual coordination, as reflected in Chinese collective adaptability to changing economic environments in the archipelagos. Despite the VOC's superior adaptability in collective cooperation, the free Dutch civilians and native people who participated in market transactions individually were completely deprived of the benefit of group cooperation, as they acted without network or hierarchy.

For the tax farming institution to work, numerous Chinese were engaged in the business of tax collection, and were viewed by local people as officials dispatched by the Batavian government. These Chinese tax collectors not only made a profit from the surplus of their assigned quotas, they also took advantage of their informal status as government servicemen to undertake other economic ventures which would otherwise have been too risky or inaccessible. The tax farming system thus helped Chinese people consolidate their business networks, through which Chinese influence in local production and distribution greatly increased.[41] It is no accident that, in VOC times, the wealthiest Chinese merchants were mostly transformed from tax farmers and they had diversified their business ventures extensively.

The Chinese business network that developed in the East Indies, in contrast with the VOC, had the advantage of low agency cost (agency is an intrinsic problem for the economic organization of the firm),[42] but the effect of group coordination inherent in a network organization created many economic externalities for Chinese business operations, such as raising capital, sharing information and gaining credit. In terms of adaptation to the local economic conditions of the East Indies, Chinese traders were most favoured by the

[39] Ibid, pp. 21 and 96; Diehl, "Revenue Farming and Colonial Finances", pp. 201-02.
[40] Dick, "A Fresh Approach to Southeast Asian History," p. 13.
[41] Ibid., p. 11.
[42] Ann M. Carlos, "Principal-Agent Problems in Early Trading Companies: A Tale of Two Firms," *American Economic Review*, 82:2 (1992): 141-45.

existence of an extensive network.

Chinese business operation was largely free from the trouble of agency because, unlike the formal organization of the VOC, it was all based on informal, personal trust. A Chinese business was therefore essentially an individual, small business venture in which conflict between corporate and individual interest did not exist. An ethnic identity engendered by the natural ties of family, language, cultural values and home country, drove scattered Chinese immigrants on the islands to form, consciously or unconsciously, a network of personal relationships, for mutual assistance. Chinese people benefited enormously from these networks in their business competition with the Dutch or the natives.

Relative to network organization, a firm is inefficient in autonomous adaptation to market changes due to its incentive constraints. The monopoly trade in spices generated bountiful profit for the VOC in the seventeenth century. It was still substantial in the VOC's trade total entering the eighteenth century, but proportionally it was declining in the whole international trade as well as in VOC trade as time drew on. Meanwhile the VOC met increasing market competition in international trade when European maritime powers were reshuffled to the Netherlands' disadvantage. The VOC was caught in a trap: it was faced with a global trend towards diminishing profits in monopolies while, paradoxically, unable to cut the maintenance costs of its own monopoly which were rising due to intensified international competition and local unrest. As a result, the Company had to expand tax revenues to make up its deficit. In spite of VOC efforts to make ends meet, the deficit grew annually after the mid-eighteenth century, and the Company was headed for an irreversible destiny of bankruptcy.

Administrative rigidity and internal corruption have been frequently held up as the culprits in the Company's demise. These problems, however, were visible soon after the birth of the VOC, yet throughout most of the seventeenth century it was able to make outstanding profits. In our view, the root of its weakness was bureaucratic maladjustment, an intrinsic inefficiency in the economic organization of a firm. From the eighteenth century onward, the economic environment of international trade was turning unfavourable to the commercial monopoly, especially one enforced by the VOC on an unbearable scale. Hamstrung by a monopoly policy and unable to adapt to changes in the economic environment, the VOC had no alternative but collapse.

In stark contrast, Chinese business networks were highly adaptable to changing economic conditions. Networks offered relatively strong economic incentives to individual participants, and were relatively sensitive in response to market changes. They could function as a collective whole, or through separate individuals, according to economic expediency, so as to reduce costs and increase profits. When the VOC was expanding its territorial grip on the islands, it was forced by enormous military and administrative expenditure to look for revenues beyond the commercial sector, the greatest sources being tax levies and cash-crop cultivation. The economic opportunities opened by these two revenue sources, newly developed by the VOC in the East Indies, almost all fell into Chinese hands when they reacted swiftly and efficiently to the VOC call for participation.

Tax levy and cash-crop cultivation vindicated the VOC's transformation from a pure trading company into a politico-economic entity, whose business operations heavily relied upon territorial governance. By means of the efficient collective coordination characteristic of a hierarchical organization, the VOC enforced a monopoly policy which led it gradually to expand territorial control in the archipelagos. The weak incentive structure imbedded in the Company, however, hampered its undertaking in tax collection and cash-crop plantation. Chinese business networks had relative efficiency in tax collection and cash-crop cultivation, but their smooth function depended upon an economy protected by legal and social institutions, which the Batavian VOC government provided. Law and social order were public goods created by the VOC in the East Indies, and were shared by Chinese immigrants in developing their ubiquitous business network. The complementary effect of firm and network ensured these two alien groups of people, the Dutch and Chinese, could dominate the exploitation of economic opportunities in the East Indies, and they each made enormous profits thereof. Leonard Blussé says that "the city of Batavia was, economically speaking, basically a Chinese colonial town under Dutch protection."[43] Not only Batavia: in the later eighteenth century when the VOC governed nearly all of the East Indies, Chinese mercantile power, following in the footsteps of VOC protection, extended to cover the whole archipelagos.

