

The organization of trade in Europe and Asia, 1400–1800

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The mid-fifteenth century marked a turning point in world history. In 1433, at the death of Admiral Zheng He, the Chinese emperor put an end to the commercial and military expeditions that had brought hundreds of ships and thousands of men as far as the Red Sea and East Africa. Meanwhile, the Portuguese king's younger son Henry (1394–1460), known as the Navigator, was promoting an aggressive plan of maritime exploration and conquest along the coast of northern and western Africa. In 1415 the Portuguese troops conquered Ceuta, in northeastern Morocco, and by the 1450s, the Venetian explorer Alvise Ca' da Mosto, financed by Henry the Navigator, reached the islands of Cape Verde, off the Senegalese coast. During the following 350 years, the pendulum of economic and military dominance over global trade swung progressively away from Asia and toward Europe.

The modalities and temporality of this global re-orientation remain controversial to this day, so much so that the study of the organization of trade in Europe and Asia during the early modern period cannot be easily separated from what is labeled as “the rise of the West.” Karl Marx and Max Weber set the scholarly agenda for generations to come and, for all their differences, converged in shaping the comparative analysis of early modern European and Asian political economy along two axes: an east–west axis that contrasts Asian extractive and autocratic agrarian empires with European commercially oriented polities and a north–south axis that pits an industrious Protestant Europe against a re-feudalized Catholic and Eastern Europe. During the last quarter of the twentieth century, changes within and outside academia – including new approaches to the study of world history and the meteoric economic growth of developing countries like China, India, and Brazil – have challenged the empirical validity and cultural traction of these traditional narratives. Yet a persistent imbalance in the primary sources and in the available literature stands in the way of an integrated and comparative approach to the study of the organization of trade across early modern Eurasia.

The imbalance in the production and preservation of textual and archaeological evidence is particularly pronounced at the level of firm records and statistical records about prices, interest rates, and customs duties. We have nevertheless come a long way from older views that portrayed all Asian traders as nothing more than small-scale, itinerant peddlers. Ottoman court documents have allowed historians to reconstruct the operations of regional and international merchants. Growing interest in the maritime world of East and Southeast Asia and in the commercialization of inland China has transformed our image of those societies in the period before 1800. Recent studies have also uncovered the records of merchant communities originating in Asia that operated across Europe and the entire globe, further questioning the aptness of clear-cut labels such as “Europe” and “Asia.”

In addition to new evidence, new approaches to the writing of comparative history have lifted the burden of proof from the non-Western world. The most provocative among these new approaches focus on the comparison between the European and Chinese economies before industrialization. For Kenneth Pomeranz, until the late eighteenth century the most economically advanced areas of China resembled England in their land markets, agrarian productivity, and wage levels. If long-distance trade played a role in the industrialization of England, it was not via superior property rights or institutions but through the forced migration of millions of Africans across the Atlantic and the extractive labor regimes of the New World plantations.¹ In comparing the organization of long-distance trade in China and Europe, Jean-Laurent Rosenthal and R. Bin Wong start from the premise that different societies can face different problems or find different solutions to the same problems. A vast and geographically contiguous agrarian empire, China was less concerned with maritime trade than a small coastal country like the United Provinces or an island like Great Britain, but had vibrant domestic markets of cash crops and handicraft. Moreover, the existence of a unified legal system in China facilitated long-distance trade, whereas Europe’s political and jurisdictional fragmentation added hurdles to the environmental perils of long-distance trade.²

From a mere quantitative perspective, the majority of exchanges across pre-industrial Eurasia involved small-scale transactions and remained

¹ Kenneth Pomeranz, *The Great Divergence: China, Europe, and the Making of the Modern World Economy* (Princeton University Press, 2000).

² Jean-Laurent Rosenthal and R. Bin Wong, *Before and Beyond Divergence: The Politics of Economic Change in China and Europe* (Cambridge, MA: Harvard University Press, 2011).

confined within a short radius. There are nonetheless good reasons to focus on long-distance and inter-continental trade in this chapter. The key issue in the organization of trade was what economists call “the problem of agency” and what historians more commonly refer to as “the problem of distance,” namely how to ensure that delegated agents in distant locations would provide reliable economic services.³ Some of the solutions devised to curb these risks were the same everywhere, while others varied considerably depending on the ecological, technological, and institutional conditions. A contentious point of comparison concerns the degree of legal formality with which merchants operated in Europe and in Asia. An exclusive focus on this issue, however, would obscure equally important factors affecting the conduct of long-distance trade, including the militarization of commercial ventures. European states lent considerably greater military protection to their merchants in the Indian, Atlantic, and Pacific Oceans than their counterparts in Asia did.

Technology and infrastructure

Environmental and climatic conditions constrained the timing of when and the ways in which merchants were able to deliver goods, funds, and information. Wind patterns, mountain rims, deserts, and forests affected overland and overseas transportation in different ways. So accepted were these constraints that merchants normally calculated geographical distance not in linear units of measurement but in terms of the time it took to travel from one location to the other during a certain season. Epidemics as well as man-made violence ranging from warfare to piracy and robberies disrupted the regularities of established patterns and often proved hard to anticipate. Because transportation costs were high, most of the goods that traveled long distances had high value: bullion, silk, spices. But as transportation improved, so did the distribution of bulk cargoes, including basic food staples, such as grain or sugar, and even timber.

Were there major breakthroughs in the rapidity and security of transportation during the early modern period? The answer depends on how one defines breakthroughs. In the pre-industrial era, technological change mostly

³ Douglass North, “Institutions, Transactions Costs, and the Rise of Merchant Empires,” in James D. Tracy (ed.), *The Political Economy of Merchant Empires* (Cambridge University Press, 1991), pp. 22–40, p. 25 and K. N. Chaudhuri, *Trade and Civilisation in the Indian Ocean: An Economic History from the Rise of Islam to 1750* (Cambridge University Press, 1985), p. 5, respectively.

took the form of incremental “micro-innovations.”⁴ A transport revolution properly speaking only occurred with the appearance of railroads and steamships. Until then, powerful seasonal winds (monsoon) determined all crossing of the Indian Ocean, for example. The combined effect of smaller innovations, however, improved the safety and velocity of transportation, although it is difficult to measure by how much precisely. Ship design was highly localized, but transfer and experimentation happened everywhere. At the onset of our period, Chinese and Southeast Asian maritime technology was very advanced. Armed with the compass, sailors also had at their disposal a gamut of sturdy and yet maneuverable vessels. High-sea navigation was conducted on massive, four-deck, flat-bottom ships that are generally known by the name that the Portuguese gave them, *junks*, adapting the Javanese word *jong*.⁵ No matter how well crafted the vessels and how sophisticated the navigation instruments on board, however, European and Asian ships proceeded mostly near the coast and made frequent stops out of practical and economic concerns. Most of the trade conducted by private merchants consisted in the purchase and sale of multiple small lots. Exchanges in bulk commodities, including grain, over long distances were the exception rather than the norm, and often the purview of large contracts by state and religious organizations. Only with the growth of the plantation economy in the New World and the import of massive cargo ships from Asia did auctions become a routine form of wholesale trade in Amsterdam and London.

The most dramatic improvements in shipping technology between 1400 and 1800 occurred in Europe. The best known of the new small vessels developed in the early part of this period is the caravel, a two-mast, lateen-sail ship that had the distinctive advantage of being able to sail against winds and currents and was thus employed for the crossing of the Atlantic. During the sixteenth century, the Dutch developed the *fluitship*, which sailed faster, required a smaller crew, and had a larger cargo capacity than its predecessors. Devised for the Baltic salt and grain trade, it was soon dispatched to the Mediterranean as well and is regarded as “a technological breakthrough of

⁴ Joel Mokyr, *The Lever of Riches: Technological Creativity and Economic Progress* (Oxford University Press, 1992).

