

How the East was Lost: Coevolution of Institutions and Culture in the 16th Century Portuguese Empire

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Abstract

In 1498 Portuguese explorers discovered the sea route to Asia and for nearly 100 years no other nation managed to follow suit. This monopoly allowed Portugal to establish a vast maritime empire that positioned it to dominate the intercontinental trade in spices and other valuable goods between Asia and Europe, until then the domain of caravans through the Levant. But the Portuguese failed to exploit their lead. Even before the British and Dutch finally managed to navigate to Asia, a century later, the Portuguese enterprise in Asia was already in decline. We argue that the failure of the Portuguese enterprise must be understood in the context of the transition of a medieval society into the modern era, where new opportunities made possible by new technologies and circumstances put a strain on prevailing beliefs and institutions. These new opportunities required changes in culture and institutions to be fully taken advantage of, in particular the embrace of commerce as opposed to violence as the key organizing principle. The Portuguese made some moves towards those changes, yet the transition was slow, imperfect and incomplete. In contrast, the British and Dutch reached Asia with a culture that was more suited to commerce, and institutions (e.g. joint-stock companies) that allowed them to very quickly usurp Portugal's hegemony in the region.

Keywords: Culture, institutions; coevolution; Portugal.

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... we can learn as much from the dead-end path pursued by Spain and Portugal, with respect to institutional evolution, as we can from the successful paths to evolving more efficient institutions pursued by the Netherlands and England.

Douglass North (1990, p. 36)

1. Introduction

During the 15th century the towns of the Levant were the meeting ground of European and Asian market institutions. Steensgaard (1974, p. 42) describes these as “peddling markets, i.e. predominantly characterized by many entrepreneurs and the numerous purchases and sales in small lots.” The caravans that ferried high-value goods such as pepper, cloves, cinnamon, musk, silk, and others, from the different production areas to the Levant, were small and independent groups that nevertheless used fairly sophisticated commercial instruments, such as bills of exchange. Although this was a competitive market it was characterized by non-transparency and high volatility. One might expect that due to the great distances between Asian sources and European markets, transport costs would be the major determinant of final prices. But because the caravans had to pass through numerous areas controlled by local sovereigns, princes, sultans and other authorities that charged duties, taxes, tolls, rights of transit, and plain robbery, protection costs were actually the major expense in the caravans’ business (Steensgaard, 1974). The uncertainty and risk that resulted from these protection costs made the market for Asian goods in the Levant towns erratic and unpredictable.

When the Portuguese managed to find the sea route to Asia in 1498 they were in a position to outcompete and severely disrupt, if not completely eliminate, the caravans’ trade. This was not because of the nature of transport costs, which surprisingly were not much different when the goods were taken to Europe by ship (Steensgaard, 1974). It was instead in the internalization of the protection costs that lay the great advantage that could have allowed the Portuguese to dominate the trade in Asian goods. The sea-borne empire and network of *feitorias* (trading posts) which they quickly established with the use of their superior naval power, would have allowed the Portuguese to largely circumvent the multitude of tolls, tax-gatherers,

robbers and thieves. This safe conduct would, in principle, make it possible for them to undercut the prices charged by Venetian and other intermediaries in Europe, making Lisbon the major distribution center for spices, silk and other Asian products.

But this did not happen. The Portuguese opted not to divert the trade to their own ships, but rather to allow the flux of goods to continue as before through the caravans, and instead to take over much of the protection racket, especially that which passed along the Indian Ocean and Arabian Sea. By strategically controlling straits, ports and islands they diverted local sea-borne trade to the areas they controlled, charging *cartazes* (safe conducts) from all non-Portuguese ships, as well as customs, duties and much pillaging. As a result, though they remained the only European power in the region for nearly a century, they “did not introduce a single new element into the commerce of southern Asia” (van Leur, 1955, p. 118). True discontinuity and the ‘rise of capitalism’ was not introduced by the *Estado da India* – the Portuguese empire in Asia – but by the Dutch and English Companies much later in the 17th century.

Not until the arrival of [the joint-stock companies] does an institutional innovation take place [in the early global economy]. Simplifying greatly, one might say that here the relationship between ‘profit’ and ‘power’ is reversed. *Estado da India* was a re-distributive enterprise which traded in order [to obtain for itself] the full benefit of its use of violence, whereas the Companies were associations of merchants which themselves used violence and thereby internalized the protection costs. (Steensgaard, 1973, p. 114, cited in Wilson (2008, p. 182))

A large literature has tried to explain why the Portuguese choose to use their significant technological and territorial head-start over the other European nations in such a way that in retrospect proved to be so disastrous (Boxer, 1961, 1969; Disney, 2009; Pearson, 1988; Steensgaard, 1973, 1974; Subrahmanyam, 1990; Tracy, 1991; Wake, 1979). The choice of violence over commerce yielded quick short-term gains in the first few decades of the 16th century, but already by 1650, almost half a century before the Companies arrived, the whole enterprise had initiated a process of decadence that the Portuguese Crown was never able to revert. Even when the *Estado da India* showed a profit, “there is nothing to indicate that such a profit should ever have been transferred from *Estado*, to the parent state” (Steensgaard, 1974, p. 86). The Companies’ subsequent success by focusing on commerce over violence suggests that a switch in strategy by the Portuguese would have been, in principle, a possibility. Yet, even the attempt of creating a Portuguese East India Company in 1628 was short-lived and

ineffective, and the Portuguese not only never regained their hegemony, but remained very marginal players in the trade in Asian goods thereafter.

According to Subrahmanyam (1993, p. 271) "... the key interpretation that dominates studies on the Portuguese in early modern Asia is still a Weberian one," that views Portugal closer to Asia in terms of its institutions and mentalities than to northern Protestant Europe. In this view the triumph of the 'modern' over the 'medieval' is explained not by circumstances, endowments or institutions, but rather by culture and mentality.¹ In his book "The Wealth and Poverty of Nations: Why some are so rich and some so poor," neo-Weberian historian David Landes includes a short chapter on the Portuguese empire that associates its ultimate fall with a mismatch between Portuguese culture and the exigencies of emerging capitalism:

[The Portuguese should] have continued on this sensible path, minding their own business and trading their natural produce for the manufactures of other lands. Instead, they jumped the traces of rationality and turned their land into a platform for empire. ...The Portuguese expansion is particularly surprising, for Portugal had neither people nor means. Its population was too small to send large numbers abroad. Its material resource, specifically its ability to build and arm oceangoing vessels, were limited. ...Their one emotional outlay was piety. The Portuguese took priests with them on every vessel, for their own safety and salvation. ... These men of God legitimated and sanctified greed. ...Religious commitment entailed a serious commercial disadvantage: it introduced an element of irreconcilability into what might have been an easier, more profitable encounter. (Landes, 1998, p. 125)

An alternative view, primarily held by economic historians, sees the failure of the Portuguese enterprise not as determined by culture, but rather by institutions. The 'Steensgaard thesis' is the seminal statement of this view (Steensgaard, 1974). It recognizes the Dutch and English companies as true institutional innovations that changed the structure of the market, whereas the Portuguese simply had a technological innovation, the caravel, which they used to participate in the extant market, but not to transform its structure. There are not many recent detailed analyzes of the Portuguese empire in Asia², but Acemoglu, Johnson, and Robinson (2005) address the question of why the Portuguese and Spanish failed where the English and Dutch succeeded. They hypothesize that the colonial and expansionist experiences of European

¹ Other pieces along these lines are Jones (1981) and Hall (1985).

² According to Garoupa and Tavares (2009, p. 4) "the application of new institutional economics to Portuguese history is still in its early stages." An exception relevant to this paper is Rei (2011).

countries had differential impacts on countries with different endowments and inherited Medieval political institutions. Western Europe, which had direct access to the Atlantic, was better placed to take advantage of the opportunities that were opening up than did Eastern Europe and Mediterranean traders. But access to trade was not sufficient for these opportunities to translate into sustained growth. These authors suggest that only those countries that had inherited relatively non-absolutist initial institutions, in particular Britain and the Netherlands, truly benefited from these opportunities. Countries such as Portugal, with highly absolutist monarchies, failed to make the most out of their access to the colonial trade. The proposed mechanism through which institutions affected growth is not a direct link between the gains from international trade and economic development. They claim that this direct effect was marginal. Instead, the main impact was through the empowerment of a merchant class that would then be in a position to demand further political institutions that constrained the power of the monarchy, thus laying the foundation for long-term growth and innovation (in the spirit of North and Weingast (1989)). Where the king had the power to control the nation's international trade effort and appropriate most of the gains, no social transformation took place that would promote institutions placing limits on the state and securing property rights, thus failing to produce an institutional environment where investment and innovation would be fostered.

In this paper, we argue that the rise and fall of the Portuguese in Asia cannot be properly understood through either a purely cultural or purely institutional approach. A careful reading of either of these theories brings up questions of why certain institutional choices were made, and how those choices in turn fed back into beliefs and values. It quickly becomes clear that there is a coevolution of culture and institutions that cannot be reduced to its constituent parts, as outcomes are determined by the interaction of the parts. This coevolution between culture and institutions has recently received increased attention in the literature in attempts to explain why institutions arise and function differently in apparently similar situations.

