

Between Monopoly and Free Trade:
The English East India Company, 1600-1757

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CHAPTER ONE: Introduction

The English East India Company has long sat at the center of debates on the relative virtues of monopoly forms of organization and free trade. The Company figures prominently in the work of Adam Smith, Thomas Mun, James Steuart, James Mill, David Ricardo, and John Stuart Mill among others and was a significant influence on the development of economic thought in Britain (Barber 1975; Khan 1975; Muchmore 1970: p. 498-503). Supporters of the Company argued that monopoly rights were necessary to create and maintain the expensive infrastructure that made long-distance trade to Asia both possible and profitable. Free trade advocates attacked the Company as a boundary to the expansion of commerce. Arguments over the efficacy of the Company's monopoly continue to this day (Carlos and Nicholas 1988, Jones and Ville 1996a 1996b, Carlos and Nicholas 1996, Irwin 1992, Anderson and Tollison 1982). These debates have largely glossed over the fact that the Company was never a true monopoly.

The English Company had monopoly rights in England, but had always competed against other European organizations in Asia—and happily traded with them.¹ Even within its own purview, the Company ceded several of its monopoly privileges to its employees. These employees engaged in what was called the private trade, trade upon their own account and in their own interest, while in the employ of the Company. The private trade allowances both contributed to and were a part of a larger pattern of decentralized decision-making in the English Company. The research presented in this manuscript documents how organizational decentralization and the intertwining of private and Company interests aboard the voyages of the East Indiamen ships created a powerful internal network of communication that effectively

¹ It was only with the rise of Britain's Eastern Empire and Henry Dundas's model of the "Emporium of Trade of Asia" that the Company, and British government, became determined to build a true monopoly.

integrated Company operations across the East. Monopoly rights were not the key to Company success; it was the partial abrogation of those rights that became the foundation of England's commercial success in Asia.

Some idea of the importance of the private trade has been apparent since the days of the Company itself; however it has not been considered as part of a decentralization of the organizational structure, except by those that saw that decentralization as a negative (Moreland 1923: p. 314, Arasaratnam 1986: p. 37, 329, Lawson 1993: p. 73). Instead, the private trade of the employees has mainly been conceptualized as a distinct alternative to the monopoly practices of the firm—even though the two worked in concert.

Contemporaries of the Company took the success of the English private trade as evidence of the superiority of free markets. Influential actors, such as David Scott (close friend of Henry Dundas and chair of the East India Company from 1778 to 1800) cited their experience with private trade in the East as the source of their support for the ideal of free trade (Philips 1951: p. xiv). When requesting the renewal of monopoly privileges, Company officials argued that the failure of the private trade to take up more than a quarter of the tonnage offered by the Company demonstrated the efficacy of the existing system of monopoly (Hansaard 1812: p. 47). The relationship linking the private and Company trade was ignored in increasingly polarized arguments about the merits of free markets.

In the end, the 1813 and 1833 Acts rescinding the Company's monopoly privileges, first to India and next to Asia, were seen as ideological breaks from the mercantilist system of monopoly privilege that put the nation on a path toward economic rationalism and free trade practices. The English Company came to represent the evil and conservatism of the monopoly

form. The decentralized organizational form it had actually possessed during its years of expansion was largely ignored. The argument I make here, which builds upon the work of historians of the private trade, is that the East India Company is miscast as a simple monopoly—and the private trade is misunderstood as a version of free trade. Instead the private trade was both a symptom and a cause of decentralization in the otherwise hierarchical structure of the early-modern company.

I argue that this decentralized organizational structure—constructed through the combination of private and Company trade—was the central pillar of the English East India Company's continued expansion and adaptability over nearly two centuries as a predominantly commercial operation. By fostering the use of social networks as well as a cohesive internal structure of connections between ships and ports, the decentralized structure of the firm simultaneously expanded and integrated company operations in the East. Social networks within the Company transferred valuable information between employees, leading to the incorporation of more and new ports into the larger network of Company trade. Additional ports brought new opportunities, new markets, and new types of commodities into the Company trade. Decentralization in the form of private trade allowances also encouraged employees to stay longer in the East, exploring new ports and linking existing English settlements into a tighter network of communications—feeding back into and encouraging the process of lateral information transfer that was also a product of putting significant autonomy into the hands of local agents of the Company.

The importance of extreme decentralization, and its systematic effects on the conduct of the English Company trade, implies that the remarkable expansion and growth of the English

East India Company was not a product of imperialism or the centralization of administrative forms. Instead decentralization and profit sharing within a larger organizational framework, i.e. the company form, introduced an innovative capacity that was essential to the long-term success of the firm. That innovative capacity was sustained by the willingness of Asian merchants to trade with both the Company and its servants. In the end, the long-term commercial success of the Company depended upon the existence of open societies in the East just as much as its employee's private trade.

The Rise to Commercial Prominence

The English East India Company was formed December 31 of 1600. Queen Elizabeth I granted the small group of merchants a monopoly of trade to lands East of the Cape of Good Hope and West of Cape Horn. Initially, the Company was funded on a voyage-by-voyage basis. £68,373 (£6,843,520 or \$10,951,685 in 2011) worth of shares sold to roughly two hundred investors provided the initial capital for the Company's first voyage (Clough 1968: p. 162). These funds provided for four large ships and one small supply ship, manned by nearly five hundred men. At its peak in 1796, the Company sent out eight-four ships in one year, by which time it also employed over 350 home office administrators (Carlos and Nicholas 1988: p. 403).

The Company grew to be a huge political and economic power in both England and Asia. K.N. Chaudhuri described its trajectory in the eighteenth century in glowing terms:

“The East India Company went from strength to strength. Its trading capital amounting to £3.5 million was held in the form of government securities and its bonds bearing fixed-rate interest linked to the yield on the gilts were regarded as ideal short-term investment by the financiers of the City and Amsterdam. The

Company continued to make huge profits on its Asia trade.” (Chaudhuri 1986: p. 117)

Throughout most of the eighteenth century the Company returned eight percent in dividends to investors (a healthy return), falling only occasionally to six percent (Bowen 1989: p. 191). It was a central actor in the establishment of the British public debt and the creation of modern financial markets (Carruthers 1996: pp. 137-159). In the period from 1768 to 1774, thirteen Company directors were simultaneously serving in Parliament. By 1784, thirty-six members of Parliament were current or former officers or employees of the Company (Barber 1975: p. 101). At times East India Company issues overshadowed even domestic policy decisions (Philips 1937: p. 83).

In 1765, the Company formally assumed territorial control over Bengal—now part of India and Bangladesh—and began to gradually establish a colonial empire that spanned the Indian subcontinent. By 1833 it had relinquished all monopoly rights to trade in the East and become a purely colonial power. In 1858, after the Sepoy Mutiny, the colonial empire became the British Raj. This colonial administration was the cornerstone of the British overseas empire.

It was not, however, as a colonial administrator that the English Company experienced most of its commercial growth. According to K.N. Chaudhuri, the preeminent Company historian, the Company’s most rapid development occurred from 1660 to 1700. In this period import and export quantities grew significantly in both absolute and relative terms (Chaudhuri 1978: p. 82). The number of ports included in the trade network of the English East India ships also increased most appreciably in this period. Despite this expansion, in the late seventeenth century the English Company’s trade was still overshadowed by its largest competitor, the Dutch East India Company (*Vereenigde Oost-Indische Compagnie*). The Dutch Company was another powerful European overseas trade monopoly. For the first half of the

seventeenth century, the Dutch Company was much larger than the English Company. The initial capitalization of the Dutch Company was 6.5 million guilders, ten times the amount of the English Company (De Vries 1976, p. 130). Still the Dutch Company was dissolved more than a half century before the English and had grown stagnant long before that time.

There is moderate disagreement over the exact moment at which the English Company overtook the Dutch. In terms of the sheer number of outward-bound ships, the English Company did not come to rival the Dutch until the 1780s. In the 1600s, the Dutch Company frequently sent out more than double the number of English Company ships; however, Dutch investment in terms of ships peaked by the 1730s (Vermeulen 1996: p. 144). Despite this, it was still a large presence for some time to come. By 1770, the English Company was just on the verge of catching up, with 233 recorded official voyages as compared to 290 Dutch Company voyages. It was not until the 1780s, that the English Company finally sprang ahead with 318 versus 297 Dutch Company ships (Bruijn and Gastra 1993: p. 179).²

These numbers, however, do not capture the English country trade. The country trade was trade confined to Asia. For the Dutch, this was official company trade (until the 1740s). For the English, beginning in mid-to-late seventeenth century, the country trade belonged to the private trade of the employees. In the 1720s and 1730s, English country trade grew tremendously. In his study of Bombay (now Mumbai) and Surat, Holden Furber finds that it doubled in the period from 1724 to 1742 (Furber 1965: p. 44). By the 1730s it was clear from port records that the English were supplanting the Dutch (Furber 1965: p. 45).

² English shipping statistics compiled from Anthony Farrington's *Catalogue of East India Company's Ships Journals and Logs* (1999).

Based on his evaluation of import/export growth rates in the English Company, Chaudhuri believes the English Company came to rival the Dutch enterprise when it experienced its most rapid phase of growth, from 1660 to 1700 (Chaudhuri 1978: p. 82). Bal Krishna also believes that the rising fortunes of the English Company were surpassing the Dutch prior to the eighteenth century, noting that the English were investing £26,000,000 in trade, whereas the Dutch invested significantly less, £19,000,000 (Krishna 1924: p. 177). By 1720-31 the average annual value of the English Company's imports from Asia was exceeding the Dutch (Steensgaard 1990: p. 110).

In a meticulous study of the stock prices of the two firms, Larry Neal found the English Company stock valuation making large gains on the Dutch in the 1730s and 40s. When reacting to general market conditions, both Companies stocks moved in the same direction. The gains made by the English Company stock in the 1730s and 40s were marked by significant losses in the Dutch price, indicating that capital was moving from one firm to the other as investors realized greater growth potential in the English firm (Neal 1990: pp. 218-220). Kristoff Glamann's work corroborates this view as he found that contemporaries of the firms were aware of the decline in the relative position of the Dutch Company by the 1730s and 1740s (Glamann 1981: p. 2). In fact, at this time the Dutch Company began to implement significant reform efforts, one of which was imitating the English Company by opening the country trade to its employees.

The 1720s were the beginning of a long tumble for the stock of the Dutch Company—during which time English Company prices fared much better (Neal 1990: p. 198). Gastra explained this sustained decline in terms of a series of events occurring over the eighteenth

century (Gaastra 2003: p. 59). A definitive end to the Dutch Company came in 1799 when it was formally dissolved. The gradual pattern of decline over the 1700s indicates that, rather than suffering one definitive external shock, the Dutch firm suffered from a gradual erosion of their commercial position, leading Neal and Glamann to believe that the firm's difficulties lay in the inability to successfully adjusting to increased competition and changing market conditions (Neal 1990: p. 220, Glamann 1981: p. 2). Something the English Company turned out to be more adept at handling.

Thus any theories regarding the expansion and eventual triumph of the East India Company in the commercial world of the East should focus at least on the period from 1660 to 1740, which begins with the rapid expansion of the English Company and ends with their supplanting the Dutch as the major European commercial power in the East.

The period of 1640 to 1740 is also a time in which English East India Company employee's enjoyed especially high levels of legitimate autonomy in the form of the official acceptance of the private trade. I focus my research in this manuscript on this period, although I extend the timeframe to include 1760, which marks a natural break in the organization of the East India Company in the aftermath of the Battle of Plassey and the beginning of the Company's transition to colonial rule. The analysis also includes other periods in the Company's history—in order to construct comparisons with the crucial private trading period. Since the focus here is on the means by which the English Company achieved commercial prosperity, I do not address the period after it lost its last claim on monopoly privileges and was directed to end its commercial business in 1833.

Alternative Explanations for the Success of the Company

Domestic Conditions

There are several existing explanations for the East India Company's rise to prominence. It is perhaps most commonly believed that the rising fortunes of England led to the success of the English East India Company. This argument suggests that organizational structure and events in the East are unimportant elements of the story—simply outcomes rather than causal factors—however it falls short of providing an adequate explanation.

There has been a great deal of controversy over exactly when real growth accelerated national economic development in Britain, but little argument that anything other than the structural preconditions were in place before the beginning of the eighteenth century. Phyllis Deane and W. A. Cole identify a turning point in British economic growth in 1745, but find that real acceleration occurred after 1780 (Deane and Cole 1967: p. 80). Crafts later amended this to argue that growth did not really begin a marked upward movement until after 1820 (Crafts 1985: p. 2), arguing additionally that even the gradual structural shifts leading up the change were not in evidence until the beginning of the eighteenth century (Crafts 1985: p. 7). R.V. Jackson has since suggested amendments to Crafts that push growth from 1700 to 1760 downwards and upwards in the period from 1760 to 1800, bringing them back closer in line with Deane and Cole's original research (Jackson 1990: p. 225). More recently there has been an emphasis on the existence of long-term slow growth in England as well as other areas in Europe and Asia, followed by only a very slight increase in the pace of England's development in the latter half of the eighteenth century (O'Brien 2000: p. 127, Goldstone 2000 2002). This research indicates that real change occurred after 1830 (Mokyr 1999: p. 1). The same researchers have pointed out that

although industrialization occurred in Britain prior to 1830, it was confined to a few localities that accounted for a small proportion of the total economy—reinforcing the point that the national economy did not experience a strong acceleration until after 1830 (Mokyr 2003). Although disagreements about the causes of development will undoubtedly continue into the future, they are very unlikely to challenge the view that the rapid development of the East India Company preceded the rapid development of the British economy by several decades. Indeed the fact that commerce grew significantly well before the industrial revolution has led many to argue that it was in fact a cause of economic development.

In contrast, the English Civil War (1642-1651) occurred before the expansion of the East India Company. Therefore the installation of bourgeois interests at the head of the government could have affected the future of the firm. The war's outcome did not initially seem to favor the English Company, as it was a Crown supporter (Brenner 2003: p. 324). The Company was however able to renew its charter under Oliver Cromwell and had experienced periodic difficulties with the monarchy. For example Charles I had directly threatened the East India Company's monopoly by supporting a rival company, the Courteen Association (Furber 1976: p. 69). On the other hand, a merchant elite had dominated the Dutch government since the mid-sixteenth century (Adams 1994: p. 327), so this does little to explain why the English Company would have fared better than the Dutch in the eighteenth.

In any case, neither the political or economic conditions in England can explain why the East India Company succeeded, where other British joint-stock organizations failed. The Royal African Company, formed in 1672, had lost its monopoly by 1690 and all but failed by 1730 (Carlos and Kruse 1996: p. 291). Similarly, the South Seas Company's was disastrous, famously

almost bringing down the British economy (Anderson and Tollison 1982: p. 1241). Indeed, Gary Anderson and Robert Tollison argue that Adam Smith's well-known dislike of the joint-stock form was based on the poor performance of such firms in his lifetime (Anderson and Tollison 1982: p. 1240). A prominent exception (not to Smith's criticism) was the East India Company.

War

The first three Anglo-Dutch Wars have been cited as a cause of the decline of Dutch overseas trade (De Vries 1976: p. 122), and therefore should be considered a possible cause of Dutch East India Company decline. The first Anglo-Dutch War took place from 1652 to 1654, the second from 1664 to 1667, and the third from 1672 to 1674. Although domestic and international political considerations played a role in instigating these wars, the commercial aspects are most relevant, so I confine my discussion to these elements.

In the beginning of the seventeenth century, the Netherlands did not only dominate the Eastern trade, they dominated trade throughout Europe (De Vries 1976: p. 116). Particularly because the Dutch also controlled the herring trade conducted off the shores of England, English merchants resented Dutch predominance. It is clear that this commercial rivalry fed into the hostilities between nations; however their impact on the fates of the East India Companies is less obvious.

There is significant evidence that the Dutch and English Companies sidestepped formal animosities in the East Indies in order to continue to pursue trade with as little interruption as possible, particularly in the second and third of the Anglo-Dutch Wars (Boxer 1974: p. 59;

Pincus 1992). Additionally, the outcome of the three wars did not clearly favor the English. The English seemed to gain the advantage in the First War (Boxer 1974: p. 19), but the second favored the Dutch. At the conclusion of the second war, the Treaty of Breda altered the Acts of Navigation in favor of the Dutch. These acts had been the central point of contention in the tensions leading up to the war, so this was a strong sign that the Dutch had gained the upper hand in the conflict. The terms of the treaty also dictated that the English Company renounce their claim to Pulo Run (while Britain gained Manhattan) (Boxer 1974: p. 39). The direct result for the English Company was therefore the loss of ground in the East Indies. The Third Anglo-Dutch War, in which England was allied with France, was very hard on Dutch trade, but ended inconclusively. The battles between the English and Dutch were generally fought to the advantage of the Dutch and ended with the English paying out an indemnity of two million guilders (Boxer 1974: p. 58). Although Jan De Vries seems to disagree, Charles Boxer believed that the Dutch Republic recovered more quickly than England from the financial difficulties of the wars (Boxer 1974: p. 63). Jonathan Israel concluded that, although the French and English intended to end the Dutch trade supremacy in the Third War, they simply failed to do so (Israel 1989: p. 297). Dutch trade supremacy resumed again at the war's end, although it did mark the beginning of a long and gradual decline.

Finally, the timing of the rise and fall of the East India Companies does not clearly support the centrality of the first three Anglo-Dutch wars. If these conflicts had created the English Company's success through the suppression of a Dutch trade advantage in the East, there should be clearer evidence of Dutch decline after the war. Instead the Dutch Company continued to expand until at least the 1730s and 1740s. Kristof Glamann discusses the 1700-30 period as

the culmination of the Dutch Company's power and an apparent golden age (Glamann 1981: p. 2).³

The English and French were also at war several times during the English Company's history. In contrast to the conflicts between the Dutch and English states, these were hostilities between the English and the French Companies and fought in the Indian Subcontinent. These battles mark an exciting chapter of the history of the East India Company history, filled with strategic machinations, shifting alliances, complex court intrigues, and the oversized figures of Robert Clive and Joseph François Dupleix. However the timing again does not support their importance in determining the success of the English Company. The first Carnatic War was fought from 1746 to 1748, the second from 1749 to 1754, and the third from 1757 to 1763. The English were victorious in these conflicts, which played a central role in establishing Britain as a strong colonial power in the Indian Subcontinent. They also came nearly a century after the period of accelerated growth of the Company identified by Chaudhuri and well after the erosion of the Dutch position in the East. Even if the continued commercial success of the English Company was predicated on their victory in these wars, which is not entirely clear, it is very unlikely that the Company would have succeeded militarily without access to the resources which its commercial success had provided.

Protections Costs

³ Glamann also recognizes that the structural precondition of the Dutch Company's demise were probably already present during this period when it appeared most successful. The structural conditions he identified had to do with the shifting patterns of Asian trade, not the Anglo-Dutch Wars. His analysis supports my argument that adaptation and innovation were central to the continued success of the East India Companies in the global market.

A related line of research has argued that the internalization of protection costs created a competitive advantage for the European companies that assured their success in the Eastern trade (Lane 1966, Lane 1979, Steensgaard 1974). It is important to note that the object of explanation is different in Steensgaard's research than in this manuscript. Steensgaard focused on the Company's success as a type, including both the Dutch and English Companies, whereas I am focusing on the greater relative success of the English over the long term. Still, Steensgaard's research was an important contribution to understanding the East India Companies and should be addressed.

The internalization of protection costs has at least two possible meanings. In one, a detailed accounting procedure is used to take the cost of protection rents into consideration when calculating business prospects. In the second, a commercial organization internalizes activities associated with protecting the organization from theft or violence, such as for example hiring security guards. Steensgaard's argument indicates that both types both played an important role.

Steensgaard provides detailed and convincing evidence that the greatest costs to merchants traveling the overland route through the Middle-East came from customs duties, bribes to local officials, and protection costs paid out to other smaller communities along the caravan trail. According to Steensgaard, these expenses significantly overshadowed transport costs. Therefore the European companies saved a great deal by taking the Cape route, despite the higher transportation costs involved. In keeping with the protection costs argument, the savings must have been part of the decision to take the Cape route. This explanation however does not provide an answer as to why the Portuguese *Estado da Índia*, which also took the Cape route, was a commercial failure, particularly in comparison with the Dutch and English Companies.

It is also true that the European companies integrated protection functions into their operations. The benefit of integration assumes that there is in fact a real threat; otherwise investment in defense would simply cut profits. Somewhat problematically, many historians of the Indian Ocean assert that, in comparison with the Atlantic Ocean, it was a *Mare Liberum*, a free sea. In this case protection functions would simply be an additional and unnecessary expense. There were, however, Asian merchants who also combined military force and profit-seeking into organized commercial operations. For example, the Omani state was mercantile and willing to defend territory through military action (Cole 1987: p. 195), and the Mappila of Malabar and Western Ceylon was an armed and aggressive merchant group (Subrahmanyam 1995: p. 769). These groups existed, but did not dominate the East, which, in itself, provides some grounds for skepticism.

The European East Indiamen, however, were armed with superior weaponry and each of the companies engaged in at least sporadic military action. We can consider the importance of investing in armaments by comparing the Portuguese *Estado da Índia*, the Dutch East India Company, and the English East India Company in the seventeenth and early eighteenth centuries. The Portuguese were the most militarized, followed closely by the Dutch, who were trailed by the English, a distant third. The English Company did not have any significant armed land forces until 1660 (Bowen 1996: p. 351). By contrast, half of Dutch Company employees were military personnel (Knaap 2003: p. 116). The Portuguese *Estado* simply was a militarized arm of the government. They did not create commercial apparatus, i.e. a company, until 1628, and even then, the Company's existence was short-lived. In 1615 the Portuguese assault force that attacked Goa included 6,000 Indians and 2,600 Europeans (Desphande 1995: p. 262). In 1626, a single Dutch fleet sent to protect Amboina included 1,200 soldiers (Van Veen 2001: p. 88). As

late as 1740 the English had not really come to rival these numbers. Total forces numbered less than 2,000, leaving only one hundred to defend Madras when French forces attacked, and took, the site (Parker 1991: p. 182). Similarly by 1623 the Dutch had a large naval force in place in the East, with roughly sixty-six ships actively engaged in various military actions across ports (Van Veen 2001: p. 92). In contrast, the Bombay Council requested three small vessels to protect coastal English trade in 1669. They received two (Deshpande 1995: p. 283). This requisition made for the very modest beginning of the Bombay Marine, the Company's first naval force.

These differences reflected the strategies of the three organizations. The Dutch and Portuguese actively pursued conflict as a means to acquire territory in the East (Subrahmanyam 1990: pp. 252-297), whereas, prior to Plassey, the English did not. The English instead pursued a largely peaceful trade, following the advice of Sir Thomas Roe, the Company's ambassador to the court of the Mughal Emperor: "Lett this bee received as a rule that if you will Profitt, seeke it at Sea, and in quiett trade; for without controversy it is an error to affect Garrisons and Land warrs in India." Roe argued specifically that war "is the beggering of the Portugall" and "hath also been the error of the Dutch" (Foster 1899: p. xxxiv). In contrast, Jan Pieterzoon Coen, the famous governor-general of the Dutch Company went by the phrase: "Trade without war, and war without trade cannot be maintained." (Parthesius 2010: p. 38).

Philip Stern and Bruce Watson have shown that there was military buildup in the English Company related to and following Child's War with the Mughals (Watson 1980, Stern 2010). However the Company used their fortifications to defend existing settlements—not too engage in aggressive acts. Instead they continued to avoid conflict whenever possible (Stern 2010: p. 122), again, unlike the Dutch and Portuguese. Of course this pattern changed after the Battle of

Plassey, which was also after the Company had established itself as the dominant European commercial power in the East.

If militarization was the only or most important factor in producing commercial success for European organizations in the East, we should see Portuguese and Dutch commercial ascendancy. Instead, the Portuguese were markedly less commercially successful than the Dutch or English,⁴ and the English became more commercially successful than the more militaristic Dutch. Indeed, by the eighteenth century, the Dutch seem to have regretted the high costs of their aggressions and pulled back into a more pacific mode (Winus and Vink 1994: p. 40). And evidence indicates that the English Company's finances suffered substantially with the onset of their post- Plassey policy of aggressive territorialization (Tripath 1956: p. 3).

It is undeniable that there was an element of aggression and force to the trade of all European companies trading in the East. Even the English East Indiamen were armed. That things happened this way does not mean that it necessarily had to be so. The fact that the English Company, which was the weakest and least militaristic of the organizations, was also the most successful over the long term, suggests that the internalization of protection costs was not as profitable as many have believed. In the end, large-scale militarized organizations, i.e. states and empires, were nothing new; however successful commercial firms with global reach were unique. The real innovation was the commercial side of things, not the incorporation of violence.

Theories of the Private Trade

⁴ In fairness, I should make clear that Steensgaard does not consider the Portuguese, since they were not a commercial operation integrating protection costs, but instead a militaristic organization integrating economic costs.

In addition to being less militaristic than the other European companies, the English firm was also more permissive of the private trade of its employees. The private trade in the East Indies was any trade not taken under the auspices of one of the large chartered organizations of the sixteenth, seventeenth, and eighteenth centuries. In many of the early overseas companies employees participated in the private trade while employed. The degree to which this was tolerated varied across the different organizations. The Muscovy Company, formed much earlier in 1555, did not allow private trade within or without the company when it was organized as a joint-stock (Scott 1910: pp. 47 & 52; Willan 1953: p. 405). The Hudson Bay Company, formed in 1670, outlawed employee private trade in 1672 (Carlos and Nicholas 1990: p. 863). The Royal African Company, formed in 1672, did not allow private trade among employees and put considerable effort into controlling it (Carlos and Kruse 1996: p. 298). At roughly the same time, the English East India Company was loosening its private trade regulations to allow employees more leeway.

A similar situation prevailed among the European East India Companies. Holden Furber, who pioneered work on the private trade, summarily states “The English East India Company placed less restrictions than any other on the private concerns of its servants.” (Furber 1965: p. 25).⁵ Some researchers have portrayed the private trade in a negative light. For K.N. Chaudhuri, it was a minor source of disruption to the otherwise well-oiled logistical machinery of the Company (Chaudhuri 1978: p. 74-77). W.H. Moreland and Sinnappah Arasaratnam had more negative opinions, arguing that it harmed the Company trade (Moreland 1923: p. 314, Arasaratnam 1983: pp. 258-63). There were certainly some negative consequences. Smuggling

⁵ The comparison between the English Company and its European competitors is further developed in chapter two of this manuscript.

goods into England cut into Company profits by creating an alternative supply in England. The country trade of the employees hurt the Company in different ways. Many seem to have embezzled Company monies to fund their own trade (Furber 1965: p. 29). Private trade buyers were also usually in competition with the Company in Asian ports—with the private traders representing both parties. This situation usually led to higher prices and lower quality goods for the Company trade.

Nevertheless most historians now agree that England's fortunes in the East were closely tied to the rise of the private trade. Holden Furber has forcefully argued that the development of the English country trade (trade confined to the East) of the employees was responsible for the events leading to the creation of the British Empire in the Indian Subcontinent (Furber 1965: p. 69). P.J. Marshall and Ian Bruce Watson have documented the paths by which British private traders entangled the English Company—and eventually the British government—into political conflicts that led to colonial rule (Marshall 1976, 1993; Watson 1980).⁶ Others have further developed some implications of Furber's original argument by saying that the British private trade squeezed the Dutch Company out of the country trade, leading to its downfall (Emmer and Gaastra 1996: p. xx) and that the failure of the French to expand their country trade led to their lack of commercial success (Lombard 1981: p. 186). Many of these arguments explicitly state that the private trade allowed English traders to penetrate into local markets and commercial networks, and that this penetration and partnership with Asian merchants was the foundation of British commercial success (Furber 1965: p. 46, 1976; Asaratnam 1995: p. 16; Tripathi 1956: p. viii).

⁶ I want to stress that the question of whether the private trade led to British imperial rule in the East is an entirely different question than the one addressed in this manuscript, which considers the relationship of private trading practices to the effectiveness of the English Company's commercial operations.

Despite a general sense that there was a positive synergy between the private and official Company trade, the mechanisms that have been identified by researchers are negative benefits, meaning they are ways in which the Company reduced costs—not improved its trading position. Furber emphasized how private country trade helped the Company streamline its operations—in particular by removing the considerable expense of creating and maintaining a country trade fleet (Furber 1976: p. 201). Others have stressed the reduction in monitoring and enforcement costs (Watson 1980: p. 75), closely related to the resolution of principal-agent dilemmas (Hejeebu 2005), as well as the positive, though indirect, benefit to the Company of taxes paid by private traders, their dependents, and any secondary support services created to serve the increasing population in Company held ports (Watson 1980: p. 77). This advantage grew in later years as the English Company's territorial possessions expanded.

Private trade also became increasingly important as a source of capital for the Company itself. In its overseas ports, the Company frequently fell short of the necessary funds to supply return voyages and turned to its own employees for infusions of capital. The country trade of the factors served as an additional source of overseas capital that was used to fund the purchase of return goods in Asia (Cheong 1978: p. 9). There is also evidence that the private trade attracted employees, encouraging individuals to work for the company and lowering the wage necessary to induce appropriate behavior (Anderson, McCormick, and Tollison 1983: p. 228-229). While all of these mechanisms may have played a role, they miss a crucial facet of the private trade.

When the Company acknowledged the private trade as a legitimate pursuit for its employees, it was a signal that the Company recognized and even supported a high degree of autonomy for its employees. This was not merely a matter of allowing employees greater

freedoms during their leisure time. The private trade practices affected the operations of the firm itself. In some cases, the legitimate private trading practices of factors grew so large that it helped shape the pattern of Company settlements in the East. For years overseas factors refused orders to abandon the troublesome fort at Bencoolen (now Bengkulu) because they found it advantageous for their own private trade (Sutton 2010: p. 83). And, as I discuss in more detail in chapters four and five, captains regularly diverted the routes of their ships in order to pursue their own private trade in amenable ports. Thus decisions about the paths of its ships and the location of its forts devolved into the hands of lower-level employees. The private trade allowances were not just a means of accommodating employees; the legitimacy of private trade pursuits radically decentralized the firm and placed operational decisions into the purview of locally-informed employees. The English East India Company in the private trading period is therefore an early example of a decentralized firm.

My central contribution to the historical literature on the private trade of the English East India Company is one that stresses the positive and systematic impact of decentralized decision-making on the functions of the Company as a whole. Most studies of the private trade focus in narrowly on one port or period. Søren Mentz explored the private trade of Madras (now Chennai) (Mentz 2005). P.J. Marshall described employee trade in Bengal (1976). Even Furber looked most intensely at Bombay (1965). A narrow lens is often an unavoidable outgrowth of detailed archival study. The research here instead addresses the range of Company operation across all ports visited by East Indiamen through the commercial history of the firm. The broader perspective reveals systemic network effects that could not have been pieced out or observed at the level of individual ports of call.

Theoretical Framework

There were two novel aspects to the English East India Company. It was one of the very first large and bureaucratic commercial organizations. In this sense, the Company was novel in that it was more centralized than previous forms of early modern commercial organization, such as partnerships or joint ventures. However, it also had extremely high levels of employee autonomy, indicating that it was more decentralized than other similar joint-stock companies. Given that the trajectory of the modern firm is understood currently as going from the centralized administrative behemoths of the high modern period to the increasingly decentralized, global firms of the twenty-first, the East India Company is also novel in a contemporary sense.

Economic historians have often emphasized the benefits of centralization and the joint-stock form. K.N. Chaudhuri was arguably the most influenced by organizational theory and focused on the logistical capacity of the board of managers in explaining the Company's success. He argued "the reason for its commercial success is perhaps to be found in the creation of a system which rested on a logical application of theoretical principles to the solution of business problems" (Chaudhuri 1978: p. 21). Others have noted the benefits of the joint-stock form for raising capital (Clough 1968: p. 161). Robert Ekelund and Robert Tollison argued that its efficiencies derived instead from increases in business owner's ability to easily transfer property (Ekelund and Tollison 1980: p. 717).⁷ Ann Carlos and Stephen Nicholas singled out the decrease in costs associated with vertical integration when firms are faced with high transaction costs and a large volume of transactions (Carlos and Nicholas 1996: p. 916). Clearly these are all important

⁷ By this they meant that transferability increased the potential pool of owner-managers, thus providing a higher chance of continuing operations beyond the lifetime, interest, and capacity of a small group of initial investors

benefits linked the organizational innovations of the joint-stock form, but just as plainly they do not explain variation in performance across joint-stock firms.

Over the past thirty years, decentralization has become increasingly recognized as a powerful means by which organizations may successfully navigate the complex and dynamic environments encountered by today's global firms (Ghoshal and Bartlett 1989, Bower and Christensen 1995, Birkenshaw 1997, Benner and Tushman 2003, Almeida and Phene 1994, O'Reilly and Tushman 2004, among many others). And this research has not been entirely ignored by historians of the English Company. Without identifying the mechanisms at work, Kenneth McPherson has suggested that the 'flexible organization' of the Company and its lenience with regard to the private trade was one of the reasons for its success (McPherson 1993: p. 202). Søren Mentz has advanced similar views, concentrating most on the increases in capital flow between London and Madras (2005: p. 275).

The importance of decentralization has been most clearly explored in investigations of the multi-divisional nature of the firm. K.N. Chaudhuri first hinted that the East India Company's success was related to its divisional organization (Chaudhuri 1981: p. 29-46),⁸ but the argument was fully developed by Gary Anderson, Robert McCormick, and Robert Tollison two years later (1983). Based on the work of Alfred Chandler and Oliver Williamson, Anderson, McCormick, and Tollison provided clear evidence of the multi-divisional nature of the English Company. It had the equivalent of a chief executive officer (the governor), board of directors (the court of directors), special committees, and overseas managers (factors) (Anderson, McCormick and Tollison 1983: pp. 224-6). They argued the advantage of this decentralized

⁸ Readers may note that this point seems to contradict Chaudhuri's earlier emphasis on the centralization of control over Company operations. Chaudhuri was consistent in singling out the logistical capacity and foresight of Company managers, even when this meant creating a multi-divisional structure.

structure was twofold. Following Chandler, dividing operational and strategic decision-making between managers (factors) and directors reduced the information load on directors, which allowed for an expansion of operations and subsequent gains from increases in scale and specialization. Following Williamson, the expansion made possible by decentralization reduced transaction costs (such as locating and evaluating potential exchange partners), thereby increasing the overall efficiency of the firm.⁹

In this account, the social conditions that make a decentralized firm possible are ignored. In decentralization, communication flow between center and periphery is reduced—so the center can no longer act as a hub that gathers and distributes information. If it remains the centerpiece of an information transmission system, the information content available to others in the firm will be significantly reduced. Integration and communication however remain important to firm operations, so another decentralized means of information transmission must take the place of a centralized system. Thus the use of social networks to transmit commercial information within a decentralized firm should be critical to its success. Successful decentralization is therefore not just a matter of restructuring formal organizational patterns, but also depends upon the existence of positive social ties between individuals employed by the firm. For McCormick and Tollison, decentralization is produced largely by devolving authority onto the heads of the presidencies of Bombay, Madras, and Calcutta (now Kolkata)—the divisional leaders. This analysis does not penetrate far enough into the administrative hierarchy as the effective use of social networks in the East India Company was tied to the autonomy of captains.

⁹ For relevant critiques of the transaction cost approach see Granovetter 1985 and Powell 1990.

In a second point, real autonomy cannot be created simply through organizational restructuring. Autonomy cannot be granted. If employee autonomy arises from internal rules alone, then that autonomy rests upon the whims of a central authority. Real autonomy depends upon having some external basis for control—most likely in the form of access to resources outside of the organization. Employees’ relationship to the societies and opportunities outside of their organization are therefore the real basis for any increased autonomy within the organization. The possibility of successful decentralization therefore also rests upon socio-environmental conditions, in this case in the ports of the East Indies. These conditions are not captured by a firm-based transaction-cost analysis.

Since at least the 1980s, social networks, by which I mean informal and decentralized communication, have been recognized as a crucial component of economic organization and a vast literature documents the positive impact of social networks on firms (for overviews, see Powell 1990, Brass et al. 2004). I explore the formation and use of networks within the English East India Company. Employee autonomy is associated with continued innovation within the firm, in the form of market exploration. Social networks linked employees in a decentralized system of communication that integrated firm operations without threatening autonomy. High levels of employee autonomy and highly connected social networks fed into each other, increasing the overall flow of commercially valuable information within the Company. The importance of networks and employee autonomy on the English trade suggests that previous research on the Company and the evolution of the joint-stock business form has missed an important element.

Past research on the private trade has been restricted to the negative benefits of the practice, i.e. the reduction of costs through savings in employee salaries or resolving the historically specific problems of exacerbated principal-agent problems and capital supply issues.¹⁰ I instead look consider how high levels of employee autonomy translated into local responsiveness, innovation, and internal communications within the firm. Thus I draw from organizational theory to consider the positive benefits the private trade brought to the English Company through decentralizing organizational control.

This focus led me to a detailed examination of the mechanisms by which the private trade practices of employees systematically affected company operations and the relationship between the social conditions of the East and the private trade of the English. Decentralization, understood largely through the legitimation of the private trade, affected the flow of information between employees, the rate at which new ports were incorporated into the trade of the firm, and the larger pattern by which overseas operations were integrated into a larger network of communication and transportation. Considering these positive effects of organizational decentralization suggests, in turn, a new way of looking at the firm.

Neither Monopoly nor Free Trade

The English East India Company has always had vocal critics. Many of those critics have argued that the success of the private trade demonstrated that the Company's monopoly was a hindrance to trade. If interlopers could successfully engage in the Eastern trade, the Company

¹⁰ This is not to say that principal-agent and capital supply issues do not continue to be issues facing all companies. They were however particularly acute in overseas trade in the early modern period.

was not shipping enough goods to satisfy the full demand of the market: consumers who wanted to buy eastern goods, could not buy as much as they desired. Therefore, by inhibiting new entrants to the market, who could otherwise have put goods into the hand of those consumers, the Company was standing in the way of trade expansion (Smith 2000: pp. 343-344, Anderson and Tollison 1982: pp. 1245-1248). Thus the private trade was turned into a powerful argument in support of free trade.

Opponents of this view suggest that it overlooks costly investments in infrastructure made by the Company and necessary to the overseas trade of the East. From this perspective, the interlopers were instead free riders illegitimately profiting from the warehouses, forts, and diplomatic accords built, maintained, and negotiated by the Company (Carlos and Nicholas 1988: pp. 414-415, 1996: pp. 917-918). The argument over the private trader as either free riders or free market defender does not capture the dynamic possibilities for innovation and knowledge transfer that come with increased employee autonomy.

By emphasizing the importance of networks and network organization in the English East India Company many readers will immediately recognize an implicit debt to the work of both Harrison White and Walter Powell. White has long been a champion of networks in many different forms, in this case, I have particularly drawn from his attention to the interstitial, generative nature of connections that have not yet been crystallized into the hardwired institutionalized role-sets (White 2008: pp. 20-62). Walter Powell made the theoretical argument that the categories of markets and hierarchies were not enough to describe the organization of the economic sphere, and that networks and networked forms of organization constituted a distinct third type (Powell 1990).

Reframing the English Company as a networked firm links the historical importance of the Company to more recent developments in organizational theory. We can better understand its impact by drawing upon the work of White and Powell, as well as organizational theorists of the decentralized multinational (Bartlett and Ghoshal 1989). Embedding the English Company in organizational theory also allows its example to reflect back upon our modern conception of the essential characteristics of successful firms. In this case the organization was an instrument of change not because autonomy was suppressed within it—as might be advanced by theory following Max Weber’s work on organizations—but because it embodied one of those rare moments in which coordinated action by decentralized actors has taken center stage (Udy 1959).

Here the work intersects and complements research on the limitations of patrimonialism. Patrimonialism is an ideal type of political power developed by Max Weber in which ties of kinship, patronage, and personal allegiance constitute the foundation for governing power (see Charrad and Adams 2011 for a recent and fuller description). Prior to the consolidation of centralized state power in Europe, patrimonial political power was the norm. The Netherlands had risen in political and economic power in the seventeenth century in part through creating a particularly entrenched form of state patrimonialism (Adams 1994b 2005). As Julia Adams shows, although initially the basis for Dutch efflorescence and prominence, the patrimonial networks eventually became a heavy mesh, holding Dutch society in a static pattern of traditionalism, resistant to innovation and transformation. The Dutch East India Company (VOC) was firmly integrated into these patrimonial networks of power, which had a similar dampening effect in the context of the East Indies. Adams’ work presents a negative case, in which we see how principles of exclusivity and subordination came to stifle the overseas expansion of the Dutch chartered company, where the internal competition engendered by the private trade

allowances introduced avenues of innovation through which agents could introduce local information, encountered in the field, into the larger patterns of organizational behavior. Crucial to the difference between the two companies was a transformation in principal-agent relations, where agents were expected to entirely subordinate their interests to the principal in the Dutch and early English company history, whereas the adoption of private trade allowances effectively changed the relationship into one where agents and principals interests were separate but aligned.

By bringing network analysis to bear on the historical question of British expansion into the East, I am also contributing to a well-defined line of comparative-historical network analysis. In many instances, the goal of this research has been to show how the reconfiguration of social relations between different groups is often the basis for the creation of new and important institutions, such as a centralized state (Padgett and Ansell 1993) or commercial partnership (Padgett and McLean 2006). Historical network analysis has also shown how emergent relational patterns shaped important historical events, such as English Civil War (Bearman 1993), the French Revolution (Gould 1995), and the installation of a merchant oligarchy in medieval Genoa (Van Doosselaere 2009). My central goal has actually been more modest than this—to explain economic growth through patterns of social interaction.

Thus, though the theory and methods belong to historical network analysis, the goal and the setting bring my work into conversation with the new institutionalism of economic history. The new institutionalism in economics (which is significantly different than the new institutionalism in sociology) has been concerned with explaining economic growth through specific social institutions, such as property rights, courts of law, and impersonal exchange (North 1973 1981 1990, Acemoglu and Johnson 2005, Acemoglu, Johnson and Robinson 2005,

Greif 2006). This interest has also naturally led to research on the origin of these institutions (Knight 1995, Greif 2006), all of which has led to a focus on economic history. Britain in the eighteenth and nineteenth centuries has been of particular interest to economic historians because it was during that period when Britain's economy markedly diverged from more modest growth patterns in pre-modern, medieval and ancient economies, as well development patterns in Africa and Asia. I see three points of contact between my research on the English East India Company and the new institutionalism of economics.

First, the success of the English Company was a part of the larger process whereby England experienced significant economic growth. It is therefore research on a theoretically privileged period, which has been used to understand the roots of modern economic development. There is no question that the English East India Company was only a part of the larger process, but even improving our understanding of one of the many commercial successes experienced by England in this transitional period contributes to improved comprehension of the overall picture.

Second, although my goals are similar to those of the new institutionalists of economics, important differences remain. The new institutionalists in economics explore the emergence of institutions through individual behavior via rational choice or game theory. Jack Knight describes this mode of explanation as the “‘invisible hand’ mechanism: social institutions are the unintended consequences of individual action” (Knight 1995: p. 3). I hope that my focus on the role of social networks in this large organization would emphasize the importance of *social* action in institutional formation and call attention more generally to its role (i.e. through forming and dissolving relations that spread influence and information) in economic development.

Finally, and more similarly, the networks of information and innovation that emerged within the English Company were the result of the distribution of rights and privileges across different groups—on the one hand owners/managers versus employees of the firms and on the other elites versus non-elites within the ports. In both cases, the economic growth of the firm depended upon a more equitable distribution of the right to participate in and profit from market exchange – not simply the invention and implementation of more effective coordinating mechanisms. Participation and profit do not always go hand in hand as many employees of large organizations participate in market exchange, but do not share in the profits—or receive a negligible share. Most recently Douglas North, John Wallis and Barry Weingast (2009) have argued that open societies, which do not or impose minimum restrictions on individuals’ right to participate in or create organizations, experience the greatest economic growth. The distribution of rights and rewards within the organizations are not given much attention. My research on the English Company suggests that it may also be of value to consider whether open organizations, meaning those that embrace decentralization and some form of profit sharing, are also necessary components of economic growth.

Analytical Sociology and the History of the East India Company

Throughout the manuscript my approach has been to consider the micro-level behavioral patterns and opportunity structures that allowed for the development and transformation of the English Company and, through it, larger patterns of global trade. Networks take a central role in my explanatory strategy exactly because they may be used to link individual behavior to larger macro-level social and organizational outcomes. In this sense the research is intended to

contribute to a growing subfield that has embraced many of the same larger theoretical goals found in the earlier historical-comparative network research: analytical sociology (Hedström and Swedberg 1998, Hedström 2005, Hedström and Bearman 2009, Demeulenaere 2011).

Although not a new term, the existence of analytical sociology as a well-defined approach is new. Beyond an emphasis on precision, rigor, and clarity (desirable in all analysis), its most pronounced features are a focus on building links between micro and macro levels of analysis and the use of mechanisms as a central component of any sociological explanatory strategy. The notoriously large number of definitions that have been generated to describe the idea of a social mechanism has created some uncertainty about the term, but the definition adopted within analytical sociology itself is derived from Peter Machamer, Lindley Darden, and Carl Craver's article "Thinking about Mechanisms" (2000). "Mechanisms can be said to consist of entities (with their properties) and the activities that these entities engage in, either by themselves or in concert with other entities. These activities bring about change, and the type of change brought about depends upon the properties and activities of the entities and the relations between them" (Hedström and Bearman 2009: p. 5). Although this definition is agnostic as to the identity of the activity-engaging entities, it is clear in analytic sociology that because the outcomes of interest are at the social or group level (as determined by the boundaries of the field of sociology), micro-level explanations should be based in or near the level of individuals. Thus the beliefs, motivations, propensities, and behaviors of individuals are central to explanation in analytic sociology.

Although I am ready to admit that the reader may find themselves slip-sliding around the bathtub model of micro and macro levels of analysis as they read through these chapters, there is

a general, if nested and recursive, pattern to the layout of the chapters of the book and the means by which they engage the problem of linking micro and macro levels of analysis. I outline here the way in which they link individual behavior and larger social outcomes. Figure one presents a modified version of James Coleman's multilevel bathtub model (Coleman 1990: p. 8, Hedström and Swedberg 1998: p. 22, Hedström and Bearman 2009: p. 34), also influenced by Karen Barkey's model of cultural and structural dynamics (Barkey 2011: p. 724). The modifications I have made to the diagram are intended to illustrate the argument made in the manuscript, not as a fundamental intervention or restatement of the relationship between different levels of social observation. Below I both summarize the chapters and locate them with respect to the diagram of multi-level social processes.

Figure 1 about here

Chapter two sets out the largest stakes of the argument, situating the Company with respect to some of the larger processes of transition and change in the early modern period and the dawn of modernity in the nineteenth century, which means the arc of the book begins not on the left, but on the right side of the diagram. The issues addressed are large-scale macro-historical outcomes, such as economic development in the West, underdevelopment in Asia, growth in state capacity, the development of economic theory, and the emergence of new organizational forms. All are linked to and intertwine with the story of the English East India Company. The following chapters build up to the relationship between the Company and these global-historical outcomes.

Chapter three undertakes a comparative analysis of the organizational characteristics of the firm, highlighting the Company's record of sustained innovation through the incorporation of new markets, and the extent to which this may be explained by the degree of militarization in the Company, relations with the state, and the management of employees' private trade. Over the long term, the English Company was the most successful of the European companies. Like the Dutch Company, it was not owned by the state. Unlike the Dutch Company, the English Company legalized the private country trade of its employees at an early stage. And like many smaller European companies, it was less militaristic than the Dutch. These comparisons suggest, in keeping with the insights of previous historians, that the private trade of the English Company played an important role in English success in the East. While setting up a comparative argument for why individual-level trading decisions (associated with the private trade) are important to understanding the differences between the English and other East India companies, this chapter also provides organizational background necessary to understanding why employees of the English Company would engage in certain patterns of behavior – thus putting it back on the upper left-hand corner of the diagram in figure one.

Chapters four and five both work to capture the full relationship between organizational context, individual behavior, and group level outcomes, with chapter four focusing more intensely on the process of individual decision-making, bottom left, and chapter five devoting more attention to the structural outcomes of individual behavior, mid-right of the diagram. Chapter four identifies how organizational context affects individual behavior and the propensity to incorporate information from peers into important operational decisions. The identification of this relationship illuminates, in turn, the larger question of how – or the mechanisms by which -- decentralization contributed to the pattern of innovation found in the English Company. The

analysis focuses on evaluating the relative importance of different types of information in leading captains to choose trade in one port over another, including formal orders given by the Company, a personal history of contact with ports, and information transmitted via social networks from ship to ship. The results show that social networks were an important source of information for captains when deciding which port to travel to next. However, the use of social networks varied over time. In the first century and a half of the Company's life, when private trade flourished and captains possessed considerable autonomy, social networks played an important role in determining patterns of trade. In the colonial period of the Company's history, from 1757 to its dissolution, social networks were depressed (or repressed).

The social networks were an important mediating factor in the structure of the English trade network because they kept smaller ports active in the larger network and sustained the expansion of the English trade to a growing number of ports. In other words they were central to the incorporation of innovation. When captains used these networks they anchored the Company into multiple commercial worlds, embedding it in local economies and opening up new avenues of opportunity for British trade. Thus organizational context channeled individual behavior that cumulated into new patterns of trade at the group-level, eventually feeding back into individual behavior through the type of information available to actors. This feedback effect is represented by the double-arrowed line linking "trade patterns, organizational capacity and expansion" to "access to information and incentive structure."

Chapter five provides further analysis of organizational incentive structures, linking the behavior of individuals to the larger macro-structure of trade, which may also be seen as an intermediate step linking individual behaviors to the largest outcomes described previously in

chapter two. The analysis here explores the unintended consequences of the private trade allowances. The unique private trade allowances of the English Company created a perverse incentive for the captains and crew. Those who were engaged in the private trade (which was most employees) had an incentive to illegally extend their voyages in the East and seek out new commercial opportunities. Company officials condemned this practice; however it had an unexpected impact on the firm. While ‘losing the season’ to extend their voyages, captains took the risks necessary to directly link distant markets within the Company network. Through opportunistic and malfeasant behavior, they wove the many regions and ports into one multilateral commercial network. The decentralization of control over the conduct of trade in the English Company contributed to the creation of a cohesive network of information well-suited to shuttling timely information from all ports between captains, factors, and even to Company officials in Britain. Again, there is a recursive pattern here, represented by the double-arrowed line, within the larger pattern of micro-macro links as changes in network structure affect the information available to individuals traversing the network. Additionally, new ports, containing new markets and goods, were discovered along these voyages and incorporated into the larger trade network.

Chapters six and seven return to the upper left side of the diagram, to outline the environmental conditions outside of the organization, also necessary to producing the particular pattern of behavior found in employees of the Company. A story that one-sidedly focuses on the Company at the expense of the Asian context is simply incomplete. The innovative structure of the English Company could have not have materialized without the sophisticated commercial markets of the East. This is not merely to say that the allure of Eastern riches encouraged English

entrepreneurialism. The continued success of the Company lay in the synergy between the Company and the activities of its employees pursuing the country trade. It is however not possible to understand the importance of the relationship between the Asian commercial context and the private trade without first investigating the micro-level patterns of behavior in chapters four and five.