⁵ Pierre-Yves Manguin, “New Ships for New Networks: Trends in Shipbuilding in the South China Sea in the 15th and 16th Centuries,” in Geoff Wade (ed.), *Southeast Asia in the Fifteenth Century: The Ming Factor* (National University of Singapore Press, 2010), pp. 333–58, 351, n5. See also Joseph Needham, with the collaboration of Wang Ling and Lu Gwei-Djen, *Science and Civilisation in China*, vol. IV, Part III: *Civil Engineering and Nautics* (Cambridge University Press, 1971).



Figure 7.1: A busy Dutch harbor scene at Dordrecht, 1651, showing a variety of types of ships, in an oil painting by Simon Jacobsz Vlieger (c.1600–53)

the greatest importance.”⁶ The “full-rigged” or “Atlantic” ship, with three or more masts and two or three decks, combining square sails and a lateen rig, emerged in the mid-fifteenth century out of the convergence of northern and southern European shipbuilding traditions. It has been called “the great invention of European ship designers” and provided the basic model for seafaring transport throughout the period.⁷ Commercial and military ships were built in both private and state shipyards (Figure 7.1). In spite of European advances, in the seventeenth century, China still probably had the largest shipyard in the world, that of Nanjing, on the Dragon River.

Not all long-range commodity trade was conducted by sea. Mules, horses, and camels carried goods across vast stretches of land. During the sixteenth century, overland trade could still be competitive: a transcontinental route

⁶ Jan de Vries and Ad van der Woude, *The First Modern Economy: Success, Failure, and Perseverance of the Dutch Economy, 1500–1815* (New York: Cambridge University Press, 1997), p. 297.

⁷ Richard W. Unger, *The Ship in the Medieval Economy, 600–1600* (London: Croom Helm, 1980), p. 216.

linked the Low Countries to southern Germany and northern Italy; Lyon, located along the land and river ways through which the Spanish-American silver was carried to the Low Countries, developed into a center of finance, silk manufacturing, and redistribution of Asian spices; caravan routes connecting the Arabian Peninsula and the Persian Gulf to Egypt and Syria remained thriving long after the Portuguese circumnavigation of the Cape of Good Hope. When forwarding their letters to Constantinople, Italian merchants did not trust the relatively tranquil waters of the Adriatic and sent second copies via Vienna and the Balkans as well.

Technological innovations in ship design and navigation instruments (wind charts, tide tables, lighthouses) were not the only factors that improved the safety and reliability of long-distance trade. Institutional changes proved just as important, if not more. Improved packaging techniques, the expansion of services offered in harbors and transit places, the regularity of courier services, marine insurance, and other financial contracts all reduced transaction costs and generated economies of scale. European transoceanic navigation became more secure in the course of the seventeenth and eighteenth centuries because of the institutional support that the Dutch and English made available to their vessels (such as the reduced duration of provisioning stops) rather than because of dramatic technological improvements.⁸ Transport costs declined in the British Atlantic more rapidly than in any other geo-political area during the seventeenth and eighteenth centuries, as evidenced by the remarkable decline in freight costs for the import of tobacco from Chesapeake to England, which decreased, on average, by 1.4 percent a year between 1619 and 1775 – a remarkable decline due primarily to a rationalization of the size and placement of the containers in which tobacco was stored on board a ship.⁹

Before the invention of the telegraph, rarely did information travel more rapidly than people and merchandise. To avoid the tortuous and dangerous route linking the city of Aleppo with its port, Iskanderon, merchants experimented with pigeons to carry letters, though this solution hardly proved a universal panacea. Though not tools that increased the rapidity of information transfer, merchant manuals across most of Eurasia contributed to the

⁸ Jan de Vries, "Connecting Europe and Asia: A Quantitative Analysis of the Cape Route Trade, 1497–1795," in Dennis O. Flynn, Arturo Giráldez, and Richard von Glahn (eds.), *Global Connections and Monetary History* (Aldershot: Ashgate, 2003), pp. 35–106.

⁹ Russell R. Menard, "Transport Costs and Long-range Trade, 1300–1800: Was there a European 'Transport Revolution' in the Early Modern Era?," in Tracy (ed.), *The Political Economy of Merchant Empires*, pp. 228–75, 254–7.

standardization of knowledge and the creation of a shared commercial culture among different communities. Starting in the late sixteenth century, the printing presses of several European cities began to print lists of prices and currency exchange rates; stock valuations, auction gatherings, advertisements, and estate sales were added later. Printed periodicals included news of events affecting the conduct of trade, such as the outbreak of a war or the arrival of a convoy (Figure 7.2). In some regions of the world, notably the British Atlantic, the development of regular courier services enhanced the frequency and reliability with which news circulated among a larger number of agents. All through the period, however, printed economic information supplemented more than it replaced hand-written correspondence, news reports, and contracts, but only through private letters was it possible to acquire candid assessments of a merchant's reliability or conduct secret dealings.

Periodical markets where buyers and sellers could meet and inspect the merchandise (or at least samples of it) were a universal solution to the weakness of information networks. In parts of China, a highly developed system of waterways connected market towns, which provided the outlet for rural industries. General or specialized fairs were more common where urban agglomerates were sparse. Across the Balkans and Anatolia, they proved essential to the circulation of capital and goods. Large towns and cities, in turn, could function as permanent fairs. Fernand Braudel thus dates the decline of commercial and financial fairs across Europe to the rise of Amsterdam as a truly international market in the 1620s.¹⁰ Competitive bidding was the standard price mechanism in markets the world over. After they conquered Manila, the Spanish instituted a system (*pancada*) for the seasonal market of all Chinese imports at fixed prices in 1589, but soon had to replace it with free-market exchanges. Taxation and other forms of regulation affected prices of certain goods, such as food staples in times of famines or colonial imports in protectionist regimes.

Even within the most highly commercialized cities it was common for the authorities to designate a separate space, normally a square or an appropriate building, to market activities. This urban geography facilitated the self-policing of merchants and the inspection by external regulators. The same separation often also betrayed fears of contamination by foreign traders and foreign goods. Whether in Mocha, Gombroon, Constantinople or Venice,

¹⁰ Fernand Braudel, *Civilization and Capitalism 15th–18th Century*, vol. II: *The Wheels of Commerce*, Siân Reynolds (trans.) (Berkeley, CA: University of California Press, 1992), p. 92.