In the next section, we review this literature and derive from it an approach for understanding the nature of the relationship between culture and institutions. In order to apply this approach to the Portuguese experience we then explicitly characterize the aspects of Portuguese culture in the 15th and 16th centuries that conditioned the choice of institutions as the Portuguese empire in Asia was being built. In section 3 we describe the rise and fall of this empire by focusing on the interaction of culture and institutions. This is done by posing and

answering five key questions that span the Portuguese involvement in European-Asian trade in the 16th and early 17th century. We address each of the five questions by considering how the events and outcomes can be better accounted for by the joint evolution of institutions and culture instead of simpler unidirectional causation. We then complement this analysis with an econometric exercise that tries to measure the separate impacts of institutions and culture and their interaction on different countries' global trade success by using as a measure of the relevant political institutions that captures the level of constraints on the executive.

2. The Coevolution of Culture and Institutions

There has recently been a growth in the interest on the coevolution of culture and institutions. Alesina and Giuliano (2015) provide a very thorough survey of the body of work that analyzes the impact of the interaction of culture and institutions on economic outcomes, covering more than 200 articles. Besides discussing issues of definitions and measurement, the survey is divided into three additional sections. One surveys the set of papers that assume the causality from culture to institutions, such as, McCloskey (2016a, 2016b), Landes (1998), Greif (2006), Lipset (1959), Jacob (1994), Gorodnichenko and Roland (2015a). Another section covers the papers that assume causality from institutions to culture, such as Alesina and Fuchs-Schündeln (2007); Becker, Boeckh, Hainz, and Woessmann (2011); Botticini and Eckstein (2007); Di Tella, Galiant, and Schargrodsky (2007); Giuliano and Spilimbergo (2014); Grosjean (2011); Roland (2004). But it is the final section that is focus of the survey, covering the set of papers that identify a two-way causal effect between culture and institutions, including Acemoglu and Jackson (2012); Aghion, Algan, Cahuc, and Shleifer (2010); Alesina, Algan, Cahuc, and Giuliano (2015); Alesina and Angeletos (2005); Alesina, Cozzi, and Mantovan. (2012); Alston, Melo, Mueller, and Pereira (2016); Bowles and Gintis (2010); Doepke and Zilibotti (2008); Giavazzi, Schiantarelli, and Serafinelli (2013); Gorodnichenko and Roland (2015b); Michalopoulos and Papaioannou (2013, 2014); Sokoloff and Engerman (2000); Tabellini (2008b). Alesina and Giuliano argue that:

The most promising approach, both theoretically and empirically, to studying the interaction between culture and institutions recognizes and embraces a two-way effect to explain economic development and other types of economic outcomes, rather than stressing causality in one direction or the other. Recent contributions have looked at the coevolution of culture and institutions, leading to multiple equilibria characterized by a combination of some types of culture and some types of formal institutions. (Alesina & Giuliano, 2015, p. 928)

When institutions and culture are jointly and endogenously determined, the question of interest is not that of which causes which, but of what is the process through which they interact. There are several formal models of this interaction (Benabou, 2008; Bisin & Verdier, 2001, 2015; Bowles, 1998; Greif, 2006; Greif & Tabellini, 2010; Richerson & Boyd, 2006; Tabellini, 2008a). A common characteristic of many of these models is the existence of multiple equilibria, as well as the importance of initial conditions, context-specificity and history to explain which paths are taken. They typically allow for different possible initial cultural traits and include a transmission mechanism where new generations acquire beliefs from their elders, but update them through experience. Institutions reflect cultural beliefs and have consequences for outcomes, which can often be Pareto-inferior yet still self-enforcing. In turn, those institutions and outcomes can feed-back and influence beliefs. Bisin and Verdier (2015), for example, present a model in which culture and institutions are jointly determined and can lead to two types of equilibria. In the first culture and institutions have complementary effects strengthening each other in ways conducive to economic development. In the other the interaction is such that each variable weakens the desirable impact of the other on outcomes.

Typically, the empirical papers search for situations where societies with different cultures face similar situations and react differently reaching distinct economic outcomes. One of the best known examples is Greif (2006) that examines the response by two different societies to similar new opportunities opened by the expansion of trade in the 11th and 12th centuries. The Maghribis Jews held collectivistic cultural beliefs that led to trade limited to a close-knit group, where reputation and collective punishment were relied upon to ensure cooperation and to structure the agency relationships necessary for long-distance commerce. Whereas the institutions that emerged from these collectivist beliefs enabled the group to surmount some of the more basic hazards to trade, such as long distance monitoring of agents, they did not provide the basis for sustained growth that expanded trade opportunities would offer. The Genoese traders, on the other hand, had internalized an individualistic culture by then common to much of Europe. These cultural beliefs fostered trade that was not limited to a closed group and that required formal enforcement institutions to support and coordinate anonymous exchange, such as law courts and a public legal system. Over time these institutions enabled the expansion of trade and greater ability to seize new opportunities, leading to much greater economic success of the Genoese.

One of the greatest difficulties of incorporating culture into any analysis is the problem of how culture should be defined, conceptualized and measured. In this paper we treat culture and beliefs as interchangeable.³ Institutions, in turn, are “the humanly devised constraints that structure human interactions” (North, 1991, p. 97). Whereas formal institutions can be conceptualized as any humanly created rule or constraint, such as law, contracts or property rights, how can culture be conceptualized? The literature on culture and economic performance has devised a diverse taxonomy of cultural traits. As we have seen, Greif (2006) distinguishes between individualistic and collectivistic cultures (and also between nuclear family versus extended kinship groups); Putnam (1993) proposes four cultural traits of cooperation, participation, social interaction and trust; Alesina and La Ferrara (2002) and many others use generalized versus particularized trust; Alesina and Giuliano (2010) use family ties; Tabellini (2008a, 2010) use limited morality versus generalized morality; Markus and Kitayama (1991) postulate independent self versus interdependent self; a large number of papers uses preferences for redistribution⁴ (Alesina & Fuchs-Schündeln, 2007; Alesina & Glaeser, 2004; Giuliano & Spilimbergo, 2014); and Inglehart and Welzel (2005) that organize the World Values Survey, use two dimensions of traditional values vs. secular rational values, and survival values vs. self-expression values.⁵

For this paper, we need to conceptualize Portuguese culture in the 15th century, when Portugal was in the process of setting up the groundwork for its subsequent pioneering role in the Age of Discoveries. It is this set of cultural beliefs that interacted with institutions during the 16th

³ Useful definitions of culture are: “... the internal representations that individual cognitive systems create to interpret the environment and the institutions are the external (to the mind) mechanisms individuals create to structure and order the environment” Denzau and North (1994, p. 4); Culture is composed of beliefs, values and preferences, where **beliefs** “contain statements of a positive or factual nature that pertain to the state of the world, both the physical and metaphysical environment and social relations. **Values** pertain to normative statements about society and social relations, and **preferences** are normative statements about individual matters such as consumption and personal affairs” Mokyr (2014, p. 154); Culture is composed of “those customary beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation” (Guiso, Sapienza, & Zingales, 2006, p. 23). Alesina and Giuliano (2015) treat culture as equivalent to informal institutions.

⁴ Many of these papers attempt to quantify this aspect of culture by using a question in the World Values survey that asks if success in life is generally achieved through hard work or through luck and connections. The implication is that countries that believe that hard work is the path to success tend to have less redistributive policies. Of a sample of 43 countries in 1991, Portugal has the third lowest value (luck and connections) for a variable that averages the answers to this question, after Brazil and Denmark.

⁵ Inglehart and Welzel (2005) create cultural maps that plot various countries in these two dimensions to show how countries with similar histories and geographic locations tend to cluster together culturally. For 1996 (WVS4), of all the western European countries Portugal displays the lowest self-expression values and is highest (except for Ireland) in traditional values (as opposed to secular rational values).

century when the Portuguese established and exploited their empire in Asia. The purpose is not to define a comprehensive description of Portuguese culture, but rather to single out two traits that we recognize as central for understanding the choices made after establishing the sea route to Asia. The first trait is related to the dignity and respect associated with commerce versus warfare and conflict, that is a merchant – aristocrat dichotomy. Medieval Portuguese culture of the 15th century displayed a crusade mentality that valued the power of violence as superior and more dignified than manufacturing and commerce; the aristocracy as morally superior to the bourgeoisie. The second trait is a tendency to seek national progress not through private effort and entrepreneurship, but rather through the State, and individual progress through capture and rent-seeking of the State. That is, a cultural trait of patrimonialism, in which the boundary between public and private interests is often blurred. We shall refer to the first cultural trait as a belief in violence and the second as patrimonialism.

These cultural dimensions are the initial conditions in our analysis, together with the accompanying institution of a highly centralized state that completely dominated the expansion effort. In the end of the 15th century the Portuguese state was more centralized and in better financial conditions than that in most other nations. In the next section, we analyze how the Portuguese chose to exploit their discovery of the sea route to Asia. The focus is on the compatibility of those initial conditions of culture and institutions with and the unique opportunities that had opened up for expansion and trade. The initial conditions had been suitable for generating the technological innovations and military prowess necessary to secure the passage to Asia. But they proved incompatible with establishment of a long-distance trade network to make the most of the trade opportunities that had become possible. The new circumstances and possibilities encountered in Asia required different beliefs and institutions than those that had brought the Portuguese there. There was a greater need for merchants and commerce than there was for soldiers and warfare. Similarly, there was a fatal incompatibility between the kinds of long distance transactions that presented themselves and the centralized nature of the Portuguese enterprise. A culture that promoted patrimonialism impeded or undermined the adoption of a commerce-based strategy to make the most of the Portuguese monopoly, and fomented instead structures that functioned through violence and rent-seeking. In turn, the institutions of the *Estado da India*, created under these conditions, hindered and undermined the changes to a more mercantile and less state-centered culture.