The development of the small-scale country trade of captains and factors depended upon the commercial opportunities available in the ports of the East. In chapter six, I begin a two-chapter argument that the English Company was most successful in ports with a large local merchant class already adept at overseas trade. The captains were able to engage in trade because of pre-existing financial and commercial networks that were willing and able to accommodate a large influx of small-scale commercial actors (factors, captains, officers, and seamen), as well as the larger interests of the Company itself. Overviews of foreign trade institutions, regulations, and practices at eight different ports of call -- Batticaloa, Madras, New Guinea, Madagascar, Bantam, Whampoa, Goa, and Batavia – demonstrate this point. Each presents a window into the complex social and political structures of eighteenth century Asian trading ports. These longer port descriptions ground the analysis of ships' data presented in the following chapter.

Chapter seven, "Eastern Institutions and the Success of the English," presents systematic evidence that decentralized, commercially sophisticated ports were preferred by the English Company. The data on Company trading voyages show that they spent more time in and had longer trading partnerships with ports that were already set up to accommodate the commercial interests of both the Company and employees. These data also cast doubt upon theories that English trade patterns in Asia were driven by the presence of other Europeans. The central

finding, however, is that Asian merchants and the commercial institutions they had created before the arrival of the British played a vital role in the expansion of England into the East through their support of decentralized market exchange. Thus the institutional context of the organization in the societies with which it came into contact must also be considered in order to understand the full range of options for individual-level actions.

Because they address different components of relationship between micro and macro layers of analysis, these chapters are meant to be read in relation to each other, not as separate arguments about different components of the English Company trade. The comparison across firms presented in chapter three is merely suggestive without the identification of specific mechanisms that could have improved firm operations, presented in chapters four and five. Similarly the mechanisms outlined in chapters four and five are meant to relate to the commercial success of the firm documented in chapter one – they can only indirectly be considered one of several contributing factors for large issues at stake in the history of the Company, outlined in chapter two. Chapters six and seven are inextricably linked to chapters four and five, since the beneficial mechanisms of information transmission and innovation described in the earlier chapters rest upon decentralization and private trade, which in turn depended upon open, cosmopolitan, and heavily commercialized ports.

As a whole, the research presented in this manuscript investigates the dramatic progress of commercial expansion in the seventeenth and eighteenth centuries by examining how the English Company successfully negotiated complex and dynamic market environments through networks: decentralized patterns of interaction and communication. The East India Company was not simply a monopoly and the private trade was not simply a version of free trade. The

Company was a network form of organization created by difficult conditions, inadequate control, and simple opportunism.

Networks and Analytical Sociology

A central unifying theme that runs throughout the manuscript is the importance of networks to understanding the trajectory of the Company. Indeed, networks serve more than one function in the analysis and the diagram represented in figure 1. It is the position of analytical sociology that the micro-layer of individual behavior is not the cause of macro-level patterns, but instead both are instantiations of each other – a relationship of supervenience (Hedström and Bearman 2009: p. 11). Actors' behaviors do not cause organizational behavior because they are organizational behavior – what else is an organization other than a group of individuals engaging in routinized patterns of behavior. Thus any causal effects should be understood as traveling from the right to the left of the diagram, not from the top to bottom or bottom to up.

It has frequently been emphasized that this position implies that causal processes work only at the bottom, micro level. I would instead like to draw attention to the implications it has for our perception of the social world as researchers. The relationship of supervenience between micro and macro levels of social existence might also suggest that micro and macro levels of behavior are in effect the same phenomenon, viewed in different ways. This understanding of the relation could further imply that causal processes do run across the macro-level, from one macro property to another – it is just that the causal process is being described at different level, as for example one refers to a table stopping the movement of a plate without referring to its molecular properties. The problem, however, is that, although referring to the solidity of a table is more

than adequate for most of our purposes, our perception of macro-level social properties is not sufficiently granular to perceive real differences that occur at the micro-level level. These differences -- that are not immediately apparent at the group, organizational, or institutional level -- are often important enough to create dissimilar outcomes for individuals and groups. Since different micro-level properties, that produce different social outcomes, are often perceived as similar organizational or institutional forms, adequate social explanations really have to reach down to the micro-layer.

This brief excursus helps to explain the dual role of networks in this work. Networks function both as a causal mechanism and also as an aid to the interpretability of the social world. Because of their complexity in aggregate, it is very difficult to observe all the micro-level behaviors, patterns, and links that are instantiated in macro-social processes. Networks help us to make sense of aggregate patterns of behavior at the individual level and to thereby see the link between micro and macro levels. They are an intermediate level of observation that allows the analyst, researcher, or reader to see the relationship between individual and group behavior more clearly -- an analytic tool used for understanding and knowledge building. In this manuscript, they serve this purpose most clearly in chapter five, where structural analysis reveals the connectivity patterns that facilitate information transfer at the organizational level.

Figure one also contains a diagonal line running between trade patterns and access to information and incentive structures, indicating networks have an effect at the micro level. This line indicates the second role networks play in the manuscript, which is as a central mechanism of information diffusion operating within the larger narrative of institutional transformation. This aspect of how networks function in the larger argument is most pronounced in chapter four,

where the analysis captures how social interactions between peers affect the behavior of individuals under favorable institutional conditions. In this latter sense, however, networks are only one of a number of mechanisms operating to link the left and right sides of the diagram.

As Diego Gambetta has noted, most satisfactory explanations are composed of concatenations of smaller, simpler mechanisms (Gambetta 1998). Understanding how the employees of the East India Company used social networks involves not only mechanisms of information transfer, but also preference and belief formation (Freese 2009, Rydgren 2009): do captains prefer riskier or safer commercial opportunities; how do they come to believe that a travel to certain port offers a significant investment opportunity. Certainly, these processes have to do with rational imitation (Hedström 1998), where individuals intentionally mimic the behavior (in this case past behavior) of others when faced with uncertainty (lack of direct knowledge about commercial opportunities) in order to make more effective decisions. The timing of individuals' movements across the trade network, or the scheduling of ships, determines rates of information transfer as interactions only can take place when ships come into contact with each other, i.e. if they are in the same place at the same time (Winship 2009). Lack of organizational control led individuals to introduce random perturbations into network structure when profit-maximizing in a market environment. The randomness introduced into the larger system created a small-world effect (Watts 1999), increasing information flow across ships and within the firm. And all of these individual level behaviors were based on the opportunities (Petersen 2009) created for individual trade created by a subset of commercially open ports of the Indian and Eastern Seas.

Thus the shape of my argument is strongly aligned with the principles laid out in analytical sociology through the incorporation of mechanisms and the analysis of the links between micro and macro levels of social action. Also these mechanisms inevitably have some link to individual actors, whether through shaping their perceptions, providing opportunities for certain types of behavior, or simply influencing them to take a certain course of action. It is this last point where I believe that combining comparative historical work with analytical sociology can contribute to the larger analytical project and illuminate some of the obscured strengths of the perspective.

Analytical and Comparative Historical Sociology

The two most pervasive criticisms of analytical sociology to date have been that it does not present a sufficiently developed model of social action (Gross 2009, Little 2012, Edling 2012) and that it does not orient researchers to investigate and take into account the context in which actors take action (Little 2012, Sewell 2012, Reed 2012). On the one hand these concerns are tied to lingering fears that analytical sociology is simply rational choice theory dressed in new clothes. I believe this fear is unjustified and the commitment to more complex models of cognition (i.e. beyond rationality) is made clear in the *Oxford Handbook of Analytical Sociology* (Hedström and Bearman 2009). However it is also clear that these criticisms present an avenue of development, not a finished product.

The problem of culture, understood as symbolic sign system, has yet to be directly addressed within the framework of analytical sociology. It is a difficult problem because culture has largely been theorized as a collective product that exists outside of individuals and has a

logic and dynamism in and unto itself.¹¹ This manuscript is not the place to dive into this large issue, but it should be clear that for analytical sociology to successfully incorporate a developed conception of culture more research on cognitive models will be necessary to understand how culture is instantiated at the micro-level. Exciting progress has been made along these lines within and without analytical sociology (McLean 2007, Mische 2008, Sperber 2011, Martin 2011).

What historical work does is make it perfectly clear that convincingly identifying micro-level mechanisms requires a deep attention to culture in which individuals operate. The process of trying to understand the motivations, actions, preferences, and opportunities of the individuals – that is reaching down to the micro-layer of social processes in order to identify mechanisms driving social and organizational change – requires nothing so much as thinking very seriously about the social, cultural, and material circumstances of the actors themselves. In historical circumstances, these simply cannot be taken for granted.

Two crucial examples from this work that should illustrate this point include the values placed on the private trade and assumptions about the prevalence of market mentalities in past history. The findings in chapters four and five are largely driven by the private trade practices of employees, which encouraged both informal mechanisms of information flow and exploratory behavior. The private trade, or the idea of combining the conditions of employment and self-employment into one position, is not commonly found in twenty-first century labor practices.

¹¹ This conceptualization of culture traces back at least to Durkheim, where the collective consciousness functions at times as a supra-social entity that exists outside of but interacts with individuals and has roots as deep as the history of western philosophy, in which ideal and material realms have often been treated as distinct planes of existence. The question of the relationships between analytical sociology and culture is then a very deep one that depends upon whether one believes that there is a division between the mind and body or material and ideal worlds -- or more specifically, whether culture exists inside or outside the minds of individuals.

Even in the early-modern world this amalgamation occupied an ambiguous position. The Company simultaneously accepted and rejected the practice (when it could). Cultural factors that contributed to its partial acceptance within the Company were based both the different value placed on venality and corruption in the early modern world – where such practices were often simply the means by which the world worked – and the beginnings of the emergence of an appreciation of commercially-based self-interest that has become so pronounced in our own time (Hirschman 1997).

Similarly where rational choice theorists might assume all actors are profit-maximizers, i.e. take as given a certain type of market mentality, chapters six and seven argue that British agents of the Company were channeled into market participation by institutional circumstances. The development of the idea of a right held by individuals to engage in self-interested, long-distance trade outside of a corporate body, i.e. a private trade, was facilitated by macro-institutional arrangements found in Asia. Thus, rational profit-maximizing market-behavior is far from a baseline assumption in the manuscript. Indeed, I would hope this research makes a small contribution to the much larger problem of understanding the process whereby self-interested commercial behavior became a central component of the emerging capitalist system, whether via the Company's influence on the development of economic theory, discussed in chapter two, or through the example of its thriving private trade.

To return to the larger point, focusing on micro-level description in historical contexts requires a consideration of the environment of the social actors because their perception and interpretation of the world they inhabit are central to understanding their desires, beliefs, and motivations. Thus the orientation of analytical sociology to micro-level mechanistic explanation

is, if anything, an invitation for further development of theories relating the actor to their cultural, social, and material contexts – particularly as historical work is one of the few ways by which researchers can compare across radically different cultural systems to draw lessons about potentially generalizable cultural processes. If analytical sociology uses historical contexts to explore how experiences, practices and events contribute to the larger process of organizational, institutional, and even cultural transformation, it will inevitably enrich our theories of culture.

CHAPTER TWO: Merchant Capitalism and the Great Transition

The period in which the English East India Company grew and expanded is known under several names: the early modern period, the mercantilist period, and the era of merchant capitalism. Stretching roughly from 1500 to somewhere between 1750 and 1800, it can be understood as having begun with the Reformation and ended with the Industrial Revolution. The Industrial Revolution ushered in a new era of industrial capitalism, which has also been referred to as modern capitalism, or simply modernity. During the Industrial Revolution the English Company's commercial interests declined as the organization transitioned into a colonial power and was eventually taken over by the British government. Due to its longevity, the English Company was an important historical actor in both periods so its relationship to the larger historical currents of each is at stake.

There has been a tremendous amount of work on the causes of the Industrial Revolution. Depending on who is consulted, a great deal of importance occurred in the early modern period of European history or, instead, it was neither an entirely sufficient nor unique prelude to the real transformation, which occurred during the Industrial Revolution. This difference in interpretation revolves around the issues different authors choose to focus on. Generally it is understood that significant transitions even in the earlier period include state centralization, marketization, urbanization, increasing agricultural innovation, overseas trade expansion (i.e. globalization), bureaucratization, rationalization, proto-industrialization, financialization, as well as the rise of consumerism, imperialism, mass politics, and new forms of economic organization and coordination.

The English Company was not directly linked to all of these larger historical processes, but played an important role in a surprisingly large number of them. Its role is a complex one however. The Company was a product of the era of merchant capitalism that survived into the era of modern capitalism. Therefore, it seems to have been both a part of the process whereby the preconditions for a capitalist transition were created and a barrier to the final stages of the transition. To further complicate its role, the Company prefigured organizational forms that were not widely adopted until the twentieth century. Thus, the Company seems to have both contributed to many of the changes we associate with the transition to modernity, at other times impeded that change, as when it sided with James II in the Glorious Revolution, and additionally offers a vision of a path not taken – either in terms of networked organizations, multinational business forms, or sovereign corporations.

All of the different transitions that occurred during the lifetime of the English Company have been linked in some manner to the rapid economic growth experienced by England, and later Europe; however they are also interesting historical developments in and of themselves. They should not be understood solely through the lens of the Industrial Revolution, but also considered as separate streams of historical processes that contributed to the larger pattern by which we eventually came to recognize the contours of the modern world (Emigh 2004: p. 379). In this chapter I position the Company with respect to the Industrial Revolution, and also explain its role in several other important historical processes: underdevelopment in Asia, the emergence of the modern state, the rise of economic theory, and the emergence of new organizational forms. Although these developments have at times been indirectly linked to the Industrial Revolution, they should also be considered as separate phenomena and important topics in their own right.

Industrial Revolution:

The historical period during which the English Company engaged in commercial activity leads up to and encompasses the early stages of the Industrial Revolution and the tremendous increase in economic productivity that set England, and soon Europe, apart from the rest of the world. I have already argued that the Company was well established as the preeminent commercial power in the East before the onset of the Industrial Revolution, and that therefore the commercial success of the Company cannot be explained away by the rapid economic development of England. Indeed, the timing of events indicates that the Company may have played a role in the dynamics leading up to that growth. The most direct approach to this question is to consider the relationship of the expansion of overseas trade to the Industrial Revolution.

Many have linked the Commercial Revolution with the Industrial Revolution because of their close historical proximity. England's overseas trade expanded rapidly beginning in 1600 and was the most dynamic sector of the economy until roughly 1780 when the really spectacular up-tick of the Industrial Revolution took place. The growth of the East Indies trade, forged by the East India Company, was a part of this expansion, although only a fraction of the larger total. For example, the rate of growth for English exports to Asia from 1600 to 1649 was 2.97, 2.79 from 1650 to 1699, and 1.88 from 1700 to 1749 (O'Rourke and Williamson 2002: pp. 419-420).¹² These increases are at times approaching the phenomenal expansion of the nineteenth century at

¹² These statistics are taken from O'Rourke and Williamson who gathered and organized them by drawing from a number of different sources. the growth statistics for the first period are taken from Prakesh's *European Commercial Enterprise in Pre-Colonial India*, p. 106, and the two subsequent periods are from Chaudhuri's *The Trading World of the English East India Company*, pp. 508-510. All are a measure of exports in pounds sterling.

annual rates of 3.7 to 3.8. However the percentage of England's manufactures being exported to Asia was only 3% in 1699-1701, 2.4% in 1722-24, and 11.2% in 1752-4 (Davis 1962: p. 291). Indeed, the Asian trade is only a fraction of the total overseas trade of England, which even in total is not enough to directly account for the rapid growth of the nineteenth century (O'Brien 1982: pg. 4).

Despite evidence that overseas trade did not directly produce much industrial expansion, there is increasing evidence that overseas trade played an important role in sustaining modern patterns of economic growth (O'Rourke and Williamson 2005, Findlay and O'Rourke 2007: pp. 325-364). However it was the dramatic expansion of the nineteenth that potentially sustained economic development into the twentieth century -- not the expansion prior to 1760-80, which is when the Company itself was expanding operations.¹³ The issue at stake in this point is what kind of international trade could disrupt the pre-modern relationship between population growth, falling wages, and increasing rents. Modern growth is predicated on breaking the Malthusian cycle that had previously linked these factors into a recurring pattern of growth and stagnation. Prior to 1760, overseas trade was not at levels that indicate it would have had this kind of effect. It did however reach such levels in the nineteenth century.

Global price convergence, which signifies a disruption of local relationships between factor prices, population growth, and land rents, did not take place until the 1800s. Therefore we might conclude that although trade expansion occurred prior to the late 1700s, it was of a qualitatively different kind than that found in the nineteenth century, and could not have been directly responsible for the initial shift in economic productivity associated with the Industrial

¹³ This range 1760 to 1780 is used as different authors use different years to mark the transition.

Revolution. This analysis is consistent with the views of world-systems theorists as well as economic historians.

The economists Kevin O'Rourke and Jeffrey Williamson lay stress on the difference between eighteenth and nineteenth century international trade volumes, emphasizing the role of free market practices and technological innovation in transportation, such as the invention of the steam engine, in dramatically increasing trade. World systems theorists instead emphasize the rise of colonialism in the nineteenth century and its relationship to changes in international trade. Although Immanuel Wallerstein is generally associated with the idea that trade caused capitalism, this simplification does not capture his full argument. Wallerstein has long held that the world system, essential to the growth of modern capitalism was not fully integrated until at least 1760, when a colonial apparatus was able to funnel raw materials from Asia and the Americas to the industrial capitalists in Northern Europe (Wallerstein 1986). Similar to O'Rourke and Williamson, Wallerstein points to a qualitative difference in early modern and modern trade. The importance of the early Asian trade in 'luxuries,' from 1500 to 1800, was to begin the process of building up this system, which would later sustain capitalist expansion. Thus it was a historical precondition necessary to the creation of a functioning capitalist system -- a turning point -- but not a 'cause' in the sense of a direct and immediate stimulus (Wallerstein 1976 1980 1983 2011).

The argument for indirect links between the expansion of trade and the growth of manufacturing is indeed much stronger than the evidence for a direct link. Wallerstein argues that global expansion of the early modern period laid the foundation for the emergence of capitalism by initiating the process whereby Asia and the Americas were drawn into the

European economic system. Once merged these economies became a world system that sustained capitalist expansion (1976 1980 1983). Jacob Price has argued that the expansion in overseas trade helped to lay an institutional groundwork that provided fertile terrain for the innovations that were to spark so much productivity in the nineteenth century. Trade expansion helped create a transportation and communication infrastructure that supported further development. In the East India Company case the contribution to this infrastructure would have been largely focused around docks and shipping capacity. More crucially, Price argues that trade expansion led to the creation of important institutions, such as banks, clearing houses, insurance companies, and stock exchanges. Further, it contributed to the development of commercial practices and law, a skilled commercial class, and a type of generalized trust, which Price refers to as 'good will,' that supported the ready extension of credit (Price 1989: p. 284-5). Building upon earlier arguments by Douglass North, Robert Thompson, Barry Weingast and others of the new institutionalism in economics, Daron Acemoglu, Simon Johnson, and James Robinson argued more recently that early trade expansion was essential to later economic growth because it shifted political power into the hands of merchants who were able to introduce legal protections for property rights, which then made rapid economic expansion possible (2005).

All of these approaches suggest that is it worth considering whether global market integration in the 1800s would have been possible without the commercial and institutional foundations laid in the 1600 and 1700s -- and to which the East India Company was a central contributor. This entails considering the counterfactual: what would have occurred if England did not already have a well-developed global trade network in the 1800s. For example, the invention of the steamship, and the resulting drastic decrease in transportation costs, might have

been enough to call global trade expansion into being at that late date without prior development. However, this hypothesis seems unrealistic for several reasons.

Research on twentieth and twenty-first century globalization processes underscores the importance of institution building even in the face of low-transportation costs (Fligstein and Mara-Drita 1996, Gotham 2006, Halliday and Carruthers 2007). These findings imply that early modern trade would also have been significantly hindered without the presence of the commercial and financial institutions developed from 1500 to 1780. Further, overseas trade patterns seem to have a significant amount of path dependency built into them, meaning that their trajectory is constrained by the conditions that existed at their founding. In particular, trade with former colonies significantly exceeds trade between other nations (Rauch 1999). If even the drastically reduced transportation costs experienced in the twentieth century do not erase political, cultural and institutional boundaries, it is unlikely that these would have been immediately overcome in the nineteenth through technological invention alone.

Free trade policies were largely an outgrowth of British imperial policy, implemented because the terms of trade favored manufacturing in England (Semmel 1970). British colonialism, particularly in Asia, was an outgrowth of commercial enterprise, so in the absence of previous trade expansion, there is reason to doubt that Britain would have acquired all of its overseas possessions, and therefore British elites would have significantly less ability to institute free trade policies in those sites. Thus both colonialism and free trade would have had much less impact on encouraging trade in the nineteenth century without prior expansion. It is also true that the commercial position of Britain would have been quite different, potentially making free trade

policies less advantageous. Even the invention and adoption of the steamship might have been delayed had not long-distance trade already become an important part of European commerce.

If a pre-existing foundation of commercial and institutional development was necessary to the rapid expansion of trade experienced in the nineteenth century, it may still be asked whether the development of the Atlantic trade could have by itself produced the essential infrastructure without the addition of the East Indies trade. This question is more difficult to address; however the increase in trade between 1500 and 1800 involved a three-way interaction between the demand for Asian goods in Europe, the products of the silver mines in the Americas, and increasing manufacture of goods for export to the Americas – in addition to the better known Atlantic triangle trade in cotton, slaves, and textiles – indicating that the idea of strictly separating the two developments is a questionable conceptual strategy.

In addition to the East India Company's general contribution to overseas trade expansion, there is also a very specific feature of the East India trade relevant to the understanding the roots of the Industrial Revolution. As is well known, cotton textiles were a leading growth sector in the Industrial Revolution. The development of the cotton industry in Britain was really a classic case of import substitution, where economic development is based on the replacement of foreign imports, in this case Indian textiles, with domestically produced goods.

Cotton played a central role in the industrial revolution as a site of technological innovation and growth, but also had an unprecedented ability to stimulate consumer demand. As Beverly Lemire documents, cotton textiles allowed lower-class consumers to mimic aristocratic fashions, allowing new status pretensions, presentations of self, and creating a new 'visual language' of stylistic distinctions (Lemire 2011: p. 223). All of which indicates that cotton

textiles had unique characteristics, and that another type of industry could not have easily taken on the same role in spearheading the development of manufacturing (O'Rourke and Findlay 2007: p. 339).

The role of the East India Company was to introduce Indian textiles to the mass market. The export cotton industry in India had been in existence since at least the thirteenth century (Subrahmanyam 1990: p. 81). Trade between Europe and Asia -- by other paths and through other hands -- had also existed for centuries, so it was not that cotton was unknown in England. Surplus production in Asia and the rise of living standards in England must have contributed to the boom in textile consumption, but there is little reason to believe that India would have begun to ship cotton to England. As I describe in more detail in chapter three, the Dutch did not recognize the potential for cotton sales until the English began to focus heavily on the trade, and even the English Company did not develop it until later in the seventeenth century. At worst, the English East India Company was a convenient funnel, linking supply in Asia to demand in England at a time that intersected neatly with increasing rates of technological innovation in England. At best, the Company recognized and pioneered the large-scale import of the good when others did not.

In summary, despite the fact that the expansion of the English East India Company was far from the most significant causal factor in producing or sustaining the long-term economic development that began with the Industrial Revolution, it was an important link in a sequence of events that contributed to that development. It is far from sufficient, but for those that view England's transformation as the result of a chain of contingencies and a congruence of conditions (Wallerstein 1974: p. 401, Lieberman 1997: p. 499, Pomeranz 2000: p 32, Goldstone 1998, 2000,

2002: p. 332, O'Brien 2000, Clark 2001: p. 5, Jones 2003), it should be viewed as an important component.

Underdevelopment:

The moment in which England and Europe pulled ahead of the rest of the world in terms of economic development should also be understood as a moment when other regions fell behind. Since different causes may have been at work in propelling growth in England and Europe and retarding growth in Asia – or the same cause may have had different effects within different contexts – these two processes should be considered separately. Indeed, the degree to which these two phenomena are related is subject for considerable debate.

In this section, I am not addressing the extent to which expropriation of wealth from Asia affected patterns of growth in Europe. The focus here is on the effect that the European presence had on Asia. This effect is, of course, significant in and of itself. England and Europe were intimately involved in other areas of the world, and because of this involvement there is reason to believe that regions that might have otherwise experienced economic growth were held back or depressed because of European interference, and even more specifically colonial expropriation. It is difficult to always tease out the separate effects of each European Company on regions where they were all active, so I will first discuss the potential impacts of European involvement in Asia in general and then briefly focus more specifically on the impact of the English Company.

The question of European impact on Asia has taken on several different formulations. The older, orientalist literature was built around the assumptions of a static, traditionalist society that absorbed ineffective European attempts to stimulate growth and development. The position taken in this literature was that Asian economies, in particular India, were stable – i.e. had never experienced levels of growth similar to even what had occurred in Europe in the early modern period – and that Europeans could do little to change that. This position was never tenable, although it seems to have been accepted in the past as a political expedient. At the other end of the pole, a counterargument emerged asserting that certain regions of Asia had been on the verge of industrialization until European intervention derailed this economic progress. This position has also been widely discredited, although not to the extent of the older orientalist stance.

The question that remains is whether a more modest pattern of economic growth was negatively or positively affected by the presence of Europeans. The answer has proved to be complex, as many have argued that European commercial involvement initially provided a stimulus to existing growth in certain productive regions of Asia, while colonialism later inhibited that growth. Further, aspects of this position have been cast into doubt by the most recent work comparing wages and GDP across the early modern world.

First, a number of scholars have argued that Europe and Asia experienced roughly comparable levels of development from 1500 to the mid-eighteenth century (Goldstone 2003, Bin Wong 1997, Frank 1998, Pomeranz 2000). Kenneth Pomeranz provides a particularly good overview by considering a range of possible sources of economic advantage. In all cases he finds similar levels across productive regions of Asia and Europe. These factors include transport capital, life expectancy, birth rates, average income, labor productivity, agricultural innovation,

and commercialization (Pomeranz 2000: pp. 31-107). David Washbrook observed organized and price-responsive markets, autonomous and powerful merchants, advanced accountancy practices, labor mobility and long-distance trade in bulk goods in the historical record of the Indian subcontinent (Washbrook 1988: pp. 62-3, 66). Similar types of development in the north during the eighteenth century have been noted by Christopher Bayly (1983: pp. 30-34).¹⁴

Second, it has been argued that the presence of European trading companies in regions of Asia stimulated economic growth. Om Prakash found that together the English and Dutch companies supported 8.69 to 11.11% of the work force through their trade in Bengal in the early eighteenth century, and that overall, the companies increased the output and incomes of the region, as well as employment rates. The exchange of European silver for manufactured goods (i.e. cotton textiles) was particularly beneficial for the Bengal economy (Prakash 1976: p. 178). Prakash also finds that the cultivation of arable lands increased in Bengal during the 1700s, tax revenues grew, and trade expanded (Prakash 2005). Frank Perlin argued that the expansion of overseas trade from 1500 to 1800 stimulated an existing trend toward the development of merchant capitalism in the Indian subcontinent, which included the expansion of peasant settlements, a rising urban population, the development of new financial institutions and taxation techniques, monetization, and a rise in manufacturing (Perlin 1983: pp. 67-70). Sanjay Subrahmanyam, who positions himself as in disagreement with Perlin's central premise, nevertheless finds that European trade stimulated the cotton textile trade of Coromandel in the 1600s, but that cotton production subsequently stagnated in the 1700s for structural reasons having little to do with the European presence (Subrahmanyam 1990: p. 110).

¹⁴ Bayly has also hedged his description of commercial development in a later article, "South Asia and the 'Great Divergence'" (2000). It should also be noted that many of these authors are engaging in a related argument regarding the effect of Mughal decline on the economy of the region.

Third, the transition to colonialism had significant negative impacts. There is widespread agreement that British Imperial authorities either began or hastened a process of de-industrialization in India. Both structural forces and British colonial rule depressed the cotton trade: technological innovations in textile production made British goods more competitive, political instability and drought conditions in India raised grain prices, and the British government imposed free trade agreements that acted to the detriment of Indian industry (Clingingsmith and Williamson 2008). The result in India was a significant decrease in secondary industry employment rates and a reduction of available capital (Bagchi 1976). In Bengal, the English Company used its newly acquired political power to exclude other European Companies from the region's trade while eroding the autonomy of Indian merchants, thus destroying the foundations for a competitive market (Prakash 2005). Further, once the Company was able to collect bullion through tax revenues in its colonial territory, the influx of foreign bullion ceased. Instead Company operations and related English trade began to drain bullion out of the country, with considerable negative economic consequences (Arasaratnam 1979: pp. 28-29). Sinnappah Arasaratnam showed that the autonomy of the merchant class in Coromandel was diminished as the Company used its political power to establish direct control over weavers (Arasaratnam 1979: p. 36), and, according to Christopher Bayly, urbanization rates began to decrease across the board under Company rule (2000: p. 91).

Prasannan Parthasarathi has argued that the endemic poverty, low wages, and low standard of life found in India today were produced during British colonial rule (2001: p. 2). However this strong thesis has received considerable pushback by researchers who also question the extent of the development experienced by Asia in the eighteenth century. Tirthankar Roy has found evidence that the average income in Bengal was significantly lower than in Europe (one

fifteenth) and that it neither grew nor declined from 1722 to 1881, which encompasses the transition to colonialism, indicating that colonialism had no significant impact on wages (Roy 2010: 188). Stephen Broadberry and Bishnupriya Gupta have found that India's GDP declined steadily from 1600 to 1871 and point to 1650 as the beginning of the divergence with Europe, at which time Indian GDP was 80% of England's. By 1871 they find that it had shrunk to 15% (Broadberry and Gupta 2010). Since the European influence was still limited across the subcontinent at this time, this indicates that other factors beyond European presence were at work in the decline. And Roman Studer has come out very strongly against the claim that India was comparable to Europe in the 1700s and shown that grain markets in India were localized, and therefore inefficient, until the mid-nineteenth century (Studer 2008).

Some of these recent comparisons are not quite fair. The current nation of India is roughly one-third the size of Europe. Pakistan alone is nearly six times the size of England, which is about the same size of the Indian state of Punjab. There could certainly be significant regional differences hidden in the aggregate data. However, Broadberry and Gupta found that wages in the Yangtze valley and Northern and Southern India were similar to central and Eastern Europe, and diverging from the Northern European bases of industrial growth in the early modern period (Broadberry and Gupta 2006). Robert Allen and his co-authors produced similar results in an examination of standards of living in the leading cities of China. They found that these cities had comparable standards of living to eastern and southern European cities, all of which were outpaced by northern European cities as early as 1738 (Allen et al. 2007).

This recent research provides strong evidence that colonialism alone did not derail an imminent transition to modern growth, vis-à-vis an industrial revolution of some kind, which is

something that few would contradict. To many of the authors the research also indicates that market forces account for the relative stagnation of Asia compared to Northern Europe, not European colonialism. However, the research still does not address to what extent colonialism and British imperial policy sustained, exacerbated, or ameliorated that stagnation.

Trade between Asia and Europe was already expanding by 1650, so this evidence certainly does not rule out the possibility that the growth of the European infrastructure for trade (in the form of European ships and organizations) played a role in creating the gap between England and Asia – although it is more likely that overseas trade expansion helped the Europeans more than it hurt Asia given the relative size of the populations involved in and affected by overseas trade. This position is supported by the work of Daron Acemoglu, Simon Johnson, and James Robinson (2005), which shows that active involvement in overseas trade explains much of the divergence between European countries.

When considered together, the contradictions between the findings of regional historians and economic historians suggest that further work needs to be done breaking down growth patterns within the Indian subcontinent. The subcontinent should not be treated as a unified or discrete entity in the early modern period. If anything, the combined research suggests that if a European presence in Asia had a positive effect, that effect must have been limited to specific regions and times, and also potentially to certain classes or groups within involved communities. While any positive effects of commercial growth may be attributed to both the English and Dutch Companies across much of Asia, the English Company bears more responsibility for the negative consequences of colonial policy with the exception of the islands in the Dutch East Indies.

State Capacity:

A distinct but related line of historical development in the early modern period is growth in state capacity. Tudor monarchs had limited despotic powers, whereas Benjamin Disraeli oversaw a vast administrative infrastructure capable of effective tax collection on several continents. At times, the East India Company received clear and direct benefits from increased state capacity. Beginning in the 1690s, the Company had turned to the British government for assistance in patrolling eastern waters for pirates (Stern 2011: p. 186) and the late eighteenth century conquest of Indian territory relied upon British government forces. Without the increased military powers of the British state such interventions would not have been possible. However the Company also contributed to the process through which the state and its military capacity was built up.

The increasing costs of warfare in the seventeenth and eighteenth centuries imposed new burdens on the government. Military costs were irregular and therefore difficult to manage through the steady incomes produced through tax collection. In order to cover the costs of new campaigns, governments of the early seventeenth century were forced to respond by imposing new taxes or raising existing rates. But however quickly taxes were raised, it was rarely possible to collect and deliver them in time to cover immediate military costs. It has been noted in several places that the creation of new and efficient financial institutions in the late seventeenth and early eighteenth centuries, created in large part through the expansion of overseas trade, gave Britain a crucial military advantage over other European countries (Dickson 1967: p. 11, Neal 1977: p. 31 & 35, Cain and Hopkins 1986: p. 513, Mann 1993: p. 268, Carruthers 2010: p. 54).

These institutions created this advantage by facilitating the timely extension of large-scale, long-term, and low interest credit to the government, used largely for funding critical military endeavors.

The creation of this mechanism was part of a larger process known as the financial revolution, which can be traced largely to the period between 1688 and 1739. P.G.M. Dickson summarized its main features as the development of long and short term borrowing, the creation of relations between the national treasury and the City, the emergence of a market in securities, and investment in public loans (Dickson 1967: p. 12).

Bruce Carruthers explained the central role of the financial revolution in early modern state formation in his book *City of Capital* (2010). At the center of this story is the creation of a capital market and public debt. Prior to the creation of mechanisms for long-term loans to the government at reasonable or low rates of interest, the government was subject to the possibility of simply running out of funds, as occurred to Charles II in 1672 when he was unable to continue to honor the Orders of Payment that had funded the Second Anglo-Dutch War after the onset of the Third Anglo-Dutch War (Dickson 1967: pp. 43-44, Carruthers 2010: pp. 61-69). By the early eighteenth century public outlay outstripped public income by over £2 million, and the shortfall was made up through public debt (Carruthers 2010: p. 54). The English East India Company played a significant role in this process, along with the Bank of England and the South Seas Company.

At the most basic level, the English East India Company was a major source of short and long-term capital for the government. In the late seventeenth century, the English East India Company had long found it necessary to make repeated loans to the Crown in order to secure

support for its monopoly privileges, but after 1688 the scale of the loans increased. From 1675 to 1679 Charles II received what would have been considered an extremely large sum of £200,000 through a series of loans from the Old East India Company (Sherman 1976: p. 336). In 1698, the New East India Companies loaned the government £2 million, and the United East India Company, which combined the New and Old Companies, had loaned the government an additional £1.2 million within a decade (Dickson 1967: p. 57). Thus the English East India Company directly contributed to the military successes of the British government by financing a significant portion of them.

However the needs of the state had outpaced what any one individual or even any one organization, however large and wealthy, could provide. The East India Company was able to supply these large funds to the government because of the concurrent development of the London stock market and the creation of new financial instruments. Because the East India Company was a joint-stock company whose shares were traded in a public market, they were able to transfer the cost of the public debt they funded on to third parties through the creation and sale of India Bonds. As has recently been demonstrated by Pilar Marco and Camila van Malle-Sabouret (2007), these were sophisticated financial instruments that incorporated an early version of call and put options. These India Bonds were popular because they were extremely liquid, but still returned interest (Marco and Vam Malle-Sabouret 2007: p. 22). Thus, the English East India Company's sale of India Bonds greatly increased the liquidity of public debt. Transferring government debts had previously been an onerous process (Carruthers 2006: p. 82). The East India Company's role was therefore not only to loan money, but also to facilitate the transfer of funds between private investors and government coffers.

As has been emphasized by Carruthers, the flow of funds had consequences beyond wealth creation and military spending. Because the finances of the East India Company, as well as the South Seas Company and the Bank of England, were intertwined with the government, these large organizations and their investors were now tied to the interests of the new government (Carruthers 2006: p. 76). The financial and merchant classes now had a direct stake in the continued success of the government, and indeed the government now had a direct stake in responding to the needs of the merchants and financiers.

In a less direct manner, the City (as the financial and banking center of London is known) became a site in which new and old money, particularly aristocrats and wealthy merchants, were able to intersect and form alliances that buttressed the state by integrating elite factions. Michael Mann charted out this process in the late nineteenth century. He argues that in the City, “capitalists in land, commerce, and finance fused as a single extensive political class, with national economic, familial, and educational (the ‘public’ schools) organizations, committed to a bureaucratic state and to free trade under British near hegemony” (Mann 1993: p. 129). But as P. J. Cain and A. G. Hopkins argue, this system of ‘gentlemanly capitalism’ was in place well before the Industrial Revolution. The development of the banking profession attracted the aristocracy into lucrative positions that tied them to overseas ventures, such as the East India Company, and at the same time, taxes on overseas trade allowed the new government to expand revenues without raising land taxes and thereby alienating the same landed elites (Cain and Hopkins 1986: p. 518). Through these direct and indirect paths the rise of commercial institutions allowed for the fusion of interests necessary to support a strong, yet diffuse state marked by its commitment to free trade and economic liberalism.

Indeed, it has even been argued by George McGilvary that the success of the unification between Scotland and England (1707) depended upon a patronage system that funneled Scottish elites into positions of power within the East India Company (2008). In return for the opportunity to make their fortunes within the firm, the Scottish families put their political weight behind the English politicians and supported the continued success of the union. McGilvary further argues that the wealth brought back by Scottish families from the East brought prosperity to Scotland, winning further acquiescence to the new state of affairs. Thus the wealth brought from Asia in the ships of the Company seems to have soldered over potential breaks in the body politic along several possible fault lines.

Economic Theory:

Accompanying the process of state centralization and financialization was the development and articulation of a new body of thought called political economy or economic theory. The sheer number of links between the company and the new political economists is somewhat remarkable. David Ricardo was a member of the Company's court of proprietors. Ricardo's close friend, James Mill wrote his major life's work on the history of the British in India and went on to serve as Assistant Examiner of the India Correspondence, a very respectable position within the East India Company. His even more influential son also worked for the Company. Thomas Malthus served as the chair of history and political economy at Haileybury, the East India Company's college for the education of young men. And, although eventually passed over, even Adam Smith at one time put considerable effort into seeking a position within the Company. These are only the more familiar names, the earlier, more obscure

theorists of the seventeenth century with close associations to the East India Company include Thomas Mun and Josiah Child, both at different times directors of the Company, and Edward Misselden, who negotiated contracts on the Company's behalf.

Smith was the only one of these men to be passed over by the Company and also the most critical of Company policies, which should provide some insight into the general trend by which Company affairs influenced economic thinking of the day. Many of the economic writings of the seventeenth century were also vehicles whereby individuals attempted to build support for policies that favored their own affairs. Individuals heavily invested in or associated with the East India Company were no exception. The work of Thomas Mun provides a clear example.

Mun (1571-1641) was a successful London merchant, born to a family of merchants, as well as a sophisticated thinker who has become an important part of the history of economic theory. He was also a director of the East India Company when a silver shortage struck England in the early seventeenth century (Supple 1959: p. 222). Paper money was not yet in use in Northern Europe, and silver served as the currency of the day. This meant that a silver shortage caused considerable hardship for the general population, who had difficulty getting their hands on enough currency to engage in routine market transactions. This situation caused particular difficulties for the East India Company as its main export was silver. The shortage played into the hands of the bullionists, who insisted that any drain on bullion was bad for the country. With their prodding, general sentiment swung sharply against the East India Company (Muchmore 1970). By the 1620s the Company was at risk of losing its monopoly because of their export practices.

During the height of the silver shortage, Thomas Mun came to the defense of the Company by writing a tract titled *A Discourse of Trade from England to the East Indies*. In this tract he argued convincingly that overseas trade did not need to directly increase the nation's store of precious metals because it indirectly contributed to economic health through profits made in the re-export trade and other intangibles, such as building-up the shipping industry and employing dock workers. These arguments effectively persuaded many in the public and Parliament of the importance of the East-Indies trade, thus helping to rescue the East India Company from its many critics (Barber 1975: p. 56). It also set Mun upon a path of work that would eventually ensure him a significant place in the history of economic thought for developing the theory of the balance of trade. It was in the interests of the Company to export bullion; Mun's economic works were part of the process by which the Company lobbied the government for support of this practice, by tying overseas trade expansion to long-term national prosperity.

Similarly, Edward Misselden, another early mercantilist, argued in *Free Trade, or the Means by which to Make Trade Flourish* (1622) that bullion export to Asia was a drain on the prosperity of England. Then, after gaining a position negotiating contracts for the East India Company, he argued in *Circle of Commerce* (1623) that the trade to Asia was beneficial after all (Johnson 1937: p. 61). Together, and to a significant extent in response to the work of Gerard de Malynes, Misselden and Mun pushed their contemporaries away from a bullionist doctrine, which emphasized the role of the desire for silver or gold in commerce, to a belief in the balance of trade, emphasizing instead the role of international trade flows (Appleby 1978: p. 202). Although by the eighteenth century, historians of economic thought have viewed balance of trade theories as outmoded, it may still be considered a step forward in the seventeenth. Mun in

particular developed a perspective in which economic activities were conceived separately from the political or social, producing one of the first abstracted models of economic processes and leading toward the distinct conceptualization of ‘the economy’ that has come to dominate modern thought (Appleby 1978: p. 47).

Sir Josiah Child, who has perhaps been unfairly credited with being an important thinker and a precursor to free trade economics (Letwin 1959), owned an enormously large stake in the Company and, during his time, arguably exercised more personal control over the affairs of the Company than any single individual in its long organizational history. He argued for lowering interest rates, which would help reduce costs for the Company; he criticized bankers for discouraging commercial investment, but targeted bankers that opposed the Company’s practice of exporting bullion; he argued against balance of trade theory when it could be used to criticize the Company; and he opposed a double-tax on re-exports because it would cut into Company profits (Finkelstein 2000: pp. 140, 137, 141, 142).

As Andrea Finkelstein has pointed out, with the possible exception of Josiah Child, although these authors’ works were largely rooted in various types of defenses of the East India Company trade, this did not define the full import of all that they had written -- their work was not merely propaganda for the Company as it was the logic, consistency, and invention of novel or powerful concepts that led to their lasting impact (Finkelstein 2000: p. 55-88). The interests of the East India Company, however, were the springboard from which they were motivated to develop those larger concepts and theories.

Individuals who were not so directly tied to the Company itself, but were instead observers of the East India trade, made other important contributions to seventeenth century

economic thought. Henry Martyn (1665-1721)¹⁵ was opposed to the monopoly privileges held by the East India Company but a strong supporter of the East India trade. Although his contemporaries largely ignored his work, it grew more influential with time. In *Considerations upon the East India Trade*, he developed the idea that free trade benefits the economy even when the goods are manufactured elsewhere, i.e. that there is an advantage to buying goods made abroad when they are cheaper than goods at home. This point is now considered an important precursor to the idea of comparative advantage (Maneschi 2002: p. 233). This argument was made in the face of opposition from the manufacturers of woolen goods, who opposed increasing the import of cotton textiles and argued that it depressed industry in Britain. Together with Sir Dudley North, Nicholas Barbon, John Houghton, and Sir Dalby Thomas, Joyce Appleby credits Martyn with developing the idea of consumer demand as an important driver of commercial growth (Appleby 1978: p. 173).

These authors were a part of a larger dialogue, but one that inevitably touched on the affairs of the Company. So much so that that Joyce Appleby could summarize the seventeenth century developments in economic thought by writing, “in the debates over East Indian imports and recoinage, the conceptualization of the free market economy reached a new level of sophistication” (Appleby 1978: p. 248). However, the contributions inspired by the East India Company trade did not end with the mercantilist period. A new round of scholars in the late eighteenth and nineteenth centuries dealt with the ramifications of the Company acquiring sovereign powers in Asia.

¹⁵ There is some controversy over the authorship of “Considerations upon The East India Trade” outlined by Christine MacLeod in “Henry Martin and the authorship of ‘Considerations upon the East Indian Trade’ (1983).

Soon after the Company acquired political control of Bengal, in the aftermath of the 1757 Battle of Plassey, the region began to experience severe silver shortages, which disrupted both the local economy and the English export trade. From 1769 to 1773 a devastating famine struck the area. The Company was criticized both as a potential cause of the famine and for providing inadequate relief to the population. By taking political control of Bengal, the Company had finally found a way to end the debate over exporting bullion, by using Bengal tax revenues as a source of silver. However, it was now open to a new line of attack and the grounds of whether a company could serve as an adequate governor. Again the issues at stake revolved around the relationship between the state and commerce. Increasing calls for a division between the two came to dominate the discourse as doubt was cast as to whether a commercial actor could rule without rampant corruption. James Steuart, the political economist who wrote *Inquiry into the Principles of Political Economy* (1767), and Edmund Burke roundly criticized the Company, arguing for a strict separation of the spheres of commerce and sovereign power (Burke and Marshall 1981).

William Barber devoted a book to how development economics was influenced by debate on the Company (1975), including a detailed chapter on the complete reconstruction of the history of the Indian subcontinent by James Mill, who was interested in defending the right of his employers to rule as sovereigns in the East. According to Barber, Mill recast the history of what we now know as India. In the seventeenth century, the region was popularly understood in Europe as a thriving center of trade and manufacture. After Mill, it came to be viewed as a static, if not backward, traditional economy -- a stereotype that has persisted to at least the twentieth century (Barber 1975: pp. 126-140).

The Company was not solely responsible for the twists and turns taken by the formation of discipline of economics in Britain. The existence of the Company gave many individuals a stake in a particular perspective, which led them to engage in a debate that shaped economics in its earliest stage of development. The Dutch did not produce a similar line of scholarship, though their Dutch East India Company was as large and consequential in the Netherlands as the English Company was in Britain (Van Niel 1988: p. 21). Andrea Finkelstein argues that the unique combination of commercial expansion, conflict between parliament and crown, and distance between merchants and the ruling political body found in England created the need for public discussions of economic policy (Finkelstein 2000: p. 4). These domestic conditions, coupled with the large organizational presence of the East India Company, and the particularities of the East-Indies trade encouraged self-interested behavior that evolved into a larger discourse bound by its own internal logic. Eventually its legacy came to haunt the Company, as free market philosophers successfully challenged monopoly privileges in the nineteenth century.¹⁶

New forms of coordinated behavior:

By the late seventeenth century, the company had begun to take on the characteristics of a modern corporation. It was a multi-divisional global firm with permanent capital, regular stockholders' meetings, and a large administrative bureaucracy (Anderson, McCormick, and Tollison 1983, Carlos and Nicholas 1988). Although not entirely unique, these characteristics distinguished the English Company from most other instances of economic organization in the

¹⁶ I am not here concerned with the debate over the extent to which economic theory discovers truths as opposed to constructs accounts that support the self-interested actions or promote and sustain the expansion of capitalism, although this debate is also concerned with the historical circumstances of economic thinking (Callon 1998, MacKenzie et al. 2007, Fourcade and Babb 2002, Krippner 2011).

seventeenth and eighteenth centuries. Some version of a limited liability partnership has been available since the ninth century (Udovitch 1962: p. 203).¹⁷ The partnership system, in which one person could manage distinct contractual obligations across several locations, arose in the fourteenth century (Padgett and McLean 2006: p. 1563). In Northern Europe, merchant guilds managed much of the overseas trade from the ninth to the fifteenth century (Keiser 1989: p. 550). Guilds were exclusive fraternal associations of merchants or other businessmen pledged to support each other, through which price coordination and some overseas protection could be achieved. In the 1400s regulated companies began to take an increasingly prominent role in overseas trade, and by the middle of the sixteenth century, joint-stocks, that combined the exclusive privileges of guilds and regulated companies with pooled investment capital, had emerged (Walker 1931: pp. 98-99). The English East India Company was a particularly large, complex, and successful instantiation of this new class of organizations.

As I argue in the following chapters, the English Company had one additional element that differentiated it from other joint-stocks of the time. The incorporation of legitimated private trade into Company operations had a profound effect on organizational structure and dynamics. The decentralization represented by the private trade fostered network patterns of communication and trade. These networks contributed to the flow of information within the firm, increasing its capacity to adapt to the complexity of its environment in the East Indies trading world. The increased capacity to adapt promoted the long-term expansion and success of the firm, contributing to its ability to play a large role in world history.

¹⁷ Although the limited liability company was legalized in Britain in 1855, the practice of limiting the liability of investors and agents through different contractual forms was common outside of England and evidence presented by Abraham Udovitch indicates that it originated many centuries prior in the Mid-East.

Conclusion:

Although the English East India Company can be usefully compared to other national monopolies of the seventeenth and eighteenth centuries, its historical impact was often unique. The Industrial Revolution and the early efflorescence of economic thought were British phenomena. As demonstrated by the lack of such developments in the Netherlands, the mere existence of a large and powerful East India company was very clearly not enough to call these events into being. In both cases the Company was an important piece of a larger set of circumstances that produced the particular trajectory of English history. In these cases the effect of the Company was conditioned upon other circumstances. The Industrial Revolution and invention of the field of economics were unique and world-historical events. Similar events had not occurred earlier in history and they did occur, all subsequent events would have to be evaluated in relation to the first. Other industrializing nations explicitly considered the example of Britain and incorporated technologies developed there, and subsequent writings in economics responded to the early mercantilists, for example, the Physiocrats extensively criticized Mun and Misselden's theory of the balance of trade. It follows fairly simply that unique events are produced by unique, or at least extremely rare, circumstances. Otherwise, such events would be more common in our history. Since we cannot experimentally recreate the emergence of capitalism and economics, it is impossible to definitively say that the East India Company was a necessary component. However, at the very least it can be argued that the English East India Company affected the character of these transformations, and in doing so had a lasting impact on the course of human history.

The role of the East India Company in the process of financialization and state centralization as well as underdevelopment is less unique, but larger than the role it played in the industrial revolution. The process whereby state capacity was expanded through the creation of new financial instruments was pioneered in the Netherlands. Many of the techniques were probably brought from the Netherlands to England by the former Dutch Stadtholder William of Orange, or his advisors. The English Company's role in these events as they unfolded in England however was larger than its role in industrial development, as it both was a major debtholder and provided a unique vehicle for transferring public debt through the creation of the India Bond.

The Company's role in processes of underdevelopment was also large, but not unique. Several other instances of underdevelopment or failed transition occurred throughout the world, in many cases under the colonial rule of European imperial powers. However in the particular case of India, the East India Company must be considered a central factor in the trajectory of development. In these cases, i.e. state centralization, financialization, and the underdevelopment of Asia and the Americas, events that occurred within the Company framework may be regarded as symptomatic or of a piece with larger historical currents, without entirely disregarding the unique contribution of the Company to events in Britain and India.