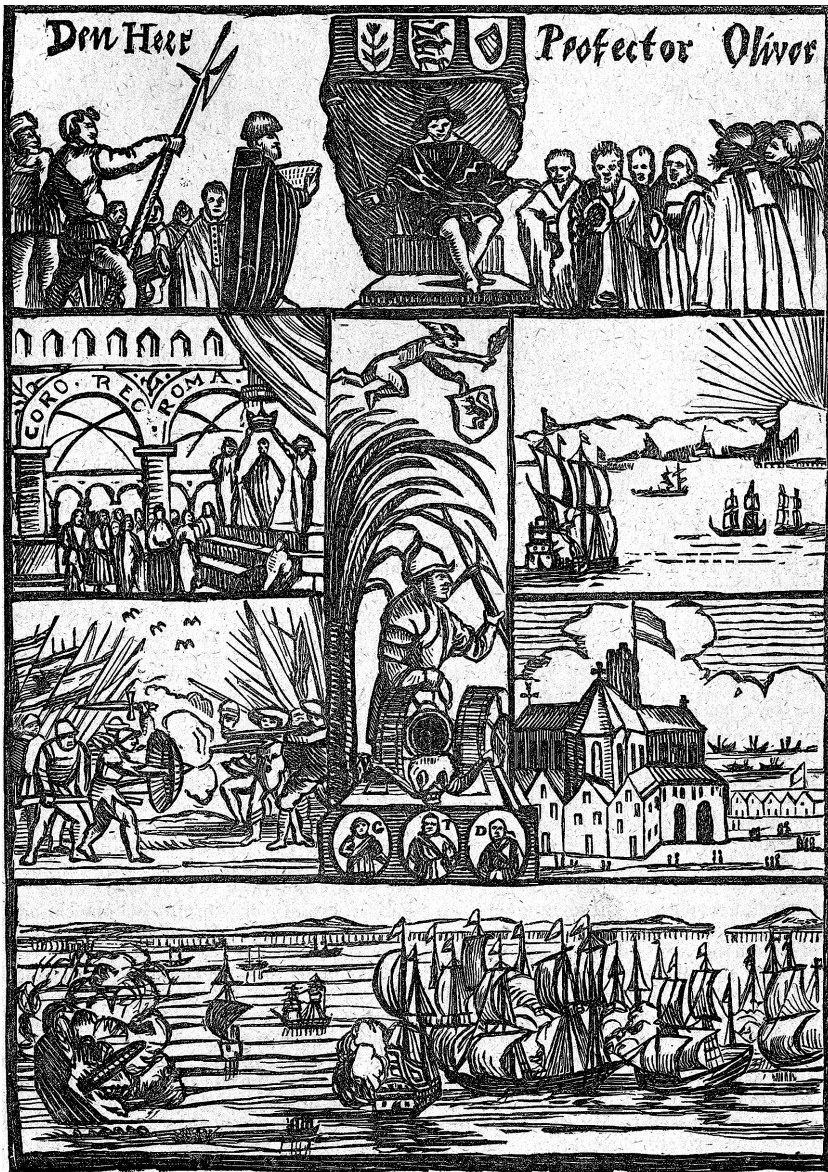


Figure 7.2: Page from a Dutch newspaper "Hollandsche Mercurius" of 1653, showing Oliver Cromwell as Lord Protector of England and a convoy of ships below

foreign merchants were housed in separate quarters to circumscribe their interactions with the local population. In sixteenth-century Venice, the urban geography and architecture of various foreign quarters reflected the perceived risks associated with each ethno-religious merchant group. The German trading house stood adjacent to the main marketplace, while Ottoman merchants were relegated to a building further away whose windows and balconies had to be walled up in order to minimize the contact with passers-by. In the port-cities of the Muslim Mediterranean, Christian merchants were grouped by “nation,” each assigned a *funduq* where they lodged and transacted with locals and others. In an attempt to regulate foreign trade, the Chinese emperors and Japanese shoguns assigned an island, Macao (1557) and Deshima, in the Nagasaki harbor (1639), respectively, to European merchants and settlers. The Spanish followed the example in Manila and relegated a growing Chinese population outside of their walled colonial city in a district named Parian, where Dominican friars were actively proselytizing. Amsterdam, the only European city with no restrictions whatsoever on foreigners’ involvement in trade, was the exception rather than the norm.

The more diverse the merchants flocking to a marketplace, the more it was necessary to offer services that would reduce the costs of transacting with strangers, ranging from translation services to legal mediation. Groups and institutions charged with these tasks emerged spontaneously in all corners of the world. All-purpose or specialized brokers and foreign resident representatives with knowledge of local weights, measures, and currencies, as well as of multiple languages and legal customs, were staples of large market towns. They facilitated transactions, although they could as easily extort rents. Around 1700, the Chinese authorities sanctioned a de-facto situation whereby Guangzhou (Canton), on the Pearl River delta, became the only Chinese port where Europeans were allowed to trade. As before, Portuguese, English, and Dutch merchants made little efforts to learn Chinese and Mandarin, hiring instead licensed linguists and relying on Hong merchants, those Canton businessmen to whom the Chinese authorities entrusted the exclusive right to trade with foreigners. Transactions were conducted in Portuguese and, later, in pidgin English, but the opportunities for miscommunication and deception abounded. The increase of cross-cultural trade in the early modern period, in short, meant neither the tumbling of all cultural barriers nor the rise of impersonal markets. A host of local solutions were devised for the safe conduct of everyday business.

Business forms and commercial enterprises

Though precise statistics are not available, sole proprietorships and family firms likely constituted the most prevalent form of business organization in long-distance trade. These small-size firms faced two main challenges: how to raise capital for high-risk investments that, even in the best-case scenarios, required several months, if not years, to yield any profit, and how to recruit capable and honest partners or agents in distant localities. Across Europe and Asia, kinship ties offered partial but not universal solutions to both problems. Kinship ties also took different forms across time, place, and communities. Portuguese traders groomed nephews, cousins, and godchildren alongside sons, particularly when the latter showed less than a natural talent for business. In China, families linked by agnatic descent organized themselves in “lineages” that held property in common. Lineages were particularly influential in land ownership, but in some cases helped organize overseas trade and other business enterprises. Among the merchants who dominated the Yangzi River Valley during the Ming period (1368–1644), some preferred to do business with their most immediate relatives, while others favored the larger lineage. Additional creative solutions emerged. Fukien traders, for instance, adopted foster children whom they then sent overseas. The status of women varied considerably. In Southeast Asia women played an autonomous role, whereas in Europe they mostly took up their late husbands’ businesses when they became widows. In general, women participated in handicraft (in and out of the household) and in local retail more than in the day-to-day operations of international trade and finance.

In a path-breaking publication in the field of world history published in 1984, Philip Curtin argued that, from the Neolithic revolution to the dawn of industrialization, “trade diasporas” were ubiquitous “special institutional arrangements” that assisted merchants in trading across cultural lines, which in most cases also meant across vast distances. Trade diasporas were formed by merchants “linked to one another by several kinds of mutual solidarity: common profession, religion, language,” or geographical origin.¹¹ These bonds of solidarity are seen as lending members of a trade diaspora a competitive advantage over those merchants who lacked such a support network. Countless trade diasporas have been identified across the globe: the Hausa of West Africa, Overseas Chinese, Bugis in Indonesia, Sephardic

¹¹ Philip D. Curtin, *Cross-Cultural Trade in World History* (Cambridge University Press, 1984), 1, p. 46.

Jews, Huguenots, Iranian Armenians, Multanis in Central Asia, as well as a host of Gujarati-based communities such as Sinhdis, Parsis, and Jains. Two salient features characterize these disparate groups: geographical dispersion and lack of an autonomous sovereign state. Upon closer scrutiny, however, both features conceal as much as they explain the ways in which each of these trade diasporas operated.