3. The Rise and Fall of the Portuguese Empire in Asia

3.1. Choices, caravans, caravels and companies

We structure the discussion of the interaction of culture and institutions in the rise and fall of the Portuguese empire of the 16th century around the following five questions.

- 1) Why did the Portuguese succeed in finding the sea route to Asia nearly 100 years before any other European nation managed to do the same?
- 2) Why did the Portuguese choose to exploit this head start through violence instead of commerce?
- 3) What were the causes of the downfall of the *Estado da India*?
- 4) What's behind the success of the English and Dutch companies?
- 5) Why didn't the Portuguese change their approach to revert their fall, perhaps emulating the Dutch and English formats?

3.2. Why the Portuguese?

How did a small and underpopulated kingdom move so far ahead of its competitors in global trade and expansion in the 15th and 16th century? Angus Maddison suggests three advantages of the Portuguese that help us to understand this prominence (Maddison, 2006, p. 59). The first is the strategic benefit of being located at the exit of the Mediterranean. Econometric evidence by Acemoglu et al. (2005), has shown that this is in fact an important consideration, though not exclusive to the Portuguese. The second is the Crown's sponsorship of Atlantic exploration through "research on navigation technology, training of pilots, and documentation of maritime experience in the form of route maps with compass bearings (rutters) and cartography" (Maddison, 2006, p. 59). Rei (2011) shows that the Portuguese kingdom of the 15th century was uniquely placed financially to sponsor these developments and the subsequent exploration, first in northern Africa, then south along the African coast and eventually in Asia. She argues that because the early expansion of 1415 - 1498 yielded high rates of return, the crown was able to organize the subsequent phase as its own monopoly. This contrasts with the organization of the British East India Company and the Dutch VOC (Verenigde Oostindische Compagnie), both founded as their nations finally gained sea access to Asian trade *circa* 1600. Rei (2011) argues that both nations' maritime enterprises were private as opposed to royal endeavors not because of culture or ideology, but because both crowns found themselves under financial stress at the time due to previous wars and other circumstances. The direct involvement

of the Portuguese crown is best illustrated by Prince Henry's (the Navigator) leadership, obtaining financing, setting up the center for explorers at Sagres, and in promoting expeditions and exploration. The third advantage was Portugal's history as a crossroads for different peoples and ideas, thus bringing together "Catalan sea captains, Jewish cartographers, Arab astronomers, and Portuguese knights as well" (Karsten, 2012, p. 57).

Prince Henry encouraged his mariners to draw on the most advanced mathematical thinking and map-making of the time. The son of Jewish map-maker Abraham Crespes found sanctuary in Portugal when he was driven out of Aragon. Iberian Jewish astronomers and mathematicians were conversant with the achievements of Muslim scientists, and extended the application of trigonometry to navigation. ... While trigonometry and the astrolabe had been used to establish the direction of Mecca by Muslim savants, and celestial calculations used by Jewish savants to confirm the date of the Passover, the Portuguese princes encouraged the application of these techniques to celestial navigation and map-making. (Blackburn, 2010, p. 100)

Ominously, the crowing feat of finding the sea route to Asia that this *mélange* of cultures and ideas had made possible occurred just a few years after the 1496 decreed expulsion of Jews and Muslim from Portugal. Though many converted, continued inquisitions and prosecution led to extended suffering and oppression over time. It is somewhat contradictory that the motivation for acquiring the new technology and knowledge derived both from the desire for crusades and for commerce in North Africa. We will see next that this fundamental contradiction between aristocrat and merchant, or between violence and commerce, extends to the way the Portuguese choose to set up *Estado da India*, their enterprise in Asia.

3.3. Why *Violence over Commerce*?

As the Portuguese established their presence in Asia, during the first decade of the 16th century, they had to determine what basic strategy to follow. There were magnificent opportunities for trade but also opportunities for gain through violence and selling protection, given their superior military capacity. We argue that the ultimate choice for violence over commerce was to an extent hardwired by the culture of violence and state centrality in the context of deep-seated religious struggle. Nevertheless, the lure of commercial gains was not negligible and the history shows that there were localized attempts to follow that alternative route, putting pressure on the extant beliefs and competing for the choice of institutions.

Ultimately, however, the transition to new beliefs and institutions compatible with a trade-based enterprise did not take place.

According to the journal of Álvaro Duarte, the main historical source from the first trip by Vasco da Gama to Asia in 1498, the Portuguese were received in Calicute (southern India) with the question, (to their surprise in Castilian): “What the devil brought you here?” To which they answered: “We have come for Christians and spices.” This reply highlights the two motivations which were at the root of the Portuguese aspirations for conquering the route to Asia. The first was a straightforward extension of the religious war against the Moors, which had been a central part of Portuguese culture, in which the nobility played the central role, personally leading the wars and crusades. Dom Manuel I (1495-1521, see figure 1) was particularly pious and zealous of this objective. One of his goals was to find the legendary Christian kingdom of Prester John in Asia, with whom they would join forces to defeat the Muslim heretics. The second motivation was to establish a blockade of the movement of spices and other Asian goods through the Red Sea, thus diverting that commerce to Portuguese caravels to make Lisbon the new European *entrepôt* for these goods.

These two objectives were not necessarily contradictory. A pioneering scout sent to Asia by the regular trade routes some years before Gama’s first trip had already informed the Portuguese of the possibility of sailing in the Indian Ocean and had identified Calicute as a Christian land where spices abounded. The idea was thus to ally with the locals in commerce and in the fight against the Moors. Vasco da Gama had taken with him a letter to the Zamorim (monarch) of Calicute, proclaiming the absolute value of the Christian faith and the intention of proceeding with the evangelization of the local people. In addition, the Portuguese expressed the interest in establishing a permanent factory to purchase and trade the local produce. As it turned out, Calicute was not Christian but Hindu, and the local economy depended crucially on Muslim traders and on a large fraction of the population which was Muslim. Because of this, Godinho (1965, pp. Vol. II, pg 170) interprets that the fallout that quickly took place between the Zamorim and Vasco da Gama after the first veneer of cordiality dissipated, as the inevitable outcome of the arrival of the Portuguese in Asia. The Portuguese represented not only a religious threat to the Muslim merchants but ruinous competition in the spice trade. Due to boycotting and lobbying by the Muslim in cahoots with local merchants, the Portuguese failed to establish a factory and left behind mutual suspicion and animosity.

Despite the disappointment in Calicute, the balance of the first voyage along the Cape was highly encouraging as the fleet returned to Lisbon in 1499. Only samples of Asian goods had been brought back, but with the information that the first trip had uncovered, they foretold of extraordinary possibilities for subsequent expeditions. In 1500 Pedro Alvares Cabral set off for the second trip to Asia with a much larger and better-armed fleet, this time taking a large assortment of goods to trade. On the way, they (supposedly) accidentally discovered Brazil, but quickly set off once again to where the promise of riches was much higher. The history of this trip confirmed the resistance of local traders to the Portuguese intrusion, although the imposing fleet diffused much resistance along the way. Once again the Portuguese were cordially received by the Zamorim in Calicute and were allowed to establish a factory. But nothing had really changed in the political economy of this kingdom and very soon the factory was attacked with many Portuguese killed. Cabral avenged these aggressions by looting and burning many Muslim vessels and by bombarding the city. Subsequently he set up relations and factories in two minor kingdoms, Cananor and Cochim, that were happy to ally themselves with the Portuguese against a common enemy. Vasco da Gama returned in 1502 and using extreme violence and cruelty attacked Calicute and Muslim targets to avenge his and Cabral's earlier upsets (Subrahmanyam, 1997). He also sought to further expand Portuguese commercial interests, strengthening ties to allies and undermining their competitor's trade.

When considering the choice of violence over commerce, it is important to consider the message that these initial trips sent to the Portuguese rulers. Despite all the setbacks Cabral encountered, his venture generated up to fifty times the invested capital and da Gama's subsequent trip profited 15 times what Cabral had made.⁶ In 1496, before da Gama's first trip the King's Council had been divided in two groups that stood on different sides regarding whether to push forward with the discoveries towards India. One group of advisors was reticent about the costs and perils of venturing into the unknown. The other was lured by religion and spices. After the return of Gama in 1501 the first group had become in favor of a strategy of peaceful commerce. They argued that the imposition of military conflict at such a distance from home would be too costly and would be counterproductive for the goal of evangelization. The other group, however, argued that the financial success of the first trips had shown that the profits from

⁶ Godinho (1965, p. Vol II: 173 and 176)

the traffic in spices would be enough to pay for the costs of war. In the end the inertia of a culture of violence won the day and the trips continued very much imbued in the strategy of force over commerce. In the face of continued resistance, the Portuguese realized that they would have to establish a permanent presence and proceeded in setting up a network of fortresses and local allies. This presence would become the *Estado da India*, which we discuss in the next section. This second phase of establishing empire was led with an iron fist by Alfonso de Albuquerque, who became the second governor of Portuguese India. By this time, it had become clear that it was not realistic to imagine eliminating the Muslim or finding Christian Indians, and the religious motivation was relegated to the background.