Conclusion

The VOC was a commercial private investment company designed to maximize trade profits to pay its investors. As spices commanded the strongest demand in European and Asian markets, and therefore had the greatest profit margin, the VOC decided to pursue a policy of trade monopoly on Asian spices as soon as it joined the trading world of maritime Asia. By copying the Portuguese model of a centralized hierarchy headquartered at Goa to coordinate its business operation in Asia, the VOC established its Asian headquarters at Batavia to administrate its intra-Asian trade and carry out its Euro–Asiatic trade at the behest of the board directors in the Netherlands. The monopoly on spices was deemed critical to the smooth operation of these two trades.

In the Company's days, India and China were the two largest economies in Asian waters and for a long time had consumed most spices and many other tropical products. In the pursuit of its trade monopoly, the VOC was successful in driving out alien competitors in the East Indies and seizing most of the spices trade there, as well as the trade between the archipelagos and India. It was however unable to get any direct access to the China market due to a maritime prohibition implemented by the Chinese government. The VOC was forced reluctantly to rely on Chinese maritime traders keeping up their traditional intermediary service between the archipelagos and China. As a result, the VOC gradually gave up its direct participation in intra-East Asian trade and concentrated its resources on the more profitable trade in the maritime world of the Indian Ocean. Chinese maritime traders were left free to dominate the business in East Asia.

Before the arrival of VOC ships, Indians and Chinese were the two greatest alien mercantile groups in the East Indies. When the VOC expelled all alien traders but the Chinese in the East Indies, Chinese people soon filled up the vacuum left behind by the Indians. They took over the businesses formerly run by Indian merchants and cooperated with the Dutch to dominate the economic interests of the East Indies. In order to pursue a monopoly policy, the VOC took steps to strengthen its economic and political grip on the islands. From the mid-seventeenth century onward, the VOC gradually expanded its territorial control over the islands, while its trading headquarters in Batavia was likewise gradually transformed into an administrative government that would rule over the whole archipelagos. The Batavian government began to invest hugely in the build up of political and economic infrastructure, creating public goods to support VOC and Chinese economic exploitations. Law was enforced and social order maintained. Revenues from large-scale export-import trade, wholesale businesses and tax levies sustained the huge VOC expenditure; profits from small-scale import-export trade, retail businesses and tax agency attracted countless Chinese people to invest in market services. The cooperation between the VOC and Chinese ensured they enjoyed the lion's share of internal and external trade profits of the archipelagos.

Seen from the perspective of economic organization, the success of cooperation between the VOC and Chinese people can be attributed to the complementarity between

[43] Blussé, *Strange Company*, p. 74.

the VOC and Chinese business networks. The hierarchical organization of a firm promotes efficiency of coordinative and cooperative adaptation. As a commercial firm, the VOC was able to make use of its limited resources to establish and sustain law and order in the East Indies, and to carry on a business of enormous scale in intra-Asian trade and Euro–Asiatic trade, on the basis of its spice monopoly. The advantage of network, in contrast, lies in the efficiency of its incentive structure and autonomous adaptation. Chinese business links formed into a network, therefore, could automatically spread to all sectors of the market economy in the East Indies, extending from retail in the countryside to wholesale in the city, to shipping and export-import business at the ports. Chinese business networking was incapable of establishing law and order to protect its business operation, while the VOC was incapable of constructing a market economy necessary for its large-scale political-economic operation. The development of Chinese mercantile power thus depended on the protection provided by the VOC, while the politico-economic operation of the VOC depended on the services provided by Chinese mercantile power. The complementary effect of a company and a business network created an economic environment where the two alien mercantile powers of the VOC and ethnic Chinese were privileged to enjoy their respective interests in the archipelagos. In the words of a colonial official of the 1920s, "The Chinese were as necessary to Dutch rule as Dutch rule was necessary to the Chinese."[44]

Chinese seagoing merchants had been a major mercantile power in maritime East Asian long before the VOC came into being. Following the monsoons, their sails crisscrossed East Asian waters to trade in prosperous international ports, year after year, like migrant birds. A few Chinese traders would sometimes stay put for a while at a port to handle unfinished business, or to service their fellow countrymen in their junk trade. Even if they stayed behind, however, they hardly planned to stay long, not to mention to make a long-term investment. It was only in the VOC era that we first witness Chinese mercantile power moving beyond playing a prominent intermediary role in the traditional market of international trade to beginning to play a prominent intermediary role in the rural market of the whole archipelagos. And they were henceforth to play that role for centuries to come. An insightful observer in the 1930s thus concluded:[45]

> From being the link in the international wholesale trade in goods from India and China, the Chinese became the link in rural petty trade in the Indies, a role for which they ultimately became renowned. They became the intermediaries between the west and the east, between the indigenous and European communities, between the overseas export apparatus and the indigenous producers and between overseas industries and indigenous consumers.

In the whole history of Chinese maritime trade the development of Chinese mercantile power in the East Indies during the VOC era was undoubtedly a new and unprecedented experience which, in due course, would serve as a model for Chinese people to follow when they developed their mercantile power elsewhere in Southeast Asia.[46]

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[44] J. S. Furnivall, *Netherlands India* (Cambridge: Cambridge University Press, 1944), p. 48.
[45] Phoa Liong Gie, "The Changing Economic Position of the Chinese in Netherlands India," in *Chinese Economic Activity in Netherlands India*, ed. M. R. Fernando and David Bulbeck (Singapore: Institute of Southeast Asian Studies, 1992), pp. 7-8.
[46] Wang Gungwu points out that, because of the VOC, Chinese merchants were able to lay their earliest foundation of economic power in Java, and that in many respects they became the model for all Chinese merchants in Southeast Asia. See Wang, *Community and Nation* (St. Leonard, NSW, Australia: Allen & Unwin Ltd., 1992), p. 21.