At first glance, the relation of the Company's history to the emergence of new forms of coordinated behavior should be the most conceptually generalizable of the causal chains it was involved in. The concept of institutional innovation is not tied to a particular time or place in the same way as the Industrial Revolution, the emergence of the modern nation-state, or the birth of economics. New organizational forms have been invented throughout history. Even in its own time, the East India Company was one of the very first multi-division, multi-national companies,

but it was neither the first company nor the first joint-stock. I would argue however that its incorporation of private trade produced a uniquely decentralized organizational structure for the time. Viewed in this light, this manuscript functions to illuminate one of many cases of the invention and adoption of new forms of coordination, similar to John Padgett and Paul McLean's Florentine elites (2006) and Quentin van Doosselaere's Geneose merchants (2009), as well as part of the process whereby different types of coordination are documented in the past, in order to better understand their evolution and change, as perhaps better describes Julia Adam's analysis of patrimonial merchant capitalism (2005) and Avner Grief's project in *Institutions and the Path to the Modern Economy* (2006).

One question posed by this line of work is the link between social and cultural environs and firm structure. By focusing only on innovations, an image is built up in which new institutional forms (i.e. means of coordination) emerge and grow in complexity over time – one leading to another. However it is not clear that once an innovation is introduced it is available for all future generations. There was a long hiatus between the creation of East India Company and the modern rise of the multinational in the twentieth century, indicating that this organizational form did not immediately become part of a portfolio of viable options for commercial enterprise. Instead the kind of organization that the East India Company became depended to a great extent upon its environment. Nevertheless, there is an increase in similar, though modern forms, of decentralized, network, global firms in the twentieth and twenty-first centuries, which operate under ostensibly different conditions. I believe that this indicates that although the East India Company's organizational structure was moored to specific historical circumstances, it may be worth attempting to compare those circumstances to other points in time (Emigh 2005: p. 378-80). In this I am suggesting that the relationship between the organization and its environment

may also be a case worthy of comparison, with the object of understanding how decentralized organizational capacity emerges at different points in time or across distinct cultural contexts.

CHAPTER THREE: The English Company and the East-Indies Trade

Figure 2 about here

A long history of trade linked the regions of Africa, Asia, Indonesia, and the Middle East before any European ship rounded the Cape of Good Hope. Europe participated in this trade, but as a marginal figure removed by both land and sea. Before the Cape route was used, England was connected to Asia via trade routes stretching through the Mediterranean and Baltic Seas, past the opulent cities of Bukhara and Samarkand, through the Himalayan towns of Srinigar and Leh, to India and even the Yellow River Valley in China. Many of the same goods that the English carried aboard ship in the seventeenth century were carried along these routes, at times by boat, but also by horse, camel, and steer over long overland trails. Silk was traded for gold and silver; jade, exotic animals, ostriches, lions, and bears for fur and timber; resins, dyes, ceramics, and frankincense for pepper, cardamom, and nutmeg.

In the last days of 1497 Vasco da Gama and his crew rounded the Cape of Good Hope and arrived in India on the twentieth of May 1498. In 1505 the Portuguese *Estado da Índia* was formed, and Portuguese ships began regular voyages to Asia. By the end of the sixteenth century, English merchants were eager to join them. In pursuit of this goal, a company of men petitioned Queen Elizabeth for exclusive rights to the overseas trade of the East-Indies region, which was granted on December 31, 1600. The 'East Indies' formally designated land east of the Cape of Good Hope and West of Cape Horn. The Company accumulated the other rights and privileges that were to define its trade over the course of many years. On August 9 of 1606 the Company

was granted permission to sell spices for re-export. On May 31, 1609 their East Indies monopoly was made 'perpetual.' On December 14, 1615 they were granted permission to transport silver bullion to the East. And on February 4, 1623 they were given the right to the rule of law over all English persons residing in the East (East India Company, Birdwood, and Foster 1893: p. xvi). These powers were granted in addition to the authority held by the Company over all English subjects employed on the trade voyages and was held largely by twenty-four directors elected annually by court of shareholders (Furber 1976: p. 18).

Unlike some of its other European competitors, the English Company was essentially commercial at its inception. The group of merchants behind its creation included many of the leading commercial figures of London, particularly those who had formerly been involved in the Levant Company, which dealt in the overland trade to the East (Brenner 2003: p. 48). These merchants had long been jealous of the exclusive control exercised by the Portuguese over the Cape route to the East. After the defeat of the Spanish Armada in 1588, the capture of Portuguese carrack *Madre de Deus*, and the example of several successful voyages undertaken by Francis Drake, Thomas Cavendish, and several Dutch commanders, they felt the time had come to directly challenge the failing Portuguese monopoly.

As competitors of the Portuguese and Dutch, the English Company was not sheltered from market forces. They were known as a monopoly because they had exclusive rights to the East Indies overseas trade in England. However, all the East India Company's respective governments granted that privilege. Just as European nations were in competition with each other, the European companies competed both in Asia and in the European re-export market. The companies were also attempting to capture a market long dominated by numerous, successful,

and well-provisioned Asian merchants, better versed in the vagaries of their local trade. And even in England itself, the East India Company faced competition from the Levant Company, which held a charter awarding exclusive privileges to the overland trade of Asia.

During the first exploratory voyages to Asia, East India Company merchants traded from their ships. Passage to the East usually took around six months. Ships often stopped at the island St. Helena or South American ports along their way, and entire voyages frequently lasted two years or more. Life aboard the ships seems to have remained roughly the same until the invention of the steamship in the early nineteenth century, although voyage length decreased over time. The size of the ships increased from the seventeenth to the nineteenth century. Lemon's curative effect on scurvy was discovered at a surprisingly late date. Nevil Maskelyne invented the lunar method of determining longitude in 1761. But on every voyage there were sail adjustments to be made, cables to be hauled, decks to be mopped, and arms to be cleaned. Different parts of the ship were constantly in need of repair. The cargo and provisions had to be checked daily for leaks and water. The depths could be sounded if shore was near. There were often deaths to be mourned, or perhaps simply marked by a short ceremony. Occasionally a distant sail or shipboard intrigue relieved the tedium. There were also celebrations, double rounds of grog on crossing the equator and for his or her majesties' birthdays. A remarkable amount of ammunition was used in salutations, which were recorded in meticulous detail. Schools of shark, flocks of birds, and flying fish were sighted. Days out from harbor, the sea floor could still be seen in clear waters. The captain often noted down the color of the sands in their log (red, blue, grey, yellow, and white), and whether it was clear, pebbled, or sparkled in the light.

At ports it was necessary to get both goods and provisions, such as water, wood, and meat. In early voyages, the captains often ventured out in longboats to negotiate the necessary deals to take on new cargo. The companies quickly realized that this practice was unsatisfactory. When trading from a ship, merchants had only a limited amount of time to fill their holds – so prices rose to meet the sudden large increase in demand (Chaudhuri 1978: p. 136). Europeans complained that merchants were raising their prices as soon as they saw the sails of their ships. To resolve this issue, the English installed semi-permanent merchants at important ports. These merchants were called factors.

East India companies used what was called the factory system. The term ‘factory’ originally meant a permanent warehouse for storing goods. In most eastern ports, local rulers had long been aware of the needs of overseas traders; they accommodated those needs by awarding each foreign group a different area for long-term settlement. The size of the settlement depended upon the size of the trade in the port and the wishes of the local government. Some English factories were large and well-established (for example, Madras, Bombay, and Calcutta) and some were simply lean-tos. Once established, many larger factories became the center of permanent settlements. Instant cities sprang up around the factory walls, often with populations reaching the hundreds of thousands, large administrative staffs, English courts of law, churches, garrisons, and hundreds of Indian employees. Other factories were limited to temporary settlements of one or two English Company merchants attempting to establish trade in new areas. In still other cases, ships arrived at ports, established temporary factories, which we might call storehouses, and dismantled these constructions when departing. In a few ports in the Far East (Japan and China), local rulers restricted access to the population, so that even though the trade

itself was of considerable importance to the English Company, they were not allowed to create permanent settlements.

The Company had limited resources to deploy in factories, which were expensive to maintain; however London was not able to exercise very precise control over their founding. The most expensive investment in a port was the decision to erect fortifications. The decision to establish large fortified settlements always began with the Court of Directors, but inevitably devolved into circumstantial considerations and local decisions made by company employees. The first layer of these consisted of diplomatic negotiations with local authorities, in order to acquire permission to build fortifications. This was rarely a simple process. Then overseas officers of the Company weighed in. For example, the Court of Directors ordered the construction of a fortified settlement at Armagoan in 1626. When the fort was complete, the employees stationed overseas simply abandoned it, faulting both the quality of the construction and a poor location (Stern 2010: p. 19). The employee who was meant to be the chief factor at Armagoan, Francis Day, negotiated the rental of Madraspatnam instead. This became the site of Madras, one of the most prosperous of the Company settlements. Similarly in the late seventeenth century, the directors desired a fortified settlement somewhere in the vicinity of Bengal. It is Job Charnock, chief factor of Hugli, however, who is credited with founding Calcutta. He actually selected the three towns of Sutanati, Govindpur, and Kalikata as the site of the settlement.

Other countless smaller decisions—even those that involved land leases—were made by lower-level company employees. There were exceptions to this bottom-up process. Bombay (now Mumbai) was settled by direct order: it was a part of the dowry of the Donna Infanta

Catherina when she married Charles II. He gifted the port to the English Company, not having much direct use for it himself. Under routine circumstances, the hand of the London principals was felt most directly when they ordered the withdrawal of factors from established settlements. Even these orders were not always followed (Sutton 2010: p. 83).

The significant fixed costs created by adoption of the factory system must have contributed to the decision to move to a joint-stock organization, which took place well into the first century of the Company's existence. The first ten voyages of the English Company were financed separately. After the tenth voyage, the Company was able to raise enough capital to fund a series of voyages. This somewhat haphazard process of pooling capital continued for several years. After surviving the English Civil War (1649-1651) and weathering the first Anglo-Dutch War (1652-1654), provisions were finally made for the creation of a pool of permanent capital in 1657. This act made the Company one of the first joint-stock organizations in history.

At this point or before, the Company could have followed the example of the Muscovy Company and adopted a regulated structure. Regulated companies held exclusive privilege to trade but licensed that privilege to independent traders who were expected to operate according to an official set of rules and practices.¹⁸ The East India Company instead chose to actively pursue trade on their own terms, but also began to expand access to certain portions of the monopoly privilege. In 1661, the Company officially withdrew from the country trade and opened parts of that trade to its employees (Watson 1980: p. 75). In 1662, Englishmen operating outside of the Company were formally allowed to trade on their own account within the East

¹⁸ It has been argued that a regulated structure may have been more efficient in the eastern trade (Nordenflycht 2002).

Indies, as long as their own trade did not interfere with the Company trade (Marshall 1993: p. 279). As with many of the private trade regulations that were enacted between 1660 and 1680, these acts legitimized existing practice. In 1667, trade in certain commodities was opened between Europe and Asia and all country trade, with the exceptions of pepper and calicoes, was made legitimate (Watson 1980: p. 75). By 1679 even the restrictions on pepper and calicoes were removed and all country trade was permitted (Watson 1980: p. 77). These acts significantly increased the autonomy of overseas employees, thereby creating a decentralized organizational structure for the firm. I argue that this decentralized organizational structure had a profound effect on the way in which information was received and communicated within the English Company.

It is still an open question as to why the Company chose to roll back its privileges and increase the autonomy of its employees. All overseas companies had tremendous difficulty exerting sufficient control over overseas agents in this period. An East India Company's headquarters in Europe would not get news of a transgression until at least six months after the act occurred, and could not respond for another six. This distance did not stop other companies from attempting to regulate the trade of their employees. In the case of the English Company, the separation between the state and the Company meant that the organization was both less militaristic than the Dutch or Portuguese operations (Furber 1976: p. 39) and had fewer resources. The combined lack of capital and military authority diminished the effectiveness of control efforts within the English Company (Basset 1960: p. 34)—making indirect incentives, such as the private trade, more attractive. Ian Bruce Watson and P.J. Marshall both cite the Company's desire to escape the costs associated with the country trade as an important part of

this decision to withdraw from some of the monopoly privileges (Marshall 1993: ch. XII, p. 281; Watson 1980: p. 77).

It is also true that the idea of monopoly was never a popular one in England. Many contemporaries of the Company argued that monopoly privileges were in violation of the common law and Magna Carta (de Roover 1951: p. 507, Stern 2011: p. 47-8). When a new class of rising young merchants was installed in the board of the Company in the aftermath of the Civil War, many were former interlopers and free trade proponents (Brenner 2003: pp. 516-518). They also may have been involved in the expansion of trading rights. In any case, this period, in which employee's rights were legitimized and expanded, was coincident with the beginning of the expansionary moment in English Company history, from 1660 to 1700 (Chaudhuri 1978: p. 82).

The Company's fortunes rose dramatically in this period, but a new threat arose as well. The same new class of elites who had forced their way onto the board of the company itself were represented *en force* in parliament after the revolution, and many of them were determined to undermine the monopoly privileges of the firm. In 1698 British Parliament allowed the creation of the New East India Company to compete with the first, furthering the interests of interlopers and free trade advocates. The new company, however, found it difficult to compete with the old company in the East, and through various strategems, the old company was able to force a merger of the two after several years.¹⁹

¹⁹ Bruce Carruthers has written an engaging history of this brief episode of Company history in his larger exploration of the relationship between politics, finance, and commerce in seventeenth century England (Carruthers 1996).

The final chapter in the commercial history of the Company began with a famous battle. Up to this point the English Company had acquired control over small pieces of territory, but did not possess much land in the East. In most other ports, the English were consigned to the merchant quarters of the various cities. Although there were distinctly sovereign aspects to the Company's conduct in its limited settlements in the East (Stern 2010), military conquest and colonization were not an integral part of the English Company's business strategy (Chaudhuri 1978: p. 16). This pattern changed with the 1757 Battle of Plassey.

The Battle of Plassey was fought over the fate of Bengal (now West Bengal and the nation of Bangladesh), which was at that time a rich textile and opium-producing region. By the late 1750s the region was a flashpoint in heightened political tensions between the French, English, and Mughal Empire. The French had been making large inroads into the trade of Bengal, often through forging political alliances with local rulers. The English Company was both troubled by the increased French presence and worried that the sitting *nawab* (Mughal governor) of Bengal, Siraj-ud-daula, was aligning with the French against the English. The *nawab* was indeed unhappy with the English Company's increasing influence in the region. The English employee's private trade had been particularly problematic as English private traders often evaded paying taxes to the Mughal ruler by using privileges granted to the Company for its official trade. These tensions ultimately culminated in the *nawab*'s decision to attack Calcutta.

The *nawab*'s forces took Calcutta, looted the treasury, and imprisoned a large number of English in a small unlit room – most of whom died. This infamous incident became known as the Black Hole of Calcutta. The English moved to retaliate by authorizing the young Robert Clive to seek a local alliance to assist with deposing the *nawab*. Clive chose Mir Jafar as his collaborator,

a general of Siraj-ud-Daula. With Mir Jafar's help, British troops won a decisive victory at the Battle of Plassey, defeating the *nawab*. Mir Jafar then became the new *nawab*. In 1765, the Company was declared the *diwan* of Bengal, the court-appointed tax-collector for the Mughal Empire (Marshall 1987, ch. 3, pp. 70-92).

These convoluted events were of tremendous significance for the firm and had ramifications for the Company's internal organizational structure as well as their relationship with the British state. The most immediate change was to the Company's relationship with silver bullion. Since the Company's inception, their most important export was silver bullion. Historically, there was not a strong demand in Asia for European goods, and the heavy woollens that were England's main export in Europe were a particularly hard sell. This meant that the Company had to trade in bullion in order to acquire Asian goods. Many influential policymakers at that time espoused a dogmatic brand of mercantilism based around the idea that exporting bullion drained the nation's wealth. Their opposition embroiled the Company in a series of debates over the public benefits of overseas trade expansion, which helped to shape modern economic theory (Barber 1975, Khan 1975: pp. 48-51, 185-192, 299-305, Appleby 1978: pp. 37-41, 125, 216).

The constant need for bullion overseas, and the political difficulties caused by exporting it from England, pushed the Company to search for alternative sources throughout its long history. In fact, the Company's embrace of the private trade was linked to the need for fungible overseas capital. Private traders also needed capital for their investments, and if they were successful, as many were, they would often accumulate capital while overseas. For example, William Monsoon was sent by this father, Lord Monsoon of Lincolnshire, to the East in 1725

with £1,000 in silver bullion (Mentz 2005: p. 80). More experienced traders attempted to find the means to bring larger reserves. Robert Nightingale had difficulty locating a reliable means to transport somewhere between £12,000 and £20,000 to the East (Mentz 2005: p. 85). At times, the Company simply borrowed capital from private traders to cover shortfalls (Cheong 1978: p. 9). On a more regular basis, employees drew bills of exchange from the Company in order to transfer earnings home to London. These remittances were a valuable source of overseas capital for the Company (Adams 1996, Mentz 2005: p. 146-7).

A large part of the reason that the Battle of Plassey was so momentous was that the Company's appointment to the position of tax-collector (*diwan*) provided it with an alternative and potentially vast source of bullion: the land taxes of Bengal. The managerial board in London was overjoyed at the prospect of reducing the Company's dependency on external sources of bullion as well as finally silencing the critics of their export policy. Investors were impressed as well and stock prices shot upwards – at least in the short term (Yapp 1986: p. 44). Tax collection began to rival commerce as the principal occupation of the firm.

The accession to political office had other implications as well. Without the assistance of the British Crown, Calcutta could not have been retaken and the Battle of Plassey might never have been fought. The British government was therefore directly involved in the distribution of power and resources that followed. Even without its direct involvement, there is good reason to believe that the British government would have taken a strong interest in the process by which its citizens were beginning to acquire a territorial empire overseas. The increasing conflict with France on the Indian subcontinent further involved government officials in a complicated contest

with political and commercial dimensions that extended well past the boundaries of Asia and directly into the heart of European colonial ambitions and continental politics.

In the immediate aftermath of Plassey, the Company was able to retain a degree of autonomy from the British state, purchased at a rate of £400,000 a year (Stern 2010: p. 209). This attempt to buy off the government merely delayed the more active engagement of the British state into what had truly become an affair of state—though it was initially treated as the Company’s affair of state. Soon enough ad hoc parliamentary committees were being formed to investigate the Company’s affairs in Bengal. In 1784, the Board of Control was created. The Board was a government committee appointed to oversee the political affairs of the Company headed up by the Secretary of Foreign Affairs. Although some viewed the creation of the board as a victory for the Company—as it had been able to resist outright incorporation—it was now under the direct supervision of the British government. The autonomy of the Company was further curtailed by the Act of 1786, which strengthened the control of the governor-general of Bengal, whose appointment was subject to the approval of a government committee. As the century drew to a close, government oversight increased, matching the rapid progress of the Company’s territorial conquest of the Indian subcontinent.

At the same time that the British Government increased its control of Company affairs, the Company increased its control over the operations of its employees. There was a general process of organizational restructuring in which control was increasingly centralized (Furber & Rocher 1997, Marshall 1993, Chaudhuri 1965 1993). In some ways the private trade increased. There was greater leniency and opportunity for English traders who were not employed by the Company and the allowable freights for many goods on board Company ships increased. The

autonomy of captains, however, was curtailed. In 1776 the Board of Directors passed an act that strictly forbade any deviations from ships' ordered routes (Cartwright 1788?). The captains that did alter their routes were ordered to appear before a joint committee of private trade and shipping to explain their actions. The Company was clearly more interested in territorial than commercial expansion after 1757, and new resources, acquired through both land revenues and political partnership with the British Crown, had reduced its longtime dependence on the private interests of captains and ship owners. Additional reforms followed, such as the enforcement of a long dormant act banning a formerly lucrative market in the buying and selling of captaincies (Cotton 1949: p. 25, Sutton 1981: pp. 72-3).

In 1813, the Company's monopoly privileges were revoked in India, and the former commercial firm devoted itself to military expansion and tax collection. By the mid-nineteenth century, the rest of the Indian subcontinent, as well as much of Southeast Asia, had been incorporated into what had become the cornerstone of British Imperial rule. The Company was no longer a business in any real sense. It became the basis of *The Raj*, the British colonial empire in India. The last vestiges of the monopoly disappeared when the Act of 1833 opened trade to China.

Commodities and Innovation:

The commodity content of the East Indies trade is an important part of the larger story because it highlights the innovative nature of the English Company, particularly when contrasted

with the behavior of the Dutch. Spices, textiles, coffee, and tea were the core commodities of the East-Indies trade, though their relative share changed over time. Spices were the chief concern for the first fifty years with textiles growing in importance as the century progressed. Coffee and tea became increasingly important over the course of the eighteenth century. Bulk goods, like indigo, saltpeter, and chinaware, as well as thousands of other smaller commodities filled out the lists. A short sample of less common goods might include sugar candies, diamonds, rubies, rose attar, shiraz, dragonsblood, lac, galls, rose maloes, sal ammoniac, assafoetida, bezoar, and brimstone.

The trade in spices had long been carried on along the overland routes from Asia to Europe. The European companies merely diverted this existing trade to the seas. European markets for cotton, tea, and coffee had to be created. Cotton had been a staple of Asian trade for centuries, but was rarely found in the West before the seventeenth century. The Dutch Company actually participated in the cotton trade within Asia, in order to finance their spice trade, but did not realize the potential for exports to Europe (Glamann 1981: p. 133). In contrast, the English Company had shifted aggressively to cotton by mid-century. In 1664, cotton accounted for seventy-three percent of the total value of the English trade, at over a quarter of a million pieces (Chaudhuri 1978: p. 282). The Dutch trade in cotton could be described as modest until the 1670s (Glamann 1981: p. 133). The English also realized the potential of finer grades of cotton goods well before the Dutch (Glamann 1981: pp. 141-142). Cotton became immensely popular and triggered what came to be known as the 'calico craze' in Europe, strongly associated with the advent of consumer culture in the West (O'Brien, Griffiths, and Hunt 1991, Lemire 2011: p.

226). The English Company clearly took the lead in creating and supplying this seemingly insatiable demand (Moreland 1923: p. 123; Glamann 1981: p. 138), and profited accordingly.

Similarly, the Dutch and the English both had access to coffee in the Mid-East, which, incredibly, Europeans had survived without until very late in the seventeenth century. The English developed a domestic market for coffee early on and significantly expanded their trade in the good well before the Dutch, who were left complaining about an English advantage in procuring it (Glamann 1981: p. 186). The Dutch Company also notoriously lagged behind the English in establishing and sustaining direct commercial ties to Canton, the market for tea.

The capacity for innovation is demonstrated but not exhausted by the introduction of these cotton, tea, and coffee. Within each of these categories was an almost infinite gradation of quality and type. This was particularly evident in the cotton trade, where profitability was determined not just by quality but also by the decorative pattern woven into or painted onto the cottons. Different weavers produced different patterns in different regions. Novel designs generally brought the highest prices in Europe, while different types of textiles allowed the Company to circumvent import restrictions in England (Chaudhuri 1978: p. 283, 278).

Many scholars who have studied the East India Companies have noted that the English excelled at incorporating new goods and creating or adjusting to new market demand, in comparison to the Dutch, who had great difficulty shifting focus from the spice trade. H.V. Bowen emphasized the English Company's "restless search for commercial advantage and profit [that] ensured that it sought constantly to exploit new opportunities and advantages" (Bowen

2002: p. 19). Larry Neal explicitly contrasted the flexibility of the English Company with the rigidity of the Dutch (Neal 1990: p. 220).

Explanations of the difference between these firms, however, have been located in specific circumstance. For example, the early establishment of a stable Dutch settlement in Batavia (now Jakarta) is credited with the Dutch attachment to the spice trade. Similarly, English innovation has been attributed to the accidental: pushed out of Indonesia by the Dutch, they had no choice but to focus their efforts in India, which happened to also be the world's largest textile producer. Other more local versions of the argument are also made. For example, the Dutch were already present in India, however, they had established themselves in Coromandel, leaving the English no choice but to settle in Bengal, which was, coincidentally, the more vibrant economy (Glamann 1981: p. 138). The specifics of these arguments ignore the larger pattern, in which the English Company consistently introduced new goods to the European market, and the Dutch (as well as the Portuguese) consistently failed to produce similar innovations. Innovation is a central problem in organizational theory, and it has long been recognized that larger, more established organizations have difficulty innovating, which over the long-term leads to declining productivity and failure to adapt to changing markets. The problem is faced by every organization. Given that the English Company had been in existence for roughly the same number of years as the Dutch – and was reinventing itself well into the third century of its existence, the puzzle is how the English Company was able to retain its innovative capacity for so long.

The comparative approach this question is to consider how the English Company varied from other European organizations operating in the East. The English Company's two main

competitors were the Dutch and the Portuguese. Both organizations were large enough to have significant impacts on the overall conduct of overseas trade in the East, so I consider them in some detail, both in order to construct a comparison with the East India Company as well as to describe the context in which the English Company was operating. The smaller companies are considered as well, but allotted less space as they had less impact. As the comparison demonstrates, they differed in terms of their relationship with the state, the degree of militarization, and their acceptance of employee's participation in the private trade. I begin by outlining in detail the private trade of the English Company.

Private Trade of the English in the East

The English Company evolved dramatically over time, and as it changed, the private trade practices of employees and other Englishmen in Asia adjusted and evolved as well. Even during any one period, the private trade came in many different forms, each with varying degrees of legitimacy. Throughout its history the Company was faced with individuals who challenged its trading privileges in the East -- some more directly than others. One important class of private traders were private persons, unaffiliated with the Company, that either traded in Asia or brought Asian goods to Europe by way of the Cape route. A limited number of these challengers were officially sanctioned by the British government. These include the Courteen Association and the New English Company. Neither organization lasted for long, due to the efforts of the old Company. Other challengers were simply unauthorized interlopers. The Company brought

charges against many of these individuals in the courts of London (Stern 2011: pp. 47-8). Others must have inevitably escaped detection.

In more ambiguous cases, English merchants sometimes renounced their citizenship in order to participate in Companies chartered by other European nations. Such was the case with the Scottish merchant, Colin Campbell, who took up residency in Sweden in order to work for the Swedish East India Company (Koninckx 1980: p. 50). The English Company regarded this practice as illegitimate, but had much greater difficulty prosecuting such cases. In one case, Captain Thomas Hall joined the rival Ostend Company and made a personal fortune through the private trade. Far from persecuting Hall, he was allowed to rejoin the English Company as a managing owner after formally apologizing and paying the firm £2,100 (Sutton 1981: p. 22).²⁰

During the entire life of the Company, captains and, to a lesser degree, officers and crew, were awarded freight allotments for their own private trade. The Captain had far and away the greatest allotment, up to five times the amount allowed to the first mate. In 1715 this was three hundred pounds of goods to one-hundred tons of Company freight for the captain versus sixty pounds of goods for the first mate. Each rank made successively less, with seamen allotted ten pounds per ton (Mentz 2005: p. 130). In 1767, the disparity between allotments seems to have increased. John Wyche, the captain of the *Salisbury*, took on board £4,660 in private goods, whereas the first mate shipped £305 (Thomas 1999: p. 151). This trade was legitimate, but also strictly regulated. Cargos were inspected to ensure that employees were not exceeding their allotments, and all goods returned to England were sold through the Company auctions in

²⁰ For most of its history the English Company leased its ships. The owners of the ship were called managing owners or ship's husbands. The position was both prestigious and lucrative. The managing owners were a particularly powerful faction within the larger body of shareholders.

London. Although the Company did not charge freight in most of these cases, there were other fees associated with this type of legitimate inter-continental private trade.

Captain John Stevens brought twenty-eight tubs and ten chests of Hyson Tea, twelve chests of Benjamin, fifteen chests of Cassia Lignea, two chests and 159 tubs of Camphire, one chest of white pepper, one cask of Tamarind, five lots of oranges, twenty casks of arrack (wine), and 6,336 rattans back with him to London on the *Godolphin* in 1749. Stevens made £7,240 from his goods at the auction, but paid out £380 to the Company in fees tied to the storage and auctioning of goods. When customs, duties, and a donation to a charity fund were included he was able to take home £4,760, which does not take into account the initial cost of outlay for the goods (Sutton 1981: p. 157). These were the goods that Stevens imported into England. The type of goods captains brought to the East in the private trade was quite different. John Wyche's goods on the *Salisbury* consisted of braziers, cards and stationery, a chariot filled with hats, clocks and toys, coach springs, cutlery, drugs (three chests), glass beads, glassware, gold and silver lace, grapnels and anchors, hosiery, lead, looking glasses, nails, painters colors, perfumery, prints, red and white lead, saddlery, wine, wrought plate, and wrought silks (Thomas 1999: p. 152).

Captains, officers, and crew that exceeded their allotments or shipped the wrong type of good were engaging in illegitimate trade, although even in these cases, punishment for infractions often consisted of nothing more severe than additional fines. For example, the Company fined captains twenty-eight pounds for each ton over the limit (Mentz 2005: p. 129). As more passengers found their way aboard ships, they also became suspect. A search aboard the *Macclesfield* in 1732 yielded 126 ounces of smuggled gold in the pockets of one Mr. Flower

(Thomas 1999: p. 280). Captains also frequented Kinsale, the Isle of Man, the Channel Islands in order to unload illicit goods before returning to the Company docks in Portsmouth or Downs. Some attempted to rendezvous with other craft at sea. If patrols caught non-Company ships with East Indian goods, the goods, and possibly the ship, were confiscated (Thomson 1999: pp. 282-4).

In the early years of English Company history, though employee private trading was not formally allowed, there also was not much effective control over its practice (Chaudhuri 1965: p.118, Watson 1980: p. 74; Marshall 1993: ch. xiii, pp. 278-280); nevertheless when the Company began expanding the trading privileges of its employees in the 1660s the system of private trade was transformed. The opening of the country trade (trade confined to the East) expanded opportunities for all employees and a few private individuals as well.

Prior to 1660, private traders faced significant problems in remitting their fortune—if they had made one—back to England. Such fortunes had to be hid from the Company since there was no legal means by which individuals should have been able to acquire them. When the country trade was legalized, employees acquired a reliable means of remitting money back to England: they could use Company bills of exchange.²¹ Bills of exchange also made it possible for private traders to draw upon resources and loans in England to finance new ventures while still in Asia. Mentz estimates that £955,280 was remitted from London to Asia for starting capital in the private trade from 1675 to 1683, or around £100,000 annually (Mentz 2005: p.

²¹ Other remittance methods included respondentia loans, the diamond trade, or shipping goods for sale in London.

95).²² Although considerable, this would not capture the full outlay for private trade in the East as many British merchants also borrowed from Indian moneylenders to finance their purchases in Asia (Marshall 1993: p. 39).

Since the risk of dismissal due to participation in the country trade was removed, the scope of those trading operations could be expanded. Whereas factors would have had to furtively hire ships or smuggle goods aboard Company ships to engage in country trade in the pre-1660s, with the more lenient regulations, they could amass small fleets of country ships without fear that other employees might inform on them. At Cochin alone, Holden Furber found records of fifteen English private country ships in 1719, which grew to twenty-nine in 1740 (Furber 1976: p. 272). Bal Krishna estimates that by 1680 private country trade was the size of a quarter of the formal Company trade and equaled it by 1710 (Krishna 1924: p. 125). A fraction of this trade belonged to English merchants unaffiliated with the Company. A small number of free merchants, who were private British citizens, established residences in some of the larger Company settlements as they grew into major trading hubs in the eighteenth century.²³ Some of these individuals made large fortunes by participating in the country trade of Asia, most famously Thomas Pitt.

The allowances of the 1660s and 70s also affected the trade of the employees serving on board the East Indiamen. Since larger fortunes were being made in the East, the freight of the captains, officers, and crew became an additional avenue through which capital could be

²² Mentz arrived at this estimate by subtracting Chaudhuri's figures for the total bullion export of the Company from Gerge White's figures on total bullion export to Asia from England. It puts the outlay for private trade at just over a quarter of the Company's outlay.

²³ Mentz's figures show that around twenty or so free merchants were resident at Madras in any given year from 1678 to 1742. The number of free merchants would have been significantly higher at Madras than other smaller company settlements (Mentz 2005: p. 202).

transferred back and forth between country traders in the East and the commercial networks in Britain (Mentz 2005: p. 51).²⁴ However the captains and officers did not confine their activities to facilitating the transfer of capital between London and the East. They actively participated in the country trade, diverting the paths of their ships to buy and sell goods. Such diversions were within the boundaries of legitimate behavior as long as they did not significantly delay the progress of the voyage. The trade of the captains and crew was necessarily smaller than the Company trade itself, since it occupied a smaller proportion of the same cargo space. Following Krishna's estimate, it therefore must have also been smaller than the country trade of Englishmen aboard private vessels by 1710. It was however a regular fixture on English ships, and therefore almost certainly overshadowed the less systematic incursions of private interlopers challenging the Company's east-west monopoly.

Another large shift in the conduct of private trade occurred after the restructuring of the Company's position in Asia following the 1757 Battle of Plassey. While freight allowances on board ships were increased, company servants were largely excluded from country trade by 1787 (Webster 2007: p. 9). In their place arose a much larger population of free merchants and a new Anglo-Indian institution, the agency house. Agency houses invested in overseas trade on behalf of others, many of whom were Company employees now barred from direct participation in trade. Agency houses were also significant country traders in their own right, offered banking and insurance services, and were involved in the manufacture of goods (Tripathi 1956: p. 11).

After Plassey, shipbuilding in Asia expanded, which fed into the private trade as overseas British merchants used local ships for their country trade. Calcutta, which according to P.J.

²⁴ Officers and crew also sold their freight privileges on occasion, but it was a much smaller share.

Marshall was the largest producer, experienced a boom in the 1780s. Seventy-seven vessels were constructed in the Calcutta ships yards from 1781 to 1802, between three or four ships annually (Marshall 1993: p. 296). The number of free merchants grew as well, particularly after 1787 (Webster 2007: p. 9).

Captains still played an important role in the private trade. From 1785 to 1793, goods sold for commanders at Company auctions came to £6,000,000 (Sutton 1981: p. 81). However, captains' freight allowances were increasingly tied to the process of remitting capital between England and Asia. The agency houses depended upon and cultivated contacts with captains in order to keep this important avenue open (Webster 2007: p. 10). At the same time, captain's autonomy was targeted and curtailed by the Board of Directors. In the 1760s and 70s, the Board launched investigations into identifying effective means through which to control overseas operations. The 1776 act forbidding captains to deviate from their intended routes and the reform of the sale of captaincies in the 1790s both undermined the captains' ability to engage in and direct their own private trade. On the one hand, they had less control over their greatest resource—the ship—and reforming the process by which captains were appointed made them more directly answerable to the Company, should they violate any rules. The general contours of these shifts suggest three main periods of Company private trade: 1600 to 1660, illicit and uncontrolled private trade, 1660 to 1760, legitimate and growing private trade concerns, and 1760 to 1833, illicit and increasingly controlled private trade.

The Portuguese *Estado da Índia* was the first of the large European organizations to enter the Asian overseas trade. Unlike the English, the Portuguese were interested in the spice trade, but largely motivated by political concerns. Most of the goods that traveled overland from Asia to Europe profited the enemies of the Portuguese state. They were taxed by the Ottoman and Mamluk Empires as they passed through their lands on the way to Europe. By reaching around the coast of Africa, the Portuguese hoped to exclude the Muslim nations from the European-East Indies trade, thereby reducing state revenues and, therefore, their capacity for war. The Portuguese also envisioned a tactical advantage would be created by outflanking the Middle East. This strategy failed to have an immediate impact, but eventually the shift from the overland to the Cape route would take a heavy toll on the finances of the Ottomans (Barkey 1994: p. 50). Ironically, even though the Portuguese fought the entrance of other Europeans into the East-Indies trade for more than a century, the decline in the overland route had more to do with the eventual success of the English and Dutch Companies than any direct action taken by the *Estado* or its related commercial ventures (Braudel 1992b: p. 447; Steensgaard 1974: pp. 155-69).

In order to pursue their military goals, the Portuguese entered the Indian Ocean with the intention of conquering strategic sites from which they could control trade. For example, Malacca, taken in 1511, was targeted because it sat on the southwestern tip of the Malaysian Peninsula, overlooking a narrow passage between the Spice Islands, the South China Seas and the Indian Ocean. Hormuz, taken in 1515, possessed only salt and sulfur, but sat on the edge of the narrow strait that guards the entrance of the Persian Gulf. Other important strongholds taken by the Portuguese were Goa, Sofala, and Mozambique. Further east the Portuguese were forced into a less militaristic and more commercial pattern of operations (Subrahmanyam 1990: p. 92).

For example, in 1557 the Portuguese bribed a Chinese port official to allow them to take possession of an island at the entrance of the Pearl River Delta. This island was to become Macau. The Portuguese built fortifications and established a bustling trade from the island, but on the condition of acquiescing to the demands of the powerful and wealthy Chinese Empire.

Where they were able, the Portuguese imposed a self-styled rule within their own settlements and over the oceans. King Manuel of Portugal proclaimed himself ‘Lord of conquest, navigation, and commerce of Ethiopia, India, Arabia, and Persia.’ Crown forces began to enforce the *cartaze* system off the western coast of the Indian subcontinent: ships were forced to buy a pass from Portuguese authorities in order to engage in trade. The pass, unsurprisingly, cost a significant fee. The Portuguese also demanded that ships dock at a Portuguese port in order to purchase the pass, during which time they were obliged to pay duties on their cargo. Failure to carry the pass or the trade of restricted merchandise could end in extremely serious reprisals. A Muslim family was sold into slavery after being discovered piloting a boat without the Portuguese document (Subrahmanyam 1990: p. 104). Ships and goods were regularly confiscated.

As a result, Asian merchants went to considerable lengths to avoid Portuguese ships and ports. The *cartaze* system did not make the fortunes of the Portuguese. Instead it rerouted trade away from the once rich and cosmopolitan destinations of Hormuz, Goa, Sofala, and Mozambique. The basis for these cities’ wealth had been their thriving overseas trade. Bereft of this, they slowly decayed, putting significant financial strain on the *Estado* as they did (de Silva 1974: p. 154).

The commercial fortunes of the *Estado* did not fare better than their settlements. The entire organization was owned and operated by the crown. The crown participated in the intercontinental trade between Europe and Asia, but not successfully. Commercial difficulties led officials to experiment with other approaches to the trade. When the Portuguese began to realize their severe financial straits in the late sixteenth century (before other Europeans had even entered the trade), they created a system of concessions. The concessions were granted to former officers of the *Estado* as a reward for loyal service and gave them the right to trade exclusively on specific routes in Asia—i.e. between two designated ports (Subrahmanyam 1990: p. 112).²⁵ The problem with this system was that the *Estado* had not really established effective monopoly control over any of these trade routes, and their ability to maintain limited control eroded over time (Subrahmanyam 1990: p. 201). Thus the privileged access granted by the concessions was largely a fiction and was soon treated as such.

The Crown attempted to revive the fortunes of the overseas trade a second time with the creation of a short-lived chartered company in 1628. Within five years the company had failed due largely to a complete inability to attract private investors, who feared crown involvement. Political infighting and corruption had plagued the venture from the start, both of which seem to have been perennial problems for the *Estado* (Disney 1977: pp. 248-51). Despite these half-hearted attempts to innovate, the *Estado* demonstrated a pronounced inability to adapt to new market conditions, incorporate new products, or successfully alter the status quo (de Silva 1974: p. 195, Disney 1977: p. 251). Traditionally tight crown control has been blamed for these problems. My argument suggests that crown control was linked to the failure of the *Estado*, but

²⁵ The concession also gave them recipients to ability to invest the resources of Portuguese citizens that had died overseas.

that crown control was problematic because it centralized control over operations, restricted access to markets and profits, and suppressed local initiative.

Although the Portuguese establishment was notoriously corrupt (Disney 1977: p. 248-51), the private trade did not flourish within the organization. The concession system was a failure, and other avenues for employed officers of the *Estado* to participate in trade were limited. Portuguese officers and men were allowed to stow goods for their own personal trade—the private trade—in small chests called *caixas de liberdade*. Unlike the English voyages, which made frequent stops along their way through the Pacific (in North and South America as well as West Africa, the Cape Verde Islands, St. Helena, and throughout the East), the ships that sailed the *carreira da India* were under strict orders to proceed directly from Lisbon to Goa. Intermediate stops were forbidden except under extraordinary and life-threatening conditions. These orders were necessary to keep the men from deserting, but also curtailed private trade opportunities. The one concession wrung from the Crown was a stop at Bahia for provisioning, which channeled the private trade into a predictable pattern of the exchange of silks, teas, spice, and ceramics from Asia for the gold extracted from Minas Gerais (Boxer 1969: pp. 206-218).

Portuguese settlers had a habit of breaking away from the *Estado*. This pattern produced several settlements of independent Portuguese traders composed of former officers and merchants of the *Estado* and their descendants. Pulicat and Negapatnam were among the largest. In the early sixteenth century, these independent traders were often composed of deserters and not initially looked upon with favor by the Portuguese establishment (Subrahmanyam 1990: p. 106). As the merchant settlements expanded and became more prosperous, legitimately retired officials of high standing began to make these ports their permanent home as well. The official

standing of the settlements rose in the estimation of Portuguese authorities. The settlements, however, seemed to remain skeptical of the *Estado*. Sanjay Subrahmanyam describes them as a “stateless and adaptable commercial group” (Subrahmanyam 1990: p. 225). In Negapatnam, the Portuguese settlers refused to allow the *Estado* to erect fortifications, even ostensibly to protect the town from recent Dutch threats. Thus, Portuguese free traders formed an important merchant community in Asia, but one that had little connection to the official Portuguese establishment.

The Vereenigde Oost-Indische Compagnie (VOC)

The Dutch Company was much closer in form to the English Company than the Portuguese *Estado*. The Dutch East India Company itself was not chartered until 1602; however the Dutch had been organizing regular voyages around the Cape since 1597. In 1602 several Dutch regional partners consolidated their operations into one, very large and well-provisioned company—at that time, the largest in the East.

The Dutch government was composed largely of a merchant elite, which had very close ties to the Dutch East India Company (Khan 1975: p. 6, Irwin 1991: pp. 1307-1308, Adams 1996: p. 15). Unlike the English Company, the Dutch were able to sign treaties with other sovereigns, acquire land, and construct forts (Irwin 1991: p. 1300). They had commercial goals, but used military means to achieve them. Niels Steensgaard’s argued that the Dutch Company “integrated the functions of a sovereign power with the functions of a business partnership” (Steensgaard 1996: p. 135). In 1605 they captured two nutmeg-producing ports, Tidore and

Amboina, from the Portuguese. In 1641 they took Malacca. In 1658 they conquered several Portuguese ports in Ceylon (Sri Lanka), thereby cornering the cinnamon market. By 1667 they had largely forced the Portuguese out of the spice trade. The Dutch were attempting to achieve a true monopoly in the spice trade through conquest.

In one of the many tragic moments of European colonization, the Dutch decimated the entire population of the Banda Islands in order to take control of the nutmeg groves. In place of the native economy, they set up slave plantations and patrolled the islands for unauthorized cultivation. In all of their colonial possessions, which were concentrated in the Indonesian Archipelago, the Dutch installed systems of forced labor, pushing the population into agriculture and away from trade. Other merchants were considered potential smugglers and treated as threats. Using these draconian measures, the Dutch were able to achieve a near monopoly in cloves, mace, nutmeg, and cinnamon.

Despite this imperialist behavior, the Dutch Company was formally a private organization, albeit one that issued regular reports to the government and whose upper management were required to swear oaths of fealty to the Dutch state (Parthesius 2010: p. 35). The Dutch Company had a complicated organizational structure, which mirrored the complicated structure of the Dutch state itself. At the top of the hierarchy sat the Seventeen Gentlemen, or the *Heeren Zeventien*. These men were drawn on a proportional basis from six regional boards of directors representing Amsterdam, Middelburg, Delft, Rotterdam, Hoorn, and Enkhuizen. The mayor of each town was responsible for appointing representatives to these regional boards. Directors were invariably drawn from elites, which included merchants in the Netherlands. At

first merchants dominated the board, but in the eighteenth century, politicians came to outnumber them (Boxer 1965: p. 47).

As if compensating for the pluralistic structure of the company in the Netherlands, the Dutch consolidated control in the East into one city: Batavia. Under the direction of Jan Pieterszoon Coen, and against the orders of the *Heeren Zeventien*, the Dutch Company captured Batavia from the Sultan of Bantam in 1619. Batavia became the seat of the Governor-General (who was at that time Coen). The governor was assisted by a *raad van politie* (polity council), second-in-command, head accountant, *fiscaal* (judge), and military commander. Other Dutch settlements had a similar organizational structure, but fell under the jurisdiction of Batavia. The government at Batavia oversaw all of the Dutch Company's affairs in the East. It was the center of strategic and operational power (Furber 1976: p. 50; Steensgaard 1996: p. 136). By the early seventeenth century, all ships traveling between Europe and Asia arrived at or departed from Batavia, which also made it the central transshipment point for the large country-trading network developed by the Company (Parthesius 2010: p. 116).

The means by which the Dutch handled the private trade was similar to the Portuguese. A small chest was allotted to the seamen and officers for inter-continental trade. The country trade was not open to the officers because it played an integral role in the Dutch Company's commercial strategy, financing the inter-continental voyages. For a brief period in the 1620, the Dutch Company considered leaving the country trade open to free merchants (known as *vrijburgers* or *vrijlieden*), often former employees that remained in the East to engage in the private trade, but in 1627 decisively moved to ban their participation in the country trade (Parthesius 2010: p. 41).

When the Dutch Company installed strict regulations over the private trade, they had an advantage over the English in enforcing them. Company officials, housed in Batavia, were much closer to potential offenders and, due to the large military presence within the Company, they had more resources at their disposal to monitor activity and enforce rules. When the director of Surat, Pieter Laurens Phoonsen, was suspected of illicit private trade, his salary was docked and he was ordered to report to Batavia. The prospect of returning to Batavia under scrutiny must have been unpleasant, Phoonsen, took his chances by fleeing to Bombay and died in poverty two years later (Winius and Vink 1994: p. 94).

Despite problems, this system worked for more than a half century. However, the closure of the country trade meant that instead of drawing new ports and goods into the trade network, Dutch sailors (i.e. private traders) directed their energies into smuggling goods back into Europe. Embezzlement of company funds occurred regularly (Boxer 1965: p. 202). The English private trade offered additional avenues for remitting illicit funds, exacerbating the problems the Dutch Company had in controlling its employees (Adams 1996: pp. 23-4, Winus and Vink 1994: p. 94). The positive synergy between private and Company trade found in the English system was absent.

Smaller Companies:

The French Company, *la Compagnie française des Indes orientales*, played an important role in the colonial history of India and Britain, but its commercial life was relatively brief. There were several French Companies, each organized along slightly different lines. None of the

versions lasted for very long. A royal company founded by Jean-Baptiste Colbert for the crown was chartered in 1664. It lapsed into bankruptcy by the early 1700s after years of unsuccessful attempts to establish a colony on Madagascar (Furber 1976: p. 108). The infamous John Law reorganized the Company in 1719. As was his signature, there was a short speculative fever and an abrupt crash in 1720 (Manning 1996: p. 27). In 1721 the *Conseil des Indes* was formed to run company affairs. The *Conseil* was a government committee. Its formation gave the state direct control over the commercial affairs of the company.

Catherine Manning has shown that although the state directed company affairs there was a positive dynamic between the private and company trade in this period. While official company trade was strictly controlled by the state, French company vessels were leased to employees so that they might pursue their own trade—and the state often acted as a primary investor in these ventures (Manning 1996: p. 78). The crew was also accorded the standard cargo allotment, in this case free freight of 4.9%, on official voyage for private trade purposes (Manning 1996: p. 85).

In the French Company, private and corporate interests were not intertwined as they were in the English Company. Private investors had little influence over company policy as it was run by the state, and it is unclear to what extent the information gained through private voyages were able to penetrate and influence official trade policy. Nevertheless the French Company survived, and even briefly prospered in the 1730s, before being diverted into colonial and militaristic pursuits by the government after the War of Austrian Succession (Manning 1996: pp. 29-31).

The Ostend Company, based in Austria, existed from 1715 to 1731. It was monetarily successful, but folded due to external political pressure from England. The English East India Company had long resented the competition and believed the company was simply a foil for illegitimate continental English private trade (Hertz 1907). Since its eventual failure had little to do with the commercial organization of the company, it sheds little light on the problems addressed here.

The Swedish Company was created soon after the dissolution of the Ostend Company in 1731. Indeed many individuals seem to have transferred their assets from the Ostend Company to the Swedish Company, although little evidence exists to show that the Swedish firm was a direct continuation of the Ostend operation (Koninckx 1980: p. 52). As with the Ostend Company, British involvement in the venture was high despite the fact that participation violated British law (Koninckx 1980: p. 80). One of the more important investors was the Scottish born Colin Campbell (Koninckx 1980: p. 50). The charter specified that the names of the shareholders and company accounts were to be kept secret (Koninckx 1980: pp. 45-46), likely in order to protect the identity of English investors.

The Swedish Company was much smaller than the English or Dutch Companies and had no colonial aspirations (Koninckx 1980: p. 55). It is unlikely it could have afforded them. In its first fifteen years, it sponsored twenty-five voyages (Koninckx 1980: p. 53). It grew, becoming a joint-stock in 1753 and sending out thirty-nine ships between 1766 and 1786. Decline set in after 1786, and the last ship was sent out in 1804 (Koninckx 1980: p. 65).

The crew was allowed a private trade allotment (Koninckx 1980: p. 325), though private trade by directors and principal shareholders was forbidden (Koninckx 1980: p. 62). This

restriction is significant because directors and shareholders served as ships' captains. Private trade was curtailed in other ways. The ships bound for China did not engage in an appreciable country trade beyond taking on provisions (Koninckx 1980: pp. 119-134), and fifty-five of its sixty-one voyages went to China. In all, the Swedish Company enjoyed moderate success by exploiting European inroads into the market at Canton.

The Danish Company went in and out of existence for nearly two-hundred years. In many ways it was the Dutch equivalent of the Ostend and Swedish Companies. It was nominally Danish, but relied heavily on Dutch interlopers for capital and staffing (Furber 1976: pp. 212-213). For example Bernt Pessart, formerly of the Dutch Company, became head of operations in 1636 (Subrahmanyam 1990: p. 186). It was first active from 1616 until 1650, although for a significant portion of this time its trade was restricted to the country trade of Asia as the capital necessary to finance inter-continental voyages failed to materialize (Subrahmanyam 1990: p. 186). It was in this second period that the Danish Company established a fort at Tranquebar (Tharangambadi). It eventually failed entirely, only to reappear in 1670. In this period, the company achieved moderate success, but had nearly failed again by 1721, at which time it leased out its monopoly privileges. It reemerged in 1732 and followed a similar path to the Swedish Company, trading heavily and successfully with Canton. In 1772, the Danish government lifted monopoly privileges to India, opening it to individuals and other organizations. According to Furber, private Danish ships after this time often carried English private cargo and were staffed by any number of foreign sailors (Furber 1976: p. 212-215). Over time, the English private trade became increasingly important to the Danish Company's operations (Feldbaek 1976: pp. 233-234). It continued to trade profitably until 1808.