How do these early events in the history of the Portuguese Empire in Asia inform the question of why the Portuguese chose violence over commerce? Godinho (1965) tries to get at this issue at length in his three-volume analysis of the Portuguese discoveries. He examines not only Portuguese history, but also art, architecture, poetry, and many other sources in order to understand the motivating forces throughout this period of Portuguese history. Although he does conclude that the distinctive nature of Portuguese culture was a major determinant of many of the outcomes that we describe in this paper, his analysis is more nuanced than a simple merchant versus aristocrat dichotomy. Instead he sees the 15th and 16th centuries as a period of shifting culture as new opportunities opened up by the explorations imposed new outlooks. Portuguese expansionism in the 15th century was strongly motivated by the notion of crusades and enrichment through war and pillage. This was a highly stratified society where ascension was achieved through birth and enhanced through arms and violence. The *fidalgos* (aristocrats) and *cavaleiros* (warriors) looked down on commerce, manual labor, and the notion of living within one's means. But the very expansionism that was propelled by this view of the world, opened up opportunities for commerce and trade that required very different values and outlooks. Godinho argues that the Portuguese empire was underscored by an incomplete transition from the old to the new structure of society, generating contradictory values that failed to promote the behavior and choices that were essential for the new capitalist order:

The State mercantilized, but did not organize itself as a commercial enterprise. The aristocrat was tempted by greed, but did not know how to become a merchant, and found his ruin in excessive expenditures. The merchant wanted to become, or saw himself forced to become a warrior (*cavaleiro*), and the hypertrophy of the merchant-State hindered the development of a strong mercantile and industrial bourgeoisie. The need for

savings was discovered but it was diverted to real estate, without fomenting investment.
(Godinho, 1965, pp. Vol I, pg. 62)

The choice of violence over commerce in the early stages of the Portuguese empire are more than the consequence of an antiquated worldview, as the situation they encountered in these early years were fertile ground for violence based-strategies. The Portuguese were rightly seen from the start as interlopers in a long-established commerce, and conflict was in many ways inevitable. All colonial powers, irrespective of their origin/culture/religion, sought to make the most profit possible from their overseas discoveries. And as argued by Sokoloff and Engerman (2000) factor endowments are crucial determinants of which strategies are adopted, i.e. more inclusive versus more extractive institutions. Where it was profitable to import slaves and produce tropical goods, this was done. Where the only option was to settle the land with your own population in family farms, this was the chosen path. This means that culture and institutions do not operate on a blank slate but must face context and circumstance. Nevertheless, the case we describe in this paper shows that it is also not the case that endowments are fate, rather they condition the process through which beliefs and institutions coevolve over time.

In this view, the Portuguese in the early 16th century encountered a set of factor endowments and possibilities that held the potential for great gain, but also a very adversarial environment and bellicose competitors. It is doubtful that the Dutch or the English would have taken a much different strategy had they reached the Indian Ocean at that time. When they did finally get there by 1600, the set of factor endowments and opportunities was much different than that faced by the Portuguese when they first arrived. The passage of 100 years had generated a very different set of knowledge and relations among all the peoples involved. The whole global commercial network was a very different game and therefore presented very different choices.

Subrahmanyam and Thomaz (1997, p. 300) describe three distinct models of imperial organization used by the Portuguese as they expanded overseas. This characterization suggests that what determined their choice of strategy and method was to some extent dependent on the specific conditions and situations encountered in each case, as proposed by Sokoloff and Engerman (2000)'s factor endowment theory. Before 1498 the Portuguese style of colonization was violent and bellicose in North Africa, commercial and peaceful trade in Guinea, and land-based production in the Atlantic islands. Similarly, after 1498 and now in Asia, their style of

colonization was violent and bellicose in the Western Indian Ocean, commercial and peaceful east of Melaka and dominated by private Portuguese traders in the Bay of Bengal. Whatever the role that culture may have been playing, it seems that the cost and benefits presented by the realities on the ground also had some influence.

Furthermore, the Dutch and British were not simply hardwired to automatically pursue a forward-looking and capitalistic style of action. Despite their ultimate organization as a true trading company, the Dutch VOC nevertheless made prolific use of violence and tactics very similar to those of the Portuguese, suggesting that in a different context violence might have been even more central to their *modus operandi* (Meilink-Roelofs, 1969). Duncan (1975) argues that the distinction between the Portuguese and the Dutch was never as stark as portrayed by authors such as Steensgaard.

Portuguese merchants resident in Amsterdam did business in exactly the same ways as their Dutch partners and competitors, and probably owned stock in the Dutch East India Company. Dutch merchants in Lisbon showed no qualitative advance in commercial method over their Portuguese colleagues, with whom they entered into many partnerships. ... Like the Portuguese, the Dutch sold protection, levied tariffs, and issued safe-conducts (*cartazes*) for Asian shipping. Like the Portuguese, the Dutch were brigands as well as merchants, but the "organized violence" of the Dutch was more destructive, because more thoroughgoing, than that of the Portuguese. Nor did Dutch monopolies always contribute to a rationalization of markets. Their cloves and nutmeg monopoly in the Moluccas had the deleterious consequences usually associated with monopoly structures, including the ruination of competitors and a reduction in the volume of total commercial transactions. (Duncan, 1975, p. 517)

If use of violence and force by the Portuguese in setting up their empire can be argued to be at least partly an imposition of the facts as well as a predetermined style of being, the choice of protection over trade is more nuanced than simply a cultural imposition. Steensgaard (1974) argues that the arrival of the Portuguese did not really change the structure of the market in Asian goods. They simply displaced the previous tax-collectors and bandits taking those roles for themselves, so that until the arrival of the Dutch and English companies around 1600, nothing fundamental had changed with the way these goods were distributed within Asia and to Europe. The move towards capitalism would only be made once these companies entered the market and almost fully displaced the caravan trades to their ships and the sea route back to Europe. In the

next subsection, we consider why the Portuguese adopted this ultimately fated strategy, and in the subsequent subsection why they did not change once it became clear that protection was not working.

3.4. *Why the downfall? The principal-agent problem.*

Estado da India, the Portuguese enterprise in Asia, was composed of a network of fortresses, factories, ships and all the offices, ranks and personnel charged with implementing and managing the Crown's affairs. It was founded in 1505 when the first Viceroy was appointed, and was only extinguished in 1961. Initially it was based in Cochin, but was changed to Goa in 1530. Steensgaard (1974, p. 85) (following Godinho) describes *Estado da India* as a "social system in which ambitions are archaic although the situation is dynamic." His influential thesis about the Portuguese empire emphasizes the *Estado da India*'s choice of selling protection instead of trade, making it "one of the purest examples in history of constitutionally determined corruption" (pg. 93) and concludes that "the Portuguese choice was integrated within a complete normative system, a whole culture" (pg. 85). That is, he ascribes the failure of the Portuguese to use their technological innovation to introduce new capitalistic relations into the global trading system in the early modern period to their archaic ambitions, in other words, to culture.

It is this culture that guides the choice of institutions that will comprise the rules and constraints that the *Estado da India* will face. But once again we highlight that although these beliefs and institutions formed the initial conditions in which this century-long enterprise began, this does not mean that they were not tested or put under pressure. As we describe in this and subsequent subsections, as opportunities for commerce and trade appeared there were several occasions in which an inkling was made to transition to a different culture-institutions combination. Such attempts become clearer in latter decades as the returns from violence diminish over time. However, the transition was never successfully made as individual interests were able to block the change from the status quo.

The crucial problem was that because of the circumstances in which the *Estado da India* was created, there was a principal-agent relation between the Crown and those agents tasked with representing the Crown in Asia. This problem arose because of the information asymmetry inherent to any colonial enterprise, where the metropole has to be represented across the world

by its agents, whose interest do not perfectly align with those of their principals.⁷ The standard ‘solution’ of the principal-agent problem is that the agent is able to extract an informational rent proportional to the level of his informational advantage, be it through compensation by the principal to act according to contract, or through direct shirking relative to the behavior where there is no information asymmetry. In the period we are concerned with, the information asymmetry was particularly severe given the primitive state of communication and transport at that time.⁸ As we show below, the magnitude of the resulting informational rent received by the participants in *Estado da India* is commensurate to this informational unbalance. We argue that the decadence of *Estado da India* in the 16th century is due to the resulting inefficiencies caused by this form of relationship between the Crown and its representatives.⁹

The starting point to understand the principal-agent problem between the Portuguese Crown and *Estado da India* is to recall that from the start the enterprise was monopolized by the Crown, even if private merchants were allowed to take part at different times. This form of organization is due to the fact that the Portuguese Crown happened to have the financial capacity during the late 15th century to keep the enterprise largely in its own hands (Rei, 2011). As we have already noted above, once in Asia it quickly became clear to the Portuguese that they would have to maintain a permanent presence with a widespread network of fortresses, factories, harbors and ships, given the level of economic and political competition which they encountered. As a fleet commander in 1504, and as the second governor from 1509 to 1515 (only the first was called a viceroy), Alfonso Albuquerque played a key role in establishing *Estado da India* as the representative of the Portuguese Crown in Asia. This early effort required the use of force and violence to overcome the resistance of those who were being displaced, and Albuquerque was particularly skillful at military affairs. He sought to keep power centralized in his own hands, as

⁷ For example, de Figueiredo, Rakove, and Weingast (2006, p. 411) describe how the principal-agent problem between the English Crown and the American colonists in the 18th century shaped the organization of that enterprise: “Even though the King appointed most colonial executives, he was dependent in important ways on the colonial legislatures. This dependence reflected another economic necessity: given the costliness of rule, such decentralization was the only viable alternative. For the metropole to have assumed more control would simply have been so expensive as to be ineffective.”

⁸ Steensgaard (1974, p. 81) notes that for the Portuguese Crown “to rule over a kingdom in which the sun never sets involves not only almost insurmountable problems of communication, but also so widespread interests that any policy followed could only with difficulty avoid being paradoxical.”

