Private Trade and Adaptation at the VOC

Balancing Permission and Prohibition: Private Trade and Adaptation at the VOC

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The first wave of global trade, in which the Dutch East India Company (VOC) was a key player, writ large the problem of how "principals" could ensure that overseas "agents" protected company interests. The two principal mechanisms were suppression of opportunism and permission of agents to engage in private trade. There is near consensus in past research that the rigidity of the VOC in not permitting private trade left it unable to emulate more nimble rivals and contributed to its demise. Drawing on unique 18th-century archival data, a time-series analysis revises this assumption, showing that private-trade regulations, as a historical form of adaptation, occurred as a response to declining performance and exercised a beneficial financial impact. From the 1740s, control was more flexible than typically asserted, attempting to balance permission and prohibition. If principals recognized the economic upside of private trade, they were apprehensive about its social consequences. The study underlines the need of dynamic models to capture complex historical events, illustrating how seeming inactivity may in fact mask inconsistent activity. It also contributes to better understanding historical transitions when forms of adaptation may prove beneficial in the short run, but are insufficient to prevent decline in the long run.

The large-scale expansion of the global trading networks in the 17th and 18th centuries was shaped in important ways by the chartered trading companies of the day; in particular, through their management of agents, charged with protecting company interests in their overseas activities (Adams 1996; Erikson and Bearman 2006). The classic principal-agent problem of "managing the manager" (Carlos and Nicholas 1993) of its Asian trade was writ large at a time when voyages took six or more months to reach Asia from Europe. The large distance meant slow communication and limited monitoring of performance. Agents routinely confronted the need to take action in the absence of instructions from the principals or to enforce rulings that, by the time they reached their

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destination, were outdated in view of recent developments. Communication lags and inadequate monitoring created incentives for agents to use company assets to further their own interests, such as when ship captains made unsanctioned voyages between ports in Asia in pursuit of "private" trade (Erikson and Bearman 2006).

The key issue in configurations marked by at least partial goal conflict between principals and agents is how to maintain alignment between the "public" and "private" interests of agents (Jensen and Meckling 1976) and what incentives and monitoring systems to put in place to ensure compliance with the public interest. Scholars have highlighted two solutions—of asserting the principals' power and suppressing opportunism (i.e., by oaths, contracts, dismissals, rotations or searches—see Carlos and Nicholas [1993]) or by decentralization and delegation of decision rights to agents within contractual bounds. There is agreement in past research that the dominant trade companies followed contrasting approaches, with the Dutch East India Company (VOC) enforcing centralization and the English East India Company (EIC) favoring decentralization (Adams 1996; Gaastra 2003). There is less agreement on the extent to which these approaches were strategic in nature. For some, the growth of private trade reflected the failure of principals to control far-flung agents (Watson 1980). Others present it as strategically pursued. Thus, Hejeebu (2005) portrays the support of EIC directors for private trade as a way to curb employee malfeasance and make the risks of a career in the tropics more bearable.

The common limitation in these approaches is the short shrift given to processes of adaptation. Transition stages are absent, with principals seen either as fully in control (i.e., the VOC in the 17th century) or as lacking control (i.e., the EIC until the 1760s or the VOC in the late 18th century). The drivers of change are structural, lacking an adaptive component, where principals swing from a state of full control to disintegration, with little standing in between. Thus, most VOC accounts attribute its decline to its centralization and rigidity, which left it ill equipped to respond to the emergence of a more nimble rival (e.g., Steur 1984; Gaastra 2003). If centralization served the VOC well in times of weak competition, it hindered its adaptability. There is near consensus in past research that the VOC fell into irreversible decline in the early 18th century as a result of increasing competition and the appearance of alternative opportunities for transferring money through the English trade networks, which allowed Dutch agents to avoid the oversight of principals and encouraged them to pursue illegal activities to supplement their meager pay (e.g., Jacobs 2006). As a consequence, private trade expanded independently from the principals, contributing to unsustainable levels of corruption and to the eventual demise of the company (Adams 1996).

There are, however, empirical and theoretical reasons to question both this decline mode and the underlying control model, suggesting that neither was the VOC so rigid, nor were principals and agents so adversarial. The idea that individual interests would so damage the company is surprising, given that in early modern Dutch society the pursuit of profit was moderated by the concern with collective interests (Schama 1987; Goldgar 2007). Equally surprising is the

failure of principals to adapt to these developments by relaxing control. As the flagman of "the first modern economy" (De Vries and Van der Woude 1997), the VOC was well used to surviving challenges and disturbances of various kinds, building up capabilities of resilience and responsiveness to external threats. Furthermore, the duopoly structure of East Indian trade made it unlikely that the source of EIC's growth—private trade—would remain secret for long or fail to evoke a response by a rival faced with the same structural problems—namely, ensuring loyalty of a poorly paid workforce plagued by a high mortality rate (Lucassen 2004). A core sociological expectation is that "structurally equivalent" actors display converging behavior over time as a result of mutual observation, common dependencies, and similar third-party ties (Burt 1992). Given that the two Companies operated in many of the same markets and that their employees endured similar hardships, how could employee participation in private trade have been so crucial to one of the Companies but not the other, especially when such participation proved so beneficial to the English principals?