Geographical dispersion was an asset in a time of fragile communication and transportation technology because it facilitated the circulation of individuals, capital, and information. But these dispersed merchant networks remained vulnerable: they needed to keep their own members in check, to devise ways of contracting with outsiders from what was often a position of economic but not legal advantage, and to negotiate their status with rival political authorities. Different groups achieved these goals through different methods. Iranian Armenians operated as a dispersed network with a central node: New Julfa, in the Safavid capital, Isfahan. There, a corporate assembly of merchants aided the enforcement of agreements that linked sedentary merchants to their scions traveling across Eurasia and as far as the Pacific (Figure 7.3).¹² Sephardic merchants in Western Europe and the New World, by contrast, developed a multi-nodal structure in which family and community ties between various cities increased conformity within the group at large but also facilitated the building of credit relations with non-Jews. Sephardic merchants took on different risks and used different precautions depending on whom they traded with. They built family partnerships with sons, cousins, and in-laws to whom they delegated ample decision-making power, while they hired a myriad of non-Jewish agents to perform specific tasks that allowed them to broaden their operations.¹³

The workings of all trade diasporas depended at least in part on their association with sovereign authorities. Their leverage was primarily economic. They could threaten a boycott or anticipate large sums as tax collectors more than they could deploy military or diplomatic force. In a gesture designed to downplay Western exceptionalism, Curtin included under the rubric of trade diasporas the employees of the European chartered companies that held a national monopoly and often mobilized

¹² Sebouh David Aslanian, *From the Indian Ocean to the Atlantic: The Global Trade Networks of Armenian Merchants from New Julfa* (Berkeley, CA: University of California Press, 2011), pp. 185–97.

¹³ Francesca Trivellato, *The Familiarity of Strangers: The Sephardic Diaspora, Livorno, and Cross-Cultural Trade in the Early Modern Period* (New Haven, CT: Yale University Press, 2009).



Figure 7.3: Armenian merchant, from a French travel journal, *The navigations, peregrinations, and voyages made into Turkie*, by the French geographer Nicolas de Nicolay, 1568

military violence in the name of their state. The analogy is meant to underscore the challenges that even these European companies faced in the world of early modern trade and put their alleged superior coordination and enforcement methods into perspective. But in the absence of a sustained comparison between stateless diasporas and European chartered companies, Curtin's analogy remains little more than an academic provocation.

Classic and recent efforts at comparing the forms of business organization that prevailed across early modern Europe and Asia find that European merchants operated with a higher level of formality than their counterparts in Asia.¹⁴ Formality here refers to the legal infrastructure that facilitated collaboration among non-kin. While there is more than a grain of truth in this broad picture, its empirical and analytical bases require further scrutiny. Merchants from Europe continued to rely on informal incentives and deterrents to secure the compliance of their agents and partners. Conversely, Chinese merchants regularly utilized legal contracts and third-party dispute resolutions. When compared with the political and jurisdictional fragmentation of Europe, the unity of the vast Chinese empire may have facilitated the development of far-flung merchant networks.¹⁵ Moreover, different types of obligations required different forms of oversight, even within the same region. Private contracts could be highly formalized even when no regulating bodies assured their enforcement if the contracting parties believed in the effectiveness of existing extrajudicial conventions to settle disagreements. In eighteenth-century Canton, defying official regulations, private traders from Europe lent large sums to Hong merchants at interest rates varying between 10 percent and 20 percent per year on the basis of agreements written in Chinese that they could not read and that the Chinese authorities were unlikely to uphold.¹⁶

Private merchants operating across vast distances could resort to a variety of governance forms: they could trade in partnership with someone overseas who had full autonomy and shared full liability with the main house; they could hire a junior partner to carry goods to faraway destinations and bring back commodities unavailable locally; they could use a constellation of commission agents who were remunerated on a percentage of the value of

¹⁴ R. Bin Wong, "Formal and Informal Mechanisms of Rule and Economic Development: The Qing Empire in Comparative Perspective," *Journal of Early Modern History* 5 (2001): 387–408.

¹⁵ Rosenthal and Wong, *Before and Beyond Divergence*, p. 87.

¹⁶ Paul A. Van Dyke, *The Canton Trade: Life and Enterprise on the China Coast 1700–1845* (Hong Kong University Press, 2005), pp. 150–6.

the transactions they negotiated; or they could hire branch-managers and other employees in a highly hierarchical structure of responsibility and oversight. This heterogeneity of governance forms coexisted across time and space more than it evolved along a continuum of development, since each had different pluses and minuses.

The early modern period inherited from the medieval Mediterranean a business contract generally known as *commenda* (in Italian) or as *qirad*, *mudaraba*, and *muqarada* (in Arabic), which allowed a resident partner to hire traveling agents to conduct business overseas. Aside from some variations, these contracts had two salient features: the senior resident partner invested all or a large portion of the capital and bore all the risks of loss, while the traveling agent invested only his labor or a mixture of his labor and a fraction of the capital and shared only the profits with his principal. Moreover, each contract covered one round-trip sea voyage, normally to specific destinations and sometimes for the transaction of specific items.¹⁷ Variations of the *commenda* existed throughout Central Asia but not in China or England.¹⁸ The absence of *commenda* contracts, in any case, did not mean the absence of associations between non-kin. At the beginning of our period, merchants involved in long-distance trade and based on the southern coast of the Fukien province had the option of employing salaried employees, of pooling capital together to rent space on board a ship, or of borrowing money at a fixed interest rate for the duration of a round-trip voyage.¹⁹ Seventeenth-century Hindu merchants established family firms but also partnerships in which “kinship was not involved.”²⁰

¹⁷ Abraham L. Udovitch, *Partnership and Profit in Medieval Islam* (Princeton University Press, 1970), pp. 170–248; Robert S. Lopez and Irving W. Raymond, *Medieval Trade in the Mediterranean World: Illustrative Documents* (New York: Columbia University Press, 1955), pp. 174–84; Murat Çizakça, *A Comparative Evolution of Business Partnerships: The Islamic World and Europe with Specific Reference to the Ottoman Archive* (Leiden: Brill, 1996).

¹⁸ Scott C. Levi, *Indian Diaspora in Central Asia and Its Trade, 1550–1900* (Leiden: Brill, 2002), pp. 109, 173–4, 210. Limited liability was introduced in China in 1904 and in England in 1907: Madeleine Zelin, *Merchants of Zigong: Industrial Entrepreneurship in Early Modern China* (New York: Columbia University Press, 2005), p. 54, and Ron Harris, *Industrializing English Law: Entrepreneurship and Business Organization, 1720–1844* (Cambridge University Press, 2000), p. 20, respectively. On possible borrowings from Arab and Persian *commenda* contracts by merchants from South Fukien in the Song period, see Billy K. L. So, *Prosperity, Region, and Institutions in Maritime China: The South Fukien Pattern, 946–1368* (Cambridge, MA: Harvard University Press, 2000), p. 216.

¹⁹ So, *Prosperity, Region, and Institutions*, p. 214.

²⁰ Ifran Habib, “Merchant Communities in Precolonial India,” in James D. Tracy (ed.), *The Rise of Merchant Empires: Long-Distance Trade in the Early Modern World, 1350–1750* (Cambridge University Press, 1990), pp. 371–99, 389.