⁹ When the English and Dutch companies made it to Asia, almost 100 years after the Portuguese, they also faced a principal-agent problem. But, as we discuss in subsection 2.6, their novel form of organization mitigated the problems created by the informational asymmetries and thus resulted in less inefficiencies compared to *Estado da India*.

the King's representative, restraining the ambitions of individual *fidalgos* (aristocrats) and Crown factors that took part in *Estado da India*. Nevertheless, what we see again and again in almost all studies or accounts of *Estado da India* is the Crown's interest taking second place to the interest of the agents who were supposedly charged with implementing and managing the Crown's affairs.

The early trips had already made it clear to everybody that though taking part in *Estado da India* might be a risky affair, given shipwrecks, combat and disease, it was also a unique opportunity to acquire wealth. Godinho (1965, p. Vol. II pg. 159) tells us that although Vasco da Gama's first trip brought only samples of Asian goods, the sailors and other participants were rewarded with sufficient pepper and spices to "show largesse in presents to all their acquaintances." The captain, in particular, was granted 10 *quintais* of pepper as well as other spices.¹⁰ From the outset the pattern ensued where the private interest of the agents and that of the Crown would be in constant tension. This is particularly true of the fleet captains who often made fortunes through their own trading within the Indian Ocean. The violence and pillaging of the early years was necessary to overcome resistance, gain ground and impose a presence. One can imagine the scope for individual self interest in the confusion and uncertainty of battle. Godinho (1965, p. Vol III pg. 13) states the Vasco da Gama's second trip in 1502

... inaugurated the grand era of commandeering and looting, that lasted, as we know, for over ten years, until 1512 approximately. There are, unfortunately, no statistics. The amounts, however, must have been considerable, but only a small part went into the State's coffers: it was the private interests that got rich. (*our translation*)

Given the opportunities for enrichment from participating in *Estado da India* there was an excess demand among the Portuguese male population to enlist. To deal with this excess demand, the rule emerged that deployment in Asia of participants in *Estado da India* would be strictly for three years. Supposedly this rule was rigidly observed, both for the lower rank of soldiers as for those seeking higher offices and captaincies. It is easy to visualize that when faced with such an end-game, especially in an environment of high information asymmetry, the incentives were to make the most of the limited time in office.

The institutionalization of private interests within the structure of *Estado da India* can be perceived, for example, in the *quintaladas* (individual cargo space) that the members were

¹⁰ One *quintal* in the Portuguese empire was approximately 60 kilograms.

granted, especially on the return trips. This space was an extremely scarce and valuable asset as the transport of pepper, spices and other Asian goods, back to Europe could signify a sizeable windfall. The *quintaladas* were in addition to salary, and once again they can be interpreted as an additional inducement given by the crown in the early years to incentivize the establishment of Portuguese dominance. In the grappling game to ration the cargo spaces among the different ranks, from captain to the lowest soldier, it often happened that the Crown's own cargo would be the first to cede space (Godinho, 1965, pp. Vol. III, pg. 50). There was even a market for sale or renting of cargo space, supplied by sailors who had not managed to acquire the goods to take home, or by others who could influence the boarding procedure. The Crown tried to discipline the process many times, for example by appointing inspectors (*vedor*) or by increasing the penalties for contraband. In 1510 the system of *quintaladas* was limited to only higher officials and in 1517 they were abolished for good. Nevertheless, contraband and other ways around the rules persisted. In another attempt to regain control the Crown started auctioning off the three-year posts instead of simply granting them. This suggests a recognition that since it could not control or restrain its agents from stealing, it could at least try to capitalize ex-ante on the opportunities represented by a post in *Estado da India*. These events highlight the fact that in principal-agent problems it is not enough to simply decree away the inefficiencies without addressing the essence of the matter, that is, the information asymmetry. In this regard, Steensgaard (1974, p. 95) suggests that "a clean-up of the constitutionally determined corruption would have torn asunder the bonds that held *Estado da India* together."

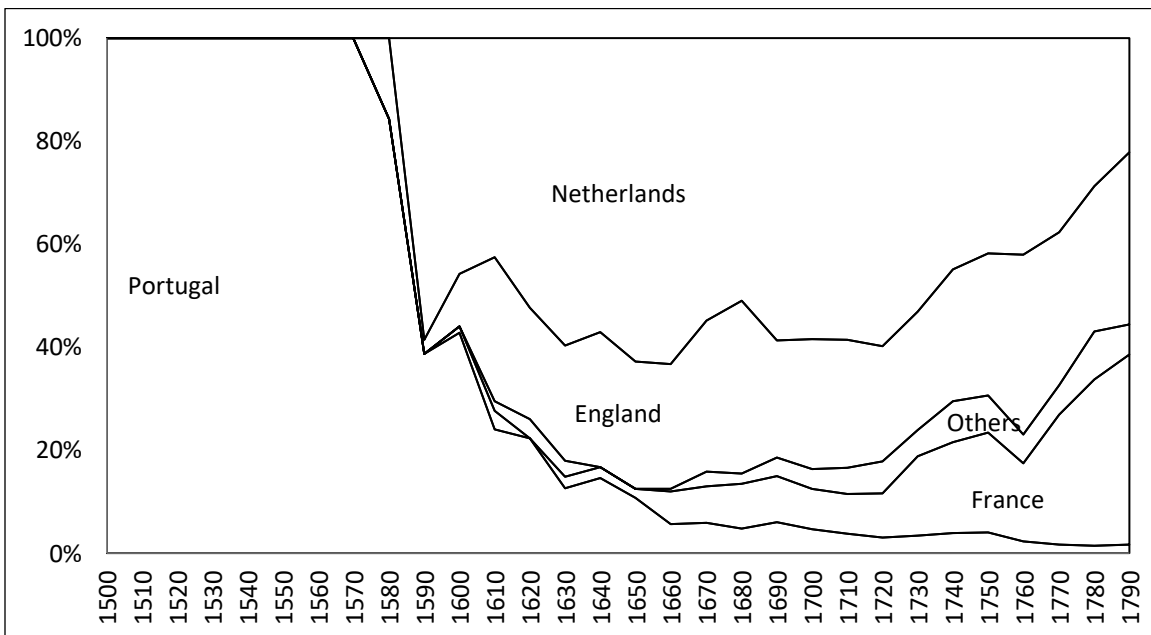
Another example of the shirking of *Estado da India* agents involves the *cartaz* system instituted by the Portuguese in 1502. A *cartaz* was a license to navigate, enforced by the superiority of Portuguese naval technologies. Ships accosted by the Portuguese and found to be without a *cartaz* could have their cargo confiscated and could also be sunk or burned. The intent of this policy was initially to block the passage of goods through the Red Sea and thus impose a Portuguese monopoly of pepper and other goods in Europe. But the receipts from the sale of the licenses proved to be a more direct and immediate way to make a profit, especially for the officials charged with the blockade. So, although the Portuguese effectively had control over navigation in the Indian Ocean and the Red Sea, Asian goods nevertheless continued to flow through to the Levant cities to be sold to Europe. The *Estado da India* had simply assumed the place of the tax-collectors they had displaced. And while the profits from this form of

organization belonged by right to the Crown, its agent in the front line were able to appropriate a large share. Ferreira (2015, p. 151) notes that piracy by Portuguese ships gone rouge undermined the *cartaz* system, as then “there was no advantage for those ships who willingly called into the Portuguese controlled ports and paid their taxes to the king.”

3.5. Why did the English and Dutch companies succeed where the Portuguese failed?

The arrival of the English and Dutch companies in Asia quickly brought about a collapse in the caravan trade in spices. Figure 2 shows how quickly the relative number of Portuguese ships parting for Asia fell once the Dutch and English entered the game. By pursuing a strategy primarily based on commerce rather than violence the companies outcompeted the Levant towns and their Mediterranean counterparts, in particular the Venetian. Already in the first decade of the 17th century the direction of trade reversed for pepper and spices, as they started being imported by Levant towns from Europe (Steensgaard, 1974, p. 173). The success of the early companies and their role in ushering new organizational forms that would evolve into the modern listed company has been analyzed extensively by the economic history literature (Carlos, 1992; Carlos & Nicholas, 1990; Chaudhuri, 1981; Ekelund & Tollison, 1997; Lipton, 2009; Neal, 1991; Shikida, 2007). Even Adam Smith in *The Wealth of Nations* addresses the issue (though he criticizes them for their monopolistic power) (Anderson & Tollison, 1982).

Figure 2 – Relative participation in number of ships parting for Asia



Source: Data from Vries (2003).

This literature recognizes three key characteristics of the joint-stock companies that helped them succeed in making a profit where the Portuguese had failed. The company format provided a particularly effective means to raise capital from dispersed sources to finance its fleets and expeditions. The attractiveness to investors included not only limited liability, but also greater transparency and participation in the company's decision-making process. Financing had been a perpetual constraint for the Portuguese enterprise, frequently limiting the number of fleets sent to Asia. At first each of the North European expeditions involved a new subscription and the company was disbanded at the end of the trip as profits were distributed. But eventually the notion of permanent capital emerged and the capital would automatically remain invested at the end of each trip. For an investor to opt out it was not necessary for the company to be disbanded, but rather shares could be sold in a 'secondary market'. An important consequence of this format was to reduce the myopia of those setting the company's strategies, in particular the choice of violence versus commerce. This is so because the price of the shares reflected the discounted expected flow of returns from the company's business. Even if one did not expect to still own the shares in the future, decisions made today would instantly be capitalized into the share price, thus making the decision-makers internalize the consequences of their choices on the company's future earnings. Furthermore, because there were many owners and even the participants in the trips were often shareholders, there were more principals to monitor the agents' behavior, thus helping to mitigate the principal agent problem that similarly afflicted the English and Dutch Companies. Contrast this to the short-sighted incentives faced by the Portuguese Crown and especially by the captains and other agents in *Estado da India* whose time in office was limited by design.