Ole Feldbaek, who has written a comprehensive history of the Company in its later period (1772-1808) found that it conducted its trade “on extremely rigid lines” (Feldbaek 1969: p. 14). Country trade appears negligible, at least in this later period, which has received the most attention. Contrary to the free trade advocates, the example of the Danish Company provides some support for the idea that the large company form had advantages over officially licensed private traders. It was, after all, able to hold its own after the Danish East Indies trade became an open market. It is also true that its modest but profitable trade may have been linked to the restricted focus and high-degree of specialization of the company (Feldbaek 1969: p. 233).

In 1695, the Company of Scotland trading to African and the Indies, known as the Scots Darien Company, was incorporated (Bingham 1906: p. 214). The Darien Company was granted a national monopoly to Asia, as well as Africa and Asia, but foundered in an attempt to establish a colony in Central America.

Conclusion:

When compared with its two largest competitors, the English Company was both less militaristic and more decentralized, meaning its employees enjoyed more autonomy and greater private trade privileges. State control is often seen as a factor in the decline of the Portuguese and French companies; however the Dutch enjoyed significant autonomy from the state and yet experienced difficulty adapting to new market conditions. With the exception of the French Company, the smaller firms were all much less militaristic than the Portuguese and Dutch. These companies tended to go in and out of business, each time exploiting niches in well-established

markets, such as the Canton trade. They did not demonstrate the adaptability of the English Company; although it is difficult to say what they might have accomplished with access to a larger pool of capital. There were synergies between the company and private trade in these other smaller organizations, including the French; however, private and company interests seem uniquely intertwined through the country trade of the captains of the English Company ships.²⁶

Specific historical circumstances can be used to explain the difficulties faced by the early overseas companies; however in the case of the Dutch and the Portuguese their failures were part of a larger pattern by which large and successful organizations have difficulty adapting to changing environments. The comparison between East India Companies suggests that the private trade played a role in increasing the adaptability of the English Company. The next two chapters are devoted to exploring the mechanisms by which the private trade promoted innovation and decentralized coordination within the English Company.

²⁶ The private trade in these smaller companies has not been researched as thoroughly as the private trade of the English, which may introduce a bias here.

CHAPTER FOUR: Social Networks and the East Indiaman

The English East India Company began the seventeenth century much like a smaller, less confident version of the Dutch Company. Over the course of the next two centuries the situation was reversed. Where the Dutch appeared to be trapped by sunk costs and routine behavior, the English Company adapted to shifting market conditions by incorporating new ports and goods into its trade. In the East Indies trade one of the largest problems the companies faced was expanding beyond their initial pursuit of pepper and spice. As K.N. Chaudhuri puts it:

“By the third quarter of the seventeenth century it must have become clear to all those who were concerned with the East India trade that there were other and more valuable Asian commodities which could be brought to a profitable market in Europe. But few of them would have been prepared to concede that the national stake in the European pepper trade should be relinquished in favour of rival foreign countries” (Chaudhuri 1978: p. 313).

Despite the fact that the Dutch Company was larger, more powerful, and better provisioned, it was the English Company that moved first to incorporate cotton piece goods as a central component of their new trade strategy. This market innovation was not an isolated occurrence, but indicative of a larger pattern. In this chapter I explore how the private trade allowances of the 1660s and 1670s helped to produce mechanisms of information diffusion that allowed the English Company to build innovation and exploration into durable aspects of the firm.

Organizational theorists have suggested that multinational firms operating in complex global environments profit from decentralized organizational structures that allow local knowledge to filter into the firm’s knowledge base (Bartlett and Ghoshal 1989: pp. 68, 131-154).

Implemented in a new context, i.e. within the boundaries of the organization, this local knowledge is innovative (Burt 2004, Padgett and McLean 2006). The problem is that large organizations inevitably have difficulty receiving information from the world around them. Following Max Weber, this difficulty arises because organizations depend upon existing rules and routines to ensnare individuals and press them into service (Weber 1991: pp. 196-240). Inflexible routines and rules prevent the incorporation of new information brought in by new employees. Following Niklas Luhmann, this difficulty arises because organizations are at their base tools for reducing the complexity of the lived environment (Luhmann 1995). Structurally the centralization of control that accompanies the creation of most bureaucratic administrations limits the amount of information that can be processed by decision makers, i.e. the fewer the decision-makers, the less information it is possible to process. Centralization also increases the distance of decision-makers from local conditions on the periphery.

To the extent to which an answer to this problem exists, a structural approach suggests decentralization, or the increased autonomy of local actors. But, in order for the organization to continue to act as an organization, which is a form of coordinated activity after all, there must be some integrative mechanism linking the actions of these semi-autonomous actors. Therefore, in order to successfully encourage adaptation and innovation, decentralization must facilitate the transfer of information between local agents and into the larger pool of knowledge that exists within the organization. The analysis in this chapter looks at the transfer of information between East Indiaman ships engaged in the East Indies trade and whether that information was incorporated more generally into company operations.

Information:

The problem of gathering information is always acute in foreign trade and was even more problematic for the early modern trader. Goods and markets were dispersed. Prices and supply fluctuated wildly. Political conditions varied. Depending on the degree to which it affected state coffers, political leaders might encourage trade, but in times of hardship or scarcity, the local population could swing violently against foreigners. Tax rates and exemptions changed frequently. Enemy ships might haunt the harbors. And uncharted shoals could founder ships. A word of warning or information on how to hire a pilot could save a vessel from disaster or commercial failure.

As might be expected, information on market conditions occupied much of the correspondence of company employees: “The private correspondence of the East India Company’s officials, some of whom were country traders on a large scale, are full of very detailed messages on the number and timing of the local shipping and the effect of their arrival and departure on markets and prices” (Chaudhuri 1978: p. 192). According to Miles Ogborn, who has specialized in the written communications of the firm, the written correspondence was supplemented with informal networks: “the official correspondence between the directors and the factories also had as its constant shadow an extensive network of private communications, both within India and between India and London” (Ogborn 2007: p. 95).

Timely information was of particular importance. Correspondents repeatedly request that every possible haste should be made in getting them the most current information possible. Robert Cowan, future governor of Bombay, directed a friend to always send news via Madras

ships, as they arrived sooner (Chaudhuri 1986: p. 102). In 1778, director Laurence Sullivan wrote to his son “never to fail me by any possible conveyance giving me the earliest notice in cypher of every material circumstance” (Buchan 2003: p. 109). Written correspondence between two distant confidantes had to suffice if there was no alternative, but face-to-face interactions, which tend to drop out of the historical record, were a more direct means of conveying timely information.

The importance of conversation and direct interaction made public meeting places crucial components of the maritime trade. The coffee houses of London were hubs of information and interaction, central to the evolution of the insurance business and overseas trade. Edward Lloyd’s coffee house, the most famous of these gathering spots, produced Lloyd’s of London, Lloyd’s Register, and Lloyd’s List, a journal of shipping news. The owners and commanders of the East Indies trade gathered at the Jerusalem Coffee House.

In the politically eventful decade of the 1760s, Sutton describes typical topics at the Jerusalem as including Indian politics, disagreements within the overseas council, and private trade rumors (Sutton 2010: p. 102). In 1768 word apparently raced through the coffee house of a shortage of glassware in Madras. Outbound ships loaded their freight to take advantage of the opportunity, in the end producing so much oversupply that prices fell to unprofitable levels (Sutton 1981: p. 83). The event was a cascade, a situation in which some initial event triggers contagion-like behavior among socially connected individuals, either through the spread of influence or information. It is a typical outcome in active, highly clustered social networks.

Though not all ports held coffee houses, they all provided ample opportunity for interaction. Given the preoccupation of those abroad with making their fortune in trade, it is not surprising that conversations would turn to trade. While attending a dinner with the factors of Anjengo, William Larkin, then first mate of the *Durrington*, “learned what price he would get in ports up the coast for his fine Bengal silks, what Anjengo pepper and fine cloth and betelnut would fetch at Surat and the rate of exchange of the great variety of coins used in the trade.” (Sutton 2010: p. 59).

Captains would also have communicated information about the conditions and dangers of different harbors. Well into the eighteenth century, the Company did not provide adequate sea charts. Instead, captains would have to piece together their own information. Much of this was done through conversation: “Reliable printed sailing directions were very sparse, too, at this time, though commanders and officers with experience of sailing to the eastern seas would have acquired a vast body of lore through discussion” (Sutton 2010: p. 22).

Ships, Captains, and Decision-making

As each captain drifted into tropical waters, they had several considerations to weigh. They were piloting a roughly thousand-ton wooden ship into distant waters. Most frequently, their crew of one hundred or more men had already been dramatically reduced from death due to scurvy, malaria, or a host of other illnesses and parasites.²⁷ Those that remained alive might not

²⁷ Of those who left the employment of the English Company, sixty-one percent died. This comes to roughly thirty-five percent dead across different cohorts of service (Hejeebu 2005: pp. 508-509).

be operating at full capacity. The captain and crew braved these generally horrific conditions because they were attempting to secure a fortune to support an early and prosperous retirement.

On their first voyage the captains and officers were usually already in debt. It was common practice to pay the ship's owner in order to obtain a potentially lucrative position, such as captain or officer (Sutton 1981: pp. 72-3).²⁸ Uniforms and incidentals were costly. Additionally, initial capital was needed for individuals to participate in the private trade—in order to buy goods. Captains were paid only ten pounds a month for most of the Company's history (Sutton 1981: p. 73). They might make additional money by carrying passengers, whose fares went into the captain's pockets, but only the profits made through private trade could compensate them for their initial outlay.

After securing their position and readying their ship, captains received their shipping orders from Company headquarters at the East India House (Sutton 1981: p. 104). In 1720 the *Cassandra* was sent to Bombay. The Captain James MacRae's shipping orders included directions to take twenty-three tons of ballast, forty tons or more of specified goods, which if the ship was dispatched from Surat, Bombay, Karwar, or the Malabar Coast must be one-third pepper. Additionally the ship was not to stop at Madeira or the Canary Islands and was allowed four months for lading in India (Chaudhuri 1993: p. 64). As with most things in the Eastern trade, patronage played a role as captains and managing owners fought to obtain the better assignments for their ships. The managing owners would also have advice and directions for the

²⁸ As noted elsewhere, the Company did not build and own its own ships, but leased them in an effort to cut costs and distribute risks. The owners of the ships were called managing owners or ships' husbands. It was a prestigious position and many were directors and powerful stockholders.

captains of their ships (Sutton 2010: p. 20).²⁹ Roughly six to eight months and often several lives later they would be facing their first commercial decisions in the East.

Once at sea captains had a significant amount of control over the course of their ships. There is no question that they were determined to make their fortunes while in the East. On the other hand, their continued employment depended upon arriving at the port, or ports, assigned to them at the East India House in London. They had to consider the advice they received from their patron: the ships' owner. They might receive additional orders from Company factors and directors in the East, and on some occasions they may have been transporting important officials in the Company, who could complicate the authority structure on board ship. The formal destinations were determined by the directors in London, set in formal orders, and inscribed on the first page of the ships' log books.

In theory, captains could trade their own goods at the ports given to them by Company officers in London. And many did. Captains traded liquor and mechanical trinkets, such as magnifying lenses, for their own profit alongside the company's larger trade in tea, indigo, and cotton at well-established ports, such as Bombay, Madras, and Canton. It was also a common practice to divert ships to private trade destinations. Captains could—and did—legitimately fit in other ports-of-call on their way to obligatory destinations.

One captain might drop anchor at St. Augustine's or at any one of the several ports along the southern coast of Madagascar. There they could restock their provisions and buy slaves for sale in the Middle East or India. Even more frequently English captains headed to Portuguese or

²⁹ I have not found evidence that the managing owners did more than offer advice, suggestions, and perhaps guidelines to the more inexperienced captains.

Dutch ports to sell liquor bought in Madeira or the Azores. Edward Barlow, officer and captain of the English Company, recorded in his journals the many trips he took to Goa under orders from his commanding officer, who was pursuing a lively trade in the distilled liquor arrack (Lubbock 1934: p. 372). Captain Cummings of the *Royal Duke* missed the seasonal passage to China and determined to spend the time plying the trade along the Malabar Coast (Sutton 2010: p. 64). Whether pursuing Company or private trade, the captain would need to find a safe haven and good prospects for trade in order to conduct a successful voyage.

The analysis in this chapter considers whether the captains' decision about where to pilot their ships was informed by the experiences of other Company ships. Specifically I ask whether local information traveled laterally from ship to ship within the East Indies—without having to travel back to headquarters in London. Given the value of information in overseas trade, timely information would have been a significant advantage in pursuing both Company and private trade. As captains were operating under conditions of considerable uncertainty, the transfer of information between ships might also be considered a process of rational imitation, where captains imitated the last voyage of successful captains they encountered at port because they lacked information about the full set of commercial opportunities available to them across all eastern ports (Hedström 1998). Second, the analysis considers whether the organizational structure of the firm, which varied over time, had an impact on this lateral transfer of information, i.e. the use of these social networks to communicate information across ships. These two steps investigate the aspects of captains' social environment that conditioned their final decision to travel to a given port. Finally, I consider what impact these social networks had on the overall structure of Company trade. This final stage of the analysis links the individual

decision-making process of the captains to macro-level outcomes. The entire process then can be considered as a concatenation of dynamic network structures influencing a conditional-choice process at the level of captains (Rolfe 2009), which cumulate into new patterns of network structure. As a decentralized means of communication, social networks can serve as conduits for the transmission of vital local information that a large company, if receptive, may use to innovate and adapt to new market patterns. Thus at the company level, this process facilitated organizational learning.

Data:

The data used to address these problems is composed from the shipping records of the East Indiaman ships. I used these records to identify communications between ships as well as the organization's incorporation of information previously transmitted through informal links, i.e. lateral communications between captains. The data on the voyages of the East Indiamen ships has both methodological and substantive advantage. First, the Company systematically recorded the passage of the ships through their logs. Many large historical patterns can only be revealed by systematic data. The only other comparable sources are the shipping registers kept at various European ports. The problems with these shipping registers have been discussed in detail elsewhere (Dasgupta 1979: pp. 280-92, Subrahmanyam 1988: pp. 179-88, Arasaratnam 1989: pp. 104-6, Prakash 1991: pp. 131-40, Mentz 2005: p. 197, Parthesius 2010: p. 125). Registers are only available for certain ports at certain times and even within those periods, there are inconsistencies and grounds to suspect large biases in what was recorded. These problems would

be magnified in any attempt to collate the various registers into one large data set in order to consider the larger system of trade.

In contrast, the records of the voyages of the English Company ships are drawn from the ships' logs themselves, which are a reliable record of the paths of the ships.³⁰ There is also data on Dutch Company shipping (Bruijn, Gaastra, and Schöffer 1979-87); however these data have been collected from the shipping registers rather than the logs and are not directly comparable to the English Company shipping data. The English shipping data do not allow for an analysis of the larger pattern of all maritime trade in the East Indies region because it includes only English Company ships; however it does allow for an examination of systematic patterns in the English Company trade, and I confine my interpretations of the results to the mechanisms by which knowledge was transferred and incorporated within the English Company itself. This helps to clarify the specific means through which decentralization within the English Company contributed to its commercial success. The shipping data are intra-organizational data and are treated as such.

The ships are a compelling site for analysis because they are one of the loci of the extreme decentralization of control that occurred within the organizational framework of the East India Company. Hypothetically, the private trade and Company trade could have operated as distinct areas, although occurring at the same time. For example, when the private trade was considered illegitimate, private traders had strong incentives to minimize its impact on company operations in order to hide what they were doing. The same reason would lead them to keep their

³⁰ I discuss validity issues in the data section below. To be entirely clear, I am not claiming that the data are one hundred percent accurate all of the time. As with all large data sets, there is random error. However, overall these data give a remarkably good picture of shipping movement in the English Company's fleet.

private activities secret, in order to avoid suspicion or reprimand. Even when legitimate, if the private trade and Company trade were simply managed as separate concerns, they might have little direct impact on each other. Because the captains engaged in the private trade and had a significant amount of control over the course of their ships prior to the reforms of the late eighteenth century, they represent a site in which private and Company interests were intertwined.

The data on the ship's voyages came from the print volume, *The Catalogue of the East India Company's Ships' Journals and Logs, 1600-1834* (Farrington 1999). This volume integrates information from the journals, logs, ledgers, imprest books, pay books, receipt books, absence books, company papers, and voluminous correspondence of the Company. The initial stage of the project involved the electronic transcription of the information pertaining to all voyages of the English Company, supplemented by the collection of geographic data for the 264 East-Indies ports visited. The result includes a list of 1,480 ships (4,725 voyages) that were engaged in the English East India Company trade from 1601 to 1835 and geographic coordinates for all 264 ports. This includes ships whose voyages originated in Asia, the ships of the New East India Company, and country trade voyages on East India Company ships. All ships list the trading season in which they were active and ninety-nine percent include the intended destination. The captain of the ship is systematically listed and present in ninety-five percent of the voyages with ports recorded. Eighty-five percent of the entries for voyages contain a complete set of ports visited. Of the missing 724 voyages, 188 were terminated due to rotting, wreck, acts of aggression, and other misadventures. Inland trade is not included, however both

private and Company trade was generally restricted to the coast until after 1800 (Marshall 1993: p. 292).

This list of port-to-port trips is the centerpiece of the analysis since it forms the basis of the evolution of the trade network—each trip between ports constitutes the creation of an edge in the network and travel to a new port adds a node. As such, I took the step of verifying that the data recorded in the Farrington volume accurately represents the ports visited by the East Indiamen ships by consulting the original logs. The British Library holds the original ships’ logs in the India Office Records Collection. A stratified sample of 107 logs confirmed that the ports listed as destinations in Farrington (1999) were the same ports recorded in the original logs: dates and ports were correct in all cases.³¹

One may also question whether the purser and captain (the two officers usually responsible for maintaining the log and journal) recorded the actual passage of the ship. As described by the historian Miles Ogborn:

The journals... “were to guarantee to the adventurers in London of the performance of what they had ordered to be done, or at least that decisions made on the voyage did not contradict those orders. Where possible, they were to provide the foundation of succeeding voyages by providing knowledge of winds and shoals, useful ports and places of refreshment, good routes to take, supposedly friendly or treacherous peoples, good commodities and markets, and the extent of Portuguese and Dutch power as well as the orientations of Asian politics. These journals were collated, archived, and used by the Company in increasingly systematic ways in order to provide ‘navigational’ knowledge for subsequent voyages” (Ogburn 2007: p. 49).

³¹ This step may seem unnecessary since the Farrington volume is a catalogue of the ships’ voyages, but data is often systematically collected for a purpose that does not correspond with the intentions of those who use it. The sample makes it very unlikely that any systematic distortion of the data, as I use it, was introduced through some part of the data collection process.

The ‘guarantee’ mentioned above raises the possibility that the captains and pursers might omit ports from the logs that were not consistent with official orders and regulations – in order to hide transgressions from company officials. There is no evidence of such omissions. Instead, Portuguese and Dutch ports, legitimately off limits to English Company traders, are recorded in abundance. Prior to the late eighteenth century, the Company was simply not very concerned with regulating the course of entire voyages, as long as the ship did go to the port to which it was formally ordered at some point. Company officials were much more concerned with keeping the voyages on time, but changing the text of logs could not hide delayed arrivals in London.

There was also a practical reason for faithfully recording the voyages as they occurred. The log served as a navigational tool during the course of the voyage, tracking weather conditions as well as position. Without an accurate record, the ship would be lost, and therefore at risk -- good reason to keep an accurate record. Captains also directly relied upon data collected on previous voyages and stored in the logs. For example, William Larkin used William Dampier’s account of his travels when navigating through uncharted waters between Sumatra and Japan, and much of Alexander Dalrymple’s valuable work was based on close readings of East India Company logs (Sutton 2010: p. 83).

As an additional check on the validity of the data contained in the Farrington volumes I compared the voyages listed in the *Catalogue of East India Company Ships* (Farrington 1999) with the record of ships trading in China compiled by Hosea Morse (Morse 1926). Morse’s records came from the diaries of the supercargos until the formation of the Council of Supercargos, at which time the council’s records were used. Of the 211 ships listed by Morse, only four do not appear in Farrington. These ships, the *Dragon*, *Sunne*, *Catherine*, and *Anne* are

unusual in that they were sold at Macao. Remaining discrepancies between the two lists include the 1702 voyage of the *Macclesfield*, the 1702 voyage of the *Union*, and the 1741 voyage of the *Royal Guardian*. In these cases, according to Farrington, these ships did not visit China. Morse notes that the *Royal Guardian* was sent back from Bombay, and there are two consecutive dates associated with Bombay, November 29, 1740, and January 9, 1741, so it seems likely that a stop in Canton may have been dropped from between these two other port listings. The records of the *Macclesfield* and the *Union* do not offer a simple explanation and each ships had a relatively busy schedule of ports listed for their 1701 voyages. Morse on the other hand does not report thirty-five voyages that are included in the Farrington volume. A small minority of these may be accounted for by four occasions in which Morse includes a line stating “several others from Indian Settlements” or some variation thereof. All of which indicates that the voyage data is indeed significantly more reliable than the ships’ registers.

Despite what may appear to be problems associated with historical data, the ships’ records actually have some notable advantages when compared to contemporary data on social networks. The voyages carried goods and individuals, and through the individuals, they carried information. The interaction between individuals was, at this time, the main channel for the transmission of information and goods (there were no cellphones, email, telegraphs, etc.). Though emergency information could be communicated over a land route if seasonal weather patterns obstructed travel (Furber and Rocher 1997: ch. 5, pp. 105-106), as late as 1803 essential news regarding a declaration of war with France came to Canton via the brig *Ganges* (Sutton 2010: p. 215). These circumstances make this dataset exceptionally useful for tracking the flow of information in international trade. Whereas today, multiple information networks overlap and feed into each other, in the early modern period, people, in this case carried by ships, were the

central means by which information, written or verbal, was transmitted. The passage of information, goods, and capital were consolidated along a smaller number of available channels than in the modern world, of which the English voyages were a central conduit (Mentz 2005: p. 220), and this is a great advantage of the data.

Analysis:

Given the uncertainty and volatility involved in overseas trade in the pre-modern period, the problem of how captains made decisions to travel to one port or another is an interesting problem in its own right. One might for example be interested in whether captains relied upon personal experience more than they trusted information gathered from others. Nevertheless the central theoretical question in this chapter is whether increased employee autonomy increased or decreased horizontal communication between ships.

In the statistical model the dependent variable, which represents the decision of the captain to travel to a port, is operationalized as a directed tie between two ports. A tie occurs when a captain travels from one port to another. A tie between ports is necessary to the analysis because the captain's initial location affects the information to which he is exposed.³² At an elementary level, captains had three potential avenues through which to gather information: they could trust the orders given by the Company and use them as a means by which to identify profitable centers of trade (for the Company and for themselves); they could rely on information

³² Captains might also run into other ships at sea, but this would be an unsystematic, chance occurrence.

given to them by colleagues also participating in the trade; once they had amassed some experience, they could draw upon their own past familiarity with ports in order to make informed decisions about new prospects for trade. The analysis assumes that a captain could in principle consider travel to any of the 264 ports visited by the Company. To control for the popularity of any one port, the data was fit using a fixed-effects logit model to estimate how the probability of choosing a particular port deviates from a baseline probability—the baseline probability captures the average popularity of each port.³³ The model distinguishes between the effect of formal orders, social networks, and personal experience in addition to incorporating several control variables. If having information about a particular port through social networks makes captains more likely that a particular port will be chosen (above a baseline expectation), the coefficient for social networks should be positive and statistically significant.

The baseline probabilities, i.e. the fixed effects, include components for the directed dyad, season, and time period. Including the directed dyad component controls for time-invariant factors such as the relative geographic location of two ports (for example, the distance between them), but also prevailing winds and currents that might make the voyage in one direction easier than the other. As an example, due to the winds in the Atlantic, ships sailing from England to Cape Town generally included a stop in Brazil, while the reverse route followed the African coast and included a stop in St. Helena. For many commodities, the source locations are stable and hence are effectively controlled for as well. The season component, defined as three-month periods, allows for regular variations in weather patterns, primarily monsoons and hurricanes. Finally, the period component allows the baseline probability to vary over time as the popularity

³³ For those unfamiliar with the term a logit model is used for situations with binary outcomes. In this case, did a ship travel to a specific port or not.

of the ports may have both grown and declined. Periods of forty years, which roughly corresponds to the pace of change in terms of shifts in the major commodities traded, are included as an additional control. Shorter periods run the risk of controlling for exactly the short-term changes in port popularity that arise from the effects of formal orders, personal experience, and social networks. As an additional check, the model has also been estimated with baseline probabilities defined within periods of twenty, sixty, and eighty years with similar results.

Before proceeding to a description of the independent variables, one last note should clarify the set up of the statistical model. If the baseline probability of a particular choice of next port is zero, i.e. that port is never the next destination after the current port in the current season and period, it is dropped from the estimation. The true choice sets thus include only those choices that actually occur. This means, for instance, that ports established after 1700 do not appear as viable alternatives in 1640. Additional models were estimated where ports entered the choice set five and ten years prior to the first visit and exited the choice set five and ten years after the last recorded visit. Again, the results of these models were very similar to what is presented here. This similarity suggests that the period component of the baseline probability is sufficient to control for the appearance and disappearance of ports in and out of the trade of the Company.

Social Networks:

When engaged in risky ventures, many individual turn to information drawn from social networks to make financial and commercial decisions (Powell, Koput, and Smith-Doerr 1996, Powell 1990, Gulati 1995 1998, Raub and Weesie 1990, Fried and Hirsch 1994, Sorenson 2003, Burt and Knez 1982, Baker 1984, Faulkner and Anderson 1987, and many others). Trust plays an important role in the decision to form and use social networks. The strength or durability of a relationship leads actors to trust the information they receive through social contacts. If captains used informal networks in their decision to travel to foreign markets, it is likely that they relied on the information passed through the network of the voyages of their compatriots, who shared a common culture, language, and a similar set of problems. This preference is indicated by contemporary research on homophily and trust (Lazarsfeld and Merton 1954, McPherson, Smith-Lovin and Cook 2001) as well as historical work on trust bound by (or constructed through) ethnic and religious similarities (Bosher 1995, Breen 1985: p 84, Curtin 1994, Grofman and Landa 1983, Hunt 1996: p. 22-23). Organizational theorists also suggest that it is more likely that trust and cooperation develop into social networks within firms when organizational affiliation is a meaningful category for individuals in foreign environments (Simon 1957: pp. 278-295), as was the case with the English Company.

Although they were operating in a cosmopolitan environment, the majority of employees of the East India Company were bound by strong community ties.³⁴ The rank of captain was a significant role in the Company that brought with it considerable prospects for amassing wealth through the private trade. In the highly stratified society of Britain at this time, this meant that

³⁴ An important exception would be the lascars often hired in Asia to man return voyages when a ship's crew had been depleted through death and desertion. Lascars would have access to their own local networks of information; however given their subordinate status it is unclear to what extent they would have been allowed to influence or even communicate with the captain of the ship.

the position was reserved for individuals of higher social status with existing ties to powerful interests within the Company. For most of the Company's history, captaincies were bought and sold by the managing owners. Exceptions occurred when the captain died en route (Sutton 1981, p. 61, 70-72). In these cases, the captain would be replaced by the first mate, who would also have had to be a person of at least some significant social standing—if not as highly connected as the captain. Captains were therefore bound both by similar class standing and a network of indirect ties linking them to ships' owners.

The crew of the outward-bound ships also appears to have belonged to a distinct community. According to Jean Sutton the crew was chosen from the families that had settled along the Thames. The men were identifiable by their striped clothing, canvas jackets, and brightly colored ribbons (Sutton 1981: p. 85). The fact that captains and crew were bound by strong within-group social ties makes it extremely plausible that they would have at times communicated trusted information to each other. It has even been argued that the success of British merchants depended to a large extent upon their “unbounded trust to one another” as a contemporary Dutch merchant put it (Price 1989: p. 273). As Jacob Price notes, this trust was crucial to the credit supply. In reviewing the tight links between the economies of London and the private traders of Madras, Søren Mentz has summarized the situation by saying, “Company servants left England to seek social mobility, but they did not abandon their social network and cultural background when they took off on board the Company vessel destined for Asia.” (Mentz 2005: p. 49).

If social ties make it likely that captains would have communicated information to one another, historical evidence, discussed earlier, has provided direct evidence that face-to-face

interactions were used to transfer valuable market information. All of which indicates that peer interactions were a source of information for employees abroad. Existing historical knowledge does not, however, give a systematic picture of the impact of social networks on the organization and its trade. In order to gauge the importance of social networks, a statistical model is necessary. By including control variables, the model allows for an examination of the relative importance of social networks compared to other information sources and additional factors that might have affected captain's decisions. It does so by controlling for these factors. And, importantly, it allows for an evaluation of how organizational structure, specifically the decentralization of control over ships, affected the use of social networks.

Using a model requires operationalizing the social networks that linked the ships of the English Company. This means identifying the mechanisms through which information may have been laterally transmitted between different units, i.e. ships. East India Company ships were dispersed across Asia, but they came into regular contact with each other at ports. If informal relationships between employees were used to transfer information, regular opportunities to communicate arose when English captains and crews shared the same harbor. If the port held an English factory, that factory served as the living quarters for all company employees in that area. In many ports, local governments curtailed English access to the larger social and residential life of the area. The English, as well as most other foreign merchants, were consigned to merchant ghettos, called *nattios*.³⁵ In these cases, the factories became the center of English social life overseas. At factories, Company employees ate together (Ogborn 2007: p. 88), further facilitating the collection and transfer of information. When senior officers did not stay in

³⁵ The *natio* system predated a European presence in Asian trade.

factories, but instead rented out private homes (such as in Madras), they were expected to engage in the busy social life of ports (which would have picked up considerably as ships came into dock) by attending events such as receptions and parties (Sutton 1981: p. 61). By the nineteenth century in Calcutta, they might attend a ball, public reception, the theater, or a concert – all stops what had become a regular society social circuit (Webster 2007: p. 1). In Canton, captains, supercargos, and ships' passengers of note dined together every day at two o'clock in the afternoon (Sutton 1981: p. 61). In the evenings, they were often entertained on the lavish estates of Chinese merchants (Sutton 2010: p. 97).

It follows that each captain should have been able to access information about the ports visited by each of the other captains anchored or recently anchored at the same port. The set of captains who crossed paths at ports is effectively a reference group that allows network effects to be traced out. Although competition between ships and captains must have existed, information hoarding and deception would have been unlikely given that the entire crew would have to agree to withhold all information or lie about their past whereabouts. In addition, ships that had just traveled from a port were also less likely to be interested in returning to that port, so they would have more to gain from exchanging valid information about potential destinations, than in hoarding information of little remaining value to themselves.

The frequently overlooked issues of timing and scheduling, considered in greater detail by Christopher Winship (2009), are a crucial component of the larger mechanism of information diffusion within the shipping network. Overlap at ports is the basic mechanism that allows for the transmission of information from captain to captain. Taking the timing of port overlap into account injects a significant amount of dynamism and complexity into the network structure,

which cannot be captured by static structural analysis that in effect combines many actors' viewpoints into one larger map. That is why, in this chapter, network structure is operationalized as the local structure perceived from the vantage of each ship as it sat ready to embark on a new port-to-port trip. This local structure is then incorporated as a variable into a decision-making model of captains' choices to travel to different ports.

The exact overlap between voyages at the different ports is unknown in many cases because the data systematically reports only arrival dates. However 1,012 of the 14,065 trips that were completed between ports within the lifetime of the organization did list arrival and departure dates. A sample was used to estimate the standard duration for voyage overlaps. The sample was drawn from all voyages, but only voyages with complete departure and arrival dates that occurred within the sample were used to calculate the final estimate. For these seventy-two trips the average stay in port was 3.62 months.

If the factories provided a home away from home for the English overseas, residents of the factories should have been able to store information that could then be transferred from ship to ship without direct overlap. However, the information would have to be timely to be useful. In order to address this possibility, I considered the probability that a captain would be influenced by information left at a port one month, two months, three months, etc., prior to their arrival at the port. There was a sharp increase in the number of times captains traveled to ports recently visited by other captains that had departed four months prior to their arrival, which leveled out at five months onward. This natural break indicated that information continued to be most useful for periods of four months, but had little influence on captains after that period – most likely because it was no longer timely. The model includes this additional four months when

calculating the potential for information transfer between ships, although model results are robust to variations of this estimate.³⁶ A small number of voyages originated in Asia. In these cases it is assumed that they gathered information in the port four months prior to departure to make preparations.

Using the supplied arrival times and the imputed departure times, and taking into consideration the possibility that factors—or others in the factory—may have held and transferred information between ships, it is possible to assess which captains had an opportunity to get information from the travels of other ships. If a captain was both exposed to information about a port by his colleagues and chose to travel to that port, the variable *Network* was coded as one. For example, Captain Robert Hurst brought the *Averilla* into Bencoolen on November 30, 1714. One month later, while the *Averilla* was still at port, the *Banjarmassin* arrived in Bencoolen under the command of Captain Thomas Lewis. The *Banjarmassin's* first stop in the East Indies had been at Batavia. Three months later the *Averilla* departed Bencoolen bound for Batavia as a last stop before returning to the Atlantic. Since the ships sat in port together, captains and crews had the opportunity to share information about their voyages. Because Captain Robert Hurst seems to have acted on that information, the *network* variable is coded as one. If he had gone to a port not visited by the *Banjarmassin* on its current voyage, it would have been coded as zero. The model controls for other factors that could have influenced Captain Hurst, such as the distance between ports, seasonal weather patterns, port popularity, personal experience, and others.

³⁶ There was almost no change in results based on three and five months storage periods.

It is worth noting that the variable is capturing the use of information made available through relations between employees in the East, not the presence of relationships. Instead, relationships are assumed as employees came into regular contact with each other at port and were known to engage in extensive social activities with each other. Also, information could be gained from outside of the English network of trade via other Europeans or Asians. Similar systematic data on the voyages of European and Asian ships is not available and therefore cannot be included in the analysis. There are however reasons to believe that the rate of potentially profitable information transferred between resident Asian merchants or other Europeans and English East India Company employees would be lower than within firm rates of transmission.

Other Europeans were present in many of the ports visited by the English Company; however they were not housed in the same quarters, as was the case with Englishmen. Therefore there is no regular mechanism for face-to-face interaction. Other Europeans were also potential trade partners, from whom a profit could be made, but not necessarily likely confidantes as rivalries dominated relations between companies. Similarly although English factors would have come into regular contact with Asian merchants while in port, it is less clear to what extent captains would have had the same opportunities. There also seem to have been significant boundaries to the construction of cross-cultural relations. The relationships between factors and resident merchants were consistently strained. For example, in Madras, the English factors suspected each merchant they dealt with of some form of treachery (Mukund 1999: pp. 64, 68, 70-72, 109, 111-2, 115). Similar complaints were made of the Hong merchants in Canton. Generalized forms of discrimination were also present. Madras for example was racially segregated. The generally poor treatment of elite Asian merchants, extremely poor conditions for

lascars (Asian sailors that often manned return voyages to Europe) (Lahiri 2002: p. 180), and the use of racially-charged epithets all indicate racism had entered the larger discourse of the English in Asia as early as the 1700s, if not before (Nightingale 2008: p. 61).

It is more likely that captains would have trusted information gathered by other British officers or traders on private trade voyages conducted off Company ships. Unfortunately there is also no systematic data on smaller private English vessels owned by factors or free merchants. Very prosperous English private traders could amass small fleets of country trading ships. Soren Mentz considers a contemporaries estimate of the size of Richard Mohun's fleet, fourteen ships, to be an improbably large figure (Mentz 2005: p. 166).³⁷ It came from the letter of an individual accusing Mohun of misconduct and was probably intended to ruin his reputation in London. The existence of private trading ships does mean that the results of the analysis are a potentially conservative measure of information transmitted between Englishmen, although the information would have come from individuals acting outside of the Company framework.³⁸ Because I cannot include data on private voyages of European or Asian merchants, I restrict my claims to the transfer of information within the firm—rather than across firm boundaries.

Personal Experience:

³⁷ Richard Mohun was chief factor at Masulipatnam in the late seventeenth century, when it was a central hub for English private trade.

³⁸ In the colonial period, factors were increasingly forced out of private trade. The free merchants who took their place were English, but not engaged with official Company business.

Besides peer networks, captains also had access to the store of information they accumulated during their own travels in the East. The disadvantage of personal experience is that it is limited when compared to the information available through social networks and more likely to be out of date. On the other hand, personal experience may reflect trusting relationships across firm boundaries or a deep cultural knowledge of sites that cannot be easily transmitted to others. In this sense, personal experience could reflect a different set of social networks, those networks stretching outside of the firm's boundaries. In other words, personal experience could also be conceived of as the accumulation of past relationships created outside the boundaries of the firm.³⁹

It is possible to see personal experience in an individualistic light. It is reasonable to expect that in competitive circumstances, individuals will prefer to rely upon their own experiences, rather than trust others for reliable information. Up-to-date information about prices and goods was invaluable for making the fortunes of foreign traders: there was frequently a large difference in profits for the first ship to port and the second. This difference makes it possible that captains might have hoarded commercial information. The expectation that captains would rely solely upon personal experience is most in line with classical assumptions about decentralized actors in market situations. Following Adam Smith, it is the self-interested actions of individuals that create the greatest value for the whole. Narrowly conceived, this would lead to the expectation that captains relied exclusively upon personal experience to pursue their own interests; social networks did not drive the trade. If this was the case, the distributed autonomy of

³⁹ An anonymous reviewer suggested this framework for conceiving personal experience.

the captains and crew would not have contributed to the overall efficiency of the organization through coordinated activities.

In either case, personal experience is a potentially crucial source of information for captains that must be disentangled from information transmitted through peer networks. In a trade network such as this, information is not only transmitted through the network, *it traverses the network* as actors move from location to location.⁴⁰ Personal experience captures the movement of information as it is carried and accumulated by the individuals that traverse the network. It is recorded in the data as a binary variable: one if the destination port is part of a captain's past repertoire, zero otherwise.

Organizational Experience:

Distinct from the experience captains had in specific ports is the professional experience acquired by each captain within the organization. Captains' tenure in the organization was measured by the count of voyages he had taken prior to the current voyage.

Formal Organizational Goals:

⁴⁰ This dual movement, transmission and traversing occurs in many real-world networks, i.e. transportation, migration, and trade networks.

Captains were ordered to proceed to particular ports by company managers at the outset of their journey. If they were to abide by the terms of their contract, captains were obligated at some point in their voyage to journey to the destinations indicated by the board of managers in London.⁴¹ However, as described earlier, there was leeway as to exactly when the ships touched ashore at these ports.

The formal destination for each voyage was noted in the first pages of the ships' journals, and systematically recorded in the comprehensive catalogue of ships' voyages (Farrington 1999). However, these directions were occasionally vague. When an area was listed rather than a port, the site of the major English factory in that region was used. For example, if Bengal was listed, Calcutta was used as the formal destination of the voyage. The reasoning behind these decisions was that imprecise directions are only possible when general knowledge is high; therefore, vague directions are only given if the most obvious answer is the correct one. If the listed destination was too imprecise, i.e. the East Indies, it was not replaced. Centers of English Company power, such as the presidencies, were also treated as formal destinations (for example, Madras, Bombay, and Calcutta). Captains pursuing their own trade were unlikely to make unofficial stops at these official ports. A sample of ships' logs confirmed that uncommon destinations were noted in the first pages of the logs.⁴² Common destinations, i.e. Bombay and Madras, could go unnoted although they were part of the official route intended for the ship by the board of directors. A dummy indicates formal destinations. Since additional information about a formal destination

⁴¹ Directions to captains are often listed in the first pages of ships logs and appear scattered through the paperwork associated with each voyage, bound in separate volumes in the India Office Records division of the British Library in London.

⁴² This is almost certainly the case because exploratory voyage were prestigious appointments.

would be beside the point—and captains would be more likely to have information about those formal destinations as they were heavily trafficked—this is an important control.

Factors or directors in the East may also have ordered the captain to certain ports, although it is more likely that they would have consulted with the captain—and other captains present at port—as to the best course of action. Factors were also heavily engaged in the private trade, so orders to captains may or may not have been related to official Company trade. Such orders would often have been verbal, and there is no systematic record of such orders, so they cannot be directly included in the analysis. In any case, factors' orders were part of the localized decision-making apparatus of the Company and provide further evidence of the decentralized organizational structure. In the analysis, they are conceptualized as a colleague's influence on the captain's decision and are discussed in the section on social networks.

Organizational Regimes:

The model is divided into three periods, representing different stages in the organizational history. As reviewed in chapter three, from 1600 to 1674 the English Company was in an initial exploratory phase—the firm's main goal was simply to establish itself in the complex commercial worlds of Asia and the Mid-East. Private trade was not entirely legitimate, but also not well controlled. From 1660 to 1680 several pieces of internal legislation were passed expanding the private trading privileges of the company employees, with a major piece of legislation enacted in 1674. The model incorporates 1674 as a marker for the beginning of this

second phase in the company's history. In the second phase, the company reached maturity while also incorporating a large amount of autonomy for its employees through private trade allowances. I often refer to this period as the private trade period. In 1757, the Battle of Plassey was fought, beginning the colonial phase of the Company's history. As described in chapter three, the autonomy of the captains was significantly reduced during this later phase. The regulatory shift lagged behind the organizational shift, as shown by the Act of 1776 outlawing route deviations. However it was in 1757 that the organizational goals and incentives were redirected.⁴³

Additional Control Variables:

Since the manner in which formal orders, personal experience, and social networks varied over time is of central interest, there is a risk that other factors might vary over time in the same way (as these factors) and, in fact, be the causal force behind the estimated correlation. That is, captains could for instance be relying more on social networks not because of organizational changes but some other change in their circumstances that correlates with the organizational changes. To remove that risk, three additional potentially confounding variables are included: wars, changes in the commodity composition of trade, and periods in which the Company monopoly was under threat.

⁴³ The model was also estimated using the 1776 date as a cut off. The results showed the same pattern, but were slightly weaker, suggesting that 1757 was the real start of organizational change.

During times of war, timely information is at a premium. Running into hostile ships could be dangerous, as well a hindrance to trade. When Henry Middleton brought his ship into a promising port in the Bay of Cambay, they were surprised by Portuguese ships in harbor. The ships picked up off stray English attempting to reach ship or shore, while blocking access to much needed provisions (Sutton 1981: p. 63). More than a century later, the *Edgecote* was able to successfully evade French ships trolling off the Coast of Malacca after picking up information warning of them at the port of Queda, where the *Hardwick* and *Wager* had recently stopped (Sutton 1981: p. 110).

When conditions shifted suddenly, dated information from London, captured by formal orders, was likely to be less useful, whereas, timely, local information carried through social networks was likely to carry more weight. Therefore, wars are likely to reduce the importance of formal orders and increase reliance on social networks. However, wars with Asian powers were generally fought on land and may affect the trade less than wars with the major European powers. To capture these differences, variables for war with European and Asian powers are included separately in the model and coded one if a war was in progress.⁴⁴

The initiation of trade in a new commodity is also likely to affect patterns of information use. Attempts at quickly finding the best sources for valuable new commodities may increase reliance the benefits of timely information from social networks while reducing the value of formal orders. There were several periods in which a rapid expansion in the trade of a particular commodity took place. The importance of cotton increased dramatically from 1660 to 1685. Tea

⁴⁴ The war data came from ICPSR studies Great Power Wars and Major-Minor Power Wars (Levy 1989, Midlarsky & Park 1991).

consumption in Europe rose from 1717 to 1722. Coffee's share of the trade rose from 1700 to 1710. These shifts in commodity and port composition are controlled with dummy variables, coded one in the period of expansion. Although the East Indies trade included hundreds, if not thousands, of specific exotic items of trade, these commodities cover the essential, large-scale shifts in import patterns.

Finally, there is also a control for the period when the Company's charter privileges were not renewed by parliament and a rival company was formed. The Company's charter failed to pass in the Commons in 1694. In 1698 a rival company was formed. Through various strategic machinations on the part of the old company, the two were merged in 1709. Political contention over the management of the Company continued through 1711 (Carruthers 1996: p. 149). Because this confused situation could have reduced the power of the principals, and hence reliance on formal orders, this period (1694-1712) is included in the model (*Two Companies*).⁴⁵

Results:

Table one presents the basic results in the column labeled model one. Formal orders, personal experience, and social networks are all highly significant. In model two, interaction effects with organizational tenure have been added. The results suggest that the importance of both formal orders and social networks decline over the career of a captain, with the importance of peer influence declining more than the importance of orders from the principals. As

⁴⁵ The Courteen Association, formed with the permission of Charles 1, was another challenge to the monopoly of the Company; however it was much less successful and is not generally regarded to have constituted any real threat to the old East India Company (Prakash 2002: p. 2). Therefore it is not included in the analysis.

experience within the organization grows, less attention is paid to others, whether principals or peers. This finding does not directly relate to the larger argument, but provides additional reassurance that network indicator is capturing the transfer of information between peers—since we would expect this to decline with experience.

Table 1 about here

Table two presents the main findings regarding how the impact of formal orders, personal experience, and peer networks on captains' decisions changed over time. In this model, each of the main variables were interacted with the period variables to capture how their impact changed within the different organizational regimes.⁴⁶

Table 2 about here

Model one in table two includes only the main variables of interest. The model shows a mild increase in the importance of formal orders when the private trade period begins and a larger increase in the colonial era. Model two includes the control variables. As model two demonstrates, wars did reduce the importance of formal orders. Likewise the period of managerial instability and the creation of the New East India Company saw significantly lower weight paid to formal orders. Again, these findings make substantive sense, although they do not bear directly on the question of interest. The addition of controls does not produce a change in the importance of formal order over the different time periods from model one. Both models

⁴⁶ Since the exploratory period, private trade period, and colonial era jointly cover the entire lifetime of the company, no main effect was included.

suggest that the principals in London tightened their control of the organization when the colonial era began. Column two in table three confirms that the beginning of the colonial era marked a clear and significant change in the strength of formal control.

Captains' personal experience shows less responsiveness to organizational change. It is weak in the first phase and grows in the later periods, but as shown in table three, these changes are not statistically significant. As shown in model two of table two, neither war nor trade seems to have had much of an impact on the use of personal experience. Hence, it appears that personal experience played a significant, but stable role in the trade.

Table 3 about here

Social networks on the other hand are much more sensitive than the other variables to transformations in the organization. In the initial exploratory phase, social networks are highly significant, and they maintain their importance throughout the private trade period, though at a slightly reduced level. However, during the colonial era, networks cease to be significant—this is during the same period in which the importance of formal orders increases. The pattern is strengthened when the control variables are added in model two. As predicted, war leads to greater dependence on social networks. This finding is statistically significant for war with France and Holland. The coefficient for wars with Asian powers is not significant, but is positive. This difference can be explained by the larger impact of European wars on ocean traffic. Table three confirms that the changes in the importance of social networks across the three periods are statistically significant, particularly after the control variables are included. The

results indicate that social networks were active within the firm until the increasing centralization of control in the post-Plassey era.

Impact on Trade:

In this section I evaluate the larger impact of social networks on Company trade and present evidence that the circulation of local information in the East increased the number of ports engaged in trade with Company ships in any given year.

In the overseas trade of the Company routes between ports represent commercial opportunities for trade. For example, the frequent passage of ships from Calcutta to Canton indicated the high price of Bengali opium in the Chinese marketplace. For the English Company, exploiting existing opportunities meant sending more ships on previously established routes, in order to pursue well-known profits. Figure three demonstrates that formal orders from the principals consistently steered the trade to ports of above-average popularity, measured as the number of visits to that port in the prior twenty years. Social networks on the other hand directed trade to less-well served ports, with the exception of the last forty years of the company's life when social networks did not affect captains' decisions about where to trade.

Figure 3 about here

Information transmitted through social networks created a larger set of known options for captains to choose from when directing the paths of their ships. The information they received

was reflected in the choices they made, and their individual choices cumulatively impacted the trade network as a whole. In order to see this effect first consider a simple chart of the number of ports visited by English Company ships, represented in figure three. The initial burst of exploration evident at the beginning of the Company's existence is sustained for the first few decades of the seventeenth century, but inevitably dips during the political turmoil of the 1640s and 50s. In this period, very few ships were actually sent out to sea. After securing a political alliance with Oliver Cromwell, the Company rebounds and we see the only period of consistent expansion. This prolonged episode occurs in the private trade period (1674-1757). In 1760, at the peak of the Company's power in the East and the point at which the owners were able to reassert control over the captains, we see a marked decline in the number of ports visited.

Figure 4 about here

A simple count of the number of ports included in the trade network on a yearly basis does not entirely capture the number of ports currently engaged in trade with the English Company. The Company had limited resources, particularly in the early years, so although it could have a good trading relationship with a given port, it may not have been able to send a ship to that port every year. Ports actively engaged in the Company trade are therefore not necessarily only the ports visited within a given time frame. They are instead those ports to which the Company repeatedly returned. Repeat visits indicate the sustained engagement necessary for a trading partnership. Figure five reports the number of ports actively engaged in trade, i.e. those ports to which the Company repeatedly returned over time. These ports also drop in and out of the trade network when the Company ceases to consistently return to a target port.

Figure 5 about here

Figure five clarifies what occurred to the trade network in the 1640s and 50s. Although the Company was not able to visit all ports each season—or even every two or three seasons—they did not give up trade with those ports. In fact, after the initial exploratory burst of the first years in the East, the Company was able to sustain a relatively stable number of trading partners. Another exploratory burst occurs in 1700, and again, the company manages to sustain relationships with a relatively stable number of ports from 1700 to 1760. In 1780, the number of ports peaks and we see the only sustained period of decline in the trade network from that point onward. Reliance on formal order concentrates the trade on a small number of ports. In contrast, in the earlier periods, information that flowed through social networks increased the likelihood that captains traveled to more destinations, particularly destinations off formal routes, thereby increasing the total number of ports engaged in trade – given the resources available to the company.