For all its advantages, including the ability to forge bilateral partnerships between strangers, the *commenda* had a major downside: it bound the traveling merchant to the terms of the contract and thus limited his ability to seize unforeseen opportunities as they came about. To obviate this drawback, after they had developed a reliable network of correspondents, sedentary merchants often preferred to rely on distant agents paid on commission. In the accounts of his travels to Persia, the French Huguenot Jean-Baptiste Chardin (1643–1713) noted that “trading by commission, and by the way of change by letters, is little used here; but as I have observ’d it, every one goes to sell his own goods, or sends his deputies or children to do it.” That said, he added, “there are some Persian traders who have deputies in all parts of the world, as far as Sweden on the one side, and China on the other side.”²¹ A recent study confirms Chardin’s observation: Armenians from New Julfa used *commenda* contracts to hire traveling agents more than they resorted to commission agents, and yet reached all corners of the world.²² In other words, the presence or absence of a highly formalized contract such as the *commenda* is not sufficient evidence to draw broader conclusions about the impersonality of commercial relations. The widespread availability of brokerage, deposit-banking, insurance, and other institutions across the commercial hubs of South Asia calls into question the appropriateness of a clear-cut opposition between outward-looking European merchants and inward-looking Asian merchants. Wherever merchants disposed of dense networks of reputation control and dependable information and legal services, transaction costs declined and markets grew more impersonal. At the same time, even in the areas of Western Europe and the Atlantic where the most formalized contracting institutions existed, merchants resorted to a combination of formal and informal governance tools. In the eighteenth-century Atlantic, increasingly a British sea, private merchants dominated certain commodity chains, such as the lucrative trade in Madeira wine, and operated with only limited state support at the crossroads of multiple empires.

Credit markets and financial institutions

Raising funds to finance long-distance trade was no less a problem than securing competent and reliable associates and agents abroad. Prohibitions

²¹ *Sir John Chardin’s Travels in Persia*. . . 2 vols. (London: Printed for the Author, Sold by J. Smith, 1720), II, p. 322. The first edition of this multivolume travel account began to appear in French in 1686.

²² Aslanian, *From the Indian Ocean to the Atlantic*.

against lending at interest existed throughout the Christian and Muslim world, but a variety of contracts emerged that allowed merchants to bypass those prohibitions. The absence of anti-usury laws in China is often blamed as the cause of high interest rates but praised in the United Provinces as the precocious sign of a robust self-regulating money market. Evidently, comparative institutional analysis needs to be placed in a larger framework.

The simplest way for merchants to pool capital together was to form a general partnership, in which all members contributed different sums and shared full liability. Given the risks involved in such an arrangement, general partnerships were normally formed by kin who had extra-economic incentives to behave honestly. They were very common, even if they are difficult to study because they have left faint traces in public records as a result of their meager contractual specifications. In Europe, women's dowries commonly provided an influx of capital (they were added to the partnership's accounts) and shielded partners from external creditors since, in case of bankruptcy, dowries took precedence over other credits in the debt settlement. Limited partnerships, by contrast, distinguished between the managing partner(s), who maintained full liability, and external investors, who could never lose more than what they invested. They had the twin advantage of permitting entrepreneurs to raise additional capital from non-family members and allowing external investors to gain from trade while minimizing their risks and, especially important for noble investors, while avoiding the social stigma of direct involvement in trade.

Limited and general partnerships among private merchants rarely lasted for very long, exposed as they were to liquidity shocks. The chartered and joint-stock company was the most dramatic innovation in the early modern methods of capitalization. It differed from regulated companies, such as the Muscovy (1555–1698), North Sea (1579–1689), Levant (1581–1753), and French (1609–67) companies in England, which were cartels of autonomous private firms licensed by the Crown. Joint-stock companies like the English East India Company (EIC) and its Dutch counterpart, the *Verenigde Oostindische Compagnie* (VOC), created in 1600 and 1602, respectively, progressively acquired the features of modern corporations: permanent capitalization via tradable shares; separation of ownership and management; and limited liability for both managers and investors. Rather than a sudden break in institutional form, joint-stock companies emerged out of a piecemeal process and went through long trial-and-error phases. The VOC was the first commercial entity to be financed entirely via the stock market; its English counterpart issued its first stocks for multiple voyages in 1613. Not all

chartered companies succeeded, either immediately or in the long run. The EIC was restructured multiple times, in 1657, 1693, and, most successfully, in 1709. The Royal African Company (1672–1748) and the Dutch West India Company (1623–1791) were marred by structural failures. Other European countries, notably France, Denmark, the Holy Roman Empire (Ostend Company), and Sweden, nonetheless imitated these early examples in a race to reap off profits in Asia. Unlike modern corporations, the early modern ones were also the official military and administrative arms of the state and as such governed swaths of overseas territories. Whatever economic supremacy they imposed in the regions where they operated, it derived at least as much from their military force as from their managerial and financial organization (Figure 7.4).

Private financing remained the principal source of capitalization for international trade across Eurasia. The stock exchanges of Amsterdam and London attracted foreign investors in large numbers and funded large corporations with close ties to the state, but small- and medium-scale independent firms nourished the boom of French and British transatlantic trade in the eighteenth century. Meanwhile, Chinese entrepreneurs devised new, indigenous forms of organization that resembled those in Europe even if they were born in a very different institutional structure. Joint-stock private firms with corporate ownership, independent management by non-kin, and tradable shares existed not only in the large and lucrative salt-producing plants of the Sichuan region, but also among smaller-size companies in the North specializing in pickled vegetables, soy sauce, and other foodstuffs.²³

For merchants trading from afar, the problem of raising funds for their enterprises was compounded by the risk of transferring funds to distant marketplaces. An important solution to this problem emerged in the thirteenth century in the most commercialized regions of Europe (Tuscany, Genoa, Provence, and the fairs of Champagne) in the form of bills of exchange. These bills were simultaneously a credit and a currency exchange contract. In the medieval Islamic Mediterranean, the use of drafts (*suftajas*) to redeem funds elsewhere, and sometimes to convert currencies, is amply documented among small traders, large-scale merchants, and government officials.²⁴ Promissory

²³ Zelin, *Merchants of Zigong*, pp. 60–2; Kenneth Pomeranz, “Traditional Chinese Business Forms Revisited: Family, Firm, and Financing in the History of the Yutang Company of Jining,” *Late Imperial China* 18 (1997): 1–38.

²⁴ S. D. Goitein, *A Mediterranean Society: The Jewish Communities of the Arab World as Portrayed in the Documents of the Cairo Geniza*, vol. 1: *Economic Foundations* (Berkeley, CA: University of California Press, 1967), pp. 230, 241–2.