It is certainly the case that the emergence of the company format in England and the Netherlands and its absence in Portugal and Spain, is linked to the different cultural predispositions of these societies towards capitalistic forms of organization. We have argued, however, that these differences were also influenced by the circumstances that determined the context in which each country first engaged in the sea route to Asia. The Portuguese enterprise was a State-led effort because the State had the financial means to retain control since its inception. The English and Dutch companies were monopolies chartered by the king but not under his direct control, because when they were created "the funds the crown was able to raise not only had more pressing employment (war), but were also insufficient to bear the cost of the

voyages” (Rei, 2011, p. 118). Furthermore, the stage into which the English and Dutch entered in the 1600’s was very different from that faced by the Portuguese in the early 1500. It was decidedly a more global world by then, with greater knowledge and understanding and very different technology. Not only were the Portuguese – a declared enemy - already there, but local interests were wise to the threat and opportunity which the new European represented. The temptation to dominate the market for protection which the Portuguese had found irresistible, was as not as alluring by the time the English and Dutch made it to the Indian Ocean. By then the sale of protection had already run into diminishing returns while the perspective of trade, where profits could be reinvested in a growing business, held the promise of increasing returns.

3.6. *Why were the Portuguese unable to reform?*

We argued that a principal-agent problem between the Crown and *Estado da India* was responsible for the inefficiencies of the Portuguese enterprise in Asia. By taking over the sale of protection, the market for pepper, spices and other Asian goods continued to overwhelmingly flow through Asia to the cities in the Levant. These markets continued to be marked by uncertainty, non-transparency and volatility. Over the long term this strategy and form of organization did not prove beneficial to the Portuguese Crown. Godinho (1965) describes how the king was time and again disappointed with the bounty brought by returning fleets. Why then not reform the system to reduce information asymmetries, change incentives and mitigate the losses and rent dissipation?

We suggested that allowing the agents to participate heavily in the spoils of conquest in the early periods can be understood as a means to incentivize the agents to assert Portuguese dominance in a hostile environment. But once this path had been taken, there was no going back. Gradually, the need for military might and resolve decreased and the possibilities of peaceful commerce made a mercantile approach more attractive. But by then the interests of the diverse set of agents that made up the *Estado da India*, from the captains, to the bureaucrats, including priests, missionaries, sailors, *casados* (Portuguese who married and settled in Asia), and many others, was already engrained in the system. The Crown was naturally aware that it was being despoiled by its own agents and it systematically tried to reform the system. But these attempts were generally ill-fated, not the least because in the end they had to be implemented by the very people who were the beneficiaries of the status quo. To illustrate the inexorable grip of the path dependence that subverted the Crown’s attempts to switch from the inefficient organization of

Estado da India to some other less wasteful and perhaps more capitalistic forms, we briefly describe in this subsection three instances in which a reform of the system was tried but ultimately failed. In all three of these examples the failure to modernize is a consequence of the political economy of the context interacting with the culture of violence and patrimonialism. That is, it is the principal-agent problem that generated, and the path dependence that perpetuated, a system based on redistribution rather than gains from trade, as the parties that would be harmed by the more efficient system were in a position to block those reforms.

The first example involves the trade in goods from Malaca (pepper, drugs, silk, porcelain) in current Indonesia, that the Portuguese colonized in 1511. Because of the position of Malaca as the eastern-most Portuguese outpost, these goods were shipped first to Cochim or Goa on the western Indian coast, and then on another trip to Lisbon. This two-step journey was maintained until 1578 when Francisco Lobo made the first direct trip from Malaca to Lisbon, reducing transportation costs and travel time significantly. One might expect that this economically superior strategy would be quickly adopted as the norm for transporting these goods to Europe. Yet the establishment of a regular direct route only took place in 1581 and lasted for only 12 years, during which a surprising number of failed trips and shipwrecks put an end to the effort. The failure was not due to reasons of navigation, but rather to the interests of the various agents in Malaca, Cochim and Goa who had for over 75 years been the intermediaries in this market, many of them *casados* who had settled in definite in these regions. Godinho (1965, pp. Vol III, pg. 36) argues that “the direct route would shake the foundations of the empire, as it was not only made up of a set of factories whose personnel was always changing and anxious to go back to the metropole, but also a web of settlements.” This example illustrates the maintenance of inferior modes of organization despite the existence of better alternatives, which pervaded much of *Estado da India* and together were the reason of its downfall.

The second example involves a series of attempts by the Crown to change the nature of *Estado da India* and how goods from Asia were brought back to Portugal. In 1570 the Crown lifted its monopoly as the sole purchaser of pepper and other goods in Asia and sole seller in Lisbon. Freedom to trade was open to all private interests with the restriction that the goods should enter through Lisbon where they would pay a duty. The preamble to the law that opened the market makes it clear that the reason for this change was that the previous restrictions on trade were already ‘judicial fiction’ as the law was constantly violated and penalties rarely

imposed (a clear example of patrimonialism). What the reform did was to set the law in accordance with reality, as much of the pepper that was brought to Europe did not come through the Crown's monopoly, but rather through the caravans and through contraband in *Estado da India*. Steensgaard (1974, p. 98) argues that "it is probable that wastage and corruption have in practice reduced the profits of the Crown: this would be the most obvious explanation for the radical reorganization of the pepper carried out in 1570". But this change did little to increase the Crown's profit as smuggling and dealing by both large and small private interests within *Estado da India* continued unabated throughout the entire period. Already since 1520 there had been a law that ships making stops on-route back to Portugal in the Atlantic islands, were only allowed to have one person go on land to see about supplies and other business, with stiff penalties to those who disobeyed as well as for the receptor of the merchandise on land and for the captain and first mate. Similar care existed for when the ships finally arrived in the Tejo river in Portugal. Apparently, these restrictions were less than effective as in 1601 the Crown went as far as hiring Castilian inspectors to oversee the unloading of ships. This went against an oath to never nominate foreigners to posts in the public administration in Portugal, and probably arose from the distrust by the Crown of its own regular agents (Godinho, 1965, p. Vol III pg 69).

The regime of freedom to trade did not last very long as the price of pepper was still set by the supplies that entered through the Levant and in 1576 a new scheme was tried that contracted out the pepper business between the Crown and a German contractor called Konrad Rott who would have exclusivity to purchase pepper in Asia and transport it back to Portugal. The idea was that half of the pepper would belong to the Crown, but would automatically be purchased by Rott to avoid competition between both parties from bringing prices down. These new arrangements also did not resist falling pepper prices as the caravans continued to supply much of European demand, an indication that *Estado da India's* supposed intent to block Asian goods through that route was ineffective. The reason, once again, had a lot to do with the myriad interests within *Estado da India* that took part in the grand protection racket it actually was. When the enterprise was once again reorganized in 1586, this time rented out to contractors who had to sell the pepper they brought over to the Crown at a fix predetermined price, there was "popular outcry and indignation letting us sense the extent of the contraband done mainly by the small agents ... (as) the big and powerful obtained frequent waivers and liberties" (Godinho, 1965, p. Vol III pg. 69). This author also notes that contractors paid more for the rights to bring

the pepper than the Crown made in previous years from the business, which he interprets as an indication that the smuggling – which the contractors hoped to stop - was probably more than 25% of that value.

Several other rearrangements were tried until 1597, when the Crown once again reasserted its monopoly. These constant changes were due both to the Crown's dissatisfaction with the profits it received from its Asian business and to the difficulties encountered by many of the contractors that had to compete with supplies entering through the Mediterranean (Prakash, 2006). In 1591, for example, no ships arrived in Portugal from India. By the end of the century the Dutch had managed to sail the Cape of Good Hope and the British were about to do the same so that prospects for profits were even worse.

The third example of a failed attempt to reform and adapt the Portuguese enterprise to the new changing environment is the creation of the Portuguese India Company in 1628. At this point the Portuguese monopoly had already been broken by the English and Dutch companies and the number of ships leaving Portugal for Asia each year, as well as the volume of commerce, had fallen dramatically. All Portuguese centers in Asia, except possibly Macau, were undergoing financial difficulties and the whole enterprise yielded a deficit, as Lisbon had to send more resources than it received (Disney, 1978). The idea to emulate the Dutch and British companies was natural given the success these organizations were producing in their commerce in the East, despite their lack of experience with the region. Yet, since before its inception the Portuguese company was more subject to political than to commercial interests and was consequently very different than those companies in important aspects. The creation of the East India Company (EIC) in England was undertaken by members of the merchant class, and although the Crown did concede a monopoly, diplomatic assistance and support from the English navy, the company was never subject to the government. The Dutch East India Company (*Vereenigde Oost-Indische Compagnie – VOC*) was partly owned by the Estates-General and the municipal governments had the power to indicate the company's directors, however the power of the merchant class was such that it was more likely that the VOC controlled the government than the other way round (Acemoglu et al., 2005, p. 566). These ownership structures gave the companies considerable autonomy to pursue their commercial interests in a professional manner, whereas the drag due to web of interests in *Estado da India* may have been a bigger challenge to the Portuguese Company than the threat posed by its new competitors.