This relationship becomes particularly clear if we plot the number of active ports against the number of ships the English Company was able to send out to sea.⁴⁷ The lighter line in figure six represents the total number of ships employed by the Company. The investment in ships was initially small, so the level of participation in Eastern trade was low. The company began to pick up steam in the late seventeenth century. Steady growth occurred throughout the next century and investment spikes rapidly in the final years of the 1700s. The number of active ports, by contrast, begins to peak in 1750, when the investment in ships was still relatively low, and less

⁴⁷ Not all of these ships actually made it to the East. In particular several voyages failed in the 1640s and 50s.

than half the number reached at the turn of the century. Figure six reveals that not only did the Company sustain trade with more ports when social networks were active within the firm, they did more with less. The change in the number of ports does not necessarily mean that Company profits fell; it does however indicate a clear shift from a pattern of exploration to one of exploitation, in which the firm concentrated their efforts on known competencies, in this case, ports and markets.⁴⁸

Figure 6 about here

The direct role of social networks on incorporating many of these ports into the larger trade network is documented in the next graph. Figure seven breaks down ports by how information was first distributed about them when they entered the Company trade network. Ports are marked as formal order ports if formal orders first directed ship captains to that port. Similarly for personal experience and social networks.⁴⁹ The result is striking: forty-five percent of new ports were visited based on information transmitted via social networks.⁵⁰

Figure 7 about here

⁴⁸ Exploitation in this sense has no moral overtones. It indicates a situation in which firms exploit known resources or specializations, which could be something as harmless as producing only nuts rather than nuts and bolts. I address this issue as colonialism is also fraught with a more negative sense of exploitation that I do not address here. It is also worth noting that although Company profits fell in the colonial period, this is generally associated with the costs of war and governance rather than trade decline, although it is very difficult to disentangle the two.

⁴⁹ Although personal experience and social networks require a previous voyage, some trips are not associated with any of these types of information. If a first trip to a port is not associated with formal orders, then the subsequent trip may be either based on social networks, personal experience, or formal orders.

⁵⁰ These ports include only those visited over ten times.

The use of social networks had direct consequences for the pattern by which the firm pursued trade. These patterns had structural consequences for the larger network of global trade within Asia and between Asia and Europe. Social networks expanded the portfolio of active ports and reduced the concentration of trade on any one port. The captains effectively used their autonomy to explore local opportunities, straying off established paths. When the Court of Directors asserted control, from 1757 to 1833, personal experience continued to influence captains' decisions about where to trade, but the effect of social networks disappeared and the concentration of resources on a few ports dramatically increased. The use of networks increased the size, scope, and sustainability of global trade, but only when the Company was decentralized.

Conclusion:

The directors of the English Company long suspected the existence of dense, shadowy networks of conspiratorial actors attempting to direct the course of the eastern trade (Ogborn 2007: p. 98). How those networks actually affected the formal trade of the English Company escaped them. It turns out that social networks in the east circulated information about potential ports-of-call. When captains drew from their social networks to make decisions about where to trade, they tended to go to less-traveled ports. Because these ports would have otherwise disappeared from English routes, captains' use of social networks increased the overall size of the English Company's trade network.

We know from documentary evidence that country traders, not necessarily operating on English ships, kept an English presence alive in Siam (Bassett 1989: p. 633) and initiated trade at Hanoi (Bassett 1989: p. 634). Also, information passed from informal ventures to formal operating decisions. For example, D.K. Bassett documented that Kedah was given preference over Aceh as an outlet for opium and piece-goods based on the informal advice of private traders (Bassett 1989: p. 640). The research in this chapter shows that informal networks were a regular feature of the process of information procurement and disbursement.

The use of networks mattered for the development of trade because it expanded the range of possibilities open to any one individual. Social networks might be expected to increase clustering and regionalism within trade, and in a larger sense they do—networks do not bring new ports or regions into a trade network. By definition, they pass along information about ports already present within the network. However, by circulating information about any one port throughout the network, they increase the likelihood that smaller ports were incorporated into the larger trade on a permanent basis. For example if a merchant in Quang Nam gave an English captain a good price on a shipment of porcelains in the hopes of breaking into the European market, he was affected by the use of networks within the English firm. If social networks in the English firm were depressed, the porcelain merchant had to rely upon the one captain for continued business. If networks were in use, news of the successful transaction could filter out to other English captains, who were then likely to visit the port. And each additional voice was another chance that London might hear of good trade prospects as well.

Captains that drew on their social network for information were inevitably presented with a larger portfolio of information on possible ports of trade, thereby increasing the options

available to each captain. This process led to an increased English presence in a larger number of ports—a factor that contributed to the success of the English trade. Going to new ports exposed the Company to more types of goods. The entire process of information diffusion and circulation involved several smaller mechanisms, including dynamic network processes, decision-making conditioned on social environment, social trust, as well as schedule coordination between ships, which was largely a byproduct of traffic at more popular ports. When the private trade period ended, with the onset of the colonial period in 1757, crucial pieces of this larger process stopped functioning and the effect of social networks disappears.

After Plassey, and particularly in the nineteenth century, inland trading became increasingly important to the Company and its servants (Marshall 1993: p. 292). One alternative hypothesis explaining the shift in social networks use is that informal networks moved to the interior. The question of increasing inland trade is not at stake in this analysis, but, as figure five should make clear, in terms of the number of ships, the maritime trade of the Company expanded in the colonial era, although in a concentrated fashion. Since there was no decline in maritime trade, there would be no reason to expect a decline in networks—unless of course the new organizational structure suppressed them. This suppression was one of the unintended consequences of the centralization of the organizational control that accompanied the Company's conversion into a political and territorial entity.

CHAPTER FIVE: Decentralization, Corruption, and Market Structure

In the preceding chapter, the analysis shows that when the English Company had a decentralized organizational structure, which is to say that significant autonomy lay in the hands of employees, social networks emerged that encouraged the transmission of local information and led to the incorporation of more ports and goods into the English trade network. A heterogeneous mix of captains and private traders participated in these social networks. Many captains successfully wove their personal business interests in with the company trade without directly disturbing the conduct of official business. Others put their personal profit ahead of the obligation to abide by company rules. This chapter focuses on these malfeasant private traders.

Unknown to the company, opportunistic employees who passed beyond the boundaries of legitimate behavior provided another unlooked-for benefit by increasing the connectivity of the English Company trade network in Asia. They linked the firm, ports, and regional economies into a complex multilateral network of exchange that increased the potential for information flow within the firm, thereby helping to integrate unit operations. Through their explorations of private business opportunities, these employees also brought new ports into the trade network.

The effect of the malfeasant private traders can be measured through further analysis of the trade network they helped to create. Decentralization affected local communication patterns and increased the number of ports included in trade. Through malfeasant actors, decentralization also impacted the global, or macro, structural pattern through which ports were linked together. The trade network of the company spans the 234 years of the company's existence as a commercial enterprise, from 1601 to 1835 and represents the set of port-to-port linkages

(26,000+ trips) for the 4,572 voyages undertaken by the Company and recorded by Farrington.⁵¹

By looking at images of this network as it evolves over time, it is possible to observe the emergence of a dense, fully integrated, global trade network—and to piece out the effect of malfeasant private traders on the structure of that network.

Without the opportunistic free-riding of the malfeasant captains taking advantage of high levels of decentralization, the Company's trade network would have fallen apart into discrete, disconnected regional clusters. When the English Company rounded the Cape, markets across Asia and Europe were linked, but did not form a cohesive whole. The structure of overseas trade was "horizontally" integrated through overlapping segments. The global economy was fragmented into linked but substantially separate markets.

In Asia, the gradual erosion of past trade relationships and discontinuities introduced by the Europeans have led researchers to speak of the various "systems" (Lombard 1981: p. 181), "networks" (Marshall 1993: p. 294), "commercial regions" (Chaudhuri 1978: p. 193), "worlds" (Braudel 1992b: p. 533), or refer to "a network of inter-connected systems" (Arasaratnam 1995: p. 15), "interlocking circuits" (Barendse 1998: p. 5), and describe them as "dispersed", "loosely-jointed" (Das Gupta and Pearson 1987: p. 42), or segmented (Prakash 1997: p. xvi). It was not one 'system' in the sense that we think of the existing global economy. This is not to say that trade in Asia had not been better connected in ages prior to 1600. Significant evidence suggests that the economies of Asia had been better integrated, but cohesion was declining when

⁵¹ Although the monopoly was dissolved in 1833, the last voyage sent out prior to its dissolution did not return until 1835.

European began to use the sea route to Asia. This decline may be one reason the Europeans were competitive, as it provided a large structural opportunity for arbitrage.

With the help of the opportunistic employees, the English Company wove these loosely integrated commercial regions into one densely connected network that increased the potential flow of information between English ports in Asia as well as those ports and England itself. Increases in information flow would have helped the Company plan for and adjust to the fluctuating markets of the pre-modern period while tightly coupling the economies of England and Asia, and thereby changing the structure of trade within Asia as well. Translated into the language of network analysis, the micro-level activities of the malfeasant traders caused the development and elaboration of complex multilateral exchange circuits that gave rise to densely integrated network components.

How I learned to stop worrying and love free riding

Rational actor theory dictates that in the absence of supervision, actors will divert resources to pursue their own private interests. In the context of both seventeenth and twenty-first century firms, principals (owners or managers) usually try to control their agents (or employees) in order to keep them from doing exactly that. Since Mancur Olson, social scientists have for the most part used the term “free-riding” to refer to a collective action problem: how do you get individuals to contribute equally to a group effort. The term was originally coined to refer to a specific type of principal-agent problem: how to keep employees from taking

advantage of their employers. Employers patrol their employees to keep them from violating their contract and free-riding off of resources provided by the principals, i.e. slacking off on their work, not contributing to the larger effort, and using company time for their own purposes.⁵²

The form this free-riding problem took in the European-East Indies trade was excessive employee investment in private trading. The private trade of employees caused problems for all the overseas European companies, which is in keeping with the rational-actor model. It was difficult for employers to observe and regulate the actions of employees who were operating up to 6,000 miles away. This situation made it possible for employees to take advantage of their employers by pursuing their own interests. What was not always evident to the directors of the East India Company was that, in this case, the free-riding had a net positive effect on company operations. Individually the employees seemed to be free-riding, but collectively, their actions produced a positive outcome for the company, which was attempting to quell the behavior responsible for its success at the individual level.⁵³ The opportunistic and self-interested activity of company employees was actually helping the Company collect information from and distribute information between the factories and presidencies of the East.

As outlined in chapter three, the private trade took on many different aspects. This chapter is focused on the private trade of the captains and crew and even more specifically on a

⁵² Principal-agent problems are a model for contractual relations, so although one often assumes that firm owners and managers are the principals and employees are the agents, the model may also work in reverse. For example, if an employer does not pay an employee for time worked, the employee is facing a principal-agent problem, in which they are the principal and the employer is the agent. In this case, I am using the framework in a conventional sense – the owners and board of directors of the English Company are considered principals and captain and crew are considered agents.

⁵³ As Jones and Ville (1996a: p. 912) note, company histories for the English East India Company, Hudson Bay, Royal African, and Dutch East India Company, among others provide “abundant evidence of persistent opportunism” and sustained, but largely unsuccessful, attempts to counter agent abuse of autonomy.

practice called ‘losing the season.’ The practice of ‘losing the season’ distorted the system by which the Company obtained goods in Asia. It was a particular trick of private traders employed by the English Company in which they purposefully prolonged their voyages past the deadlines set by company officials. They did so in order to continue to pursue private trading opportunities while in the east. The English Company’s permissive private trade policies had created a perverse incentive for the captains and crew. They were allowed to pursue private trade and so they devoted themselves to various business opportunities. As they became more deeply embedded in the commercial life of the East, they were tempted to prolong their voyages in order to bring these opportunities to fruition. Because travel around the Cape was restricted to particular seasons, when weather conditions permitted safe transit, all the captains had to do was miss their target departure date by a few weeks and they were safely stuck in the Eastern Seas for another four to five months. ‘Losing the season’ is a simple case of organizational and environmental opportunity structure channeling individuals’ behavior. However the perverse outcome, at odds with the professed aims at the organizational level, highlights the importance of considering not only organizational rules and institutional structures, but also individual responses to those rules and norms.

While stuck east of the Cape, captains used their greatest commercial advantage, command of a comparatively large, fast, and well-armored vessel to transport goods – meaning they did not sit in port, but traveled across Asia, buying and selling goods. Ultimately, it was this behavior that increased levels of cohesion within the Company trade—helping to integrate of overseas operations. This malfeasant behavior—or the lack of official control over captain’s actions in the East—led to long terms gains for the Company by increasing the flow of

information about prices and goods, market conditions, and even the activities of their employees.

Despite this unlooked for benefit, the practice of losing the season was in tension with formal Company policy. Timely delivery of goods was—and is—a central problem in overseas trade. For example, the East India Company's first voyage was a tremendous disappointment despite the fact that they had managed to bring huge quantities of pepper back to London. The Company was unable to turn a profit on the voyage because the market had been flooded with pepper previous to their arrival—and prices dropped accordingly (Furber 1976: p. 39). In order to avoid flooding the market in London, the directors introduced a quarterly auction system (Chaudhuri 1976: p. 37). Rather than dump supplies immediately onto the market, the directors put the goods into storage and auctioned portions of their supply off at four regular intervals throughout the year. These auctions evened out the flow of supply and stabilized prices.

The quarterly system helped, but could not fully compensate for annual irregularities. A steady annual turnout still mattered a great deal to the smooth operation of the quarterly auctions. Thus the directors in London were concerned with keeping the captains on a regular schedule. In addition, the company incurred serious short-term losses from late ships. The English Company leased their ships and paid demurrage fees for delayed voyages. Costs associated with demurrage have been calculated to account for up to thirty-six percent of the total profits within sailing seasons (Chaudhuri 1993: p. 54).

It should then be no surprise that the company records and correspondence include demands for “quick despatch” and “speedy passage” as well as complaints about ships having

purposefully missed the seasonal passage around the Cape of Good Hope (East India Company 1689; Chaudhuri 1978: pp. 73-74; Jones 1988: p. 291). In another attempt at regulation, the English Company offered gratuities to timely captains (Anderson, McCormick and Tollison 1983: p. 233, fn. 7; Datta 1958: p. 134). The directors perceived the purposeful delay of voyages as malfeasance and sought to curb the practice, succeeding only when the environmental and contractual obstacles to the exercise of their authority were overcome.

Yet many captains ignored both orders and positive incentives in part because they could escape punishment. By convention, captains were hired by ship owners. Since the English Company leased vessels, the owners retained the right to sell the captaincy as a transferable and inheritable good and the rights to the captaincy usually fell into the hands of the captains themselves (Furber 1976: p. 195), thus limiting the Company's capacity to enforce regulations. The directors were only able implement reforms to this process after 1790.

In addition, there were the barriers to authority faced by all European companies engaged in overseas trade. Captains and crew operated very far from company headquarters in life and death circumstances. Once seasoned, they were highly skilled workers with invaluable trade experience. Finally, with roughly thirty-five percent of employees dying overseas in company service (Hejeebu 2005: p. 509), they had every reason to focus on the present—in this case by maximizing personal profit and eliminating the need to return to the East for further commercial gain.

In this case, however, the captains that disobeyed orders by prolonging their voyages built on and elaborated the stable infrastructure of the English Company, bridging the regional

clusters that the English Company had earlier reproduced through participation in the country trade. The dynamics underlying the structural cohesion of the English Company's emergent global trade network arose through the ability of the captains to pursue their own trade. This decentralization of control led them to new ports as well, thereby securing steady supply streams and potentially lowering prices, while increasing the potential for communication within the company.

The mechanism at its most basic level was that the autonomy of the captains produced increased variability or randomness in voyage patterns. When malfeasant captains created a situation in which they were left to their own devices and at least momentarily freed from scheduling constraints imposed by the Company, they were more likely to travel between ports that were not routinely connected in the course of normal Company operations than rule-abiding captains. These random links increased the overall connectivity of the network. In this sense, the process can be seen as a simple small-world mechanism, where a small number of random links dramatically reduce overall path length (Watts 1999).

Inducing the Trade Network:

In the last chapter the analysis focused on reconstructing social networks that shuttled timely, local information between English captains on board official voyages. The analysis in this chapter uses the same data, but takes a different approach to the analysis of networks. Instead of analyzing peer communication, the paths of the ships are used to create a network

representation of the structure of the English-East Indies trade between ports. The data captures both patterned interactions between individuals in different ports, and the movement of commodities, capital, people, and information. The paths of the ships constitute the transportation and communication infrastructure of firm operations; the records of the voyages provide a material trace of the system of exchange. The resulting network of ships and ports represents three active elements: the ports, or local merchants; the official English trade; and the unofficial company trade pursued by Company employees.

In the networks used in this chapter, the points (or nodes, vertices, etc.) represent ports and links between points schematically represent the paths of the ships. Figure eight presents a simple example. It includes the famous exploratory voyages of the *Susan*, the *Dragon*, the *Ascension*, and the *Hector*, commanded by Sir James Lancaster, against a backdrop of ports active later in the history of the English Company. In this case, nodes are coded so that their placement represents their geographic location—the outline of the Indian subcontinent should be recognizable in the center of the image. These early ships traveled east searching for pepper. Accordingly, they set sail on February 13, 1601 for the Indonesian Archipelago, making stops at the Canary Islands, the Cape of Good Hope, Madagascar, and the Nicobar Islands along the way. At Aceh they engaged a Portuguese carrack and separated, some proceeding to Priaman, and some proceeding further to Bantam. The last ship returned to England on September 11, 1603. As may be quickly observed, the Atlantic ports are excluded from the image; they are also excluded from the analysis as the focus is on the monopoly trade in Asia.

Figure 8 about here

The nodes represent ports and arcs schematically represent ships' routes: adjacent nodes are linked by trips. Arrows indicate the direction of travel, which indicates that the network is directed. The process of converting the data into graphical form yields fifty-eight networks of equally weighted ties directed according to the path of the ship, each capturing four years of voyage activity. The fifty-eight networks provide snapshots of the structure of trade over the period of English Company activity. The level of detail included in the data allows a nearly day-to-day recreation of the location of ships (through reference to arrival and destination ports), which spans 85,838 days from the granting of the royal charter, December 31, 1600, to the return of the last ship, the *General Palmer*, on March 3, 1835. In this chapter, the analysis uses four-year intervals to represent the network over time.⁵⁴

The British Library has also published a complete record of the career histories for all 12,000 East India Company employees who served on ship and reached the rank of sixth mate or above (Farrington 1999). These data are used to check the validity of the private trade proxy.

Network Structure over Time:

The transformation of the structure of the English East India Company trade network is shown in figure nine, panels A through E. These panels report the complete network for five

⁵⁴ Using four-year intervals allows the identification of structural change over time, while retaining a sufficient number of ties connecting ports to reliably measure structural properties. Voyages are dated by departure in order to preserve their integrity – partitions across time would otherwise split voyages into different time periods, losing links that occurred at or near the moment of partition. This means that a ship that began its voyage in 1701 and continued to travel until 1705 is included in the 1700 observation period only. Comparable analyses for two-year windows are available and show similar results as those reported here.

trading seasons, 1620, 1660, 1720, 1760, and 1820. The sequence covers the entire period of the English company's commercial engagement in the East. As in the network representation of the first voyage, ports are represented as circles located with respect to latitude and longitude and voyages are represented as lines.⁵⁵ These figures do not capture the expansion of Company trade into the interior of India, which would have occurred in the nineteenth century.

Figure 9A-E about here

As schematic as they appear, these network images reveal much about the history of the Company. For example, the dense network of lines linking ports in the Indian Subcontinent, Indonesian Archipelago, and Middle East in panel A reflects an early engagement in the country trade—the overseas trade within Asia. It is also evident from the images that regular trade with China had not been established in the first sixty years. When the English Company withdrew from the country trade in 1660, their footprint in the East was significantly reduced—as is clearly evident in Panel B. Substantial growth and expansion was evident by 1720 [Panel C]: integration increased and the geographic reach of the network expanded to the Persian Gulf, through the Indonesia Archipelago, and into the far eastern markets of China. Historians have argued that the engagement of the private traders in the country trade drove this intense period of expansion (Furber 1965: p. 46, 1976; Asaratnam 1995: p. 16). By 1760 [Panel D], near the end of the Company's private trade period, the English Company trade network had fully integrated the previously loosely connected trading regions of the East, linking the Red Sea, Persian Gulf, West

⁵⁵ Across each panel, some lines appear darker and thicker than others; however lines in these images are not weighted by number of voyages. The lines appear thicker because of overlapping voyages along the same route. It is an approximate indication of a dense cluster of similar or geographically proximate routes.

India, Bengal, Ceylon, Indonesia, Malaysia, Philippines, and China through numerous redundant paths across ports. Centralization, consolidation, and control of trade are evident by 1820 [Panel E]. The number of paths and regions were drastically reduced as the Company's trade became focused on major ports within the territorial domain of the British.

Micro-Level Processes:

As discussed earlier, private trade allowances in the English Company created a perverse incentive: Captains engaged in the private trade often broke company rules in order to extend their voyages in the East in order to pursue commercial opportunities. Captains “deliberately ‘los[t] the season’ for their return voyages to Europe by moving in a dilatory fashion from Bombay to other Asiatic ports, investing and reinvesting their ‘privilege,’⁵⁶” (Furber 1948: p. 280; 1976: p. 195; Watson 1980: p. 71; Anderson, McCormick and Tollison, 1983: p. 478). Similar to the way in which English private traders illegally used the company's tax privileges on the continent of India, and thereby deeply embedded the Company into the local politics of the area, the malfeasance of ship captains when they were ‘losing the season’ embedded the English Company's inter-continental trade into regional country trade patterns. Together the formal Company trade and the boundary-spanning behavior of the captains seeking to bend the rules in order to increase their private profits created a dense, fully integrated global trade network for the firm

⁵⁶ The privileges referred to here are the officer's allotment of cargo space on English vessels, described above.

In order to see the effect of this behavior, it is necessary to identify voyages in which captains ‘lost the season.’ Captains engaged in the illegitimate diversion of Company resources for private profit did not purposefully document their malfeasance for company records, but they did leave traces of their disobedience. In particular, the co-occurrence of extended voyage duration and cycling within voyages indicates that liberties were taken with company resources. Ships were expected to stay in the East for roughly six months. Here extended duration is calculated as voyage durations that exceed the average for each sailing season, measured from time of arrival at the first port in the East Indies to time of arrival at the last port in the East Indies.⁵⁷ Most of the ships eventually identified as ‘losing the season’ stayed in the East for more than a year. This estimate is therefore conservative.

Private traders engaged in the country trade, buying goods in one port and selling them in others. In contrast, Company directed voyages left England for ports where English factors waited with goods for return shipment. When ships went from one port to another in the East, they did so either to participate in the private country trade or to procure new goods for freight back to England. Because time was of the essence, captains engaged in legitimate company trade should have avoided doubling-back to ports to which they had already traveled, thereby inducing cycles within their voyage. The main purpose of cycling was trade, and the traders in the East—after the Company formally pulled out of the country trade—were private traders. Consequently, voyages with cycles are categorized as private trade voyages.⁵⁸ The combination of excessive

⁵⁷ This measure avoids bias arising from a steady decrease in the duration of trips and variability due to fluctuations in the weather. The decrease in mean voyage duration over time was driven less by technical innovation than increased control of the Company over trade routes (Menard 1991: p. 250).

⁵⁸ The Company did however occasionally let out the ships for local freight voyages. For example, in 1702, the *Colchester* was leased to an Armenian merchant (Sarhad Israeli) to take goods to Balasore and Bandar Abbas from Madras; sometime later the *Hester* was leased (by Janardhan Seth, a Hindu merchant) for a similar freighting voyage

voyage duration and cycling between ports is therefore a close proxy for those captains who unnecessarily prolonged their voyages in order to pursue additional private trading opportunities—those that ‘lost the season.’ Inevitably this measure will capture some voyages that legitimately lost the season due to inclement weather or other unforeseen circumstances. It is attempting to capture illicit behavior designed to look indistinguishable from innocent action. However it is also the best possible approximation for a pattern of behavior recognized as typical by company officials and employees alike that had an appreciable impact on trade. Further analysis also supports the measure’s accuracy.

In the eighteenth century, the area defined by Europeans as the East Indies was a vast, socially and politically diverse expanse of thousands of separate and distinct communities. Foreign trade protocols varied across ports; each had its own set of officials, who required custom duties, gifts, and bribes with varying degrees of specificity and ceremony. Norms varied significantly across trading regions; experience on the Indian subcontinent was not easily transposed to the Spice Islands or China. Captains and crew engaged in Company trade were able to rely on institutional knowledge to negotiate these complexities. Private traders shouldered greater risk and lacked the institutional safeguards in place for legitimate voyages. Consequently, private traders often had to rely on their personal experience in order to pursue commercial opportunities. Since prior experience in the East was critical for negotiating private trades, it follows that captains engaged in the private trade ought to have had more experience specific to

(Prakash 1994: ch. IV, p. 48). To avoid including such trips, voyages containing only cycles of length two are excluded—that is, cycles involving only two ports, e.g.: $A \leftrightarrow B$. Neither the *Hester* nor the *Colchester*, for example, are coded as private traders. Including only voyages with cycles of greater than two also reduces the likelihood that ships held in the East for military duties—such as transporting troops or defending a port – are included in the set of identified private traders. Such activities became more common as the Company entered its colonial period post 1757.

the destinations of their current voyage than captains pursuing legitimate trade. The indicator of malfeasant behavior—voyages characterized by cycling and extended duration—can be further assessed by generating an experience measure for captains, specific to each voyage undertaken. Private traders ought to have had wider prior experience. Table four shows the association between experience and private trading, reporting a count of the number of distinct regions previously encountered by a captain, for each target voyage, for all voyages which set out from England between 1680 and 1760—the period when private trade within the Company was legitimate and the organizational structure most decentralized.

 Table 4 about here

The results of table four show that the captains of malfeasant voyages were more likely to have had greater levels of regional experience tailored to their current voyage. And, inexperience in the East was strongly associated with extended duration. Captains without experience were much more likely to miss sailing seasons than those whose previous tenure in the East was substantial. Thus, this assessment is conservative—the strong association between ‘losing the season’ and experience provides additional assurance that the indicator is indeed measuring malfeasant private trade.⁵⁹ Consequently, voyages characterized by cycling and excessive

⁵⁹ The test is conservative because it assumes that inexperienced captains are more likely to make errors that lead to disaster at sea. This assumption is borne out by the data. The following table shows that experienced captains, those with fewer than two previous voyages with the English Company have significantly higher odds of experiencing an accident.

 Table 5 about here

~~Table 2. CROSS TABULATION OF DISASTER OVER CAPTAINS' CAREER EXPERIENCE.~~

duration are considered to have been captained by malfeasant actors who purposefully delayed their voyage to extend their private earnings.

The impact of the malfeasant private trading voyages can be assessed by removing these voyages from the fifty-eight networks capturing the development of the structure of English Company trade. This returns a new set of trade networks, referred to as the *legitimate trade graphs*. These are the trade networks without malfeasant private traders. The most straightforward way to measure the effect of the malfeasant private traders would be to compare the networks in which the malfeasant behavior occurred with the networks from which it was removed (the *legitimate trade graphs*). The removal of voyages, however, automatically reduces the density of the original networks. Thus the differences between the *legitimate trade graphs* and the complete graphs may simply be the result of removing voyages—that is to say, any voyages, not simply the voyages of malfeasant private traders. To ensure that the results are not an artifact of voyage deletion, a randomly selected set of legitimate voyages of equal number to the malfeasant voyages, matched by destination, was removed from the complete trade graphs. These are identified as “matched voyages.” Removing these matched voyages from the complete data, produced another new set of networks, the *malfeasant trade graphs*. A comparison between the *malfeasant trade graphs* and the *legitimate trade graphs* allows for a direct assessment of the

Captain's Experience	Voyage Outcomes		
	No Disaster	Disaster	Total
0–1 prior voyages	1003 (.97)	85 (1.60)	1088
2+ prior voyages	3138 (1.01)	127 (.80)	3265
Total	4141	212	4353

Note. — Pearson $\chi^2(1) = 27.1046$ — $Pr = 0.000$; disasters include abandoning ship, wrecks, fires, captured by enemy forces, lost at sea, engaged by pirates, and mutiny; parentheses enclose odds ratios.

impact of the private trade on the macro-structure that controls for the loss of voyages on crucial network characteristics.⁶⁰

It may be useful to conceptualize the malfeasant behavior as a treatment affecting network construction. The macro-level structure of networks subjected to treatment are compared with the structure of networks serving as a control set. In this case, the *legitimate trade graphs*—those lacking voyages with private traders—should be thought of as the control group. They lack the treatment: malfeasant private trading. The *malfeasant trade graphs* can be considered the treatment group.

Figure ten [Panels A-E] shows the trade network at the start, middle, and end of the private trade period—1680, 1712, 1720, 1728, and 1760. Each panel allows comparison of the structure of the *legitimate trade graph* and *malfeasant trade graph*, revealing the impact of the private traders on the network. In this case, the ports are positioned using a standard and commonly-used spring algorithm available in the popular network software package *Pajek*. The spring algorithm helps to reveal underlying structural differences (such as increases in density and connectivity) that are obscured by placing ports according to geography.⁶¹ For reference, the complete trade network for each period is also shown.

With the exception of one exploratory voyage to Madagascar in 1760 (indicated in the bottom left of the complete trade network for 1760, panel E), the complete network is a single interconnected component over the entire period. A component is a network term for a subset of

⁶⁰ This naming convention may seem backwards at first, but consider that the networks with the legitimate voyages removed still contain the malfeasant voyages. That is why these networks are called the malfeasant trade graphs.

⁶¹ The partitions in the *legitimate trade graphs* occur across regions; for example, in 1712 the partition is between India and Indonesia, while in 1720 and 1728 the partition lies between the Western and Eastern Indian Ocean.

nodes within a network that are all linked by at least one path to each other (they do not have to be directly linked, but can be linked through chains of other nodes). This interconnectedness is significant because it indicates increased connectivity—all ports were linked to one large network that could efficiently shuttle information about prices, goods, and port conditions within the network and to London. The effect of the malfeasant behavior on this component is then of great interest. Focusing first on 1680, at the start of the private trade period, it is evident that the matched voyage removed and private trade removed graphs are essentially similar. In marked contrast, the impact of private trading is strongly evident in the middle of the period. The graphs for 1712, 1720, and 1728 [Panels B, C, D] show that without private traders, the entire system of Company trade in the East decomposes into two disjoint components, roughly divided by the Indian Peninsula. By 1760, as the Company reasserted control over the trading activities of captains, the effect of private trade is muted, but still visible. A single port connects two otherwise separate regions.

Figure 10 about here

The absence of graph connectivity at the peak of private trading is readily apparent in figure ten. The key impact of private trading was to knit together otherwise disconnected regions. A modified measure of heterogeneity quantifies the extent of network integration, $H = \left(\sum_i^n (a_i / z)^2 \right) + c$, where a represents the number of ports linked by $c + 1$ unique paths, z represents the complete count of ports in the network, and c represent the connectivity level of the graph or subgraph of interest. This means that a subgraph with one isolated node (i.e. no ties)

has a connectivity level of zero, whereas a graph where all nodes have at least two unique paths between each other has a connectivity level of two. This measure takes into consideration both the number of discrete components and the proportion of ports in each. For example, if the network were split into two components, but one component had only one port, overall connectivity would not be too drastically reduced—most of the ports would still be linked to one another. However if the network were split into two equally sized components, many ports would be cut off from each other—drastically reducing overall connectivity. A connectivity level of one indicates that all of the nodes (ports) are integrated into a single connected component; a connectivity level of two means that all nodes are integrated into a single connected bicomponent. A bicomponent is similar to a component except that all nodes must be linked (directly or indirectly) by two separate paths. Increases in integration push the measure closer to the next connectivity level, for example from fragmentation to a single component (zero to one) or from a component to a bicomponent (one to two). Figure eleven reports integration scores for the complete network, for the graphs with private traders removed and for the graphs with matched voyages removed.

Figure 11 about here

Higher scores index greater integration. As is evident from figure ten, the total trade network from 1680 to 1760 is almost always a fully connected component. Only in 1696 and 1764 does the graph break into two components—note that the integration score for the total networks dip below one for these years. For all other periods, the total network is a fully

connected component with a densely integrated core yielding integration scores well above one.⁶² The key finding is that the graph with the matched voyages removed is always more densely integrated than the graph with the malfeasant traders removed. The snapshots shown in figure ten visually indicate the role of the malfeasant private traders in integrating the East Indian trade network. Figure eleven quantifies that impact, demonstrating that it is not an artifact of the network visualization. Malfeasant private traders contributed more to the integration of the overall trade network than legitimate traders. Without these traders, the network fragments into large regional clusters dislocated from the main component.

While the inverted heterogeneity measure captures overall integration, the effects of the malfeasant employees are also evident in standard measures of network structure: density, size of the largest component, and size of the largest bicomponent. Figure twelve reports these results. For each, observed measures for the *legitimate trade graphs* and *malfeasant trade graphs* are first subtracted from observations taken on the total network. Each measure is then calculated as a percentage of the total network—that is, their impact. Relative impact, reported in figure twelve, is the ratio of private traders impact over other traders. Where values exceed one, private traders have greater relative impact on network structure than the matched voyages. As is readily apparent, this is the case for each variable at each moment of observation.

Density is simply the number of trips between ports relative to the total possible trips between ports. Consequently, a measure of weighted density mainly captures the increase in the number of ships at sea. To avoid this, the density of the directed binary port-port network is used.

⁶² If the total network has an integration level of two, this would mean that every port would have at least two redundant pathways to every other port in the network—i.e., the graph would be a bicomponent. Here extremely high scores characteristic of knotted and cyclic networks are present.

Ships may set out from one port and return—in cases of bad weather or other similarly unpredictable events. These loops are not included in the measure of density. As is evident above, malfeasant trade typically accounts for more than five times the density accounted for by the legitimate voyages. This means that in addition to linking regions, the activity of malfeasant actors significantly enhanced within region contact, thereby building multiple robust channels for the transmission of information on prices, conditions, terms of trade, and available commodities.

In addition to building within-region network infrastructure and cross-region trade networks, illegitimate traders directly incorporated markets into the existing network. The malfeasant actors consistently increased the size of the network: the sheer count of ports. This suggests that the process of establishing and sustaining ties to numerous markets was an ongoing byproduct of the overcommitment of employees to their own private trade. Malfeasant employees are two times more likely than other captains to discover new ports subsequently integrated into the English East Indian trade network.

Figure 12 about here

Finally, figure twelve considers the impact of private trade on the number of ports embedded within the largest bicomponent. Research on large complex networks (Moody 2004; Moody and White 2003; White and Harary 2001) has shown that bicomponents are well suited to assessing embeddedness and structural cohesion. In addition, networks characterized by redundancy—revealed through identification of graph bicomponents—are significantly less

vulnerable to disruption. This structural element is critical for market contexts since uninterrupted delivery of goods and information is essential for market efficiency.

Redundancy also reduces information asymmetries. Bicomponents have more than one path between each node, so no one node is responsible for transmitting all information to any other node. For example, if all information about eastern commerce was transmitted to London via one port, which is possible in a component but not in a bicomponent, there is a significant risk that those controlling that one port would manipulate that information to suit their own purposes—selectively transmitting or even fabricating information. This situation actually occurred in the Dutch East India Company. A select group of Dutch officers directed operations in Batavia, which was a central hub through which all Dutch communications were shuttled (Adams 1996: p. 19; Steensgaard 1996: p. 136). Their corruption of information about market conditions in the East is well documented and played an important role in the decline of the Dutch Company (Adams 1996: p. 21). The network structure created by malfeasant private traders created a situation in which this kind of illegitimate behavior was impossible without coordination across multiple ports. No one group or port had enough control over the total flow of information.⁶³

Conclusion:

⁶³ Further confirmation of results using simulation methods are available in Erikson and Bearman 2006.

In 1738, Henry Kent set off on his first voyage with the East India Company—as second mate on the *Somerset*, destined for Bencoolen. Eight years later, in 1746, now captain of the *Dragon*, en route to China, Kent sailed through the Indonesian Archipelago, and landed twice at Tamborneo, a port on Borneo not previously encountered by any other English Company ship. After this trip, Kent sailed twice to India, with stops in Madras, Calcutta, Culpee, and Bencoolen. On these voyages Kent cycled between ports, but never missed a sailing season, returning to England roughly twenty-six months after departure. By 1752, Kent had sailed through—on different voyages—all the regions of East Indies.

On his last voyage as captain of the *Dragon*, Kent left Downs on the sixteenth of November 1752 destined for Bengal. He made good time, arriving at the Cape in early February. By the twenty-fourth of March, the *Dragon* sailed into St. Augustine's Bay. Rather than proceeding directly to Madras, Kent went up the coast of Madagascar to Morandava. From April to July, Kent stayed at Morandava, where among things, he helped establish a factory, exchanged guns, ammunition, and alcohol for meat, water, and slaves; engaged in a ritual exchange with the King and Queen of Madagascar who had traveled to meet him with their retinue, brought on board seventy-four slaves, dealt with mutinous crew members—three of whom were caught deserting in the ships' longboat—crushed a small slave revolt, and met up with another East India Company vessel (the *Swallow*, leaving Downs within days of the *Dragon*, captained by John Bell, also taking his last trip, for which very little voyage data are available in Company records). Leaving Morandava, Kent made a brief stop at the Morungary River, before setting sail for Madras. Once in Madras, Kent traveled to Calcutta, Culpee, returned to Madras, completing a cycle, before sailing for Bencoolen, and cycling back to Madagascar (East India Company 1952).

Along the way, he missed his sailing season, allowing him to stay in the East an extra year, and thereby incurring additional costs to the Company. What Kent did with the slaves is not recorded. The Company was not officially engaged in the slave trade.

Not all private traders engaged in the slave trade, but Kent was typical in other ways. Over the course of his career, Kent led legitimate and illegitimate voyages. Like other private traders, Kent discovered, and twice returned, to a new port, and thereby opened up potential new markets for the Company. The circuits he took wove together the Bengal trading region with the Indonesian Archipelago, and the vibrant trading world of the East coast of Africa. Only rarely can one see from these records into the world of the private trader as clearly as for Kent, but the trace of their activity is visible—long stays in the East, and cycles between ports. To see this, one has to construct trade networks amenable to structural analysis. The paths of the ships constitute the transportation and communication infrastructure of firm operations. The records of the voyages provide a material trace of the system of exchange involving the English company merchants. Those paths produced an image of the company trade over time thereby allowing the reconstruction of legitimate and illegitimate private trade.

The result reveals a convoluted story. Good intentions went bad and bad intentions went good. At the core of these processes is the increase in autonomy experienced by captains when the English Company legitimated private trade. By withdrawing from the country trade, the company opened up an avenue of opportunity for their employees, who were all too willing to use it by tying up valuable company resources. Even when the captains disobeyed direct orders, they contributed significantly to the overall success of the Company trade. Private traders wove local interactions into a global institution (the Company itself) creating the dense structures we

associate with globalizing processes. They produced a larger, more integrated internal network of trade for the English Company.

The larger mechanism described in this chapter incorporates four smaller components into one larger chain bridging micro behaviors and macro outcomes. First when individuals are placed in a competitive market situation, they can be expected to act to maximize their profits. Organizational control is incomplete and loss of control is exacerbated under conditions of physical distance and poor communication. Individuals acting in pursuit of personal, not corporate goals (in this case personal profit) will introduce random perturbations into the regular conduct of organizational affairs – in this case producing a small-world effect where random links increase overall network connectivity.

The cohesive structure of trade produced by malfeasant captains produced a better vehicle for improved communication with London as well as communication between factories within the East, and the Company and English private traders alike would have benefited from hearing of the new ports that entered the network through the malfeasant voyages. Because social networks played an important role in the Eastern trade, the connected network created by the malfeasant traders would have served as an important, if unseen, resource for the legitimate, rule-abiding captains as well. Since captains drew information from their social networks when making decisions about where to trade, the robust, ultra-connected networks created by malfeasant captains would have done a better job of shuttling information to peripheral actors. The end result was an additional benefit from the private trade, a dense social network that provided information to legitimate and illegitimate traders alike.

CHAPTER SIX: The Eastern Ports

As a general rule, organizations are shaped by the environment around them. The East India Company was particularly susceptible to external influences. It was not based on a pre-existing template. The company form was novel in the seventeenth century. The East India Company also did not appear as a fully formed, fixed entity. It began as a series of joint investments that coalesced over time into a stable organization with a pool of permanent capital. The administrative apparatus, the company's relation to the British state, and its operating procedures shifted and evolved over time in response to changing environmental pressures and opportunities.

Many of the external pressures that shaped the institutional trajectory of the Company were located in Britain and Europe. The formative push and pull between the British State and English Company is a central theme in Lucy Sutherland's work on the transition to colonial power (1952), James Vaughn's research revisiting and revising of our understanding of the relationship between the metropole and Company imperialism (2009), Philip Stern's examination of the Company's adoption of sovereign forms of power (Stern 2011), and Rupali Mishra's detailed work on the evolution of the Company in its first decades (Mishra 2010). In the background of these works is a broader stroke picture of economic history that has linked specific institutional developments in Europe, such as the development of property rights, to its economic take-off, of which the fortunes of the East India Company were a part (North and Thomas 1976).

Without supplementary work on institutional contexts in Asia, this work can leave crucial assumptions unquestioned -- particularly that the institutional and organizational innovations of the Company derive entirely from Europe. Such interpretations are not the fault of the research listed above, but instead derive from the larger symbol system of western society, in which openness, tolerance, and market liberalism are reflexively coded as western, and tyranny, hierarchy, despotism, and communism are considered eastern. Because of this cultural schema, many may intuitively associate the private trade and employee autonomy of the firm -- and the commercial development they contributed to -- with larger cultural patterns in England. Two important recent works in comparative historical sociology have directly questioned the link between European influences and the development of tolerant, democratic and economically progressive institutions in European colonies. Julian Go and James Mahoney have both emphasized the importance of the institutional environment of the colonies in creating the institutions and modalities of colonial rule -- rather than assuming a one-directional flow from Europe to the colonies (Go 2011, Mahoney 2010).

The body of work that deals with Company affairs in Asia -- rather than Europe -- has not yet questioned the link between the European institutional setting and the organizational innovations of the Company. Instead the focus has largely remained on other questions, also important, regarding the effect of the Company on Eastern ports as well as European companies incorporation and reliance on pre-existing patterns. In the following two chapters I challenge the idea that the organizational innovations of the Company derive from Europe by considering the environment of the Eastern ports and their relationship to the decentralization of the English Company.

Although the analysis has largely focused on the board of managers and private traders of the Company, they should not be held as primarily responsible for the decentralized structure of the firm. The success or failure of English trade depended to a large degree on commercial sophistication in the East and the opportunity structure in place for foreign traders. If there were multiple opportunities for multiple traders, produced by decentralized access to foreign trade, English trade tended to be a success. The private trade could not have flourished without access to economically decentralized markets in the East. Since the decentralized organizational structure within the English Company was intertwined with the private trade, the increased flow of information and innovations documented in chapters four and five are tied to the institutional environment of Eastern ports. Although the two chapters describe significant institutional variation across ports, there is one simple analytical mechanism operating: opportunities structure behavior (Petersen 2009).

The temptation to read the high levels of employee autonomy and open stance on private trade back to the cultural predispositions against monopoly practices in England should be resisted. Whatever role it may have played, such an emphasis ignores the much stronger influence exerted by Eastern ports. The openness and toleration of many eastern ports made the commercial expansion of the Company and its employees private trade possible. In the end, the innovative decentralized structure of the English Company—and its attendant commercial benefits – depended upon the commercial organization of Asian commerce.

The importance of the East in shaping the organization also has implications for the way networks are studied. Network mechanisms and structures, such as those identified in chapters four and five, are often analyzed by network researchers in isolation—which is to say that they

are treated as separate and separable from their environment. Although the effects of different network structures may be abstracted to the point where they can be generalized across different contexts, the dynamics behind the creation of those network structures are inevitably linked to the particular time and society in which they occur. People create networks by building relationships with one another. How they build those relations and with whom they build them will always be fundamentally affected by the society in which they live, its cultural predispositions, prejudices, habits of mind, and routine behaviors. Even network ties within organizations will be affected by the societies in which they operate, as was the case with the English East India Company. This chapter therefore begins to explore the institutional environment of the East and its impact on the English trade.

The East Indies

The sophistication of Asian ports prior to the modern era is well established. Several areas in Asia appeared to have been on the brink of something like the industrial revolution. Many believe that the basic conditions necessary for sustained economic development had been present in China since the tenth century. In the Sung Period, the introduction of a new kind of rice in the Yangtze Valley brought about an agricultural revolution that triggered a long period of prosperity, expansion, urbanization, and innovation (Findlay and O'Rourke 2007: pp. 60-7). There was a large class of powerful and prosperous merchants, the government had invested deeply into building an infrastructure to support trade, and there was major growth in the steel and iron industries. It seems to have been just as likely a time and place for the rapid take-off we

associate with England in the nineteenth century. The economists Robert Findlay and Kevin O'Rourke have argued that what might have been an early transition in China was unnecessarily cut off by the Mongolian invasion.

India was also reaching a peak of economic development. In 1602, when the English rounded the Cape of Good Hope, the Mughal Empire was at its zenith. Emperor Akbar had conquered Northern India, including Malwa, Bengal, and Gujarat, as well as the beautiful and still contested Kashmir. His empire extended from the area now known as Afghanistan, through Pakistan, across Northern India to Bangladesh, and as far south as Maharashtra. Under Aurangzeb (1658-1707), the Empire reached to the southern tip of the subcontinent. If not an incipient global superpower (as China might have been), India was home to an extraordinarily powerful manufacturing industry, a complex and thriving commercial economy, and a relatively stable government that encouraged commercialization through its taxation policies (Findlay and O'Rourke 2007: p. 268). After all, the rich markets of the East are what drew Europeans into the long overseas ventures in the first place.

Another set of historians has revealed the importance of Asian merchant groups in the economic integration of the East and West. Drawing from Philip Curtin (1994) and Fernand Braudel (1972, 1977, 1992a, 1992b, 1992c), they emphasize the importance of commercial partnerships between the English and Asian merchant communities (Furber 1948 1976, Lach 1965, Ferrier 1973, Kling, Pearson and Furber 1979, Chaudhuri 1985, Chandra 1987, Subramanian 1987, Frank 1998). In the story of the English Company's sustained success, the economic development of Asia and the willingness of local merchants to work with the English Company as well as English private traders were crucial elements. In the seventeenth century,

overseas traders were simply entrepreneurs looking for new markets. They were starting up trade enterprises, and their chance of success depended heavily upon the social and cultural characteristics of the ports to which they had traveled: cultural barriers, linguistic barriers, legal restrictions, and institutional regulations. The number and type of commercial opportunities typically available to an Englishman in an eastern port determined the success of the company, just as much as the private trading employees, because they were necessary to the development of the private trade.

The Ports:

The relatively autonomous local agents of the English Company (i.e. the private trading captains and factors) needed relatively autonomous actors in ports with which to trade. Ports had to be able to handle the large-scale requests of the Company as well as the smaller-scale commerce of the private traders—both decentralization and commercial sophistication were necessary to satisfy the demands of employees and firm. And the English overwhelmingly chose to trade with ports that were both commercially sophisticated and decentralized.

The East Indies was a tremendously large and diverse area. Ports varied from the dusty, moveable bazaars of Mokha to the misty rivers and hostile ships of the Cagayan Sulu. There were isolated villages and large metropolises. The English settled successfully in some, and unsuccessfully in others. In this chapter I introduce a typology of ports based on the institutional features governing overseas trade by describing representative ports. This categorization was

inductively derived from the most salient features of social organization touching upon foreign trade. The categorizations are meant to represent ideal-types, although each port inevitably possesses unique features. The ports are grouped into categories most representative during the early years of an English trade presence. The descriptions are not meant to describe the large-scale transformations wrought by the English themselves because the interpretation is focused on piecing out the effect of the environment of the ports on the English Company. The port descriptions motivate and ground the analysis of port interactions based on the full ships' data presented in chapter seven.

The ports presented here are Madras, Bantam, St. Augustine's Bay, Guangzhou, Batticaloa, and the Straits of New Guinea. Also discussed are English experiences in two European colonial ports, the Portuguese stronghold of Goa and the Dutch colonial capital of Batavia. Madras is representative of a broad set of ports with well-developed and defined commercial classes acting with relative autonomy from the state that I call *market societies*. Bantam also possessed a well-developed commercial class, but differed from Madras in its status as a city state and a center of free trade in the East. Bantam and similar ports are referred to as *open cities*, although they have also been called emporia. Trade in St. Augustine's Bay had a close relationship with state organization, military power, and social status. I refer to this type of port as a *regulated reciprocity*. Canton was extremely sophisticated, and the government held a tight grip on foreign trade. I refer to this as a *regulated market*. Papua, New Guinea sits at the opposite end of the spectrum from Canton, with little regulation and little commercial sophistication. This and similar ports are referred to as sites of *unregulated reciprocity*. In Batticaloa, the royal family directly controlled all overseas trade, thus it represents a *royal*

monopoly. Finally, Goa and Batavia are representations of social patterns in non-English *European colonies*.

Each of these ports represents a type of port common to the east, although the categories are not taken from a pre-existing theoretical framework. Existing typologies were too coarse-grained to capture the varieties of commercial organization found in the East, and most describe entire economic systems, rather than focus on foreign trade. My categorization scheme is influenced by Karl Polanyi's well-known typology of reciprocal, redistributive, and market societies (Polanyi 2001: pp. 45-58). Polanyi's use of the term 'reciprocal' designated societies in which larger units, moieties or subdivisions, engaged in an interdependent relation of gift exchange—meaning that social or political considerations had equal or greater weight than the economic consequences of exchange. I also use reciprocal to indicate societies in which gift exchange occurred between individuals. *Royal monopolies* closely resemble redistributive organization, in which goods are collected by a central authority figure. For Polanyi, the market economy signifies a system dominated by individual exchange in the pursuit of profit. For him, actor's motivation definitively distinguishes markets from what he characterized as 'earlier' forms of economic organization. The definitions used here revolve instead around the patterns of interaction produced by market exchange, though the possibility of anonymous exchange remains important.

J.C. Van Leur also used a three-category scheme: Agrarian, City, and *Oikos*, the last meaning production in and for the household (Van Leur 1955: p. 56). In this case, the production-based distinction between Agrarian and *Oikos* is unhelpful. Another useful, but ultimately unsatisfactory scheme is the division between *échelles* and *entrepôts*. The distinction

between échelles, cities placed so as to collect goods from a hinterland of agricultural producers, and entrepôts, cities that collect goods from and serve as transshipment areas for foreign trade, plays into the political economy of ports, but does not entirely determine the state's role in foreign trade. The distinction therefore insufficiently represented the differences between many ports.

In describing the ports and placing them into the different categories, I drew on contemporary historical research as well as sources written during or close to the period of interest. These sources include a number of almanacs, calendars, travelogues, and catalogues of East Indian ports published in the eighteenth and nineteenth centuries to assist the influx of free English traders (Fryer 1698, Barbosa 1918, Barlow 1703, Blakeney 1841, Dodwell 1773, Hamilton 1732, Herbert and Dunn 1791, Horsburgh 1841, Milburne 1813, Milburne and Thornton 1825, Pires 1944, Tennent 1860, Staunton 1797, Stevens 1775, Wright and Gilbert 1804). Other sources not referenced in the descriptions, but used in identifying and categorizing the full set of ports include *Encyclopedia Iranica* (Yarshater 1990), the *Cyclopedia of India and of Eastern and Southern Asia* (Balfour 1895), *Malaysia: A Country Study* (Bunge 1984), *Shipwrecks and Disasters at Sea* (anon., 1812), *Asiatic Journal and Monthly Miscellany* (East India Company 1924), *The Philippine Islands* (Foreman 1980), and “An Alternative Vietnam? The Nguyen Kingdom in the Seventeenth and Eighteenth Centuries” (Tana 1998). The online *Atlas of Mutual Heritage* (Don et al. 2012) was an invaluable resource. Information on the

number of ships at port is drawn from *The Catalogue of the East India Company's Ships* (Farrington 1999).⁶⁴

In some of the ports opportunities existed that stimulated the expansion of the English private trade. In others, similar opportunities did not exist or were forcibly closed. The result was that durable trade relationships were formed in some ports, while in others, the English trade died out. The English Company thrived in ports with open participation in overseas trade *and* commercial sophistication. In each case, the history of engagement shows that decentralization and commercial sophistication sustained the private trade. Commercially sophisticated Asian ports with decentralized access to overseas markets were jointly responsible for the novel organizational structure of the English East India Company, and therefore are indirectly responsible for its success and the effects on English society and foreign policy.