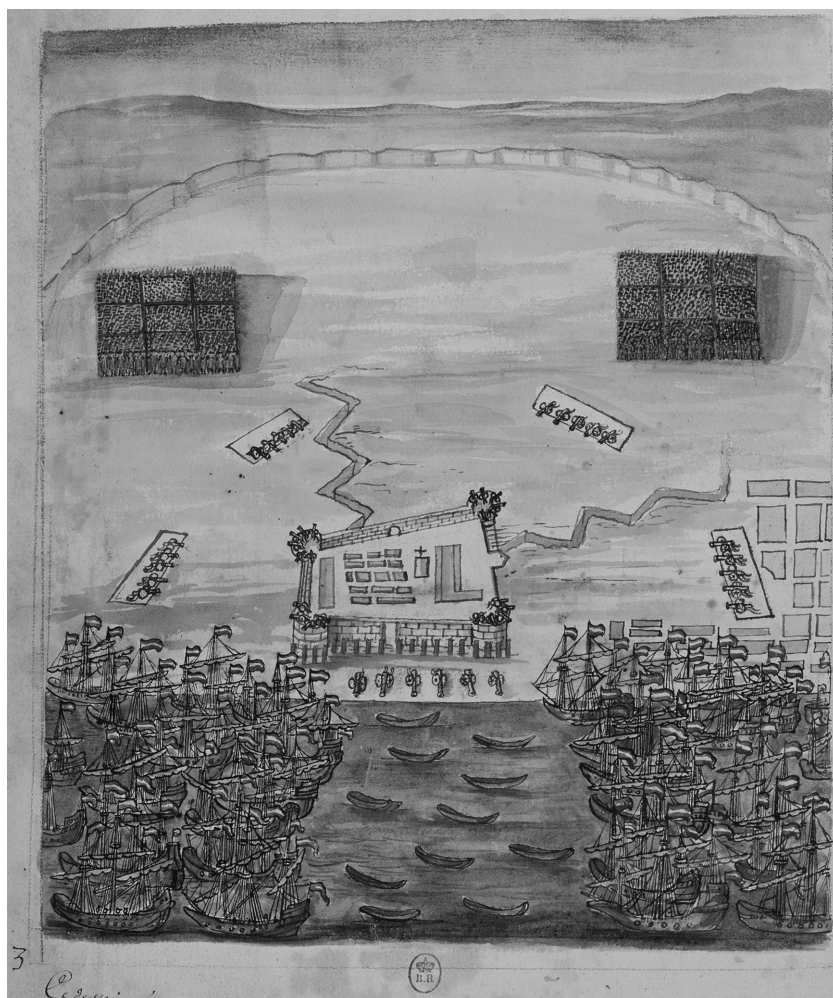


Figure 7.4: The Dutch siege of the Indian city of Pondicherry in August 1693, in an illustration from the travel diary of a Jesuit missionary

notes were also widespread in eighteenth-century China. Credit instruments similar to the European bills of exchange circulated in Tokugawa Japan, in Mughal India (*hundis*), and across Central Asia. Nowhere outside of Europe, however, did these bills develop into purely speculative instruments that were traded in specialized financial fairs, such as those of sixteenth-century Lyon. After its creation in 1609, the Bank of Amsterdam (*Wisselbank*) became the clearing-house for many of the large bills of exchange issued across Europe.

Private capital markets were also linked to the development of the public debt, where this existed. A large secondary market of government securities existed in parts of Europe since the thirteenth century and arguably favored the diffusion of financial expertise and the expansion of money markets. A veritable financial revolution occurred in England. The public debt came under the control of Parliament (1688), rather than the king, and its management was soon transferred to the Bank of England (1694). Although the evidence is disputable, this revolution in public finance may have contributed to reduced interest rates in private credit markets as well. The effect in China of the absence of a public debt on private credit markets is unclear. Connections between the public and private debt, at any rate, were not always virtuous. In 1720 two misguided speculative schemes designed to consolidate the public debt via the sale of equities, the South Sea Company in England and John Law's Mississippi Company in France, burst enormous fortunes into thin air. Half a century later, crises of the Amsterdam stock market in 1763 and 1773 sealed the eclipse of the Dutch economic Golden Age.

Merchants and the state

Sovereign states affected the organization of long-distance trade in many more ways than through the management of the public debt. Wars disrupted trade routes and drove insurance rates up. Diplomatic agreements opened up or closed off markets. Tariffs and other regulations determined the boundary between licit trade and contraband. Each and every one of these state policies had far-reaching consequences, but comparisons between the political economies of Asian and European states hinge on two primary phenomena: the military protection extended to maritime trade and the structure of fiscal regimes. Predatory Asian rulers have traditionally been described as indifferent to the interests of merchant groups and fending off foreign trade, either on ideological grounds or because of the vast agricultural holdings on which they could levy taxes. Within Europe, emerging bourgeois societies and limited governments in northern Protestant countries are contrasted to the royal capitalism of the Iberian and French monarchies. Empirical studies and more parsimonious models of comparative analysis cast doubts on these sweeping generalizations. It is nonetheless undeniable that the form and the extent of state intervention in overseas trade across Eurasia displayed remarkable differences.

Cannons placed on board ships literally parted the waters for Europe's overseas expansion while the Chinese, who had first devised firearms,

rejected the use of heavy artillery for naval warfare. Upon arrival in the Indian Ocean, the Portuguese carracks, sometimes described as “floating cities” for their mammoth size, began to sell licenses (*cartazas*) to carriers wishing to cross the maritime routes they controlled. Gujarati merchants, Muslim Arabs, Persians, and others who had been moving freely for centuries in those same waters now faced a militarized system of extraction. The Dutch later improved upon the Portuguese system, even if they never managed to control all the routes they hoped to. Ultimately, the end of “ecumenical trade” in the Indian Ocean did not mean the single-handed triumph of the Europeans.²⁵ Some Asian powers hired European military force to pursue their own goals, while others sought to challenge European commercial supremacy openly and still others altered their own commercial routes according to the emerging powers. Even relatively small kingdoms and sultanates in southern India curtailed the Europeans’ ambitions. One faction at the Ottoman court pushed for an aggressive military and commercial expansion in the Indian Ocean, which military defeats more than ideological choices ultimately halted. At the onset of the seventeenth century, the Safavid Empire forcibly resettled its large Armenian population to New Julfa and lent it exclusive rights over the export of raw silk, thus striking a serious blow to EIC aspirations to control this branch of trade in Central Asia. The Tokugawa policy of exclusion of foreign traders (*sakoku*) did not prevent samurai from making room for the demands of townspeople and merchants. In the southern province of Tosa, for example, feudal lords oversaw the expansion of import-substitute industries such as paper, sugar, eggs, and gunpowder.²⁶

Ming China organized its trading relations with foreign powers by way of a tributary system designed to extract revenues and control the terms and actors involved in these exchanges. Until 1567, Ming emperors only permitted licensed merchants to engage in foreign maritime trade and did not lend support to the so-called pirates (*Wokou*) who operated without those licenses. Aspects of these policies resembled the English Navigation Acts, which imposed tariffs on foreign goods, but the English Crown did not shy away from backing pirates in its expansion in the Atlantic. Moreover, the EIC and VOC were given the right to wage war on behalf of their respective states, while Chinese mainland authorities left overseas Chinese to their own

²⁵ Curtin, *Cross-Cultural Trade*, p. 127.

²⁶ Luke S. Roberts, *Mercantilism in a Japanese Domain: The Merchant Origins of Economic Nationalism in 18th-century Tosa* (Cambridge University Press, 1998).



Figure 7.5: The crowded harbor of Canton, c.1800

devices, even as they suffered bloody massacres at the hands of the Spanish in Manila and the Dutch in Batavia. At the onset of the Qing dynasty (1644–1911), the Chinese tribute system still applied to Korea, Japan, and the Ryukyu Islands (then an independent kingdom), but more and more trade along the southeastern coast flourished in ways that undermined this system. Macao and Canton became sites of regulated foreign trade while Xiamen (Amoy) developed as a major hub without a European presence (Figure 7.5).

The fiscal base of vast territorial empires oriented the political economy of the Mughal, Ottoman, and Chinese empires in a markedly different direction than that of the small United Provinces or the British archipelago. In 1753, the year for which we have the most comprehensive Chinese official tax returns, covering all lands of the empire, salt administrations, and native custom stations, 78 percent of imperial revenues came from privately owned land and 12 percent from the salt tax.²⁷ International trade remained confined to the South China coast and maritime customs were fairly insignificant in the overall imperial accounts. That the Chinese emperors raised taxes from agriculture does not mean that fiscal pressure was high. In fact, in peacetime, Qing emperors imposed lower per capita taxation rates than Western European states. Chinese authorities also spent more than their European

²⁷ Yeh-chien Wang, *Land Taxation in Imperial China, 1750–1911* (Cambridge, MA: Harvard University Press, 1973), pp. 69–72.

counterparts on public goods, such as granaries and water management plants, which alleviated the needs of the poor and favored a division of labor between regions of the empire. This evidence provides an important corrective not only to theories of Oriental despotism, which depict Asian states as choking economic development, but also to their antithesis, the notion of a limited state according to which Asian states promoted market expansion by refraining from regulating private initiative.