Disney (1978) shows that although the Portuguese Company was not officially subject to the Portuguese government, in practice the Portuguese Crown and the bureaucracy in India systematically sent instructions and requests to the Company.¹¹ In the first election to set up the company the Crown nominated all the directors. Except for one, all were noblemen and none of them had any capital invested in the company. According to Disney (1978) all of them were “old, sick, or both.” The Crown determined the policy for the purchase of pepper in India and even interfered in such minor details as the supply of bunk beds on board. The Crown also indicated how many ships it expected the Company to send each year, though the lack of resources by the Company often frustrated this expectation. In Asia, similar governmental interference in the Company’s business took place. The Viceroy in Goa, for example, used the Company’s vessels in his own and the government’s interest, despite this being prohibited.

In large part due to this lack of separation between the private and royal nature of the Portuguese Company, it never managed to attract any significant private investment, despite the Crown’s pressure for this to happen, including the offer of titles of nobility contingent on the quantity invested. New Christian businessmen (converted Jews), who dominated much of Portuguese commerce and capital, were the major potential source of investment. Yet, the fact that the Company’s statutes allowed for the possibility of confiscation of the subscribed capital in the case of heresy by the investor, created a very different business environment than that faced by English and Dutch counterparts. In the end the Portuguese Crown was responsible for over 75% of the subscribed capital, different municipalities participated with 23%, and less than 0.1% came from private investors. In 1633 the Portuguese Crown decreed that due to the Company’s failure to attract private capital, its main *raison d’être*, it would no longer continue to fund the trips. Only five years after its creation, the Company was extinguished.

The short history of the Portuguese India Company, like the two preceding examples, illustrates the effect of absolutist political institutions and the ability of those threatened by change to block reforms and innovations that can enhance efficiency and general welfare. In all three cases the Portuguese enterprise was faced with secular decadence and stagnation and yet failed to adopt promising changes. Although the new organizational forms portended greater

¹¹ From 1580 to 1640 Portugal had been taken over by Spain due to the lack of heirs in the royal family’s lineage. Throughout this period, however, Spain granted Portugal extensive freedom to manage its colonial interests. The Portuguese Company was required to file reports with the Commerce Council in Madrid.

economic performance, they also had redistributive consequences. As a result, the reforms were either blocked or distorted, never encountering the environment where they could truly flourish. The sad demise of the Portuguese Empire in Asia is ultimately a consequence of the failure of attempts to coevolve new beliefs and institutions that would allow a reorganization of the Portuguese enterprise to more effectively tap into the opportunities for trade and innovation that would continue to open up in the coming centuries.

4. Empirical evidence of the interaction between institutions and culture

In the preceding sections, we presented a historical account of how the demise of the Portuguese enterprise in Asia was fundamentally affected by the interaction of cultural traits of the Portuguese and the institutions established during the 15th and 16th century. In this section, we present empirical evidence to support that account. The evidence uses data of the seaborne colonial enterprises in Asia of nine European countries from 1500 to 1790 (Portugal, Holland, England, France, Denmark, Belgium, Sweden, Spain and Austria). It is thus not an exercise focused solely on the Portuguese experience - the direct subject of this paper - but rather a broader test that includes other countries and a longer time span. The purpose is to determine the direct effects of culture and institutions on economic performance, and more importantly, whether their interaction modulates those effects. More specifically, we regress the number of ship departures from each country per decade, against a measure of culture and a proxy for institutions, and their interaction (that is, the multiplicative product of culture and institutions).

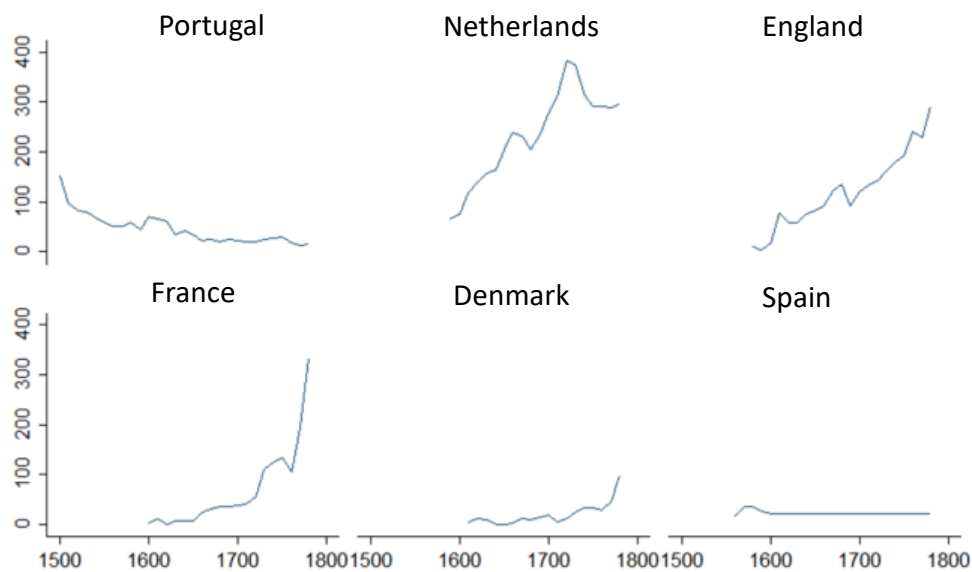
The dependent variable measures the number of trips leaving Europe to Asia, and is shown in Figure 3.¹² The proxy for the quality of institutions is an index of control over the executive used in Acemoglu, Johnson, and Robinson (2002) and in Acemoglu et al. (2005), created following the methodology in Polity IV project.¹³ This index is commonly used in the institutional literature to capture the quality of institutions across countries. The evolution of this index for Portugal, Holland and England is shown in Figure 4. Note that although all three countries improve over time, Portugal at the end of the period is at the level in which England was at the start. Culture is measured in two different ways. The first is through a dummy variable that indicates catholic countries (Portugal, Spain, France, Austria-Belgium). The second is

¹² Data from (Vries, 2003). We get very similar results if we use the dead weight of the ships instead of the number of departures.

¹³ <http://www.systemicpeace.org/polity/polity4.htm>

through an index which we call ‘Proselytism’. It seeks to capture the intensity of the religious motivation behind each country’s enterprise by measuring the average proportion of clerics in the total number of passengers in trips to Asia. The idea is to differentiate the extent to which each colonial effort was directed primarily towards commerce or towards other objectives, such as catechization, which is related to culture.¹⁴ The efforts at overseas expansion of both Iberian kingdoms were from the start deeply imbued with religious motivations. Through the *Rex Pontifex* of 1455, a papal bull, the Pope recognized their dominion of lands to be discovered and delegated the administration, financing and nomination of priests and bishops. Additionally, we control for other factors, such as strength and capabilities that affected the performance of the countries’ Asian enterprises, through their population and total GDP.

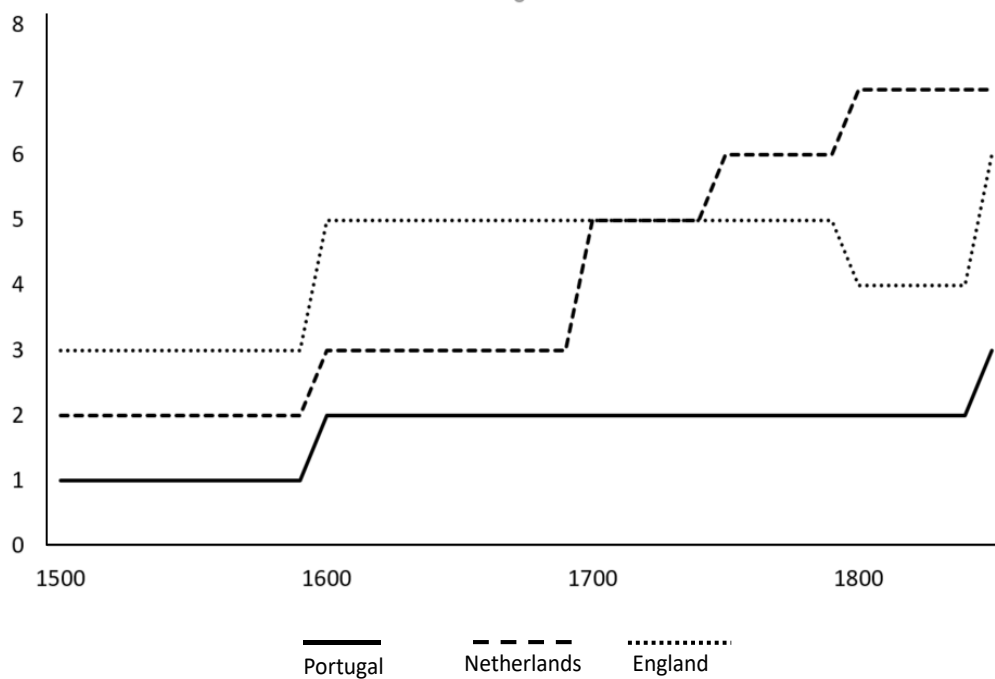
Figure 3 – Number of trips leaving for Asia



Source: Data from Vries (2003).

¹⁴ The data for the total number of passengers is from Vries (2003). Estimates for the number of clergy comes from different sources: Portugal - Castro (2005); Holland – VOC Sea-Voyagers Database; Britain - India Office Family History Search – British Library; for other countries extrapolations were used in line with those used in Maddison (2006), Acemoglu et al. (2005) and Vries (2003). More details on how this index was constructed can be found in Leite (2015).

Figure 4 – Control over the Executive



Source: Data from (Acemoglu et al., 2005).