Madras: Market Society

Madras was perhaps the most successful site of English trade in the East. 2,262 East India Company ships docked at Madras in a steady, uninterrupted stream that lasted over 192 years. The trade between England and Madras continued beyond 1833, but by that time the British government had revoked the company's trading privileges and its function became that of colonial administrator rather than trader. This was all part of a long process through which the British Government took full control over Company operations and assumed territorial control

⁶⁴ The above list of citations is not a comprehensive record of works consulted nor a list of relevant research; it includes only those works that contained information useful to identifying, locating, describing, or categorizing the larger set of ports.

over India. This outcome however was not to come to pass until after the conclusion of almost two centuries of steady, profitable exchange between Indian and English merchants. The regular trade of the English Company with Madras was not the longest in Company history, but its harbor did receive more English ships any other Eastern port.

Its advantages may not have been entirely visible to the untrained eye prior to settlement. Before the arrival of the English, Madras was a small, barren strip of land on the Coromandel Coast of India. Coromandel is roughly the middle third of the East Coast of India. At that time, it was a rich textile-producing region with a large and extremely mobile class of skilled weavers. Madras, however, did not have an exceptional harbor and was not well positioned to receive goods from the thriving productive regions clustered over and around the rest of Coromandel. It sat near an established Portuguese port, San Thome.

Coromandel had a somewhat unique political history, when compared to other areas of the subcontinent. When Madras was established, it had not yet been incorporated into the Mughal Empire. The Mughal Empire began its conquest of the Indian Peninsula from the Sind (the area now known as Pakistan) in the mid-sixteenth century. By the late seventeenth century, most of the Indian Subcontinent had fallen under their control. Coromandel resisted the expansion and had remained an independent kingdom. It was a one of the last remnants of the Vijayanagar Empire, a Hindu dynasty that had controlled a large portion of the subcontinent prior to the Mughal incursion. Fragmented government and the continued threat of Mughal invasion consigned the area to political instability (Mukund 1999: p. 56).

In 1641, the English leased the site of Madras from the Rajah of Chandragheri. Less than a decade later the land was seized from the Rajah by the reputedly more extortionate Sultan of Golkanda. Soon after, the region was finally overtaken by the Mughals. The English weathered all storms by renegotiating leases, redirecting rents, and welcoming in new officials – though new officials tended to increase taxes as they assumed their new positions. The Court of Directors in London repeatedly questioned the wisdom of settling in such a politically volatile area. Through thick and thin the resident English had defended their commitment to Madras by claiming it was easily fortified to withstand land attacks. It was not so well fortified however as to prevent the French from taking Madras from 1746 to 1748.

While still under Mughal control in the mid-seventeenth century, the English Company leased Madras from a *zamindar*. *Zamindar* was the official title for the gentry-class landholders who served as tax collectors under the Mughal system. In 1688, the middlemen were done away with and the English Company was formally assimilated into the Mughal political system as *zamindar* of Madras. This transition brought some long-desired stability to the settlement. It was also indicative of a broad pattern of political accommodation in India.

Much like the feudal system in Europe, local conflicts were often resolved by accommodation. Threatening elites were offered relative sovereignty in exchange for performing tax collection duties. This system allowed the English to avoid the costly expenses of military aggression while establishing effective political control. Additionally, the English were given the right to import the British system of law, although they did so selectively. The complexity caused by the interactions of several groups of foreign merchants, each with different ways of handling late deliveries, fluctuating prices, dips in supply, and the hundreds of other negotiable

exigencies of foreign trade could cause tremendous confusion. Add to this multiple codes of conduct, different ways to settle disputes, and different standards of justice. The advantage of acting as the ultimate arbiter of conflict must have both reduced the complexity of negotiating between several different legal regimes and given the English a significant commercial advantage.

Under the direction of the English, and with the encouragement of their trade, the port flourished and grew. Alexander Hamilton estimated that the previously desolate spot had grown to house some 80,000 inhabitants by the early eighteenth century (Hamilton 1732: p. 203). The historian Ashin Das Gupta has argued that British ports flourished because of Mughal decline (Das Gupta 1998: 46). It is therefore important to note that Madras was in the process of becoming a vibrant trading hub even as it was incorporated into the Mughal Empire.

The success of Madras was built on the regional characteristics of the Coromandel Coast. Because it was located within this productive region, Madras soon attracted a large local population of weavers and merchants. Arvind Sinha asserts that the zenith of commercial activity in Coromandel was during the years of Vijayanagar rule, which ended in 1565 (Sinha 2002: p. 176). (He is referring to the region of Coromandel, not the fortunes of the city of Madras, which had not yet been founded.) The region had a thriving internal trade. Salt, raw cotton, finished cotton, betelnut, pesseloo curry, tobacco, pepper, silk, other spices, benjamin (also known as spicebush), threads, blankets, raw silk, many kinds of cotton cloth, dates, almonds, mailtuta (a dentifrice), and dyes were only a small selection of the goods locally available. The legendary European jeweler Tavernier (who may have been prone to exaggeration) reported seeing a caravan of 40,000 oxen laden with goods traveling through that area (Sinha 2002: p. 33). The

famously skilled weavers in the region produced high quality textiles including calicos, percallas, chintzes, ginghams, pintados, and sailcloth (Babu 1995: pp. 262-263). The English mainly traded silver for these fine quality cotton goods along with the basic necessities, such as wheat, rice, and firewood.

Trade and production were organized from the bottom up, through social and ethnic cleavages. Weavers were organized into castes around different products. For example, the *Devanga* caste wove dark blue cloth and the *Salewars* made plain white neck-clothes. Several castes served as merchants for different types of goods and different regional markets. For example, *Banjaras* handled inland trade and *Coorchivas* handled trade to coastal regions from further inland. A series of regular festivals and weekly markets also circulated through the region. The presence of festivals drew in *dubashes* and *gomastahs*. *Dubashes* and *gomastahs* were local intermediaries who negotiated contracts, served as translators, and saw to most of the details of the English trade. *Dubashes* independently contracted with the English Company, and *Gomastahs* were hired into the organization.

One important result of this continuous commercial activity was a well-developed capital market and a network of financial institutions that lent support to both company and individual enterprise. Small-time moneylenders and larger banking families populated the region. The moneylenders were usually bulk dealers in export goods, the largest, most prosperous merchants in the area (Mukund 1999: p. 62). They worked primarily through bills of exchange carried by agents operating across Coromandel (Sinha 2002: p. 44).

Madras itself had a distinctive social organization. It was populated by two competing merchant groups, the *Balijas* and *Beri Chettis*. These groups belonged to different castes, the right and left hand castes. The city was divided into different streets for different castes. Antagonisms between these groups was the basis for both violence and commercial strategems (Mukund 1999: pp. 67-8). In negotiating this complex world, the Company relied heavily upon a series of prominent merchants (whom the historian Kanakalatha Mukund refers to as merchant capitalists), who held effective if not nominal control of Chinnapatnam, which was called 'Black Town' by the English (Sharma 1998: p. 263).

Mukund argues that elite merchants in the Madras area formed a well-defined, self-conscious class that predated the European presence (Mukund 1999: pp. xi, 61). Elite resident merchants were crucial intermediaries managing Europeans affairs, not only linking them to network of production, but also handling negotiations with state authorities (Sharma 1998: p. 265, Mukund 1999: p. 61). It is very clear that the English, as well as other Europeans, relied heavily upon resident merchants. They linked the English to the economy of the hinterland by establishing annual advance contracts between the English and the different castes of weavers. The weavers were paid upfront and found their own supplies. The English attempted to assume the role of supplier to the weavers, but this move was resisted.

Three particularly prominent figures in the early history of Madras include, Seshadri Nayak and Koneri Chietti in 1650s, Beri Timmanna in 1660s (Mukund 1999: p. 70), and Kasi Viranna in the 1670s (Sharma 1998: p. 265). Despite limited evidence of socializing and friendship between select English factors and the elite merchants of Madras (Sharma 1998: p. 283; Mukund 1999: p. 10;), relations were not always amicable. Timmanna and Viranna, for

example, were arrested by the English in 1665 (Sharma 1998: p. 271; Mukund 1999: p. 71). Company officials repeatedly accused different merchants of embezzlement and fraud.

By the 1670s the Company was regularly dealing with a group of twenty-six chief merchants, who also oversaw a larger number of lesser merchants (Mukund 1999: p. 105). Once Madras was established, another cosmopolitan community of Portuguese, Muslim, and Armenian merchants moved in and began to invest heavily in the overseas trade to Persia, China, Ganjam, Orissa, Surat, Bengal, and Diu. It is worth noting that the Portuguese were central to the community of experienced overseas merchants who turned Madras into a thriving commercial center. As this demonstrates, the proximity of a Portuguese settlement in the long run made the site more attractive as Portuguese merchants could be lured to Madras.

To summarize, political instability did not drive out the English and the presence of other Europeans encouraged, rather than discouraged the success of the settlement. The most important factors, however, were flexible political accommodations, large-scale productive capacity, widespread financial sophistication, and developed markets. The existence of a large body of capable and skilled merchants allowed plentiful opportunities for English enterprise across all levels of company operation. Not only were the larger Company interests served by the environment in Madras, but the employees (operating at lower levels of capital investment) were also well satisfied with their commercial prospects. Trade was decentralized and commercial sophistication high. The result was a very successful permanent establishment.

Bantam: Open City

Madras barely existed before the English entered the East. Its development was an outgrowth of the joint efforts of English and local merchants. The East also contained numerous commercial hubs of astonishing prosperity predating European involvements by hundreds, if not thousands, of years. Trade was literally the lifeblood of these city-states: import-export tax was the main source of government revenue. Thus, the government had a tremendous incentive to encourage foreign trade by reducing barriers to entry. The result was a decentralized market. When successful, they attracted experienced overseas traders from around the world, pushing the average level of commercial sophistication up. The combination was irresistible to the English. Bantam was one of the most prosperous of these trading hubs.

Bantam sits near the western tip of Java. Long before the European companies were formed, the city played host to a richly developed world of sophisticated commerce and served as a transshipment area for merchants hailing from Western India to the far northern ports of China. It was a well-connected, opulent city-state that relied on foreign commerce for its tax base. Situated between two straits, one separating Java and Sumatra and the other the Indonesian Archipelago from the Malay Peninsula, it straddled the regional economies of the near and far east. A constant stream of traders crowded the bazaars and city streets. Having long played host to an extremely diverse group of international merchants, Bantam was well equipped with the institutional and commercial mechanisms necessary to manage the various needs of the English officers, crew, and factors.

The Company landed at Bantam in its very first voyages and returned regularly for the next fifty years. This spell of trade ended because of Dutch pressure on the port. The Dutch had made Indonesia their territorial base. Over the course of the seventeenth century, they expanded throughout Java, often taking indirect political control as a means to establish a commercial monopoly over the rich supply of spices produced on the island. They interfered with foreign trade policies by exerting pressure—backed by the threat of military force—on the Sultan of Bantam and his council. The delicate balance the Sultan had maintained between different factions of foreign traders, all seeking political influence and special trading privileges, was destroyed by the Dutch interference. By the end of the seventeenth century, the Dutch had succeeded in pushing the international trade of Java to their headquarters in Batavia, causing trade in Bantam to dry up (Chaudhuri 1978: pp. 16-17). In 1682 the Dutch took Bantam and evicted the English from their factory, banning further settlements (Farrington 2002: p. 111). A tipping point was reached and the English and other overseas merchants deserted the once humming metropolis. Over the course of the entire eighteenth century, the English returned to Bantam less than a dozen times.

At its commercial height, Bantam mainly operated as a transshipment center. The major goods included pepper from the island, Chinese silk, tea, porcelain, zinc, copper, ivory, opium, and cotton goods from India. More exotic items included dragon's blood (a bright scarlet resin), elephant's teeth, turmeric, arrack, camphor, aloes, ebony, rare and coveted sugar candy, sapan-wood, vermilion, quicksilver, and European odds and ends including beer, cheese, claret, assorted perfumes, musical instruments, and toys. The port was a hub for foreign merchants of all kinds. As quoted by Van Leur, the account of the first Dutch to land in Bantam reported:

“There came such a multitude of Javanese and other nations as Turks, Chinese, Bengalis, Arabs, Persians, Gujarati, and others that one could hardly move” (Van Leur 1955: p. 1).

The Sultan relied on foreign trade to support a lavish lifestyle of conspicuous consumption. The mythology surrounding the Bantenese ruler based his authority on the successful union with the Goddess of the South Seas, *Kanjeng Ratu Kidul*. The success of this union was a token of the divine grace of the ruler; it formed the basis of his legitimate claim to political power. Being otherworldly in nature, the marriage itself was difficult to observe. Instead, the court and people assessed the union by evaluating the Sultan’s desirability as a consort. The basis of his legitimacy was appearing in the eyes of the court as a consort worthy of a goddess. “If his visible glory were below standard, if his treasury were inadequate, or if he were unable to deal with persistent rebellions, it would seem most unlikely that this man could be the protégé of the Goddess of the Southern Ocean” (Ricklefs 1974: p. 25).

Visible glory is costly.⁶⁵ The Sultan depended upon his ability to delicately balance relations with foreign merchants in order to maximize trade to the port—and thereby government revenues. The importance of the merchants was so great, the Sultan directly involved them in the administration of the government. The most prestigious and successful of the foreign traders sat on the Sultan’s council. The highest office of the port, the *Syahbandar* and *Laksamana*, could also be occupied by foreign merchants. In the early seventeenth century, a Coromandel merchant took the office of *Syahbandar* and sat on the royal council. Roughly fifty years later a Chinese

⁶⁵ One of the most expensive manifestation of visible glory was the *Taman Sari*. Kathirithamby-Wells describes this fortress/pleasure garden/religious site as a “fantasy of fountains, rock gardens, subterranean channels, tunnels, and artificial lakes.” (Kathirithamby-Wells 1986: p. 337)

merchant named Abdul Gafur occupied the same position (Kathirithamby-Wells 1990: pp. 110-113). The opportunities open to foreign merchants were unparalleled in the western world.

The government policy in support of free trade produced multiple opportunities for the firm and English private traders. Despite the religious/mythological trappings, the commercial sophistication of the government, as well as foreign and resident merchants, was extremely high. The English Company regularly traded with Bantam until the Dutch destroyed the foundations of its commercial prosperity.

St. Augustine's Bay: Regulated Reciprocity

The society of St. Augustine's Bay was less commercially sophisticated, but more regulated than Madras or Bantam. St. Augustine's Bay lies on the western coast of Madagascar. It was not commercially developed in the seventeenth century. One consequence of this was the absence of a strict boundary dividing elite and local commercial activities. At one point, itinerant Islamic merchants had controlled overseas trade, but the local ruling elite replaced them before European contact (Kent 1968: p. 528). Interactions with traveling merchants were deeply embedded in religious beliefs and rituals, but these rites effectively smoothed transactions with strangers. The ruling class dominated trade, but local markets were growing in size and complexity during the sixteenth century and a nascent merchant class was emerging from the inland territories.

The first port visited in the Indian Ocean by English Company ships—the *Susan*, the *Dragon*, the *Hector*, and the *Ascension*—was St. Augustine's Bay. For the next century, the English made sporadic appearances in the area, including a failed attempt to establish a colony. In 1644, 140 settlers led by John Smart and acting apart from the Company landed in St. Augustine's Bay and promptly died in large numbers—destroying hopes for further colonization and causing great distress for the twelve survivors. Another regular spell of trade was not initiated until the eighteenth century. Beginning in 1718, Company ships landed regularly in St. Augustine's for over eighty years. Over the course of those eighty years 110 English Company ships had engaged in some kind of trade at the port.

Slaves were Madagascar's largest export. Other traded items included cattle, yams, coconuts, bananas, sheep, poultry, hogs, milk, salt, potatoes, fish, lances, wax, loincloths, matting, cowry shells, maize, ambergris, and cassis shell. Prior to the European entrance into the Indian Ocean, the Malagasy used these goods to purchase silk, cotton, muskets, flint, gunpowder, glass, jewelry, salt, and ostrich eggs from the *Silamo*. The *Silamo* were Arab or Muslim merchants that traditionally handled trade with the western coast of Madagascar (Campbell 1993: p. 130). These Muslim traders linked the North-Western coast of Madagascar to the larger Indian Ocean network by way of Malindi and Mombasa. Though they dealt in other goods, their primary interest was in the slave trade.

Observers have characterized early Madagascar as politically fragmented because the island contained several different political units. Europeans however had a tendency to underestimate the size of the Island, which covers 587,040 square kilometers—making it considerably larger than most European countries. By 1710 most of the Western side of the

island had been conquered by the Sakalava (Kent 1968: p. 544). The English crews recognized various levels of aristocracy among the Sakalava and were suitably impressed by their royal stature.

The history of the Sakalava elite's involvement in overseas trade is slightly murky. There is evidence that the Sakalava chief, or king, had taken control of the slave trade from the foreign Islamic merchants at just the moment when the Islamic merchants' larger, international trade network was being threatened by the Portuguese. This timing indicates that the Malagasy elite were directly involved in foreign trade by the sixteenth century. Gwyn Campbell claims the Malagasy ruling class developed international trade at a much earlier stage, but in order to make this argument she treats kidnapping and cattle raiding (on large scales) as a form of long-distance commerce (Campbell 1993: p. 122).

English trade on the island followed a standard protocol. After reaching an agreement with the chief in authority at the port, the traders usually erected a small warehouse (a factory). The ships' logs contain detailed records of these encounters. There was inevitably a long period in which the travelers waited for the arrival of the rulers, as the people refused to trade until the king or queen arrived and granted permission. When the King and Queen arrived, a ritual ceremony was performed in which gifts between the traders and elite were exchanged. In the anthropological literature, this is called a prestation ceremony. The successful conclusion of this ceremony signaled the opening of trade. At this point, the entire community was free to participate, although there were continuing restrictions concerning the type of goods traded.⁶⁶

⁶⁶ It is difficult to characterize otherwise, but it is also unfair to think of these rules entirely as restrictions. The rules ordering who traded what gave structure to the Malagasy conduct of trade. They were a system of organization that

Slaves were a product of warfare and seemed to have been controlled by the King and Queen. Trade in local produce, poultry, and meat was conducted with the larger population (East India Company 1752). Prices were determined by advance contract, but the English found that the frequent application of gifts to the rulers were necessary to smooth over continuing transactions. This necessity made final costs hard to predict.

These rules of trade applied to the coastal trade of the Sakalava. Inland trade was a different story. To venture into the interior of the island foreign traders needed a blood bond with the local chief or ruling party of that area. The *fatidra*, as the bond was called, blurred the identities of the two initiates (Campbell 1993: p. 137). For example, the bonded pair was expected to share wives. Because the accepted stranger was given, or lent, the identity of the chief, the people of the community were expected to treat them as they would the chief. Specifically they were obligated to supply them with provisions and lodging, thus enabling trade. The *fatidra* was a social innovation that used existing customs to create a well-defined and officially protected social position for merchants.

By the end of the seventeenth century, a new class of agents and translators of European and Malagasy descent began to play a more important role in overseas trade. In 1643, a French colony had been established on the opposite side of the island from St. Augustine's. There were also the infamous pirate settlements such as Cape St. Mary, a sheltered port at the southern tip, home to the Great Pirate Roberts (Nutting 1978: p. 205). Pirate settlements were wiped out by the 1720s, but they left a legacy behind them. The Malagasy were willing to marry or marry off

enabled an increase in trade similar to the way in which a corporation is a system that greatly increases a groups capacity to engage in trade.

their daughters—or simply to engage sexual relations with foreigners—as a sign of hospitality (Campbell 1993: p. 136). Survivors of the French and pirate settlements must have often intermarried with the local population because the women, the wives of Europeans, and their sons and daughters served as agents and translators essential to the European trade.

By the late eighteenth century, indigenous merchant groups spearheaded a veritable market revolution. The salt trade was handled by the *Ampanira Antankarana* or *Belo Sakalava*, who established a temporally located market in the internal region of Imerina. Hemp, wood, cotton, and silk markets sprang up, tied to specific locations, usually in the island's interior. Gwyn Campbell dates the beginnings of market system to the mid-seventeenth century. By the eighteenth a regional system of interlocking markets and fairs had been established (Campbell 1993: pp. 147-48).

Although growing, trade in Madagascar was not well-developed compared to cities such as Bantam or Coromandel. The society could not be characterized as segmented and interdependent, two basic characteristics of a market society. Capital markets, mints, and courts were absent. But the foundations of a market society were emerging. There was even the essential Marxist precondition for economic development: labor for hire. Europeans used workers, called *maromita*, as porters (Campbell 1993: p. 135). Trade and commerce had not been entirely confined to elite sections of the society, and reciprocal exchange was common. As time passed and these institutions developed, meaning commercial sophistication increased, and the English found it increasingly profitable to make repeated calls at port.

Canton: Regulated Market

Chinese society was both more centralized and more commercially sophisticated than Malagasy society. The Chinese empire was arguably the most powerful political unit on the planet and oversaw an immense complex, interdependent, and commercially prosperous society. Although both were sophisticated and wealthy, the Chinese and Bantanese Empires had very different relationships to foreign trade. In Bantam, the survival of the government depended entirely upon foreign trade revenues. In China, the tax on foreign trade played a relatively minor role in government finances. Although customs were a welcome addition to government revenue, foreign trade could not compete with the enormous sums collected from the vast rural hinterlands of the Chinese Empire. At times, the Chinese government suspended all overseas trade and closed their ports to foreign traffic. Even after 1684, when ports were reopened after a hiatus, the Qing Dynasty persistently attempted to limit Chinese contact with foreigners. To this end, they constructed an elaborate regulatory system that forced the English Company into several unusual accommodations.

The English Company originally attempted to initiate trade with China through Amoy and Taiwan, but Beijing wanted to isolate the impact of foreigners and worked to draw all overseas trade to Canton (Van Dyke 2005: pp. 6-7). The English Company ships first arrived at Whampoa, port to Canton, in 1689 and returned regularly until the end of the company's monopoly. During the course of that trade 1,453 Company ships docked at Whampoa. Trade with China increased over these years, but not steadily. From 1690 to 1748 roughly three or four English Company ships docked for trade each year. In 1748, the frequency increased to nine or

ten and grew steadily to twenty over the next thirty years. From 1775 to 1786 there was a lull. From 1786 until the demise of the organization over twenty ships arrived annually.

Canton was located up a long and shallow inland river. To reach it the European ships first had to hire native pilots at or near Macao. These pilots navigated the journey to upriver, usually stopping at Bocca Tigris to take on ‘tidewaiters’: Chinese officials brought aboard to monitor the upriver passage and discourage smuggling (Van Dyke 2005: pp. 21-22). At Whampoa the large ships were docked, and goods were floated up the final leg to Canton on shallow crafts called ‘chop boats’ or ‘lighters.’ These boats passed through a gauntlet of tollhouses on their way to Canton and were required to stop at each one, every time paying a fee (Van Dyke 2005: p. 22). The final leg of the journey kept the large ships too far from Canton to threaten it with cannon fire, and the entire tortuous route meant ships were unable to depart without the permission of Chinese authorities.

No European settlements or factories were allowed in China beyond Macao. Permanent residence in Chinese habitations was discouraged. It was not until the 1770s that the English were able to obtain permission for the extended residence of a small group of elite company merchants, the supercargoes. As a rule, while Europeans stayed in Canton to conduct business, they were largely confined to official quarters and cut off from the general population. All secondary work generated by the exchange, for example, loading and unloading goods, was handled by laborers designated by port officials. The English had to use specially designated boats to load and unload goods, official translators to interact with merchants, official *compradors* (guides) to handle domestic necessities such as food and lodging, and officially chosen linguists to handle translation and communication (Van Dyke 2005: pp. 53, 74, 77-79).

Despite these restrictions, the English were simply one of many European companies to frequent this major port. Chinese trade partners included the French, Danish, Dutch, Ostend, Portuguese, Spanish, Swedish, North Americans, Siamese, Tonkinese, as well as traders from Cochin China, Japan, Batavia, and others. The English were interested in several commodities. In 1813, a list of goods traded at Canton in *Oriental Commerce* (1825) included tea, silk, chinaware, candy, silk goods, lacquered ware, rhubarb, sugar, nutmeg, silk thread, cloth, agate, alum, jewels, anise, copper, gold, ink, jet, musk, jewels, exotics, and more. The English imported *reals*, silver coins minted in Spanish America (Pond 1941), and mechanical trinkets called sing-songs, and later in the trade, Indian cottons. Private traders dealt mainly in opium in the later years.

In order to trade, ships needed the permission of the Hoppo, the officially appointed port and customs superintendent. Once in port, they were allowed to trade only with merchants chosen by the Hoppo (Van Dyke 2005: p. 11). The merchants in charge of foreign trade were known as the Hong. They were often of Fukien descent and originally had been itinerant merchants involved in the junk trade (Cheong 1997: p. 33). Their orientation shifted as the European trade grew in importance. The English Company conducted most of their trade with one or two merchants. From 1703 to 1710 Linqua and Anqua supplied most goods, and in the 1720s, Suqua became the dominant figure (Van Dyke 2005: p. 11). However, the English Company—as well as other European companies—resented the idea of restricting their trade to a small number of officially chosen merchants. This tension haunted the China trade for the duration of the eighteenth century.

The Hong merchants wanted to enforce trade restrictions and at times entered into formal agreements in order to collectively set prices and pool money for potential losses. The Hoppo was however more concerned with expanding foreign trade to meet Beijing's customs revenue requirement and increase their own income, and so those occupying the office of Hoppo moved to disband these organizations relatively quickly after European complaints (Van Dyke 2005: pp. 10, 20). In any case, formal restrictions seemed to have only a limited impact on the English Company, who frequently circumvented restrictions designating with whom they were to trade (Cheong 1997: pp. 61, 94-96, 110). In fact, the Hong merchants themselves were usually recruited from the ranks of merchants illicitly engaging in foreign trade (Cheong 1997: pp. 92, 97).

In order to accommodate the restrictive regulations in Canton, the English Company had to alter their standard operating procedure. Instead of establishing a factory—which was not allowed—the Company employed ‘supercargos.’ The position of supercargo was a very prestigious title within the company. They handled all commercial transactions associated with ships’ cargo while in Canton. In other ports, factors performed similar duties. In the early stages of the China trade, the English were not allowed to reside in Canton, so supercargos oversaw one ship at a time. Over time, the ‘Council of Supercargos’ was formed, so that one English ship would not undercut another. These councils were groups of three or four supercargos that arrived on board different ships at the same time. Gradually, and when permitted by Chinese authorities, supercargos took up residence in Canton—sometimes banished to Macao—and formed a permanent group overseeing all Anglo-Sino trade. After 1770, this group was formally

constituted as twelve resident English merchants who oversaw all the Company's commercial interactions (Cheong 1997: p. 109).

Despite the unusual amount of centralization on the part of the Chinese and English, the private trade flourished. There were ample smuggling opportunities along the long passage to Canton, to which authorities were very willing to turn a blind eye with proper remuneration (Van Dyke 2005: pp. 117-40). Opium was banned from the English Company trade at the request of the Chinese authorities and fell almost entirely into the hands of the English private traders. The early historian of the English trade in Canton, Morse, recorded that the Company allowed generous private trade privileges on early voyages, as part of an incentive to negotiate the difficulties of breaking into the protected markets of Canton (Morse 1926: p. 73). Morse also found documentation that the captain of the *Lynn* had a cargo of private trade in Canton valued at £3,744 in 1729 (Morse 1926: p. 74). The employee private trade did not diminish, but probably increased in importance over time, as it became an important source of capital for both the Company and the Hong merchants (Cheong 1979: p. 9).

In Canton, the English faced a stable environment after the 1683 opening of trade. Despite many political shocks in the mainland, the steady expansion of trade in Canton ground on through the eighteenth century (Wills 2011: p. 222). Other Europeans were present, but the powerful Chinese government regulated any potential for conflict. A tremendous variety of quality goods were available, and tea was exclusive to China. Commercial sophistication was extremely high, but the strict government regulation of foreign trade was easily the most salient characteristic of Canton for the English. Strict regulation, however, was surrounded by and perhaps supported by informal and illicit activities. Regulations seem to have been routinely

flouted by both the Chinese and English merchants. As a result, trade in Canton was centralized in name only. In actual fact, ample opportunities for private trade seemed to grow over time. The historian W.E. Cheong believed that by the 1790s the English Company was actively participating in the appointment of new Hong merchants that had been private trade partners of their employees in the past—exactly because they could handle the demands of both the Company and private trade (Cheong 1997: p. 92). Despite outward appearances, it was a robust environment for the English Company's hybrid mode of trade.

Batticaloa: Royal Monopoly

Batticaloa was similar to Canton. Overseas trade was centralized and entirely in the control of the elite; however it lacked many of the other advantages of China. As a result, the English had little incentive to accommodate the needs of the port by restructuring its organization. The mismatch between the Company and port eventually caused trade relations to fail.

Batticaloa sits very near the center of the east coast of Ceylon (now Sri Lanka). In the eyes of the English Company directors, prospects for trade with Batticaloa were initially bright. The Company attempted to initiate trade with Ceylon for good reason: it was an abundant natural setting rich in resources with a long history of overseas trade (Bastiampillai 1995: pp. 79-95). Europeans, who frequently complained about the noxious fumes and evil airs of the majority of East Indies ports, considered the island a paradise. Elephants filled the jungle and were in high

demand in the court circles of India. Sapinwood, rice, honey, wax, areca, shells, rubies, pearls, shells, cat's-eye, topaz, tourmaline, and sapphires were naturally plentiful. The cinnamon produced there was known as the highest quality available in the world. In the history of Asian trade, Ceylon occupied a central position in a thriving commercial network linking Persia, Gujarat, Malabar, Coromandel, Bengal, and Siam. However, foreign merchants handled this trade. Muslim merchants from India traveled to Ceylon in order to bring goods back to the mainland (Arasaratnam 1967: pp. 110-111; Schrikker 2007: p. 18). These foreign merchants bought goods directly from the King. A royal monopoly on trade included cinnamon (Schrikker 2007: p. 18), elephants, areca and pearls (Pieris 1920: pp. 29-31, 171, 186) – by far the largest exports produced by the island. Products were gathered, prepared, and transferred to the King's warehouses in Colombo. A system of royal villages produced necessities and goods for the King and court society. The economic organization closely approximated an ideal-typical redistributive economy.

Since the state appropriated surplus revenue, indigenous merchants were not needed to circulate goods. The island was organized by caste and predominantly Hindu, although state elites later converted to Buddhism. There were fisherman who engaged in some coastal trade (Arasaratnam 1985: p. 44), but no dedicated merchant caste (Loten 1935: pp. 27-31). Different castes were assigned to produce different goods for royal export. For example, the *Chalia* caste prepared cinnamon by scraping it from the bark of a small plant. Families were allotted *pangu*, parcels of land. Each plot was a mixture of several types of land (high, low, and waste), arranged so that the families could produce a variety of goods in order to supply their own needs. No standing army existed. Instead, certain plots of land were attached to the responsibility to serve

as soldier. Individuals that lived or farmed on that land did so with the understanding that they would serve if called (Pieris 1920: p. 37). Despite caste differentiation, specialization was low.

Without exchange relations across communities, there was little social infrastructure in place to guide and regulate relationships between strangers—such as those that occur in foreign trade. Justice was administered locally, by village elders—but only the king had the power of life or death. A common punishment was to force the offender to sit on the ground, draw a circle around them, and forbid them to cross the line (Pieris and Naish 1920: p. 187)—an inadequate means of dealing with foreign trade disputes. Most ports had a complex of rules and regulations in place to deal with the problems specific to foreign trade and cross-cultural exchange. Sinhalese society largely lacked such rules. Although elites were equipped to do overseas business, most of Sinhalese society lacked the experience, habits, or customs necessary for regular trade (Arasaratnam 1985: p. 44). It is worth noting, however, that this lack of institutional infrastructure did not stop other Europeans from establishing permanent bases.

When the English landed as traders in 1716, the Portuguese had already come and gone. The Portuguese arrived in Ceylon in 1510. Many individual Portuguese stayed on the island making money as mercenaries for different elite factions in a constant stream of succession battles over the kingship (Pieris and Naish 1920: pp. 38-63). By 1597 they began in earnest to take territorial possession of the island. The Portuguese won a large victory when they were able to appoint a soldier to a large Sinhalese kingship. Dom Jeronymo de Azavedo assumed the title “The King of Ceilam,” and quickly assumed the privileges and ritual status of the late Sinhalese King Dharmapala: “He was saluted with prostrations, and the White Shield and Parasol of Sovereignty accompanied him on his progress through the country” (Pieris and Naish 1920: p.

140). This kingdom did not initially include the East of Ceylon, which is where Batticaloa is located, though the Portuguese did eventually establish a small fort there near the year 1602.

By 1658 the Dutch had ousted the Portuguese, taking over where they had left off, exacting taxes and jealously guarding the royal monopoly. Some of the lasting contributions of the Dutch and Portuguese were to introduce Christianity to the island and make life and trade difficult for Muslim merchants. The Dutch considered this harassment an integral part of a policy intended to encourage the growth of their colonies (Van Goens 1932: p. 8). By chasing other traders off the island, either through monopoly practices, strict regulations, or some unstable combination of the two, most historians specializing in the area agree that they made prosperity a distant goal for their own struggling merchants by damaging Ceylon's position in the wider East-Indian trade network (Arasaratnam 1985: pp. 51 & 1967: p. 110; Schrikker 2007: pp. 34-35).

By the mid-eighteenth century, when the English attempted trade with Batticaloa, the Dutch had taken over much of Ceylon, but had yet to extend their dominion to the eastern coasts. Batticaloa was located in what was known as a wild area of Ceylon inhabited by smugglers and Mocquas. Dutch relations with the Mocquas were strained (Van Goens 1932: p. 44). The land had formally reverted to the King of Kandy, a powerful inland sovereign, after the expulsion of the Portuguese. It was not until 1766, after the English had already departed, that the Dutch were able to force the King of Kandy's hand and take possession of the eastern coastal areas. Still Dutch activities across the island affected Batticaloa. Muslim merchants had retained a small presence in Batticaloa, but they were subject to increased duties and petty restrictions intended to harass and discourage their commercial endeavors (Arasaratnam 1985: p. 51).

There are very few records surrounding the establishment of the English factory at Batticaloa. Farrington's *Catalogue of East India Company Ship's Journals and Logs* reports that Company ships docked at the port in 1716 and 1749. It is unclear which trip was the basis for the establishment of the factory. Foreign trade had been controlled by the ruling elite and handled by itinerant merchants. Local markets and merchants were absent on a large scale. The English factory eventually failed. Commercial sophistication was low. There was an abundance of goods, however, no brokers were available to handle exchange between the English traders and village farms. This lack was itself the product of the political-economy of the port. The Sinhalese economic system had a redistributive form. Foreign trade was centralized, first by Sinhalese elites, then by the Portuguese, and then by the Dutch. Not until the English Company reorganized themselves along colonial lines were they able to effectively channel goods out of the area. In the meantime, encounters between the decentralized English and centralized Sinhalese caused frustration for both sides.

New Guinea: Unregulated Reciprocity

In the ports described above, decentralization figures prominently in the fortunes of the English East India Company and its private traders. The relative autonomy of merchants in Madras and Bantam greatly encouraged the private trading of the English. In Madagascar, the centralization of control over foreign trade decreased over time, encouraging the presence of the English Company. In Canton, centralized government control excluded private traders, but informal and even illegal markets sprang up to fill the void. In Batticaloa, centralization led to

the failed trade relations. New Guinea illustrates a different sort of problem for the English Company. In New Guinea there was a tremendous amount of decentralization; however there was also a lack of commercial sophistication and no evidence of the financial institutions that formed the bases of the thriving commercial societies in China, Java, and across the Indian Subcontinent.

In January of 1760, Captain Thomas Baddison piloted his ship, the *Princess Augustus*, into the straits of New Guinea. He anchored near land and sent boats ashore for firewood. On Saturday, January 7, the purser recorded the following passage:

“At 4pm a prow came aboard. In it were some Malay people who called themselves Janas. They had nothing with them but three or four hundred rotting nutmegs. They told us they came from a town to the northwest of us and going away promised to return again and bring some hogs and turtles with them. They were fearful of coming on board at first, enquiring much if we were Dutch or Spaniards and were much rejoiced when they understood we were English” (East India Company 1760)

On February 9, at the same port of call, the purser again recorded the activities of the day:

“At 3pm four prows came on board. They were Papuas. They brought a large turtle weighing 300... They had nothing else but cajan matts and bows and arrows which they would sell. They set a great value on these things and would sell very dear. They wanted us much to go with the ship to their town, where they said they would bring plenty of hogs and turtles. They said there was good anchoring ground, twenty fathoms, and no shoal or rocks... One of them mistook us so far on enquiring for hogs, he went onshore and brought six dogs.” (East India Company 1760)

These passages offer a wealth of information hidden between the lines. They portray a stereotypical encounter between civilized westerners and primitive locals. This superficial trope obscures less readily apparent evidence in the passage of considerable sophistication on the part

of the Papuans. First, we might consider that the Papuans met the boat. They were out trolling for the English with their goods. They spoke English. It would be impossible to mistake hogs for dogs if they did not. They were surprisingly knowledgeable about the anchoring requirements for European ships and measured depth in fathoms. However the English simply passed through without returning. This time it was the English who were dissatisfied with the prospects for trade.

Given the effort and knowledge of the Papuans, why did trade fail? Unfortunately, the logs of the voyage do not record exactly where in New Guinea the *Princess Augustus* laid anchor, and so it is difficult to discuss the social organization of the group they encountered. Most research on New Guinea focuses on the highland areas and the eastern littoral, home to the Kula Ring. If Malaysians were present, there must have been overseas trade—although it did not figure prominently in any larger overseas network (to China, for example). Despite its relative isolation, communities in New Guinea have been commercially active, entrepreneurial, and known for their skill in trade and negotiation for centuries; however trade was always subordinate to a larger system of status and prestige. Strict rules of reciprocity made gift exchange into the basis of a highly-organized stratification system that based social status on participation in exchange rituals (Malinowski 1984, Strathern 1971, Schieffelin 1981). Goods were valued according to internal rules of exchange and traded as part of efforts to enhance local prestige.

The purser made special note of the fact that he believed the Papuans sold much too dear. Because exchange was not oriented towards the accumulation of material wealth, but rather in order to regulate social status, goods were not priced through markets but instead had a ritual

value. The accumulation of prestige drove exchange, so the items were often jewels, headdresses, and pieces of adornment valued disproportionately to their use. This pricing scheme was a major barrier to trade: the two sides were not able to settle. The coordination between status-based and market pricing systems was a serious problem—thus the failure to reach a mutually agreeable price.

This bargaining failure could have resolved itself over time if a second condition had been fulfilled. The purser also records being distinctly unimpressed by both the amount and quality of the goods. Because goods were produced for ritual exchange, which had circumscribed limits, there was little reason to produce a surplus of the particular goods the English found valuable. There simply were not enough goods available to make it worth the English Company's time.

Perhaps if New Guinea had not been politically fragmented, a big man, as men of influence within the tribes were called, would have been able to mobilize enough of the population to produce the surplus required to attract the English—but it may not have solved the barriers to trade created by the subordination of commerce to social organization. New Guinea had one of the essential ingredients for a lasting relationship with the Company and its private trading employees—multiple opportunities to trade. However, it was too decentralized. Individuals were willing to trade, but there was no large-scale market for goods. Merchants and traders did not exist as a separate class. Exchange was so well integrated into the internal dynamics of these societies, there was no external market. Therefore production of goods was limited to the subsistence needs of the villagers and the ceremonies of ritual exchange. There simply was not a sufficient quantity of goods to satisfy the large-scale interests of the Company

itself. There was a lack of institutions to deal with the special needs of traveling merchants, and the negotiation of prices posed endless difficulties across cultural boundaries. In the end, the demands of inter-continental trade simply could not be sustained. The English Company departed despite the best efforts of the Papuans.

Goa: Portuguese Colony

Contrary to accounts of animosity between the great European companies trading in the East, the English found plentiful opportunities to trade with other Europeans. The Portuguese were no exception. Goa was an extremely cosmopolitan city before and after Portuguese occupation. It sat in the center of a tremendously productive region of India and had long been a hub in the system of trade crisscrossing the Indian Ocean and reaching at its extremes to the shores of the Mediterranean and China. Commercial sophistication was high and there was a thriving class of independent merchants available for trade. It should be no surprise then that the English found it very profitable to visit Goa with frequency.

Goa had long been known as a city of beauty and wealth. It sits on the Deccan Coast of the Indian subcontinent. The reputation it now has for an exotic luxury resort has been passed down through the centuries. In 1512 Tome Pires wrote of the many travelers who visited Goa to relax in its orchards and chew the locally-grown betel leaves (a mild stimulant), which he claimed was the finest in the world. He also noted the presence of beautiful women and fine dancing (Pires 1944: p. 57). Goa was considered more temperate than most of India, and

therefore more pleasant. Strong walls circled the city, which was filled with lush gardens amply supplied with sweet-tasting water. However the arrival of large contingents of unemployed and poor Portuguese soldiers made it into a dangerous city over the course of the sixteenth century (Pearson 1996: pp. 26-27).

The Portuguese strategy in the East had been to capture key ports from which they could control the overseas trade of the Indian Ocean by sheer force. To this end they took and held Columbo, Malacca, Hormuz, Diu, and Goa. Goa was the centerpiece of this string of ports, the shining jewel of the crown and the capital of Portuguese colonial possessions in the East. Well before the Portuguese arrived it was a prominent transshipment area, mediating trade between the interior of the Indian Subcontinent and the coastal regions of Africa, and the mid-East. The buying and selling of Arabian horses, a crucial military commodity, was considered to be the most important market. One could also find areca, calico, fine muslin, betel (of course), rice, and the many spices of the East Indies.

The sheltered island had been fought over by many different empires over the centuries. The population was a diverse religious mixture of Hindus, Muslims, Jews, Parsis, and Christians (even before the Portuguese arrived), and many different nationalities, including Turks, Persians, Abyssinians, Kurds. Foreign trade revenues and anchorage fees were the traditional source of government revenue. Under the command of Afonso de Albuquerque, the Portuguese took the port in 1510 with high hopes of maintaining its privileged position in the larger Indian Ocean trade network.

The Portuguese maintained the hold over Goa, but their entry was a blow to the trade of the port. As a general rule they established royal monopolies at all their ports. Goa was no exception until faltering finances around the 1570s led the Estado to experiment with various degrees of private participation in trade. The monopoly guarding the spice trade between Goa and Lisbon was leased out to various parties beginning in 1576, and the incorporated Portuguese company arrived in port after 1628. Neither had much affect on Goa's commercial decline.

The Portuguese both interfered with and relied upon the existing commercial and financial structures of the port. As part of their attempt to convert all inhabitants to Christianity, the Portuguese banished Hindus from the port in 1653 (Scammel 1988: p. 47). Just as in Antwerp, this religious intolerance had a devastating effect of the financial life of the city. The Portuguese back-pedaled by making numerous exceptions in order to retain the skilled workers that kept the economy of the port alive as well as the wealthier Hindu merchants who were now keeping the colony afloat with their loans to the local Portuguese government. Such half-hearted interference was typical as the Portuguese depended entirely upon the existing population for financing, trade, production, as well as for men to man their ships and armies (Scammel 1988: p. 47).

The English Company first approached Goa in 1635 and established amicable relations between the company and the Portuguese *Estado*. Entrepreneurial English captains disembarked at Goa, en route for an English factory, in order to quickly unload arrack (liquor) as part of a private commercial scheme. As the *Estado* waned in the seventeenth century, Goa's fortunes diminished as well. Overseas trade had mostly died out by 1670 (Scammel 1988: p. 477). And the English stopped coming as well. When it was still a viable port, the English had been very

happy to frequent Goa—almost exclusively in order to engage in the private trade. The Portuguese did not repel the English. Far from it. They were a ready market for European goods, which was surprisingly difficult to find in the East. However, when the money ran out, due to Portuguese policies, no one found much use for the trade prospects in the once bustling city.

Batavia: Dutch Colony

Batavia was a large Dutch port located on the northwest coast of Java. As with Goa, sporadic hostilities between the European sea powers did not prevent the English from frequenting the harbors of Batavia. The private trade of the English flourished there, despite the best efforts of Dutch officials – in their official capacity. Unofficially, Dutch Company officials, Dutch free men, and Batavian citizens of all kinds participated in a thriving illicit market in eastern goods and financial services which included the English Company servants. In many ways the external appearance of Batavian society was far removed from the daily realities of the port.

Batavia was founded on the site of a once prosperous trade city, Sunda Kalapa. In the early sixteenth century, the powerful Sultan of Bantam took the city by force and renamed it Jayakarta, meaning ‘great victory.’ Under the subordination of Bantam, Jayakarta’s prosperity diminished. In 1610 the Prince of Jayakarta made an ill-considered decision to collaborate with the Dutch as part of an attempt to split from the Sultan. By March of 1619, the Dutch had managed to take possession of the port and renamed it Batavia in honor of their homeland.

Many would attribute this success to the genius of Jan Pietersz Coen, the first governor-general of Batavia. His life captures some of the contradictions and complexities of the Dutch commercial empire in the East and life in Batavia. On the one hand, he engineered an innovative multilateral commercial strategy for the Dutch East India Company; on the other he presided over the slaughter of over 15,000 Bandanese in an attempt to install a strict monopoly over the Spice Islands. From Europe, the Dutch East India Company seemed like a modern marvel, the first joint-stock, limited-liability corporation. In the East, it had the aspect of a tyrannical and violent despot. This second face was not reserved for Asian communities, but bore down upon company employees and the Dutch citizens of Batavia. By all accounts, the company ruled with an iron fist and little regard for due process or personal rights, despite the outward semblance of Dutch democratic institutions (Blussé 1986: p. 5).

The Dutch community in Batavia was known for taking the excesses of conspicuous consumption to new levels of fastidious observation. Sumptuary laws regulated details of dress down to the type of shoe-buckle to be worn at by men at different levels of employment, and only Christians could wear shoes. The wives of Dutch merchants, often Portuguese-speaking Christians of Indian descent, paraded around town under parasols attended by a clutch of slaves with the object of publicly signaling wealth and status (Abeyasakere 1937: p. 37).

Outside the townhouses a virulent environment had been created within the city walls. When taken from the Prince of Jayakarta, Batavia was rebuilt in the Dutch model, with sixteen canals and high townhouses framing the waterways. By 1730 this arrangement had created an exceptionally pestilent environment. The canals became stagnant breeding-grounds for mosquitoes. High-standing residences blocked fresh air and winds. These conditions led to

Batavia's reputation as a diseased city. Travelers complained of insalubrious conditions, 'low, hanging poisonous mists,' and 'killing vapors.' The hospital was known as *De Moordkuil*, or the death-pit (Blusse 1986: p. 29).

It is perhaps unsurprising then that the company had difficulty attracting a small number of free Dutch small businessmen to provide services for the company employees. These men seem to have been mostly occupied bartending, brewing, and tavern-keeping. The company had a love-hate relationship with these men. They desired a prosperous Dutch commercial class in Batavia, but hated giving them the means to prosper—specifically unrestricted access to engage in overseas trade. Many of the men responded to these conditions by participating in corrupt practices and the extensive informal trade of the city (Blusse 1986: pp. 20, 95). This trade was another manifestation of the dual nature of the city. Although bound by strict regulations, the rules in this case seem to have been made to be broken. Company servants and residents alike engaged in private trade that directly violated the rules of the Dutch Company (Kathirithamby-Wells 1977: p. 8).

The illegitimate trade of the Dutch employees acted as a strong draw for the English. A central problem in pre-modern trade was transferring large amounts of money over long distances. The East India Companies were the only large organizations truly capable of remitting large amounts of money from Asia to Europe. This meant that private traders had to rely upon the companies to get their profits back to Europe. For the Dutch employees—strictly prohibited from engaging in any kind of private trade—this was a serious obstacle. For the English it proved to be a golden opportunity. For a large fee, they would happily facilitate the transfer of funds through their own East India Company, which did not prohibit the pursuit and

accumulation of profits through the private trade. Thus the English played an important if dubious role in the economy of Batavia (Adams 1996: pp. 23-24).

A large Chinese community in Batavia was the only part of the population legally allowed to engage in overseas trade outside of the auspices of the Dutch Company. Ironically, this one concession in the end contributed directly to the downfall of Batavia and the Company itself. In the seventeenth century, Europeans had difficulty establishing direct trade with China. As described in the section on Canton, the Chinese strongly discouraged contact with foreign barbarians, which they understood the Europeans to be. Initially then, the large Chinese community in Batavia was a great boon to the port. The expatriate Chinese were deeply embedded in the South China trade network. Their boats, the junk fleets, brought difficult to obtain Chinese goods, such as silks, sugar, porcelain, iron pans, nails, needles, umbrellas (in high demand in Batavia), paper, fruit, and textiles, into the port at a very low cost. In fact, the Dutch profited from the variety of fees charged to incoming ships, including anchorage fees, safe conduct passes (a trick from the Portuguese notebook), import and export fees, gifts for the harbormaster, gifts for the revenue collector, gifts for the secretaries, and gifts for the cashier as well. By the eighteenth century, the China trade had become hugely important to all the European East Indies companies. Unfortunately for the Dutch, relations with the Chinese community in Batavia deteriorated over the years. In 1740 the Chinese population in Batavia revolted against the Dutch government. This revolution was put down with characteristic brutality and most of the Chinese population was either killed or expelled from the island of Java. Although the community eventually rebuilt itself, Dutch participation in the Chinese trade was gravely diminished in the meantime (Blussé 1986: p. 115).

The Chinese massacre was only one more tragic debacle in a history of decline for Batavia. The port, however, was a center of trade. Chinese and Dutch merchants brought a high level of commercial sophistication. The trade in remittances, which at that time was a relatively complex commercial transaction, helped bring the English participation into the economy of the port. Although the Dutch Company attempted to regulate the commercial activities of its employees and achieve a complete centralization of overseas trade, they failed to achieve this goal. Instead there was rampant private trade and illicit commercial activity. This de facto decentralization drew the English into many repeated visits to Batavia over the course of the seventeenth and eighteenth centuries.