The forms and extent of a state's involvement in commerce naturally affected the opportunities for upward mobility available to those involved in mercantile activities. Local and political conditions shaped these opportunities more than civilization cleavages or confessional predispositions to business acumen. Although the Ottoman governance structure afforded many opportunities for Christian and Jewish subjects to exert an influential role in foreign trade, Ottoman officials were also involved in that same trade. In South Asia, the separation between trade and politics was even less pronounced. Along the southern Indian coasts, together with the intensification of commercial exchanges with Europeans, indigenous moneyed elites emerged, whose careers trod the commercial, military, and political spheres. In northern India, too, a hierarchical separation between military aristocracy and merchants persisted, but the latter exercised more and more political influence by the last quarter of the eighteenth century. The rise of commercial interests similarly eroded the feudal structure of Tokugawa Japan. Whether in Old Regime France or Tokugawa Japan, moneyed elites had to juggle their attraction to commercial profits with the need to cultivate social respectability. As China experienced a "second commercial revolution" between 1550 and 1820, when rivers and canals improved internal transportation, silver imports led to increased monetization of all transactions, the textile industry developed, and government authorities relaxed their market regulations. The social status of merchants and bankers among the educated elites and the civil servants was also greatly enhanced.²⁸

Changing patterns of Eurasian trade

These multiple patterns of commercial development should be mapped onto the structural changes that affected the geography, volume, and composition of Eurasian trade flows between 1400 and 1800. We can identify five

²⁸ Richard John Lufano, *Honorable Merchants: Commerce and Self-cultivation in Late Imperial China* (Honolulu: University of Hawaii Press, 1997).

moments of discontinuity across this period. The first voyage of Admiral Zheng He in 1405 marked the rise of Southeast Asia's "age of commerce."²⁹ Vasco da Gama's sailing around the Cape of Good Hope in 1497 charted a new ocean route for the import of Asian spices to Europe and in the process altered both Eurasian and intra-Asian dynamics. The regular voyages of Spanish galleons between Acapulco and Manila after 1571 inaugurated a new chapter in the history of global commerce by connecting the sources of American silver to its outlets in East and South Asia. During the seventeenth century the center of Europe's world economy shifted away from the Mediterranean and toward the Atlantic. Lastly, the composition of the European cargo ships returning from Asia changed considerably at different moments in time. Taken together, these shifts amounted to major reconfigurations of world trade through the early modern period.

In the fifteenth century, Venetian and Genoese merchants bought pepper, nutmeg, cloves, ginger, and other spices primarily in Alexandria, Aleppo, and Damascus, the end points of extensive caravan routes. Silver and copper mines from central Europe financed Venetian imports, while the Genoese were able to export commodities, too. The Portuguese opening of the Cape route displaced these circuits, even if Venetian spice imports from the Levant enjoyed a renaissance in the mid-sixteenth century and a coexistence of overland and overseas imports characterized the entire sixteenth and seventeenth centuries. Another novelty was the fact that after 1500, India was no longer the only source of Asian spices flowing to Europe: the Portuguese, English, and Dutch competed for the control of production and export of pepper, cloves, nutmeg, and mace from the Indonesian archipelago.

During the sixteenth century, Portugal was the dominant European power in the Indian Ocean and turned Antwerp, in the Spanish Low Countries, into the European entrepôt of colonial goods. Venice stood to lose the most from this re-orientation of Eurasian trade flows. During the last quarter of the century, English and Dutch ships further challenged waning Venetian maritime primacy by supplying grain and cheap cloths to Mediterranean markets. By the 1660s, English trade with the Levant had reached its early modern peak. That was also the time when English commercial interests began to veer more sharply toward the New World, paving the way for the French to assert their primacy in the Mediterranean throughout the following century.

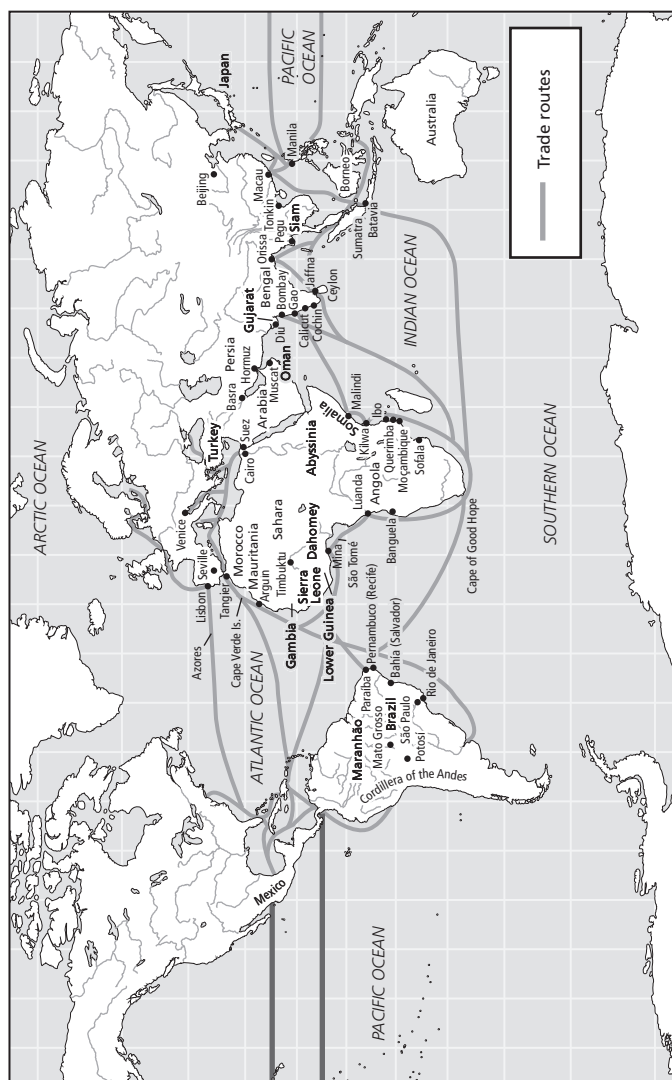
²⁹ Anthony Reid, *Southeast Asia in the Age of Commerce*, 2 vols. (New Haven, CT: Yale University Press, 1988–93), II, p. 12.

In the Indian Ocean, the Europeans did not alter the pre-existing patterns of intra-Asian maritime commerce, which the English called “country trade,” as much as they expanded them. In fact, the Portuguese soon discovered that intra-Asian trade was generally more lucrative than inter-continental trade. For centuries, local merchants had exchanged Indian textiles for Indonesian spices. The Dutch settlement in Java proved a greater threat to these circuits than did the Portuguese, who remained dependent on local producers and intermediaries in South Asia to acquire export goods. The Dutch came to control the spice production in Indonesia by developing a new slave plantation economy similar to that of the New World, and further unraveled the Portuguese networks in East Asia by gaining a firmer foothold in Japan and Taiwan, from where the Jesuits and the Portuguese were expelled (Map 7.1).