The variables used are admittedly imperfect proxies for the phenomena they seek to measure. Culture, institutions and economic performance are complex concepts and the proxies are very coarse measures that may not capture the richness of their variation over time and space, though it is similar to that used in related papers, such as Acemoglu et al. (2005). Our purpose is not to read much into the magnitudes of the estimates, but rather to focus on if and how the measures of culture and institutions interact to affect performance. Our interest is thus primarily on the significance and sign of the interaction term in the regressions that follow.¹⁵

¹⁵ Table 1 – Descriptive statistics.

Variable	Obs.	Mean	Std. Dev.	Min	Max
Departures	270	42.03	77.3	0	382
Constraints on Exec.	270	2.13	1.28	1	6
Catholic	270	0.31	0.50	0	1
Proselytism	146	.56	0.56	0	2.5
GDP	270	4,601,618	5,691,299	442,800	3.36x10 ⁷
Population	270	4522.2	5443.7	600	27,923

Table 2 shows the results of the estimation of the panel including nine countries across the decades from 1500 to 1790. The dependent variable is the number of departures towards Asia per decade. Column I uses a Catholic dummy to measure culture and columns II and III use the Proselytism index. In the first case the estimation method uses random effects, otherwise the culture dummy could not be used, but the Proselytism estimations are shown with both fixed and random effects.

Table 2
The effect of the Interaction of Culture and Institutions on Economic Performance

Dep. Var: Departures	I	II	III
	(Culture: Catholic) Random effects	(Culture: Proselytism) Random effects	(Culture: Proselytism) Fixed effects
Constraints on the Executive	37.67*** (8.26)	10.81** (2.24)	-0.10 (-0.01)
Catholic	100.77*** (3.61)		
Proselytism		-67.24*** (-4.38)	-15.76 (-0.95)
Constraints x Catholic	-47.79*** (-4.75)		
Constraints x Proselytism		98.69*** (8.12)	50.01*** (5.54)
GDP	0.00002*** (6.62)	0.00002*** (6.65)	0.00003*** (6.30)
Population	-0.02*** (-4.62)	-0.02*** (-5.17)	-0.04*** (-4.58)
Constant	-62.65*** (-3.07)	-9.58 (-0.79)	45.50* (1.78)
R-squared	0.70	0.83	0.74
Number of observations	270	146	146
Fixed effects	No	No	Yes

Notes: Panel with N=9 and T=30. The dependent variable is the number of ships that departed towards Asia. Constraints on executive varies from 1 to 6 and measures institutional constraints on rulers' opportunism. Proselytism is an estimate of the average number of clergy per passage on the trips to Asia. Catholic is a dummy = 1 for Catholic countries. GDP is total GDP and Population is the origin country's total population. Interactive terms are the product of both constitutive variables. t-stats in parentheses. ***, ** and * indicate significance at the 1%, 5% and 10% levels.

Column I shows that both institutions (constraints on the executive) and culture (Catholic) matter for explaining economic performance as measured by the number of departures to Asia. For non-Catholic countries greater constraints on the executive correlate with more departures. But for Catholic countries the effect is actually negative, as the constraints coefficient must be added to the interaction term's coefficient ($37.67 - 47.79 = -10.12$). Calculating the proper standard errors including the interactions shows that for Catholic countries the effect of

constraints on the executive is actually not statistically different from zero.¹⁶ This result shows that for our sample of countries, institutions that provide checks and balances and restraints on the rulers had a discernable positive impact on economic performance in non-Catholic but not in Catholic countries, which is evidence of a connection between institutions and culture. Even if the nature of the variables does not allow us to read much into the specific details of the results, the large significant impact of the interaction term indicates that this link is important.

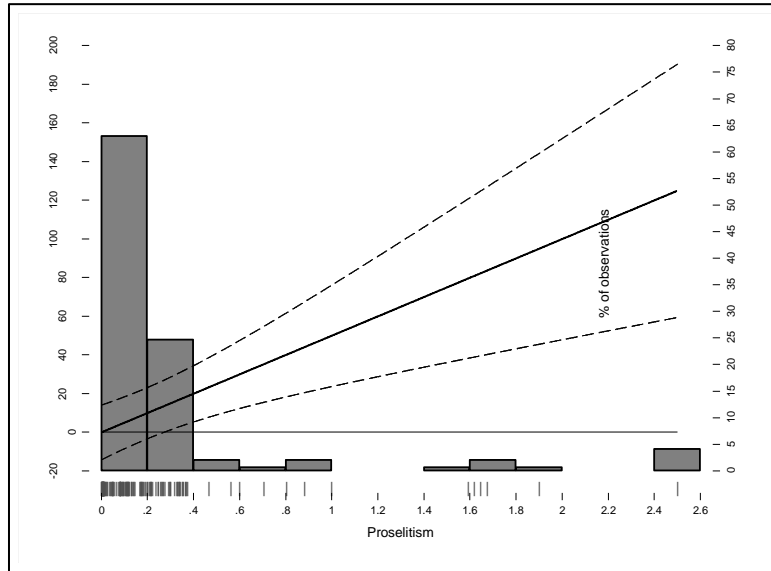
This result refers to the whole sample of Catholic countries and not only Portugal. Also, during the period examined in the previous sections of this paper (1500 to 1600) the variable for constraints on the executive for Portugal was invariant at the lowest level (1), increasing to 2 in 1600. Nevertheless, the relation between constraints on the executive and departures during this period fits the regression results as departures fall sharply for Portugal during the 17th and 18th century while constraints increase over this same period. What the regression results do not reveal, but was highlighted in the historical description, is how the specific nature of culture in Portugal, with a predisposition for violence and patrimonialism, enabled and retained institutions that were unable realize the opportunities brought forth by the sea route to Asia.

Because Proselytism is a continuous rather than a dummy variable we can use fixed effects which controls for important country time-invariant specificities. We thus prefer to interpret column III instead of column II that uses random effects, even though the results are not as strong. With an interaction term composed of two continuous variables it is easier to interpret the results through a graph, as the estimates in column III only show the estimated coefficients and t-statistics for when the other constitutive variable of the interaction equals zero. Figure 5 shows the estimated impact and significance of constraints on the executive on departures, as proselytism increases. The rug plot on the horizontal axis and the histogram show that the distribution of observations of proselytism is concentrated on the lower values. For all levels of proselytism, the impact of constraints on the executive on departures is positive, though it is only statistically significant for values of proselytism greater than 0.3 (when the 95% confidence interval does not contain the x-axis). These results indicate that institutions have an impact on economic performance, and that effect is higher when the country's colonial effort is more deeply imbued in religious motivations. This suggests that the institutions may serve the purpose

¹⁶ The estimates in Table 2 show the estimated coefficients and t-statistic for Catholic when constraints on the executive equals zero. Both the coefficient and the t-statistic vary as constraints on the executive changes.

of mitigating some of the economically inefficient effects that culture may have on performance. We note, once again, that this interpretation cannot be derived from our historical analysis of Portugal in the 16th century, as institutions did not improve during that period. The interpretation refers the sample of nine countries and the longer period of 1500-1790. The main point that we stress in the results is the strong interaction between constraints and proselytism.

Figure 5 – Interaction of Institutions and Culture



Conclusions

In the first volume of his trilogy on the Portuguese age of discovery, Vitorino Godinho (1965) provides vivid evidence of the changes undergone by Portuguese society. He compares the drawings that ornate a medieval text from the 14th century with those of a text from the early 16th century, when the transition to the early modern period was already underway. The early text is the *Crónica Geral da Espanha* written in 1344 by Pedro Afonso the son of the king of Portugal. It is one of the most important historiographical chronicles of Portuguese history of that time. The later text is the *Ordenações Manuelinas* which is a compilation of Portuguese legislation published in 1513. The illustrations in the first text are in the margins and in between the columns of text. Godinho (1965, Vol I: 60) highlights the figures in page 155, which show a king, a bishop, knights, shepherds, regular folk, houses and an ox. This is a picture of medieval society, composed of *oratores*, *bellatores* and *laboratores* (those who pray, those who fight, and those who work) with no sign of those who do commerce and trade. In the later text, there are

five different prints, one for each tome. In common these five prints have the king D. Manuel at the center holding the royal scepter, the symbol of justice, on which unfolds the banner *Deo in celo tibi autem in mundo* (God in the heavens and in the world). In each of the prints the king is surrounded by a different group of people, jurists and the military nobility in the first, clergy and farmers in the second, administrators and actuaries in the third, merchants in the fourth, and prisoners being tried by the king in the fifth. His point is that the comparison shows that in the intervening period between the publications, a new element had emerged in Portuguese society. Merchants were absent from the first but were given prominence in the second. He does not claim that the transition to this new society had been consolidated by then, on the contrary. The argument throughout his long analysis of Portuguese history is that the transition had been partial and incomplete, with the old society hanging on and resisting the new ways, leading ultimately to the demise of the Portuguese enterprise in Asia.

We have advanced the argument that the troubled trajectory of Portuguese endeavors in Asia is best understood as determined by the opportunities and constraints that arose from the interaction of institutions and culture. The Portuguese Crown conquered the sea route and monopolized trade with Asia because the combination of institutions and culture in the 15th century were appropriate for the nature of those endeavors (centralization, state-dominance, warrior mentality, religious zeal). But this same combination of institutions and culture were not appropriate to fully realize the gains from trade and other opportunities that presented themselves in the 16th century. It led to the choice of protection over commerce and resulted in a severe principal-agent problem between the Crown and its agents. A culture of patrimonialism and violence was behind the perverse institutions that *Estado da India* embodied. And those institutions in turn were an obstacle for the emergence of more modern and commerce-friendly cultural traits like those that enabled the successful innovations that undergirded the English and Dutch ultimate predominance in Asia.

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