Conclusion:

The growth of the English Company's trade in Asia was not simply British expansion; it was the integration of the English and several Asian economic and social systems. The failure of trade in Batticaloa demonstrates the necessity of looking at both sides of the story. The English were decentralized, the Sinhalese were not. If the English Company had been more hierarchical, they would have been more successful at ports like Batticaloa. Other European companies, such as the Dutch and Portuguese, were in fact much more successful in Ceylon. Conversely, if a class of merchants willing to work with the English had been present in Batticaloa they should have been able to provide the English with points of access into local production networks.

While at port, factors and captains managed the company's trade as well as their own, while the officers and crew looked after their own interests. All levels of the organizational hierarchy sought commercial partnership. However, trade is two-sided. For English Company employees to engage in profitable transactions, they needed potential partners. In the example of the Batticaloa, we see that the local community lacked the set of customary practices, religious rituals, or commercial experience that would have allowed them to easily create market relationships with external groups. It is therefore unsurprising that the English did not remain. No merchant class existed in Batticaloa to serve as partners for both the principals and the agents of the English trade.

The Company sent their East Indiamen ships to 264 ports in the East Indies. If all eastern ports had resembled Batticaloa, the Company would have had to either curb their employee's private trading activities or withdraw from the trade. Because the private trade of the employees was important to the long-term success of the Company, the first path would have spelled eventual failure as well. Without the private traders, the Company would have lost vital local knowledge and the initiative to explore new port and tradable goods. England's sustained expansion into eastern markets and subsequent commercial and political hegemony might have never occurred without this early fit between firm operations and the structure of opportunity in Eastern ports. The institutions and ports of the East helped to shape the organization of the East India Company itself.

CHAPTER SEVEN: Eastern Institutions and the English Trade

The contribution of Eastern ports to the nature of the English trade in the East becomes clear when the entire set of ports included in the Company trade is considered. In this chapter, I categorize the 264 ports recorded in the logs of the English East India Company ships into the types described in the previous chapter to uncover regular patterns of English interactions with the Eastern ports. Looking across these larger patterns reveals that the English were consistently drawn to commercially sophisticated societies with decentralized market institutions. As in Batticaloa, centralized trade in ports blocked off avenues of opportunity to private traders through formal prohibitions. New Guinea simply lacked adequate market institutions. The ports that were both commercially sophisticated and decentralized sustained the English private trade. The decentralized ports of the East reinforced the decentralization of the firm. Their contribution was indispensable to the rapid and sustained expansion of the English trade network.

A Brief Tour of the East-Indies:

The categories explored in the previous chapter capture the main types of trading cities in the East; however there was a great deal of variation even within these types. Here I explore the variation within categories, provide more descriptive material about the different ports, and record in abbreviated form the basis for port assignments into the different institutional categories: i.e. market, royal monopoly, regulated market, etc. Each of the 264 ports was evaluated on a region-by-region, or as necessary, a port-by-port basis. Some regions had

considerably more heterogeneity than others. For example, the Indonesian Archipelago had a unique mixture of *entrepôts*, *échelles*, principalities, dependencies, and European colonies. In areas with greater heterogeneity, I considered the ports and kingdoms that constituted this complex of distinct societies. If a regional description is accurate, I consider it sufficient. For example, China was a cohesive political unit. In this case, there is no reason to further explore this categorization beyond the description of Canton.

A number of ports do not vary significantly from the institutional structure described in the ideal-typical accounts given in the case histories. Zanzibar and Pemba resembled Ceylon. These islands were part of a system of Swahili city-states that dotted the coastal areas of East Africa. Swahili elites were often in conflict with the Portuguese and were eventually replaced by Omani elites.⁶⁷ Trade resided in the hands of these shifting ruling classes and had left most of the population untouched. If anything, the lower classes were even further removed from commercial life than in Ceylon, although the role of the lower classes in production (rather than trade) is unclear (Gilbert 2002: p. 20). Most evidence indicates that elite traders made profits off of transshipped goods and by participating in a carrying trade; their activities were limited to importing goods from one place, often the African coast and interior, and shipping them to another, the Mid-East or Indian Subcontinent. This sort of intermediate trade made links between elites and resident populations unnecessary for commerce since extensive production of goods was not part of the equation. Similarly, a vast peasantry was excluded from foreign trade in the kingdom of Ayutthaya (now Thailand) (Evers 1987: pp. 757, 764). In Sulu, a fascinating system has been documented by Francis Warren. Elites used the profits and weapons derived from an

⁶⁷ The Omani originally had a rural base. As elite activities expanded overseas, the balance of power shifted and the state took on mercantilist shades (Sheriff 1987: pp. 18-24).

exclusive foreign trade to extend their political base, while employing extortionate practices that dampened internal trade (Warren 1981: pp. 37, 41). These societies had the same redistributive structure and centralized control of trade as Batticaloa. They were *royal monopolies*.

Persia transitioned from a royal monopoly, under Shah Abbas I (1587-1629), to an open trade policy under Shah Safi (1629-1642) (Ferrier 1973: p. 41). After the accession of Shah Safi, Persian ports had a high incidence of developed commercial institutions and readily available autonomous brokers, traders, bankers, and moneylenders, many of whom were Armenian. Much of India had similar institutions and policies. Ports in these areas are classified as *market societies*. Gujarat and Bengal, conquered by the Mughals in 1573 and 1576, were perhaps the most commercially developed areas of India. Bengal exported indigo, hemp, minerals, lac, opium, cotton goods, saltpeter, silk, sugar, various provisions, and other goods. By at least the eighteenth-century, various regions in Bengal specialized in one or more goods and were linked together into a larger economy through a system of interlocking markets (Marshall 1987: p. 13). Gujaratis and *Baniyas* (or *Banyans* as they were known to the English) were renowned traders who operated in these areas. *Baniyas* were known for internal rifts and competition rather than the organized political front presented by other merchant groups (for example the Armenians) (Barendse 1998: p. 179). They acted as brokers, overseas merchants, money-lenders (small capital), and bankers (big capital) in ports and cities across the Northwest and East of the Indian Subcontinent.

Brokers did not arise as a class to service the needs of Europeans—who rarely mastered local languages. They were absolutely necessary to the European trade in India, serving as an essential link to local producers and distributors, but their existence as a group far predated the

European presence in the East. They worked with both seaman and captains by linking them to networks of producers and moneylenders. Factors complained that *banyans* were ruining young recruits by haunting the harbors, waiting to ensnare naive Englishmen in risky ventures, high-interest loans, and luxurious living the moment they stepped off the boat (Barlow 1703: p. 186)

There were many other types of merchants involved in commerce across India. As should be expected, overseas traders were a cosmopolitan group. Most ports in the area played home to the familiar Muslim merchants, as well as Hindu *vaniyas*, Tamil and Teluga *Chettis*, Jews, Turks, Armenians, and recent Christian converts (Subrahmanyam 1995: p. 755). Below Gujarat, dense settlements littered the Konkan. The English frequented Dabhol, Karwar, and Rajapur, among others. In these areas, indigenous communities of Saraswat-brahmin and coastal fisherman participated in overseas trade (Barendse 1998: pp. 327-330).

Further south the situation became patchier. A number of small independent kingdoms on the coast differed from the Mughal and Vijayanagar systems. Large empires tended to depend on land revenues and rural agricultural production. Small coastal kingdoms often relied on commercial revenues and therefore created open cities for merchants. Others formed close political ties with one merchant group, often Muslims, erecting barriers to entry for others. I will discuss this situation as a variant of the royal monopoly form.

Sumatra was another varied and complex region, portions of which were Dutch colonial, royal monopolies, and others had an underdeveloped market structure that was vulnerable to disruption. Three major groups composed the layered social organization of the island. The first layer, a sultanate, was superimposed over a pre-existing Malay social structure. The sultan

demanded rents from the village leaders (*peroatin*). The villages, the second layer, had an egalitarian structure and loose organization. Villagers were not accustomed to landlords or direct taxation. The majority of the inhabitants were rice or pepper producers. In these groups, control over surplus goods was tied to village status, a situation that complicated English attempts to interact directly with village leaders (Kaithrimby-Wells 1977: p. 32). Essentially, interference at this level—in the form of trade or extortion—threatened the basis of legitimate authority within the group. Subsequent breakdowns in social order had adverse consequences for external trade as well as negative internal consequences for Sumatran communities. Coastal villages also hosted the third major Sumatran social group: Islamic immigrants of Riau Malay, Javanese, or Bugi descent. These were residents of the island, not traveling merchants. They engaged in small crafts production, fished, and acted as merchants. They were literate, skilled, and well-integrated traders available as intermediaries for the English.

That is, until the English attempted to cut out the middlemen and radically centralize market operations in Sumatra. In making this decision, the English appeared to be aping the Dutch method of monopolistic control used in nearby Batavia or following the pattern established by the Acehnese (Kathirithamby-Wells 1969). In any case, they did not find success in this manner. In their West Sumatran settlements, the English uncharacteristically established themselves as colonial rulers; then used their power to implement a system of forced cultivation.⁶⁸ Part of their plan was to require every household in the villages under their control to plant 2,000 pepper vines (Bastin 1965: p. xv). Unsurprisingly, the English did not have the military power to sustain this sort of operation. In March of 1719 the Sumatrans forced them off

⁶⁸ This colonial activity was uncharacteristic of the Company in the first 150 years of commercial expansion. It was later to become more characteristics—after the period of interest in this manuscript.

the island. They were eventually let back into their settlements; however the port never achieved much success. Conditions in these ports did not conform to the situation in which the English company thrived. Instead, this misguided attempt at centralization created conflict on two fronts. Eliminating the middlemen led to widespread local resentment and a destabilization of the existing village power structure. And second, attempting to regulate and control all commercial transactions infringed on employee interests. The monopoly conditions the company attempted to create in Sumatra left few private trading options. The result was one of the most openly corrupt English factories in the East (Bastin 1961: pp. 154-155; Kathirithamby-Wells 1977: p. 152).

The English were more successful in the prosperous set of *open cities* that closely resembled Bantam. A few of these cities were independent kingdoms in their own right, Calicut for example. The ruling *Zamorins* had turned that port into a major transshipment area. Merchants dealt in pepper, cinnamon, ginger, coconuts, timber, sugar, rice, areca, textiles, opium, and ambergris. The majority of royal revenues came from customs on overseas trade in these goods. Other similarly structured commercial hubs of the East were Aceh (politically and economically distinct from, though related to, the majority of other Sumatran settlements), Aden, Bandar Abbas, Basra, Hormuz, Johore, Kedah, Malacca, Muscat, Mokha, Jiddah, Quang Nam, Quilon, and Banjarmasin.

A number of these open cities fell under the rule of the Ottoman and Safavid Empires. The Ottoman Dynasty ruled over a slightly larger area than what we now know of as Turkey. The Safavid Empire was once better known as Persia. Both the Safavid and Ottoman empires depended largely on trade to fill government coffers. They had abundant resources to draw on as

they commanded the overland route between Asia and Europe as well as many of the key Asian ports listed above.

Japan remains the best-known case of outright hostility to foreign traders. The commercial organization of external trade resembled that of China. It was a *regulated market*. The isolationism of the Japanese has become part of popular myth. It is less-well known that the Japanese continued to trade with the Dutch at Hirado from 1609 to 1641 and at Nagasaki from 1641 until the end of the eighteenth century (Glamann 1981: p. 168), although all trade was conducted under brutally enforced regulations. In the early sixteenth century a group of Jesuits had visited Japan and succeeded in converting a small proportion of the population to Christianity. The Japanese Shogun perceived their success as a threat.⁶⁹ In response, he ordered the crucifixion of twenty-six men, many of whom were Jesuits, for the crime of proselytizing.

The Shogun's suspicions extended to all Christians, fearing they would attempt similar conversion efforts. European merchants were therefore subject to strict surveillance and cordoned off from the local population. The Dutch persisted under these difficult, and at times threatening, conditions in order to procure a steady stream of Japanese silver. In all likelihood the military organization of the Dutch Company better prepared them to maintain this strict separation. Shogun Tokugawa Iyemitsu excluded the English from Japan in 1623 (Van Leur 1955: p. 172). The strict regulation of the market, which centralized trade in the hands of the few

⁶⁹ The Japanese Shogunate had only recently been consolidated into a unified government after many decades of war and bloodshed. The Shogun was protecting his position by excluding potentially disruptive alliances with foreign merchants. Religion, as a cohesive social force, also would have drawn allegiance away from the crown. Japanese exposure to western religions was at that time limited to the Jesuits, which would have given them an image of a powerful and deeply political religious order.

in order to reduce contact with Europeans, made it an incompatible site for the English, despite the abundant silver available at this source.

The greatest variations within one type occurred within the category of the *royal monopoly*. Many royal monopolies came into being when elites wrested control of an already profitable foreign trade from existing merchants groups. One exception to this was the Banda Islands. These islands were the sole home of the nutmeg tree, and therefore the one source of nutmeg and mace. They had long been ruled by a merchant oligarchy called the *orang kaya*. These men exercised strict control over a system of enforced cultivation. “Farmers could approach foreign buyers directly only in great secrecy” (Reid 1993: p. 34). In this case, state control seems to have emerged out of efforts by traders to monopolize the profits from foreign commerce (Villiers 1990: pp. 83-106). The islands pose a fascinating case of a different evolutionary path to state construction, but displayed a similar institutional configuration as other ports with more mundane patterns of development: high centralization and moderate sophistication.

The term royal monopoly also describes ports where elites did not directly engage in trade, but delegated these rights to a single merchant group. For example, Safavid royals were influenced by Armenian merchants, who interacted with the empire as a well-organized merchant lobby. The merchant representative held the formal role of mayor, or *qalantar*, of Julfa. The *qalantar* sat at court and negotiated on behalf of the community (Barendse 1998: p. 64). The Armenians used this position to involve themselves in the exclusive royal trade of the Safavids for first part of the seventeenth century, effectively wielding their political power to create a merchant monopoly. However, the Dutch and English were fortunate in that, when they arrived

in Persia, Armenian merchants were in the process of expanding their business networks in Northern Europe (Ferrier 1973: p. 44). This fact, combined with the profits that could be made from the dependent Europeans, led the Armenians to give up their monopoly in most major ports and welcome the Dutch and English into the trade (Ferrier 1973: p. 45). They instead entered into commercial partnerships with the English and Dutch, guiding their transactions and profiting as brokers and translators. The result was that open conditions were maintained for the English and Dutch at most major ports of the Safavid Empire.

A coalition of merchants from Madras was more successful in guarding their monopoly over the trade of Natal and Tapanuli Bay in Northern Sumatra. As noted in chapter six, Madras itself was decentralized. In Natal and Tapanuli Bay, a different context with different incentives, the merchants changed their operations. As a group of foreign overseas traders barely linked into the system of production, the Madras merchants actively discouraged competition. Because they had the political support of the Sultan of Aceh and were able to centralize control of trade within their own coalition, they acted as a *royal monopoly* (Kathirithamby-Wells 1977: p. 156).⁷⁰ It is interesting to note that the Dutch often sought a similar position, i.e. a powerful and politically embedded merchant group, as a precursor to colonial occupation. For example, their presence followed this trajectory in Jambi and Palembang, where the Dutch initially used their influence to procure a monopoly on trade in the seventeenth century.

Eastern organized merchant communities could hinder the English Company trade depending on the following conditions: their social organization, the point at which they were

⁷⁰ The Madras merchants were led by Gowan Harrop. Overseas trade in Madras was cosmopolitan. It is very likely the coalition consisted of a mixture of Muslim, English, Hindu, and Armenian merchants.

linked into the production of goods, and their political power. If one merchants group possessed significant political power, the first two characteristics could lead them to either restrict the Company's access to sophisticated commercial practices (i.e. those that existed within the merchant group) or exclude them (and others) from trade.

If a merchant group practiced social closure, meaning they restricted entry into or relations with the group, they made it more difficult for anyone outside of the group to enter into trade. Merchants create inward-looking coalitions for many reasons. They may form a coalition to gain monopoly power and increase profits, as was the Dutch strategy in the East Indies. They may also exclusively trade with one another in order to build trusting, durable relationships—of great value in the high-risk arena of foreign trade (Greif 1989 1993 1994 2006). In either case, high internal cohesion inevitably discourages competition. If the English encountered highly cohesive coalition-based merchants, it decreased their ability to participate in the trade of the port. Closed merchant communities of overseas traders were not potential partners so much as threatening competitors.

The effects of cohesion, however, are mediated by the location of a group in the production chain. If merchants were located or were able to locate themselves higher up in the production chain, so that goods flowed through them on the way to English traders, the English presence brought a welcome increase in demand. For example, in the Arabian Sea only a small group of pilots had the geographic knowledge crucial to successfully pilot ships through coastal

waters. Election into this group was hereditary (Barendse 1998: p. 12).⁷¹ These pilots profited from increased demand for their services, so new overseas merchants were always welcome.

The position of a commercial group in the production chain often reflected the degree to which they were integrated into a host society. Transient Muslim merchant communities in Madagascar and Ceylon, as opposed to Arabian Sea pilots, were of little help to the English because their commercial activities were limited to imports and exports—which competed with English interests rather than complemented them.

When merchant groups were both organized into closed communities and closely linked to distribution rather than production, they often attempted to use political and economic connections to exclude other merchants from trade. The wealthy Gujarati trader Malik Gopinath was known for “tyrannizing the local Muslim population by using his access to the state machinery” (Subrahmanyam 1995: p. 765). The Gujaratis were both motivated to exclude other overseas traders and able to manipulate local politics to their advantage. These crucial characteristics, social organization and degree of political influence, depended to a large extent on underlying factors of the land-labor system and geography explored by J. Kathirithamby-Wells and John Villiers in *South-East Asia* (1990) and by Arthur Stinchcombe (1995) in the *West-Indies*.

Political barriers to foreign trade are closely related to two characteristics of government: the source of revenue and the degree of bureaucratic centralization. If the government has an extensive agricultural base to draw from, it is less likely to tolerate foreign merchants. If

⁷¹ To this day sea pilots in the United States retain an exclusive membership, not dissimilar to their forebears in the Arabian Sea.

revenues are exclusively drawn from foreign commerce, officials are much more likely to extend themselves in order to draw in those merchants. This distinction rests on the difference between coastal and interior kingdoms as well as the navigability of interior waterways (or *échelles* versus *entrepôts*). In coastal polities that lack interior waterways, tax rates often go down and legal protection for merchants increases. However, groups may shift priorities over time. If the government begins to engage in the profitable overseas trade, the situation for foreign merchants may deteriorate. Conversely, state organization may arise from the aggrandizement of wealth by merchants plying their trade, as in the Banda Islands and their ruling class of merchant oligarchs, the *orang kaya*, meaning *rich men* (Villiers 1990: pp. 83-106). In either case, royal monopolies can produce a thriving trade, but close off opportunities to newcomers.

In the context of the Indonesian Archipelago, productive regions often went through different cycles of elite and merchant control, varying with the territorial fortunes of rajahs and sultans, but also through the normal course of the tug-of-war found in all competitive political situations. In a large feudalistic empire, foreign merchants operate below the radar of large empires, but well within sight of local governors. If power is decentralized, the local governor decides how to extract the highest rents, so that they may take a cut before passing along trade revenues to higher-ranking officials, producing barriers to trade. These characteristics are manifested in greater or lesser degrees of centralization in foreign trade. When overseas trade is concentrated in the hands of one elite-sanctioned merchant groups, this port is classified as a royal monopoly. A full list of ports and types is presented in the appendix.

Rates of Contact:

Given this quickly drawn institutional map of the East Indies, the relevant question is where did the English have the greatest success. If a long-term English presence is randomly scattered across these many types, the ports themselves must have had little impact on English Company operations. If successful English factories cluster in one or two types, it indicates that those institutional configurations were better suited to the particular trade of the English. Evaluating the similarities and differences across favored and unfavored ports builds a more complete picture of the kind of institutions that were amenable to the English system of decentralized organization. Table six presents a tabulation of visits across types produced by categorizing ports into the different institutional configurations.

Table 6 about here

If decentralization and commercial sophistication significantly affected the ability of the English to establish regular trade, the rate at which they traveled to market societies and open cities should be higher than the rate of contact with royal monopolies. There should also be less trade with regulated reciprocities, unregulated reciprocities, and regulated markets. These associations can be detected with a count model.⁷² The data does not satisfy the strict assumptions necessary for using a Poisson model. Instead a negative binomial, which allows for overdispersion, provides a significantly better fit and has been used here. Covariates would of course be preferable, however the data available for a large proportion of these ports is extremely

⁷² A count cannot include negative numbers, which potentially causes distortions of the coefficient estimates if an OLS model is used, which depends upon normal distributions. Count models account for this problem.

limited. In many cases all that was available were brief observations made in travel logs, which either stood alone (for example, if the port was uninhabited) or was supplemented with information contained in regional studies. It was not possible to locate all ports in the historical record, so I limit the analysis to the 260 ports for which I was able find information.⁷³ Period effects are included as controls as well as an offset variable, which controls for the total traffic within periods.⁷⁴

Many ports transitioned between institutional types, most frequently becoming colonial ports at some point in the period under consideration. Visits are categorized by the institutional type of the port at the time of the visit, so one port may contribute visits to different categories. For example, Mauritius contributes to the count of three different incident rates. One when the island was largely uninhabited, one during the Dutch and French colonial periods, and another after the island fell into English hands. Trips to the port in the first period are counted as uninhabited, visits in the second period are counted towards the colonial category, and visits in the final period contribute to counts of the market type. Although Mauritius was an English colony in the final period, the colonial category is meant to capture interactions between the English and other European centers of control. It is also true that although trade within the Company was becoming more restricted during this later period of Mauritian history, private trade outside of the Company was encouraged. So, external conditions in Mauritius as an English colony were closer to market than monopoly conditions. The statistical model captures the

⁷³ In some cases this absence of ports seems to be due to idiosyncratic naming conventions employed in particular log books. In other cases it may be the result of misspelling or mistranscription from the log to catalog.

⁷⁴ The offset converts the dependent variable into a rate, of visits over the log of the number of ships out in that period. Traffic increased significantly over time, so this is an important control.

association between port type and the number of trips to port made by the ships of the East India Company and is meant to be descriptive.

It should also be noted that only those ports with which the English Company actually attempted to initiate trade are included in the model. There is reason to believe this would produce a biased sample since it is likely that the Company would have tried to initiate trade only with those ports that seemed as though they would make profitable trade partners. This bias could produce artificially high incident rates. However, the goal here is not to estimate the rate of contact at all ports—rather, it is to identify any variation that exists in the amount of time the English spent at different types of ports in the East. A bias that artificially pushes up estimates should not obscure the differences between different types of ports. The sample of ports may be considered to represent the set of known ports that the English considered candidates for potential trade.⁷⁵

Table 7 about here

Because port types are categorical variables, one must be used as a comparison with which to build up the other estimates. In this case, colonial ports serve as the baseline for port types and the colonial period serves as a baseline for period types. This means that positive estimates show indicate a higher rate of contact than experienced by colonial ports, and negative estimates indicate a rate of contact lower than that experienced by colonial ports. Table seven presents the results in descending order of coefficient strength. As expected, the strongest

⁷⁵ This is similar to looking at what is called ‘the effect of the treatment upon the treated’ in epidemiology and econometrics. It is a pragmatic approach.

positive relationship exists between market organization and trips to port. Market ports were clearly more likely to receive visits by Company ships than other port types. Regulated markets are not significant, indicating that they are not significantly different from colonial ports. Open cities are negative and significant, but lower rates than regulated reciprocities, royal monopolies, and unregulated reciprocities, and uninhabited ports—all of which are both negative and significant.

Trade Partners:

A second way of approaching Company relations with ports is by identifying patterns of regular exchange with different ports. Some ports may have experienced short bursts of traffic, but proved to be relatively inhospitable over the long run. This pattern could produce high counts without accurately capturing durable trade relations. Therefore it is also advisable to consider whether the English Company was able to form sustained commercial relationships with ports.

In this analysis, the average time elapsed between trips of the East Indiamen to each of the ports serves as a baseline to identify abnormally long lapses between visits that would signify a break in regular trade. The median of the average time between repeat visits for each port was roughly four years.⁷⁶ Four years is also a natural cut-off point for regular trade relations with a port as it captures two shipping seasons. In this scheme, a ship may skip a port one voyage, return to it the next, and the interaction would still fit into one spell of trade. The advantage of

⁷⁶ Each port contributes one average; however this weighted average of time between trips showed a significant skew due to a small number of exceptional ports, which is why the median of averages is employed.

this measure is that it incorporates considerations of both the frequency and length of trade relations. If four years pass and no East Indiamen stop at a port, the spell of regular exchange is considered complete. Another period of sustained exchange may occur with that port at a later date. Any one port may have several spells over the years of the English Company's existence as a trade organization.

Of the set of 264 ports visited by the English East Indiamen, 143 received repeat visits, or entered into spells of regular trade with the English Company.⁷⁷ The average spell is thirty-five years long. The longest span of regular contact with a port is just over two hundred years with Johanna, an island off the east coast of Africa. Many ports experienced more than one spell. A total of ten ports engaged in three separate spells of trade with the Company. Fifty-one have more than one. This reflects a reality of early modern trade: it was erratic. Ports tended to drop in and out of larger networks as domestic conditions changed. This movement underscores the importance of identifying spells of trade within the timeline of a port's history with the English Company.

Table 8 about here

Table eight reports the percentage of ports, by type, with which the English Company established one or more period of regular exchange. The categories of social organization are arranged in decreasing order by the success experienced by the English in creating at least one

⁷⁷ Duration implies time elapsed between visits. Therefore, I do not consider spells formed by simultaneous arrivals. Also, since East Indiamen ships sometimes traveled in convoy, I did not consider extremely short durations to indicate repeated visits. Rather they indicate one trip of more than one ship. Therefore spells of less than one year are not included. This time frame is reasonable since ships were often separated and delayed.

sustained bout of trade with ports of that type. The total number of cases exceeds 264 in this table because, as noted earlier, several ports transitioned between types. In these cases, the port contributes more than one observation.

Table eight shows that the successful establishment of sustained trade occurred at much higher rates for open cities, market societies, and non-English colonial ports. Behind these were commercially sophisticated ports with strict regulations on overseas trade, the regulated markets. Another advantage of approaching the data this way is to get a sense of not only the count of trips to ports, but also the options that were available to the Company. For example, table eight shows that the English Company attempted to initiate trade at many royal monopolies, which was a prevalent port type in Asia. Royal monopolies have the second highest number of ports visited by the Company ships: fifty-six ports with royal monopolies entered the English network at some point in the organizational history. Despite these high numbers, the English Company was less successful in establishing regular trade relations at these sites. The Company experienced regular bouts of trade with only forty-three percent of these ports. Lower on the list are sites with generalized exchange systems and uninhabited islands.

Table 9 about here

Table nine reports the average number of spells, the total number of years spent in regular exchange, and the average duration of those spells across ports types. The list is ordered by the average duration of periods of regular exchange, again in decreasing order. Market societies surpass the others on all dimensions other than average number of periods of regular exchange.

This average is low because the Company rarely ended their trade at these venues. There are

more ports of this type in the English network and spells of regular exchange with these ports last longer.

This table also reveals that although trade spells were initiated more frequently at ports with royal monopolies or those controlled by other colonial powers, the Company was able to form more durable relations with the comparatively unsophisticated regulated reciprocities. Market societies were not necessarily the epitome of commercial sophistication. Royal monopolies, open cities, the regulated markets of China, and colonial cities all lay claim to similar commercial practices. The key to sustaining trade with the Company, which may have come down to simply avoiding outright conflict in many cases, lay in an institutional structure that provided some degree of equal access to markets for non-elites. The importance of the open market organization of foreign trade was the pattern of opportunity it provided for the Company and its employees.

Social Organization and Decentralized Trade:

The unique success of the English Company came from the unusually strong participation in trade at all levels of the firm hierarchy. In order for lower-level actors within the Company to trade, they needed allies outside of the organization. The Company and its employees were foreign traders, so the organization of trade in their host society, the ports of the East, determined the availability of these allies. In a number of ports in Asia, elites controlled foreign trade. In these ports, elites traded with a select few officers from the upper levels of the hierarchy,

satisfying status considerations, social definitions (i.e. foreign trade is an elite activity), and ensuring their continued control over trade. Opportunities did not exist for those lower on the organizational hierarchy to engage in profitable exchange. In order to sustain the private trading interests of the employees, the key decentralizing element of the firm's organizational structure, the English needed non-elite trade partners in their host societies.

However, the needs of the agents did not entirely supersede the needs of the principal. English ships were large by the standards of the day. It took hundreds of tons of goods to fill the hold. For the Company trade to succeed, large quantities of goods had to be available for sale. Only ports with a large producing class could create the necessary amount. If the production of goods was entirely distributed, the English had neither the time nor the knowledge to collect those goods. For this, they relied on intermediate merchants with several points of access into inland systems of production.

The ready availability of sophisticated financial instruments, such as bills of exchange, and institutions, such as mints, contributed a tremendous amount to the viability of the English trade, and financial markets were essential. Both the employees and the Company often relied on capital advances from local merchants in order to conduct their business. According to William Monson, a young Company employee in Madras, "it is credit with them [Indian merchants] that enables many people to carry on the trade they do" (Mentz 2005: p. 209). Even Company headquarters acknowledged that: "without the aid of the Capital and great Armenian merchants of Julpha [trade] is impossible" (Ferrier 1973: p. 55). Just like the Medici and the Fuggers, these eastern merchants used their own vast credit networks and bills of exchange to supply the necessary capital and guarantee English loans. Their financial networks depended in turn upon

their access to large-scale production processes. Typically the English deplored this situation, rather than realizing that their success depended upon it.

Lying beneath the inductive categories, the twin dimensions of decentralization and commercial sophistication drove the success or failure of English trade across the East. The eight categories vary in the way in which they combine the open or restricted market access and commercial sophistication. Ports classified as reciprocities rank low on internal economic development, but high on decentralization. Non-English European Colonies formally regulated commerce, but had difficulty enforcing regulations in practice, putting them in the middle range of decentralization and mid to high on commercial sophistication. Royal monopolies often had moderate levels of commercial sophistication, but substantial variation existed within the category. Regulated markets, open cities, and markets rank high on commercial sophistication. Open cities and markets also ranked high on decentralization. Regulated markets in contrast were subject to greater centralized control of foreign trade. The variation is represented in figure thirteen.

Figure 13 about here

The English and the Other Companies

Given the importance of the private trade, it makes sense that the English Company would flourish in decentralized, cosmopolitan ports, but it does not fit with the mythologized

process of European expansion into unchartered territories that populated the history books for so long. More interestingly, it was not necessarily what the English Company had desired. The English Company was the only chartered European organization in the East to adopt what we would now consider to be a very reasonable strategy of pursuing largely commercial, rather than colonial, relations with populated ports. But even in the English case, this strategy was the product of organizational weakness—lack of the necessary military strength to forcibly take ports and an inability to control employees. Together, through cooperation and partnership, the English Company and the many ports it visited created a new, and very successful, type of organization.

In comparison, the Portuguese engaged in commerce, but only in order to pursue political aims. The Dutch also pursued a strategy of violent aggression in order to achieve a commercial monopoly. Both Portuguese and Dutch organizations had rigid hierarchical organization with strong military overtones. In contrast, the English Company had a strained relationship with the state, low militarization, and loose control over employee's activities.⁷⁸

The different organizational characteristics led the European companies to settle in different types of ports—ultimately creating different types of trade networks. The Portuguese did not establish new ports; they conquered existing centers of commerce. They targeted commercial hubs and used military force to turn these into territorial bases from which to tax the existing trade. The result was that their trade network consisted of a thin chain of strategically

⁷⁸ This is true for the first century and a half of English activity in the East, when commercial expansion took place, but not later.

located settlements.⁷⁹ The Dutch were also a strict hierarchical, militaristic operation (Glamann 1981: p. 7). The centerpiece of their trade strategy was coerced cultivation of goods produced for a militarily enforced monopoly. To this end, they established a strong military and colonial presence in a central hub, Batavia, from which they could oversee the production and distribution of goods within their sphere of influence. This strategy produced a star or spoke-like network of trade, in which country trade voyages radiated out from the center of power in Batavia. The network could efficiently distribute information, but was extremely vulnerable to disruption or control efforts at its center.

The English operated differently. The English Company settlements were concentrated in India. Until the late-seventeenth century, these settlements were granted by local rulers—not taken by military force. They located operations in the center of thriving commercial areas, often linked by several competing merchants groups to different regional economies. Trade was usually conducted through local intermediaries who were considered partners or employees of the English Company.⁸⁰ Through the private trade of the captains, country trading networks were interwoven with the formal trade of the Company, creating new links between many different established English factories. The result was a malleable and robust decentralized network of multilateral commercial relations stretching across the East Indies.

The root of these network forms lay in structural affinities between the European companies and the ports in which they chose to settle. The Portuguese conquered cosmopolitan city states in order to gain control of the revenues from foreign trade—in many cases already

⁷⁹ Contemporaries and historians have often referred to the Portuguese colonial possessions in the East as a jeweled necklace.

⁸⁰ Again, this situation describes what occurred during commercial expansion, not the colonial period after the mid-eighteenth century.

being appropriated by other elites in those same cities. The Dutch replaced agricultural empires profiting from monopsonistic control over local production—meaning they made themselves the sole buyer of goods in order to increase their power. The English sought market societies that could accommodate the needs of entrepreneurial agents with different levels of capital and commercial aptitude.

A European Theater of War?

My emphasis on the decentralized organizational structure of the Company as a driving force behind the settlement patterns runs contrary to another theory of English expansion in the East. It has been argued that the English trade was structured by the attempt to avoid other Europeans. Specifically, the fear of the Dutch and Portuguese is used to account for the large number of Indian settlements established in the Indian subcontinent (Basset 1998: pp. 3-4). In this telling, European trade in the East reflected military tensions that had their origin in the West. The structure of European trade in Asia therefore would not have relied upon conditions in Asia, but instead reflected political realities in the West, and the East was merely as a stage upon which the European balance of power was fought.

Two theories exist to explain the role of violence in the English Company trade. One school of thought ignores the Asian context. Militarized trade was important because the English Company needed to defend itself against other hostile European companies. In this view, the expansion of European trade into the East consisted of a series of territorial battles between the

Portuguese, Dutch, English, and French nations. English success depended on English naval power (Dodwell 1920: p. xii, Roberts 1952: pp. 28-34, 91-128) or in a more nuanced fashion, English success depended upon the existence and outcomes of European politics and rivalries (Sinha 2002: p. 30). A second school of thought puts more emphasis on the importance of Asian institutions and states. The relative weakness of the English Company when compared to other European organizations drove them to arm their ships and to establish trade in areas with strong government. D. K. Basset hypothesized that the English relied on these governments to protect them from the aggressive Portuguese and Dutch companies (Basset 1998: p. 3-4). Both of these theories imply to some extent that the English did not trade or cooperate with other Europeans. Evaluating the overlap of English trade with the presence of other European companies in the 264 ports visited by the English Company does not support these hypotheses.

The data above, in tables six, seven, eight, and nine, already reveal evidence that European conflict does not seem to have been a dominant concern for trade patterns. Although conflict between European nations may have interrupted trade, non-English European colonial ports were popular destinations for the English Company in both relative and absolute terms. Company ships did not avoid other European settlements; rather, the English Company was more likely to establish factories in ports with other Europeans present than at ports without them.

Of sixteen ports formally occupied by the *Estado*, the English had spells of regular trade with nine. The total time spent by the English Company engaged in regular exchange with Portuguese ports, tallied over all ports, amounts to 420 years. A similar pattern held with the Dutch, despite the recurrence of Anglo-Dutch conflict over the centuries of company trade in the East. Of thirty Dutch colonial ports, seventeen entertained regular bouts of trade with the

English. Batavia, the political center of Dutch Indonesia, welcomed 498 English East Indiamen into its harbor during a spell of regular trade that lasted over a century.

As reported in table seven, 1,620 years of regular trade were spread across the colonial ports held by other European powers—this total is second only to the time spent in market ports. Other European companies may have avoided contact with each other, for example, the Dutch may have avoided trade with the Portuguese, but the English bridged these gaps. The presence of other Europeans helped rather than hindered English trade. This finding is consistent with historical documentation of cooperation in the East (for example, Ray 1999: pp. 112-120; Adams 1996: pp. 23-4 among others). At Surat, it has been recorded that different European nationals dined together, attended each others' funerals, acted as godfathers for each other, and often drank together (Barendse 1998: p. 102-3).

This cooperation reflects two underlying circumstances. On the one hand, other Europeans were also drawn to ports with open policies designed to encourage foreign trade. On the other, the Dutch *Compagnie* and *Estado da Índia* were colonial organizations. They also targeted ports with dual economic organizations consisting of peasant cultivators and merchant elites. Many of these states already operated within the trading world as royal monopolies. In such cases, the Dutch East India Company and *Estado* simply stepped in to the place of the elites, took over the system of appropriation, and continued to act as monopolists. It was however impossible not to import European commercial practices along with the large body of administrators necessary to regulating colonial life. These Dutch and Portuguese employees made ready commercial partners, already linked in to the system of production from the top down through systems of rent collection and land revenues. In the end, other Europeans

produced a three-way interaction that was favorable to the English. Their presence overcame underlying social factors in ports that would have otherwise discouraged the English pattern of trade.

Conclusion:

If a general sense of the abundant trade and commerce in Asia has been re-established in the pre-modern period by authors such as Andre Gunder Frank and Janet Abu-Lughod, the variety of institutional settings in the East and the way in which these settings interacted with European forms of commercial organization deserves more attention. Domestic institutions matter a great deal for the development of foreign trade. Confronted with an array of institutional settings, the English had to make strategic decisions about where to concentrate their resources. Understanding their strategy and success requires evaluating the complex institutional diversity of the trading environment they encountered.⁸¹

The employees of the English Company took a crucial step when they crossed outside of the hierarchical boundaries of the firm to pursue their own trade. Their transformative opportunism could never have been sustained without local institutions to support the entrepreneurial ambitions of the crew, captain, and officers—as well as the Company itself. The result was a complex and adaptive organization that encouraged sustained innovations centuries before the modern age of networks.

⁸¹ Sanjay Subrahmanyam makes a similar point by pointing out the great variety of merchant states—putting to rest simplistic notions of oriental despotism and predatory states (1995).

Unfortunately, the English did not seem to realize their dependence upon the pre-existing commercial structure of the East and the positive aspects of these cross-cultural commercial partnerships should not be overemphasized. Even as the English relied upon resident merchants as both individuals and Company agents, racist discourse emerged in colonial ports like Madras and tension and the threat of violence were a frequent presence, even in the relatively peaceful English trade (Subrahmanyam 1990: pp. 280-1). Cooperation with merchants also did not necessarily extend to the rest of the population. Prasannan Parthasarathi has convincingly argued that weavers and laborers in the south of the Indian peninsula were subject to increasingly coercive measure as English influence grew in the eighteenth century. In fact, Parthasarathi suggests that this may be one reason why coastal merchants partnered with the English—to better control the weavers (Parthasarathi 2001: p. 6).

CHAPTER EIGHT: Conclusion

Before the founding of the East India Company, England was a rural country with a largely agricultural economy. Europe itself was a relative, if rapidly developing, backwater, and England was scrambling to emerge out from under the shadow of the Dutch in their Golden Age. By the time of its dissolution, India was a colony of Britain, which had become the preeminent global political power. The Industrial Revolution had transformed Britain into “the workshop of the world,” while the City played home to the most dynamic financial sector the world had yet seen. State capacity had increased dramatically. Economics was playing an increasingly influential role in politics. And inequality between nations had increased dramatically. Not only had England’s position in the world changed, the world was itself transformed.

The English East India Company played an important role in these events. Its success generated a tremendous amount of wealth, handed the British government the foundation of a global empire, and permanently altered the trade and economies of Britain and Asia. It will always serve as an example of the importance of overseas trade. In these chapters I have argued that a key component of the Company’s ability to successfully expand its operations for nearly two centuries depended upon the local knowledge and adaptive capacity introduced into firm operations through the entrepreneurialism and communication networks of the private traders. Chapter three highlighted the distinctiveness of the English Company’s relationship to private trade. Chapter four showed that increasing employee autonomy by granting private trade privileges was associated with increased transfer of information between ships through social networks via the mechanisms of rational imitation, conditional choice, trust, timing, and information diffusion. The increased information flow also acted to bring new ports into the

regular trade network. Chapter five shows that private trade pursuits led employees to explore new ports while weaving a cohesive network of trade between ports, creating a robust and efficient communication network for the firm. The process involved a concatenation of mechanisms including the cultivation of a profit-maximizing ethos in Company employees, lack of organizational control leading to non-routine behavior, small world effects where randomness increases connectivity, and, once again, information diffusion. In both chapters four and five, the autonomy of firm employees encouraged those employees to explore new ports and goods, and the networks of decentralized communication that sprang up in this period of autonomy allowed those new goods and markets to be incorporated into the larger system of trade. The result was continued innovation and expansion until the restructuring of the Company in the colonial period.

The title of the manuscript, “Between Monopoly and Free Trade,” indicates my belief that the private trade allowances were so profound as to alter the nature of the Company. I have argued that it was not truly a monopoly as is commonly held. In the strictest sense, this is not quite accurate. Increasing the trade allowances of employees may have expanded the pool of privileged traders, but it did not actually threaten the monopoly privileges of the company. It is within the rights of a monopoly to license their privileges to others, as is the case with regulated companies of the time. However, the theory of monopoly, where profits are based in exclusive access to markets does not adequately describe the basis for the East India Company’s long-term success. The private trade of its employees was not a pittance, nor did it merely appease employees. A conservative estimate of the size of the private trade, counting only private freights aboard Company ships, put it at eleven percent of the value of Company goods (Mentz 2005: p.

129); other estimates put it at equal to or greater than the trade of the Company by the early eighteenth century (Krishna 1924: p. 125). Monopoly is an attempt to centralize market access, but the responsiveness and innovations found in the East India Company were tied to the opposite principle, increasing access to markets within a controlled framework.

On the flip side of the same token, the Company and those operating under its auspices also benefited the private traders. The trade of the captains suffered tremendously after the 1813 and 1833 Parliamentary Acts stripping the Company of monopoly rights (Sutton 2010: pp. 267-74). It was the Company that had borne the costs of defending the trading privileges -- that were also extended to its employees -- all along through loans to the government and vigorous prosecution of interlopers. Following a favorable court ruling, the Court of Committees of the Company brought charges against twenty-five private ship owners they considered guilty of trade to the East Indies and was encouraging the persecution of sixty-five more (Stern 2011: p. 59). The advantage such efforts achieved were significant. Even interlopers initially preferred to be included in the monopoly rather than abolish the privilege entirely. Evidence of this lies in their attempts to form the New Company.

The factory system, which depended upon the formal Company framework for the large initial outlays necessary to constructing permanent settlements, was essential to the larger flow of timely information between English traders described in chapter four. The factories acted as multiple hubs, capturing and dispersing information between merchants within the larger decentralized network. In times of political upheaval, English forts, factories, and settlements provided safe havens for English and even Indian merchants (Watson 1980: p. 82). Despite claims to the contrary (Jones and Ville 1996a), there is no evidence that unregulated trade, which

would not have had the benefits of forts and factories, would have been more successful than the Company trade. Instead there were clear synergies between the private and formal trade.

Although the Company was a monopoly, it did not operate on monopolistic principles. And although the private trade flourished alongside the Company, this does little to indicate that unregulated trade would have survived without the infrastructure created and maintained by the Company. The Company was not operating in a completely competitive marketplace, but it also never achieved a monopoly of any good. It was somewhere between the two.

In the section that follows I use the case of the English East India Company to reflect on existing knowledge about overseas trade expansion, decentralization within organizations, the importance of context in the emergence and interpretation of networks, and the centrality of micro-to-macro level phenomena in historical change.

History, Networks, and Analytical Sociology

Context

There is a tendency to think of networked forms of organization as part of a new movement in organizational design, or perhaps part of a new network organization of society. This perspective has been countered by the view that network forms of organization are enduring features of social and organizational life. If we consider social networks as patterns that link micro-behaviors to macro-outcomes, it clearly implies their existence across all of history and society. However, it is also widely implied that social networks, as informal relations, are a

constant feature of social life – a necessary counterpoint or glue for formal or market relations (Granovetter 1985). The English East India Company gives a largely unprecedented opportunity to study the use and development of networks over more than two centuries as the firm developed. One of the more interesting findings is then perhaps that networks neither arose later in the life of the firm nor were they necessarily a constant feature of the internal communication patterns of the firm. Organizational context itself had a large impact on network use and formation. The firm itself developed in contact with diverse societies and cultures different from each other and in many ways different from what we would find around the world today. The unfamiliar historical and cultural terrain magnifies the effect of context on the organization, and through it, the networks of employees. This is not particular to the case of the East India Company, although I would argue that historical and transnational network research is particularly well-suited to increasing our store of knowledge about how social, cultural, and institutional contexts affect network formation and use.

Network research arguably began with the theoretical work of Georg Simmel. Simmel was a Neo-Kantian who developed the idea of *a priori* social forms, such as the dyad (two linked individuals) and triad (three linked individuals) (Simmel 1971: pp. 6-22). According to Simmel, these *a priori* social forms had a determinative effect on the thoughts, beliefs, and behavior of individuals that was conceived as independent of any specific historical or cultural circumstance.

Simmel's theoretical work on social forms inspired an innovative and productive line of network research that focused on the effects of transposable social forms; however, as network research has grown an increasing number of voices have been raised in criticism of the emphasis on social forms, which seems to come at the expense of an explicit consideration of the

characteristics of social actors and social context (DiMaggio 1992, Emirbayer & Goodwin 1994, Pachucki & Breiger 2010). Instead of adopting a purely formalistic approach to social networks, the analytical sociology framework necessarily helps drive researchers to extensive consideration of both the relevant social agent and their operative context. On the one hand, the clearest theoretical imperative of analytical sociology is to base explanations for social processes in a lower level of observation. Generally this means explaining collective outcomes by virtue of the actions of individuals, but it has also been argued that relevant social agents may in fact be interactional components between actors (Sawyer 2011). In either case, the desires, motivations, beliefs, and opportunities of an individual or the meaning of local interactions between individuals clearly depend on the social, cultural, and material context of actions.⁸² Thus cultural and historical context are always in the end an essential component of any network-based explanation that fits within the analytical framework.

In the case of the English East India Company, the individual-level transfer of information through peer networks was tied to decentralization, but this occurred within two layered contexts. The first was a hierarchical organization. The organizational setting cannot be separated out from the peer networks because the effect of networks will play out differently in other sites. For example, since markets are already decentralized, social networks may well dampen innovation and the adoption of novel ideas in such circumstances, even as they increase innovation in hierarchical organizations. This is an important scope condition for interpreting the

⁸² This observation has been made repeatedly by contributors to analytical sociology (Hedstöm 1998: p. 13, Rydgren 2009, Goldstein 2009: p. 162, Manzo 2010: p. 156, Demeulenaere 2011, Edling 2012). The importance of cultural context to understanding individual behavior has also been explored in great detail outside of analytical sociology (DiMaggio 1993, Martin 2011).

analysis and demonstrates the potentially large impact of context; however it is a description of context that can be abstracted from specific social and historical circumstance.

However the development of effective social networks in the East India Company, i.e. social networks that effectively channeled useful information within the firm, also relied upon contact with inclusive economic arenas in the East. The peer networks inside the firm were sustained by external circumstances, implying that open societies may be necessary to maintain networked and decentralized firms – that is to say efficient and innovative firms. At first blush this may sound like a generalization that could survive across different contexts; however even if commercially sophisticated, open societies consistently create stable environments for network forms of organization, which are in turn capable of sustained growth, unique historical circumstances will almost inevitably determine whether open societies arise in the first place, as was the case for the environs of the English Company.

Decentralization and History

The question of what causes economic growth also plays into larger arguments about the role of top-down versus bottom-up processes of social change. Because the English Company sat at the nexus of several important strands of global history, the creation of new organizational forms, the rise of Britain to world hegemon, the expansion of global markets, and even the birth of economics, its history illuminates larger processes of historical transformation. The historical importance of the East India Company is not under debate, instead the question of concern here is to what extent did the private trade affect the process of historical transformation.

I argue that the private trade worked within the organization itself to introduce vitality, local responsiveness, and capacity for adaptation to a large bureaucratic administration that would otherwise have been left behind by a changing market. The continued expansion of the Company was responsible for the British colonization of India and the expansion of the British private trade was responsible for making the trade to Europe the largest portion of overseas trade in Asia (Steensgaard 1987: p. 145).⁸³ Since the English private trade in Asia depended upon Company facilities and privileges (granted by Asian rulers as well as the English monarch), and the entanglements created by private traders helped draw the Company into the colonization of India, either development is related not to the purely formal structures of the Company, nor to the private trade alone. Instead they depend upon the relation between the private trade and Company. The push and pull between the coordinating hierarchical form of the Company and the many loose ends of the different desires and ambitions of enterprising individuals was at the center of this transformation. After the private trade moved out of the auspices of the Company, in the colonial period, the Company began a long period of decline and settled into a typical and unproductive pattern of exploitation. This history has implications for both globalization and processes of social change.

Globalization was first conceived as an irrepressible force, expanding in concentric circles of *doux-commerce* or culturally-devastating cycles of creative destruction (Guillen 2001, Hirschman 1997). Research has shown that globalization, the establishment of international commercial and financial ties, is an uneven and ragged process that expands and shrinks (Fligstein 2001, Williamson 1996, Zelizer 2005), clumps together in certain areas, and excludes

⁸³ Steensgaard estimates that European overseas trade grew to more than Asia overseas trade in the first half of the eighteenth century—when the English private trade was growing exponentially and other companies were either stagnating, i.e. the Dutch, holding steady, or relatively small in comparison.

others (Kim and Shin 2002). The standard explanation for this uneven process attributes it to variations in the factors of land, labor, and capital that make business opportunities more or less desirable in different regions of the world. In other words, firms react to market conditions.

One objection has been to point to the role of institutions in shaping trade. This explanation has been offered by unorthodox economists as well as economic sociologists who emphasize the state's role in constructing international markets. State intervention has negative effects in the form of trade barriers, tariffs, customs, and duties (Becker 1957, MacDougall 1960). There are also positive effects. Overseas trade requires a host of institutions in order to reduce uncertainty to manageable levels and establish rules of exchange (Fligstein 1996, Fligstein and Mara-Drita 1996). States intervene in international commercial exchange in order to create these necessary institutions, thereby channeling the flow of overseas exchange (Gotham 2006, Duina 2005). In the manuscript, I looked at the both the institutional environment and the source of those flows, i.e. the firm itself. A large part of the story of the English Company's expansion had to do with firm characteristics. They were not driven merely by market conditions. The institutional environments of the East made the decentralization of the Company possible, but once installed, the decentralization of control within the firm drove trade into specific patterns that changed when the organizational structure changed.