Asian goods remained a luxury for the vast majority of European consumers until the mid-eighteenth century. Meanwhile, European ships returning from India brought back different commodities. During the seventeenth century, spices gave way to textiles, and Indian colored cotton textiles in particular, as well as a variety of other goods (saltpeter, Chinese porcelain and silk, dyestuff) among Dutch and especially English imports. The appeal of Indian calicoes eventually defeated European protectionism and even spurred new manufacturing establishments designed to imitate the original varieties. Still, European commercial ventures in Asia remained plagued by the need to secure adequate means of payment for the luxury items they were after. Enormous quantities of foreign silver were poured into China between 1500 and 1800. Initially, the Portuguese smuggled silver into the country from Japan. After the relaxation of the ban on private maritime trade in China (1567) and the establishment of a Spanish colony in Manila (1571), even larger quantities arrived on convoys carrying silver from the Mexican and Bolivian mines across the Pacific. Considerable disagreement exists about the precise amounts of these silver imports and their impact on the Chinese economy. Orders of magnitude are nonetheless indicative of the relative prices of silver across the globe: the gold/silver ratio in the sixteenth century was roughly 1:12 in Europe, 1:10 in Persia, 1:8 in India, and 1:5–6 in China.³⁰ Little wonder that Europeans hurried to ship silver to East Asia and Chinese merchants flocked to Manila to sell silk textiles, tea, and porcelain.

The late eighteenth century saw the most dramatic shift in the patterns of intra-Asian trade since the 1500s and, simultaneously, a meteoric rise of

³⁰ Richard von Glahn, *Fountain of Fortune: Money and Monetary Policy in China, 1000–1700* (Berkeley, CA: University of California Press, 1996), pp. 127–8.



European imports of coffee and especially tea. Originally grown in Yemen, coffee first reached Venice in the mid-sixteenth century. The Dutch transplanted its seeds to Java and Ceylon, but experienced tough competition from the Caribbean plantations, where sugar and tobacco also became cash crops. Tea, by contrast, remained a Chinese specialty throughout the eighteenth century, when it was planted in large scale in India. More and more people across the Ottoman and Safavid empires acquired a taste for these drinks, but it was the skyrocketing demand for tea in Britain that triggered changes with enormous geo-political consequences. Between 1720 and 1790, imports of Chinese tea to Britain grew more than sixteenfold.³¹ To feed this demand, the British found a new expedient, which also allowed them to alleviate their dependency on bullion exports: instead of silver, they brought to China opium grown in the regions of northern India that had come under their direct control, including Bengal (1757) and Surat (1759). More than the officers of the EIC, British privateers conducted this trade with the complicity of the Customs Superintendents (*Hoppo*s) of Guangzhou, which in 1757 the Chinese authorities designated as the only port that foreigners were allowed to frequent. This illegal trade acquired unprecedented dimension and eventually precipitated the first (1839–42) of several Anglo-Chinese wars known as the Opium Wars, which ushered in a new era for British colonialism in East Asia.

Comparisons, connections, causation

Three broad issues fuel current scholarly research in the organization of trade in early modern Asia and Europe: the comparison of business forms utilized in the two continents; the role of commerce in creating a more interconnected or a more hierarchical world on a planetary scale; and the impact of transoceanic trade on the rise of the West, and of British industrialization more specifically.

Every merchant involved in long-distance trade faced similar problems no matter where he was: how to ensure the safe delivery of his goods; how to minimize the chances of recruiting incompetent or fraudulent associates; how to raise and transfer funds; how to acquire timely information; how to gain access to new markets; and how to avoid being entangled in prolonged and potentially unfavorable legal procedures. Family and social ties invariably

³¹ Louis Dermigny, *La Chine et l'Occident: Le Commerce à Canton au XVIII^e Siècle, 1719–1833*, 3 vols. (Paris: S.E.V.P.E.N., 1964), II, p. 539.

assisted merchants in all these efforts. When these resources were lacking, specialized brokers cropped up everywhere to facilitate transactions between strangers. In many instances a diverse array of corporate authorities mediated disputes before they ended up before a judge. For all their similarities, some of these arrangements also took different forms across time and space. In this regard, an old and vexed question is still on the table: to what extent did European legal institutions reduce uncertainty and favor the creation of more impersonal markets in contrast to a greater reliance on kith and kin in the organization of Asian trade? While a growing literature stresses the complementarity of formal and informal arrangements that made long-distance trade safe and profitable all across the world, the question is bound to fuel energizing debates for years to come.

Comparisons of business organization cannot hide the fact that alongside families, trade diasporas, and other merchant communities, state and large-scale organizations were instrumental in the growth of long-distance trade during the early modern period. After the 1490s, and especially after the 1570s, the maritime worlds of Europe, Asia, and Africa became more interconnected than ever before. At the hands of the Iberian monarchies and the northern European chartered companies, commercial expansion was accompanied by warfare, coercion, and territorial conquest. It was the amalgam of economic and military pursuits that ultimately altered the history of the world. The timing and paths of this transformation remain a controversial subject. Even within the same ideological camp, we find contrasting views. Marxist scholars of world-system analysis depict a greater (Immanuel Wallerstein) or lesser (Andre Gunder Frank) continuity between the European domination of Eurasian trade after 1500 and the world of modern capitalism.³² Non-Marxist historians are equally divided. For some, the Europeans' rounding of the Cape of Good Hope and the establishment of the EIC and VOC marked a sharp break in the history of global commerce.³³ Others, by contrast, find that, even when boarded with heavy artillery, European ships largely adapted to pre-existing commercial networks, at least until the opium trade with China. In the first aggregate quantitative analysis of Eurasian trade between 1497 and 1795, Jan de Vries calculates that a total of 10,781 ships left Europe for the Indian Ocean between 1501 and 1795; of these, a total of 7,731

³² Immanuel Wallerstein, *The Modern World-System*, vol. 1: *Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century* (New York: Academic Press, 1974); Andre Gunder Frank, *ReOrient: Global Economy in the Asian Age* (Berkeley, CA: University of California Press, 1998).

³³ Chaudhuri, *Trade and Civilisation*.

returned to Europe from Asia, while the remaining 3,050 were either lost at sea or in battle or remained in Asia to engage in intra-Asian maritime trade. He thus concludes that “the impulse toward globalization in these three centuries was held in check by both technological and political factors that preserved a polycentric world economy despite the establishment of permanent and growing intercontinental trade flows.”³⁴

Even if polycentric, the world economy in 1800 did not resemble that of four centuries earlier. In 1400, China maintained a technological leadership. By 1800, Britain was undergoing the first industrial revolution and had established the largest non-contiguous empire in the history of the world. It is thus not surprising that the specter of industrialization has long haunted the study of transoceanic trade. Yet the direct impact of external trade on England’s industrialization, apart from the cotton industry, is even more difficult to measure than that of agricultural productivity, the price of coal, or wage rates. Arguing that neither living standards nor access to coal gave England an edge over the most developed Chinese regions before the late eighteenth century, Pomeranz points to the American plantations, with their enslaved labor, cheap raw materials, and outlet markets for the homeland’s manufacturing sector, as the main source for Britain’s leap forward.³⁵ He does not resolve a long-standing controversy on the profit margins in the Atlantic slave trade and their impact on the investments that sustained England’s industrial development.³⁶ But even with shaky statistics at hand, it is impossible to deny the role that warfare and human exploitation had in propelling England ahead.

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³⁴ de Vries, “Connecting Europe and Asia,” p. 38.

³⁵ Pomeranz, *The Great Divergence*.

³⁶ Eric Williams, *Capitalism and Slavery* (Chapel Hill, NC: University of North Carolina Press, 1944); Stanley L. Engerman, “The Slave Trade and British Capital Formation in the Eighteenth-Century: A Comment on the Williams Thesis,” *Business History Review*, 46 (1972): 430–43; Barbara L. Solow and Stanley L. Engerman (eds.), *British Capitalism and Caribbean Slavery: The Legacy of Eric Williams* (New York: Cambridge University Press, 1987).

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