When employees were granted a high degree of personal autonomy to pursue private commercial opportunities within Asia and a considerable amount of control over company resources with which to pursue this private trade, social networks were a mechanism for personal exploration that expanded the size of the larger trade network. When the autonomy of the employees decreased, social networks ceased to have an effect on trade. Internal control efforts

shaped individual-level decisions, thereby shaping the structure of the English trade network and through this, affecting the larger process of globalization. The struggle for control between various levels of the firms affected the patterns by which the firm expanded—and since it was a large overseas operation, this also impacted the process of global commercial expansion.

Generally, exploitation is a static state. In an exploitative system, those who have power use it to gather resources and strengthen their own position. They have no reason to change or call into question a system from which they are benefiting—at the expense of others. Instead, they have every reason to protect the existing system in order to defend their own privileged place within that system. The oppressed are often too resource poor to effectively organize any resistance. On the other hand, an entirely self-organized system is unlikely to produce the degree of coordination necessary to effect real change as well. Certainly, there is little evidence the English trade would have prospered as it did without the existence of the English Company.

It is rare to find instances of social organization that are both sufficiently well-organized to collectively solve complex tasks *and* designed to distribute rewards (or profits) meritocratically—a strategy that encourages productivity and growth (Udy 1959). It is the tendency for social systems to fall into static rent-seeking states that makes it important to identify the dynamics at work in moments when goods are distributed slightly more evenly. It is these moments, when rent-seeking is somehow temporarily halted, that produce economic growth (Jones 1993: p. 1). In this case, that decentralization produced subtly changed the direction of world history by affecting the history of English-East Indies relations.

A confluence of circumstances temporarily created a situation in which the English private traders could act productively within a large, bureaucratic organization. To use the language of Michael Mann, Harrison White and Richard Lachman, this transformative moment, a “conjuncture,” “interstitial emergence,” or “chain of contingencies,” reorganized the relationship between the East and West and affected societies on both sides of the divide. Ultimately, the system of exploitation was reasserted in the colonial period (a system that reduced the autonomy of the employees and to a much greater degree, the colonial subjects), but the rapid expansion fueled by the private trade had left its mark on the global economy. The relationship between the micro-level (i.e. the individuals) and the macro-level (i.e. the Company form and social context), which can be analyzed through networks, is an important piece of the larger puzzle, which is framed by the importance of open societies to economic development. To me it suggests a close connection between networks, employee autonomy, profit sharing, and innovation within successful organizations that I hope will continue to be the basis for further research.

Micro-Macro Linkages and Historical Transformation

Since networks are the primary means by which decentralized coordination and communication can take place, it makes sense that marginal actors, who are both excluded from many formal organizations and the most likely to push for social change, would use networks, i.e. informal communications, as a means to coordinate activity. This fact suggests that networks, understood as a mechanism of decentralized communication, may be intrinsically tied up in or a likely or recurring factor in social change – given that communication is necessary for

coordination. Networks to a large extent are defined by their mutability—this is, in the end, what makes them different from organizations or institutions. They link people together, but are still flexible enough to accommodate change. And in fact, the change networks facilitate may be a result of linking new groups together.

Harrison White, who presciently embraced and popularized the study of social networks in the 1950s, theorized networks as interfaces that create identity through linking mismatched pairs. The reconciliation of two different and disparate things creates a sense of identity and being (White 2008: pp. 1-19). This insight gives a broad theoretical framework for understanding how networks can be creative forces in the world. Building on relationalist theory, John Padgett and Paul McLean have convincingly argued that social transformation is produced by the intersection of new and different networks, showing that the partnership system of commercial organization emerged as an innovation in Renaissance Florence through the transposition of marriage and economic ties. The intersection and subsequent transformation of these two networks, invigorated the Florentine economy—mainly through the dramatically increased capacity of the new partnership system—and transformed society, making it more amenable to the rise of civic humanism and republicanism (Padgett and MacLean 2006: p. 1522).

Networks are essential to the creation of these transformative linkages, exactly because they operate outside of and in the interstices of formal institutions and organizations. They are boundary-spanning devices, and therefore can create revolutionary connections between otherwise distant people. Thus it should be no surprise to those familiar with the history of the English Company that the dynamic networks within the firm depended upon networks of actors outside of the firm and located in Asia. By exploring these relationships in chapters six and

seven, I hope to contribute to the large literature emphasizing both the importance of global relations (Braudel 1972 1977 1982, Wallerstein 1974 1980, Sassen 1991, Smith and White 1992, Curtin 1994) and the history of Asia to the evolution of the modern world (Lach and Kley 1965, Wong 1997, Pomeranz 2000).

However, my attempt to contribute to this extremely macro-structural literature is based very much in the micro-actions of the individuals of that time, and I hope demonstrates some of the potential that an analytical approach poses for historical research in the social sciences. By allowing an analysis of the relations between individuals, whether it be communication networks or the availability of exchange partners, it can shed new light on old historical dilemmas. Network models in particular gives researchers a tool with which to model and analyze decentralized coordination. Since power tends to be centralized, for example in states and empires, and existing powers generally to want to retain the status quo that has kept them in power, coordination among loosely affiliated, disenfranchised actors is likely to be an important source of historical transformation—as it is, for example in revolutions. In this case, decentralized actors, the English Company employees, were not responsible for a social revolution, but they did inject a vitality into the English Company which transformed its position in the world—and by extension transformed global relations between Europe and Asia.

Since the time when the Annales school shifted history away from the study of great men, many historians have worked to illuminate the lives of the large mass of individuals that fall outside of elite circles, but these have necessarily been focused illuminations of specific stories and individuals (e.g. Ginzburg 1992, Davis 1983). Network analysis presents a new method for studying the relationships between large groups of actors. And since it also reveals the causal force that patterns of relations can have, it provides social scientists and historians a new means

of understanding how non-elite actors have shaped the course of history—through emergent patterns as well as goal-directed behavior, for example.

For sociologists it offers both a rich conceptual framework and a rigorous method for investigating and measuring specific social mechanisms. It is one of several tools that can be used to reveal how individual lives intersect and cumulate into larger institutional structures and historical patterns.

TABLES.

TABLE 1. DIRECT EFFECTS OF VARIABLES ON THE CREATION OF A TIE BETWEEN PORTS

	<i>(Model 1)</i>	<i>(Model 2)</i>
Formal	2.269*** (17.92)	2.481*** (18.65)
Experience	0.316*** (5.88)	0.395*** (7.22)
Networks	0.144** (2.44)	0.243*** (3.12)
Formal x Tenure		-0.106*** (-4.65)
Networks x Tenure		-0.0469* (-1.81)
Clusters	2457	2457
N	190099	190099

t statistics in parentheses, fixed-effects logit estimates using directed-dyad-season-period fixed effects, standard errors robust to clustering on the fixed effects.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

TABLE 2. INTERACTION EFFECTS

	<i>(Model 1)</i>	<i>(Model 2)</i>
Formal x Exploratory	1.822 ^{***} (10.12)	2.015 ^{***} (10.16)
Formal x Private Trade	2.098 ^{***} (13.05)	2.264 ^{***} (13.18)
Formal x Colonial	2.480 ^{***} (13.31)	2.720 ^{***} (13.24)
Experience x Exploratory	0.0827 (0.37)	0.0309 (0.13)
Experience x Private Trade	0.268 ^{***} (3.89)	0.232 ^{***} (2.95)
Experience x Colonial	0.338 ^{***} (4.88)	0.305 ^{***} (3.19)
Networks x Exploratory	0.588 ^{***} (4.21)	0.444 ^{***} (2.72)
Networks x Private Trade	0.203 ^{**} (2.52)	0.164 [*] (1.69)
Networks x Colonial	0.0449 (0.52)	-0.0985 (-0.87)
Formal x War, Europe		-0.251 ^{***} (-2.60)
Formal x War, Asia		-0.249 ^{**} (-2.13)
Formal x Two Companies		-0.820 [*] (-1.92)
Formal x Cotton		-0.0414 (-0.11)
Formal x Tea		-0.380 (-1.40)
Formal x Coffee		0.565 (1.33)
Experience x War, Europe		0.0662 (0.65)
Experience x War, Asia		-0.0333 (-0.31)
Experience x Two Companies		0.291 (0.50)
Experience x Cotton		-0.184 (-0.26)
Experience x Tea		0.205 (0.75)
Experience x Coffee		-0.137 (-0.29)
Networks x War, Europe		0.174 [*] (1.70)
Networks x War, Asia		0.132 (0.93)
Networks x Two Companies		0.246 (0.47)
Networks x Cotton		0.425 (0.74)
Networks x Tea		-0.376 (-1.08)
Networks x Coffee		-0.548 (-1.14)
Clusters	3241	3241
<i>N</i>	127959	127959

t statistics in parentheses, fixed-effects logit estimates using directed-dyad-season-period fixed effects, standard errors robust to clustering on the fixed effects.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

TABLE 3. SIGNIFICANCE OF CHANGES OVER TIME

<i>Test</i>	<i>(1)</i>	<i>(2)</i>
Formal x Exploratory - Formal x Private Trade = 0	p < 0.25	p > 0.25
Formal x Private Trade - Formal x Colonial = 0	p < 0.10*	p < 0.05**
Experience x Exploratory – Experience x Private Trade = 0	p > 0.25	p > 0.25
Experience x Private Trade – Experience x Colonial = 0	p > 0.25	p > 0.25
Networks x Exploratory – Networks x Private Trade = 0	p < 0.05**	p < 0.10*
Networks x Private Trade - Networks x Colonial = 0	p < 0.20	P < 0.05**

TABLE 4. CROSS TABULATION OF MALFEASANT VOYAGES AND LEGITIMATE VOYAGES OVER THE REGIONAL EXPERIENCE OF CAPTAINS, SPECIFIC TO TARGET VOYAGE, 1680 TO 1764.

Experience	Legitimate Trade	Rogue Trade	Total
0	224 (1.01)	79 (.97)	303
1	301 (1.12)	66 (.67)	367
2	178 (.96)	76 (1.11)	254
3	65 (.85)	40 (1.42)	105
4+	14 (.19)	27 (2.45)	41
Total	782	288	1070

Note.-- Pearson chi2(4) = 54.4325 Pr < 0.0001; parentheses enclose odds ratio.

Table 5. CROSS TABULATION OF DISASTER OVER CAPTAINS' CAREER EXPERIENCE

Captain's Experience	Voyage Outcomes		
	No Disaster	Disaster	Total
0–1 prior voyages	1003 (.97)	85 (1.60)	1088
2+ prior voyages	3138 (1.01)	127 (.80)	3265
Total	4141	212	4353

Note. -- Pearson chi2(1) = 27.1046 Pr = 0.000; disasters include abandoning ship, wrecks, fires, captured by enemy forces, lost at sea, engaged by pirates, and mutiny; parentheses enclose odds ratios.

TABLE 6. DESCRIPTIVE STATISTICS: PORT VISITS BY TYPE

Type	Visits
Market	10,624
Regulated Market	2,819
Colonial	1,704
Open City	817
Regulated Reciprocity	596
Royal Monopoly	346
Unregulated Reciprocity	66
Uninhabited	12

Table 7. MARKET TYPES AND PORT VISITS

	Estimate	Z Value
Intercept	6.9085***	44.678
Market	1.6910***	8.499
Regulated Markets	0.1997	1.003
Open City	-0.4319**	-2.167
Regulated Reciprocity	-1.0070***	-5.044
Royal Monopoly	-1.3362***	-6.683
Unregulated Reciprocity	-3.3600***	-16.289
Uninhabited	-4.9812***	-21.538
Exploratory Period	-1.3579***	0.1295
Private Trade Period	-0.7511***	-6.210

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

TABLE 8. REGULAR TRADE SPELLS BY PORT TYPE

	No spells	Experienced Regular Trade	Total Ports
Open City	19% (3)	81% (13)	16
Market	46% (48)	54% (57)	105
Colonial, Non-English	47% (25)	53% (28)	53
Regulated Market	56% (15)	44% (12)	27
Royal Monopoly	57% (32)	43% (24)	56
Regulated Reciprocity	66% (8)	33% (4)	12
Uninhabited	73% (8)	27% (3)	11
Unregulated Reciprocity	72% (13)	23% (5)	18
Total	152	146	298

*Counts in parentheses

TABLE 9. AVERAGE NUMBER OF SPELLS, YEARS, AND TOTAL YEARS OVER PORT TYPES

Port types	Average number of spells	Total years spent in of regular trade	Average duration of trade spells*
Market	0.67	3,410.0	28.23
Open City	1.63	836.58	27.41
Regulated Reciprocity	0.58	441.25	25.37
Regulated Market	0.52	528.0	18.65
Colonial, Non-English	0.98	1,620.92	16.17
Royal Monopoly	0.55	476.5	6.65
Uninhabited	0.45	74.83	3.86
Unregulated Reciprocity	0.28	57.58	3.2
Total	0.7	7,445.66	18.24

*Weighted by port

FIGURES.

FIGURE 1. MODIFIED MODEL OF MULTI-LEVEL SOCIAL TRANSFORMATION

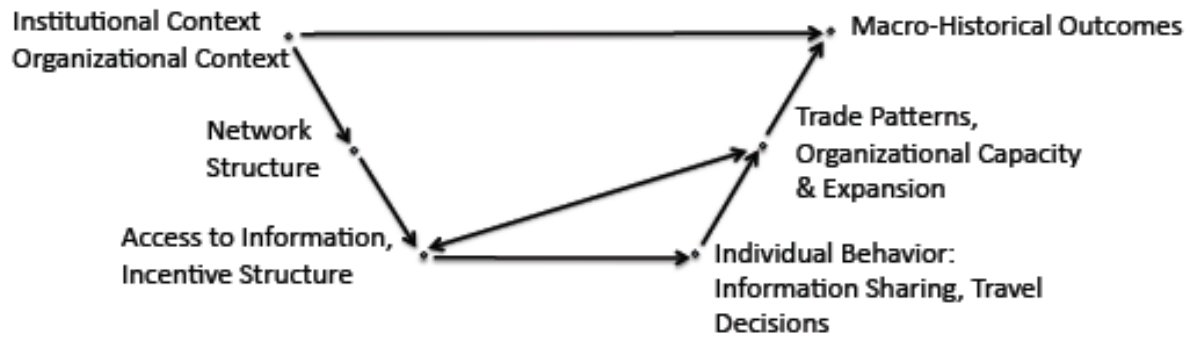


FIGURE 2. CURRENT MAP OF THE AREA ONCE KNOWN AS THE EAST-INDIES



From <http://www.eduplace.com/ss/maps/asia.html>

FIGURE 3. AVERAGE POPULARITY OF PORTS

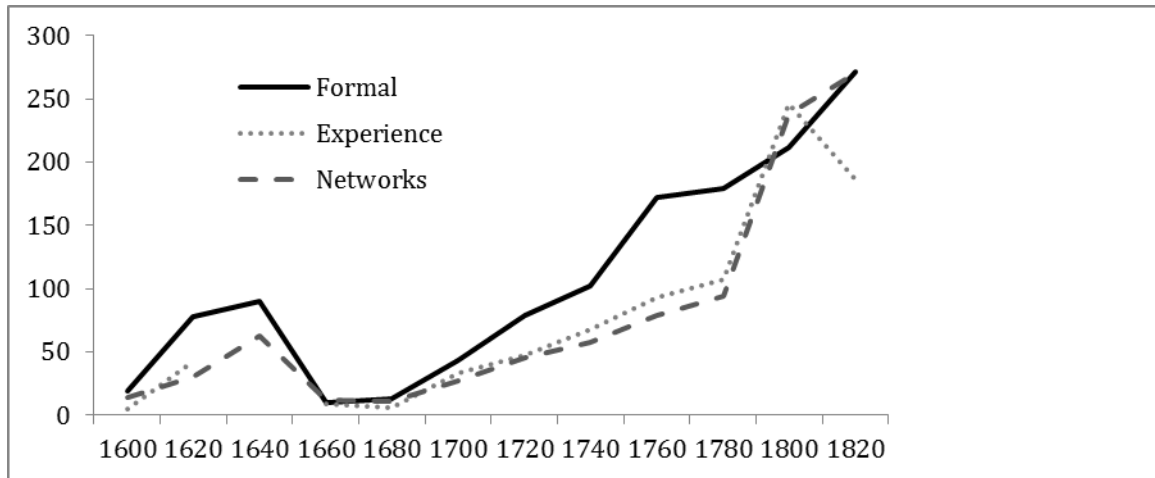


FIGURE 4. NUMBER OF PORTS IN THE TRADE NETWORK



FIGURE 5. NUMBER OF ACTIVE PORTS IN TRADE NETWORK



FIGURE 6. ACTIVE PORTS AGAINST NUMBER OF SHIPS DEPLOYED IN TRADE

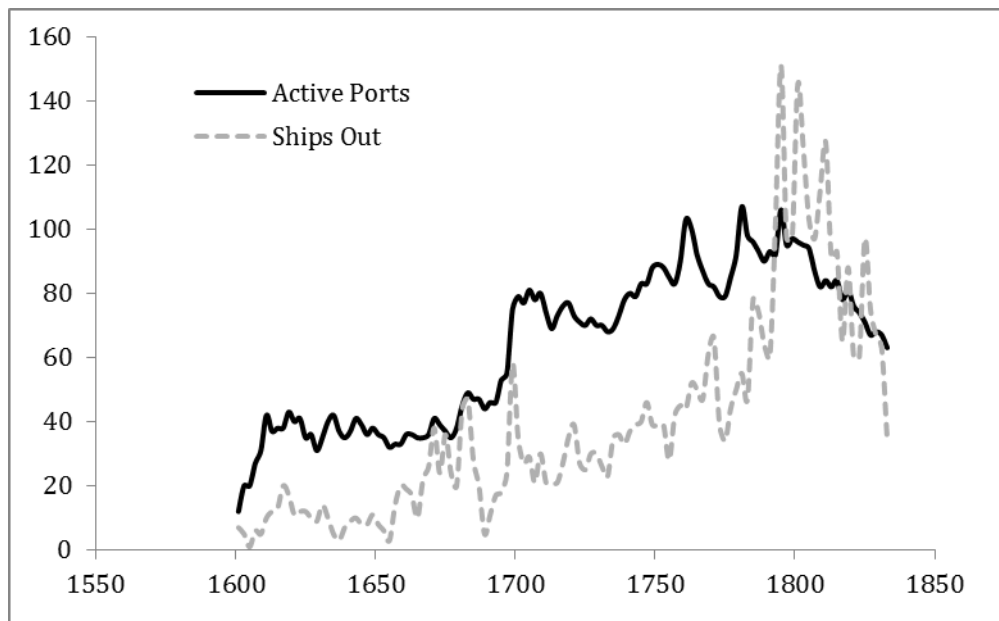


FIGURE 7. PROPORTION OF PORTS BY METHOD OF INFORMATION DIFFUSION

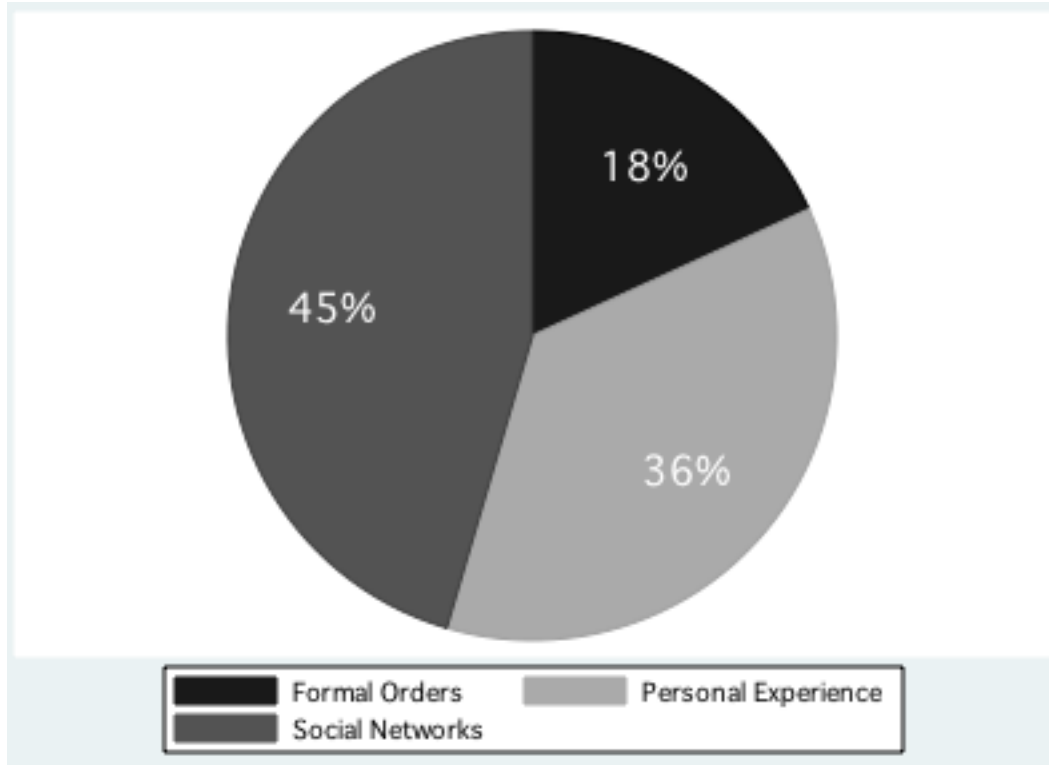
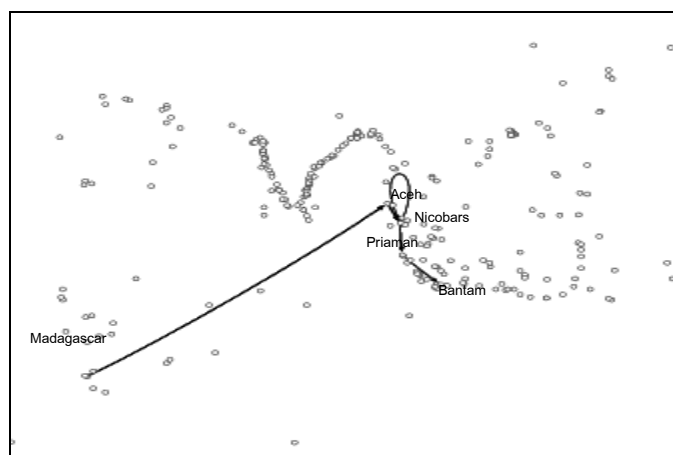


FIGURE 8. THE SUSAN, THE DRAGON, THE HECTOR, AND THE ASCENSION, 1601-1603.



FIGURES 9A-E. -- DEVELOPMENT OF EASTERN TRADE OVER GEOGRAPHIC REGIONS IN SNAPSHOTS
OF FIVE FOUR-YEAR PERIODS: 1620, 1680, 1720, 1780, AND 1820

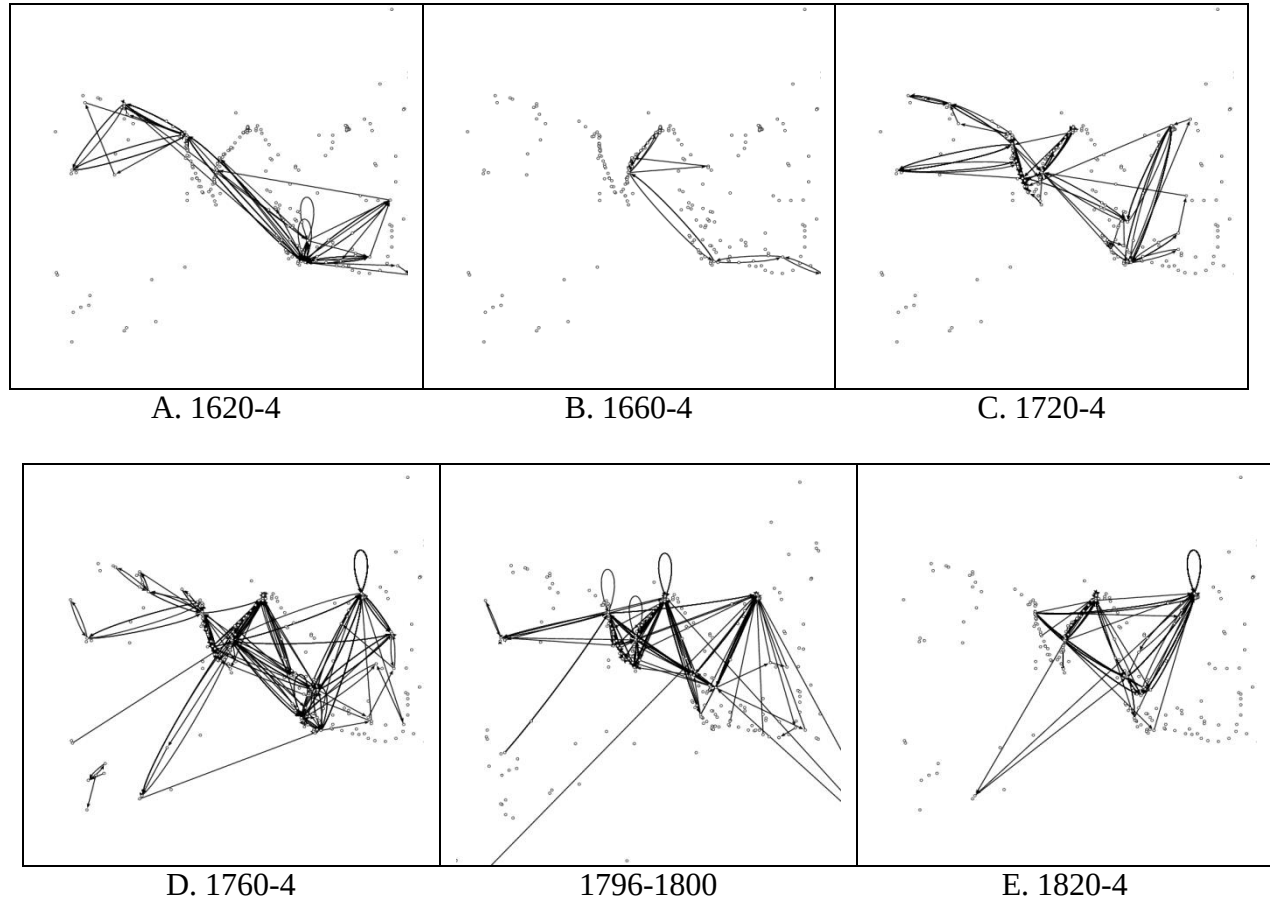


FIGURE 10. PANELS A-E. NETWORK VISUALIZATIONS OF THE ENGLISH COMPANY’S EASTERN
TRADE

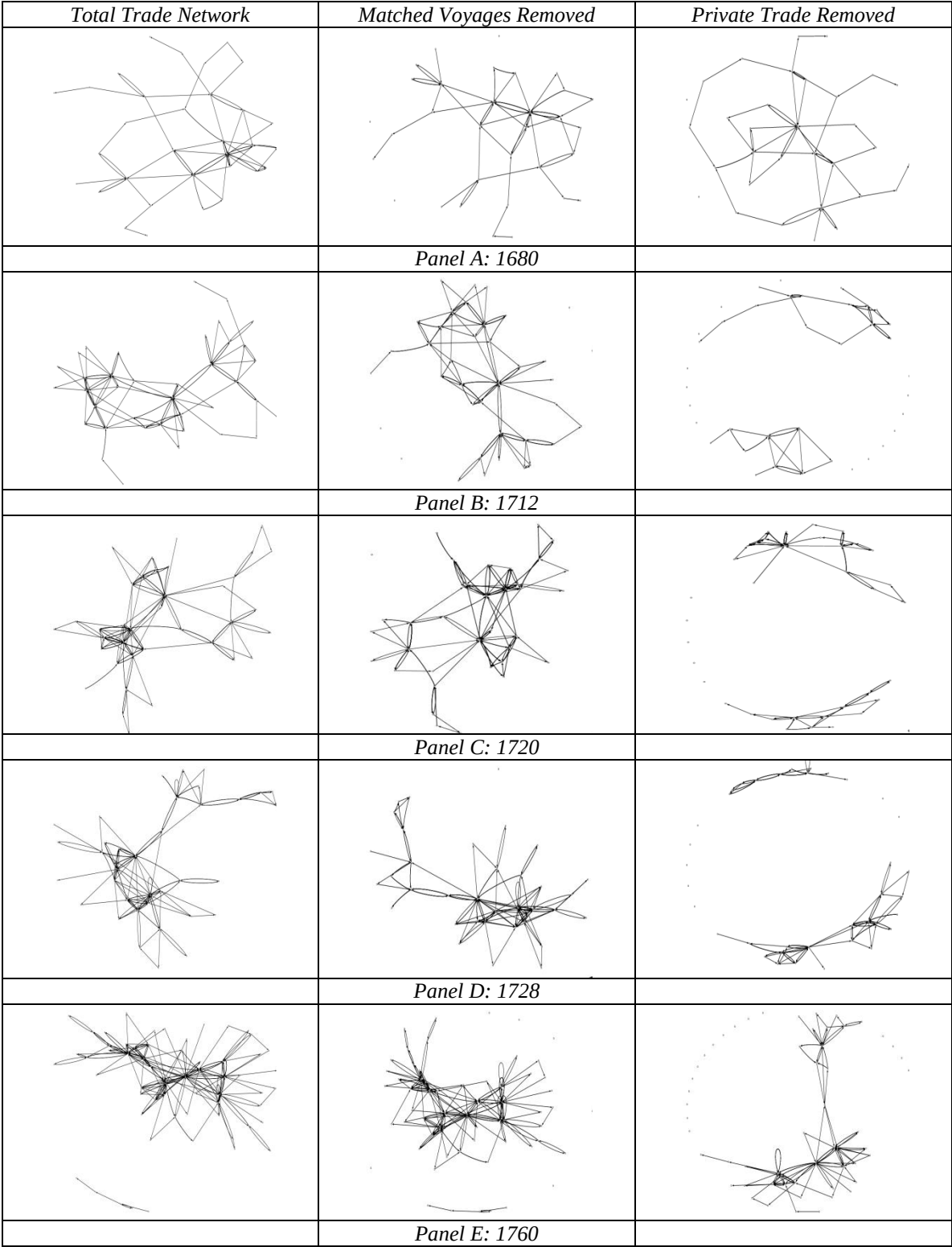


FIGURE 11. INTEGRATION LEVELS OF TOTAL NETWORKS, NETWORKS WITH PRIVATE TRADE REMOVED, AND NETWORKS WITH MATCHED VOYAGES REMOVED OVER FOUR-YEAR PERIODS FROM 1680 TO 1764.

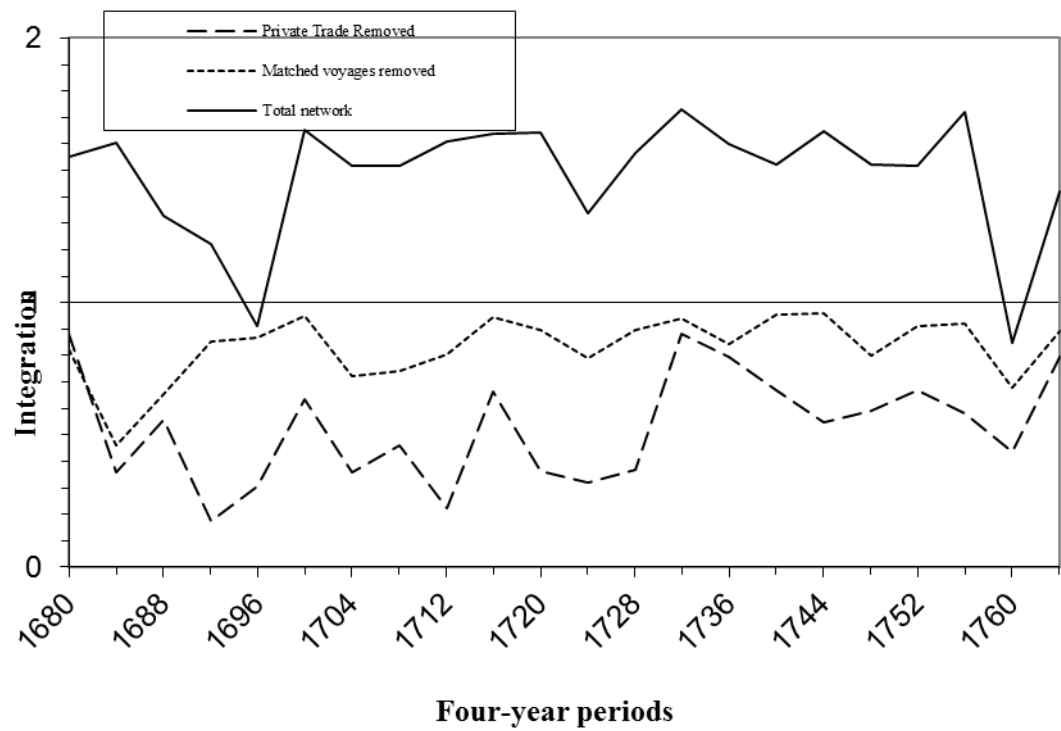


FIGURE 12. RELATIVE IMPACT OF ROGUE TRADING ON NETWORK DENSITY, THE NUMBER OF PORTS IN THE TRADING NETWORK, AND LARGEST BICOMPONENT SIZE IN THE EAST, 1680 TO 1764.

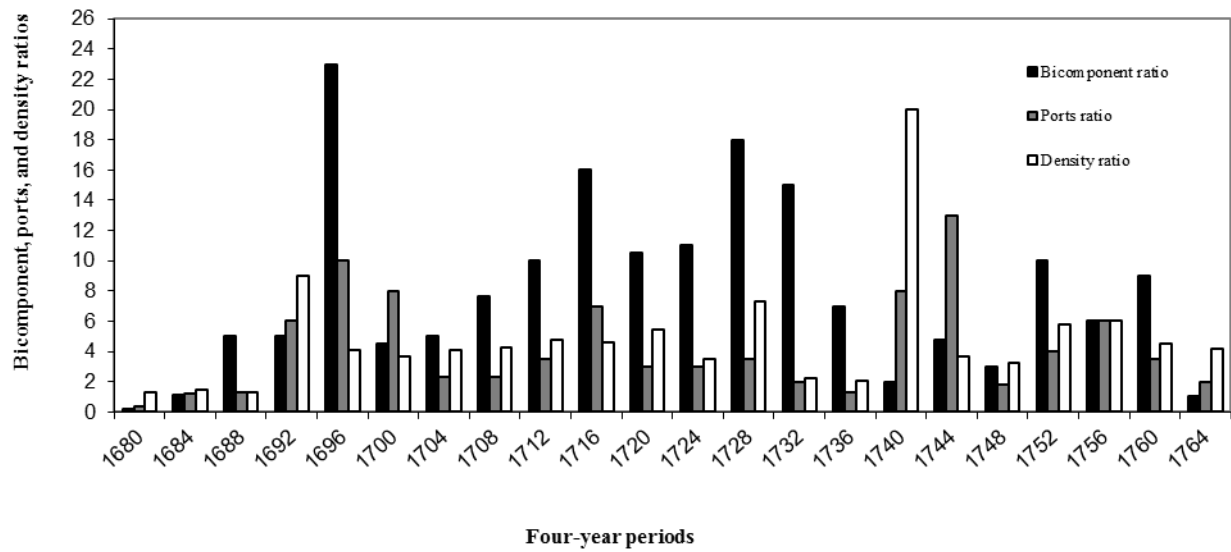
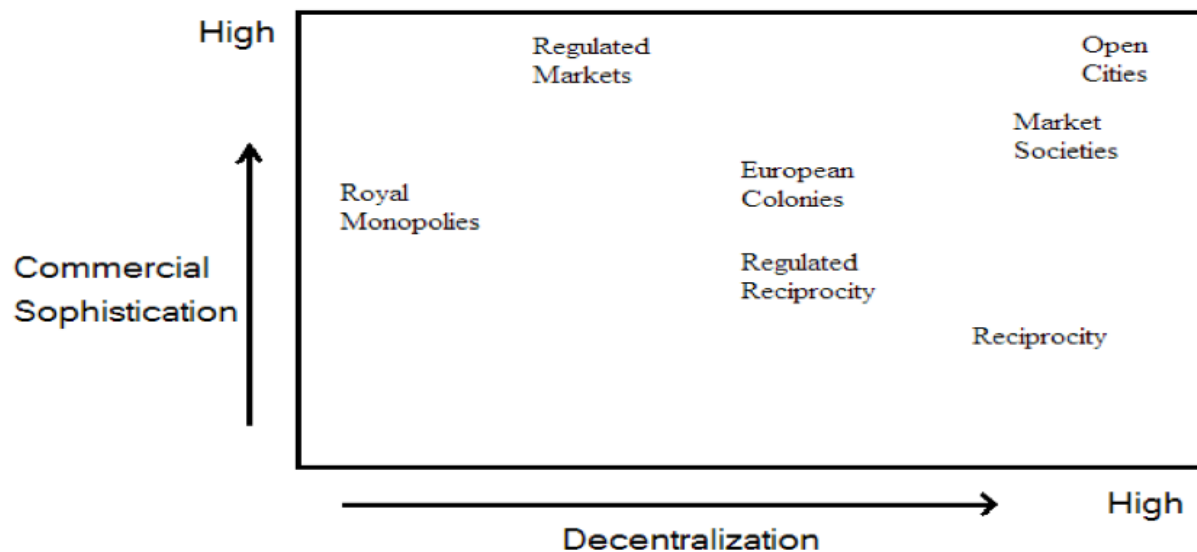


FIGURE 13. PORT TYPES ORDERED BY COMMERCIAL SOPHISTICATION AND DECENTRALIZATION OF ACCESS TO FOREIGN TRADE



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Appendix. Ports.

Port	Now	Type
Aceh	Aceh	Open City
Aden	Aden	Open City
Amboina	Ambon	Colonial, Portuguese/Dutch (1609)
Amoy	Xiamen	Regulated Market
Amsterdam Island	Ile Amsterdam	Uninhabited
Andamans	Andaman Islands	Exclusive
Anjengo	Anchuthengu	Market
Anjer (Sultan of Banten)	Anyer	Royal Monopoly (Dutch)
Armagaon	Arumugam	Market
Assada	Nosy Be	Regulated Reciprocity
Ayutthaya	Ayutthaya	Royal Monopoly
Bachian	Bacan	Colonial, Dutch (1609)
Bajalar	Bajawar	Market
Balambangan		Royal Monopoly
Balasore	Baleshwar	Market
Bali	Bali	Royal Monopoly
Ballamboan	Balamban	Colonial, Spanish
Banaca	Bangka Island	Royal Monopoly/English (1812)
Bancoot (Angre)		Royal Monopoly/Market (1755)
Banda	Banda	Royal Monopoly/Colonial, Dutch (1621)
Bandar Abbas	Bandar-Abbas	Royal Monopoly/Open City (1628 Shah Safi)
Bangkok	Bangkok	Royal Monopoly
Banjarmassin	Banjermasin	Open City
Bantal	Bantal	Market
Bantam	Bantam	Open City/Colonial, Dutch (1756)
Barrabulla (India)		Market
Barrier Islands (Australia)	Barrier Islands	Unregulated Reciprocity
Basra	Basra	Open City
Bassein	Vasai	Colonial, Portuguese/Market (1739)
Batavia	Jakarta	Market/Colonial, Dutch (1619)
Batticaloa	Batticaloa	Royal Monopoly
Bedthar	unidentified	Undetermined
Benkulen	Bengkulu	Market
Bertoonan (West Sumatra)		Market
Bimlipatam	Bheemunipatnam	Market
Bocca Tigris	Bocca Tigris	Regulated Market
Boeton	Buton	Royal Monopoly (Dutch)
Bombay	Mumbai	Colonial, Portuguese/English (Market) (1662)
Borrum		Undetermined
Bourbon	Reunion	Uninhabited/Colonial, French (1638)
Bouro	Bouro	Colonial, Dutch (1658)
Boyne Habour (Madagascar)		Regulated Reciprocity
Brinjoan		Market
Broken Ground		Market

Bushire	Busehr	Royal Monopoly/Market (1628 Shah Safi)
Cagayan Sulu	Mapun	Royal Monopoly
Calcutta	Kolkata	Market
Calderoon Bay (Coromandel)		Market
Calicut	Kozhikode	Open City
Calingapatam	Kalingapatam	Market
Cannanore	Kannur	Market/Colonial, Dutch (1663)/Market(1772)/English(1790)
Canton (Whampoa)	Guangzhou	Regulated Market
Cap Sing Moon		Regulated Market
Capshee Bay		Regulated Market
Carnicobar	Car Nicobar	Exclusive
Cavite	Cavite	Colonial, Spanish
Ceram	Seram	Colonial, Dutch (1650)
Chaul	Chaul	Colonial, Portuguese/Market (1740)
Cheduba	Cheduba Island	Royal Monopoly
Chittagong	Chittagong	Market
Chumpee (China)		Regulated Market
Chusan	Zhoushan	Regulated Market
Cochin	Kochi	Colonial, Portuguese/Dutch (1663-1795)
Cockelee	unidentified	Undetermined
Colombo	Colombo	Colonial, Portuguese/Dutch (1656-1796)
Connimere (Coromandel)		Market
Copang Bay	Kupang	Colonial, Portuguese/Dutch (1619-1796)
Coringa		Market
Covelong	Kovalam	Market
Cox's Island	Cox's Bazaar	Royal Monopoly/English (1799)
Crooe (West Sumatra)		Market
Culpee	Kalpi	Market
Cutch	Kutch	Market
Dabhol	Dabhol	Market
Daman	Daman	Colonial, Portuguese (1535)
Dhufar	Dhofar	Royal Monopoly
Diamond Harbour		Market
Diamond Island		Royal Monopoly
Diamond Point (Sumatra)	Diamond Point	Royal Monopoly
Diego Garcia	Diego Garcia	Uninhabited
Diu	Diu	Colonial, Portuguese (1535)
Dunderogipore	Dungarpur	Market
Eastern Channel	unidentified	Undetermined
First Bar		Regulated Market
Fort Dauphin	Taolagnaro	Colonial, French (1643-1674)/Regulated Reciprocity
Fort St David/Cuddalore	Cuddalore	Market
Fultah		Market
Ganges	Ganges	Market
Ganjam	Ganjam	Market
Geriah (Angre)		Royal Monopoly/Market (1756)
Goa	Goa	Colonial, Portuguese
Gogha	Ghogha	Market

Gomez Island (Gamispola, Pulau Gomez, Sumatra)		Unregulated Reciprocity
Gressik	Gresik-Djaratan	Royal Monopoly
Hainan	Hainan	Regulated Market
Hirado	Hirado	Regulated Market
Hobart	Hobart	Unregulated Reciprocity
Hog River (Bengal)		Market
Hong Kong	Hong Kong	Regulated Market
Hormuz	Hormuz	Colonial, Portuguese/Open City (1622)
Howrah	Haora	Market
Hugli	Hooghly	Colonial, Portuguese/Market (1631)
Indramayo	Indramayu	Royal Monopoly
Indrapura (Sumatra)	Indrapura	Royal Monopoly (Dutch)
Ingeli		Market
Ipoh (Malaysia)		Market
Jaggernaickpuram	Kakinada	Market/Colonial, Dutch (1734-1795, 1818-1825)
Jambi	Jambi	Royal Monopoly (Dutch)
Japara	Japara	Royal Monopoly/Colonial, Dutch (1746)
Jask	Jask	Royal Monopoly/Market (1628 Shah Safi)
java_head	Java Head	Colonial, Dutch (1619)
Jiddah	Jeddah	Open City
Johanna	Anjouan	Regulated Reciprocity
Johore	Johor	Open City
Kambelu	Serikkembelo	Colonial, Dutch (1608)
Kamree Roads		Royal Monopoly
Karakaul	Karaikal	Market
Karwar	Karwar	Market
Kedah	Kedah	Open City
Kedgeriee		Market
Khanderi		Market
Kharg	Kharg	Royal Monopoly/Market (1628 Shah Safi)
Kidderpore (Bengal)	Khidirpur	Market
Kisnapatam	Krishnapatam	Market
Kitow Point		Regulated Market
Kowloon	Kowloon	Regulated Market
Krakatoa	Unregulated Reciprocity	Uninhabited
Lagundy	Legundi	Market
Lampacao	Lampacau	Regulated Market
Lankeet Flat	Lankeet Island	Regulated Market
Lantau Island	Lantau Island	Regulated Market
Laye (Sumatra)		Market
Lintin	Nei Lingding Island	Regulated Market
Lombok	Lombok	Royal Monopoly
Macao	Macao	Colonial, Portuguese
Macassar	Makassar	Open City/Colonial, Dutch (1667)
Madapollam	Madapollam	Market
Madras	Chennai	Market
Madura	Madura	Royal Monopoly/Colonial, Dutch (1706)
Mahe	Mahe	Uninhabited/Colonial, French (1742-1812)

Mahuwa	Mahuva	Market
Makian	Makian	Royal Monopoly (Dutch)
Malacca	Malacca	Colonial, Portuguese/Dutch (1641-1798)
Maldives	Maldives	Royal Monopoly
Malwa	Malvan	Market
Manabulle (Madagascar)		Regulated Reciprocity
Mangalore	Mangalore	Colonial, Portuguese/Market (1640)
Manila	Manila	Colonial, Spanish
Manna (West Sumatra)		Market
Masirah	Masirah	Royal Monopoly
Massalege (Island of Mokamba, Petit Massaily)		Regulated Reciprocity
Masulipatam	Machilipatnam	Market
Mauritius	Mauritius	Uninhabited/Colonial, Dutch (1638)/French (1715)/English (1810)
Mayapore	Myapur	Market
Mew Bay (Java)		Uninhabited
Moco Moco		Market
Moheli	Moheli	Regulated Reciprocity
Mokha	Mocha	Open City
Monsourcottah		Market
Montague Island	Montague Island	Unregulated Reciprocity
Morandava	Morandava	Regulated Reciprocity
Morotai	Morotai	Royal Monopoly
Morungary (Madagascar)		Regulated Reciprocity
Mozambique	Mozambique Island	Colonial, Portuguese
Muscat	Muscat	Colonial, Portuguese/Open City (1650)
Nagasaki	Nagasaki	Regulated Market
Narsipore	Narsapur	Market
Natal	Natal	Royal Monopoly
Negapatam	Nagappattinam	Market/Colonial Dutch (1658)/English (1781)
Negraïs	Cape Negrais	Royal Monopoly
New Guinea	New Guinea	Unregulated Reciprocity
New Year Island	New Year Island	Unregulated Reciprocity
Norfolk Island	Norfolk Island	Unregulated Reciprocity
North Island (Borneo)		Royal Monopoly
Okinawa	Okinawa	Regulated Market
Onore	Honnabar	Market
Onroot (Onrust, Java)		Colonial, Dutch (1619)
Oshima	Oshima	Regulated Market
Padang	Padang	Colonial, Dutch (1663)
Palembang	Palembang	Royal Monopoly (Dutch)
Pangasinan	Pangasinan	Colonial, Spanish
Parcelar	Jugru	Royal Monopoly
Pattani	Pattani	Royal Monopoly
Pemba	Pemba Island	Royal Monopoly
Penang	Penang	Open City (Kedah, until 1786)
Pescadores	Peng-Hu	Regulated Market
Petapoli	Nizampatnam	Market
Pipli	Pipli	Market

Pisang	Syahrir	Colonial, Dutch (1621)
Point de Galle	Galle	Colonial, Portuguese/Dutch (1640-1796)
Pondicherry	Pondicherry	Colonial, French (1674)
Port Philip	Port Phillip	Unregulated Reciprocity
Porto Novo	Parangipettai	Market
Prawdar (Madagascar)		Regulated Reciprocity
Priaman	Pariaman	Market
Prince's Island		Uninhabited
Pring (West Sumatra)		Market
Pulicat	pulicat	Market
Pulo Auroe	Pulau Aur	Unregulated Reciprocity
Pulo bay (Sumatra)		Market
Pulo Condore	Con Dao Islands	Unregulated Reciprocity
Pulo Laurott	Laut Island	Unregulated Reciprocity
Pulo Masey		Royal Monopoly
Pulo Run	Run	Colonial, Dutch (1620)
Pulo Timan	Tioman Island	Unregulated Reciprocity
Qishm	Qeshm	Royal Monopoly/Market (1628 Shah Safi)
Quang Nam	Quang Nam	Open City
Quilon	Kollam	Colonial, Portuguese/Dutch(1661-1795)
Rajah Basa	Rajabasa	Royal Monopoly
Rajapur	Rajapur	Market
Rangoon	Yangon	Royal Monopoly
Rendezvous (Borneo)		Uninhabited
Resolution	Resolution Bay	Unregulated Reciprocity
Rodrigues	Rodrigues	Uninhabited/Colonial, French (1691)
Rogues River (Bengal)		Market
Ruttera		Market
Ryapore	Royapur	Market
Ryukyu Islands	Nansei Islands	Regulated Market
Sajo Island		Unidentified
Salloomah (West Sumatra)		Market
Salsette	Salsette Island	Market
Samkoke Island (Packlate)		Royal Monopoly
	Hawaii, Efate, or	
Sandwich	Cook Islands	Unregulated Reciprocity
Sao Thome	Sao Tome	Market
Sapi Bay		Unregulated Reciprocity
Saugor (sagor island)	Sagar Island	Market
Scindy	Sindh	Market
Second Bar		Regulated Market
Semarang		Royal Monopoly/Colonial (1705)/English (1811)
Severndroog (Angre)		Royal Monopoly/Market (1755)
Seychelles	Seychelles	Uninhabited
Silebar	Silebar	Market
Singapore	Singapore	Open City (Johore, until 1819)
Socotra	Socotra	Royal Monopoly
Sohar	Sohar	Royal Monopoly/Market (1628 Shah Safi)
St Augustines	Tulear	Regulated Reciprocity

Sukadana	Sukadana	Royal Monopoly
Sulu	Sulu	Royal Monopoly
Sumbawa	Sumbawa	Royal Monopoly
Surabaya	Surabaya	Royal Monopoly/Colonial, Dutch (1743)
Surat	Surat	Market
Sydney	Sydney	Unregulated Reciprocity
Tahiti	Tahiti	Unregulated Reciprocity
Taiwan	Taiwan	Regulated Market
Tamorneo		Royal Monopoly
Tanjayang	Tangerang	Royal Monopoly/Colonial, Dutch (1746)
Tappanooly Bay	Tapanuli Bay	Royal Monopoly
Taverapatam (India)		Market
Teinchin	Tianjin	Regulated Market
Tellicherry	Thalassery	Market
Ternate	Ternate	Royal Monopoly (Dutch)
Tidore	Tidore	Royal Monopoly (Dutch)
Tiku	Tiku	Royal Monopoly (Dutch)
Tonga	Tonga	Unregulated Reciprocity
Tonkin	Tonkin	Regulated Market
Tranquebar	Tharamgambadi	Colonial, Danish (1620)
Trengganu	Terengganu	Royal Monopoly
Trincomalee	Trincomalee	Colonial, Dutch (1639-1795)
Tuloa (Madagascar)		Regulated Reciprocity
Tumala Punta	Thummalapenta	Market
Tuticorin	Thoothukudi	Colonial, Portuguese/Dutch (1658-1825)
Urmstons Bay	Urmston Road	Regulated Market
Vizagapatam	Vishakapatnam	Market
Zanzibar	Zanzibar	Colonial, Portuguese (1698)/Royal Monopoly