These questions invite reconsideration of the debate, accommodating divergent findings and reconciling the historical evidence with core sociological assumptions. To that end, we argue that the differences between English and Dutch principals in the organization of trade decreased over time as a result of adaptation. We expect that in the "duopoly" spice market, governance practices started to converge as a result of mutual imitation and adaptation in response to competitive pressure. This expectation is verified in an archival study of legislative activity at the VOC in the 18th century that documents the adoption of private-trade regulations and analyzes their causes and consequences. The degree to which the VOC was willing to increase incentives by acknowledging employees' rights to private trade is examined as a historically specific mode of adaptation. The findings lend systematic support to revisionist arguments that company regulations did not remain static vis-à-vis private trade (Nierstrasz 2012). Control over trade was exercised in a more flexible way than typically asserted—the Dutch principals were in a state of neither full control nor lack of control; rather, they balanced permission and prohibition. Although recognizing the economic advantages of private trade, they were also apprehensive about its broader social consequences.

The contributions of the paper can be seen in several respects. First, it provides a historical finding that sheds new light on an important transition in the 18th century, when competition started to erode the foundations of monopoly trade. The VOC was central to early capitalist development, and the reasons for its success and decline have notable implications for theories of capitalism. Second, it underlines the need of dynamic models to capture complex historical events, illustrating how seeming inactivity can in reality mask inconsistent activity. Instead of the unequivocal pattern documented in previous research, we observe "temporary equilibria" (a sequence of short-run equilibria), produced by the interaction of economic forces and organizational counterforces. The analysis presents a rare opportunity to flesh out and visualize equilibria of this kind, emphasizing their relevance to work in historical sociology. Third, the longitudinal data are a source of insights into the drivers and effects of

organizational adaptation. The analysis confirms that adaptation occurred as a response to declining performance. However, even if the observed form of adaptation proved beneficial to the organization, it was insufficient to prevent long-term decline. The VOC and the Dutch Republic adapted only partly to an environment that required more radical effort.

Setting the Scene: The VOC in the 18th Century

The Dutch East India Company, the world's first multinational corporation, was founded in 1602 and existed for two centuries. It had a tiered governance structure, headed by the College of Managing Directors (or *Heeren XVII* [HXVII])—which was responsible for VOC's general policy (Meilink-Roelofsz, Raben, and Spijkerman 1992)—and implemented by regional chambers with their own ships and warehouses. Sixteen members represented the six chambers of Amsterdam (8), Zeeland (4), Delft (1), Rotterdam (1), Hoorn (1), and Enkhuizen (1), with a seventeenth determined on a rotating basis.

The VOC was initially governed exclusively from the mother country, but as the complexity of its trading network increased, many *buitencomptoiren* ("outer offices") were added. To better manage this structure, the HXVII created in 1609 a permanent position of "Governor General" in Asia, to be assisted in the management of local affairs by a "Council of the Indies." Together, they made up the *Hoge Regering* (HR) or "High Government," seated in VOC's administrative center and trade hub—the city of Batavia (Jakarta) (Van Dam 1927).

Our analysis focuses on the 18th century, typically described as the period of the VOC's decline (Gaastra 2003). There were several long-term reasons for the decline. The first was the erosion of the company's intra-Asian trade due to developments beyond its control, such as heightened competition from other European traders and dynastic shifts in Persia and India, which squeezed the company out of key trading outposts, such as Persia, Surat, and Bengal. With a traditional trade monopoly on many products in many regions (Jacobs 2006), the company became more vulnerable to competition by the EIC (Furber 1976). The intensity of competition increased considerably from 1660 (Adams 1996), while trading patterns within Asia and between Asia and Europe shifted more and more in favor of the EIC (Gaastra 2003, 173), so that by 1760 English trade had reached seven times the volume from 1725 (Wilson 1965). The direct consequence of the increased competition was the saturation of European pepper markets and falling prices, which undermined the sustainability of intra-Asian trade as it was organized in the 17th century. The revolutionary changes in tastes in Europe compelled the VOC to increase its trade volume and diversify into textiles, tea, coffee, porcelain, and other goods for which demand was growing (De Vries and Van der Woude 1997, 436–37). However, this meant that the VOC became increasingly exposed to highly competitive markets that had initially been developed by the French and the English and in which profitability depended largely on operational efficiency.

As a result, the expansion of the company was accompanied by deteriorating profit margins, resulting in "profitless growth"—the VOC in the 1720s had to

work twice as hard as in the 1660 s to earn the same absolute amount of profit (De Vries and Van der Woude 1997, 447). The combination of high fixed costs (due to the maintenance of trading outposts and costly military interventions), narrowing profit margins, and high dividends weighed heavily on the VOC's balance sheet; from the mid-1730s, profitless growth gave way to unprofitability, which was never reversed (Steur 1984; De Korte 1984). The company entered into a vicious circle, where poor profitability required drawing on the working capital, hurting trading operations. In addition, the practice of shipping goods first to Batavia and then to their final destination proved a competitive disadvantage at a time when other Companies shipped directly (Adams 1996) and European buyers put a premium on the freshness of goods procured from Asia. Only in the mid-18th century was direct shipping established at the VOC.

In the new competitive landscape, profitability hinged on the efficiency of shipping operations, itself dependent on economies of scale and productivity of labor. But the economies of scale from the higher trade volume never materialized, while labor productivity remained low due to inexperience and poor pay. The high turnover and mortality rates—on average, one person returned for every three departing from the Republic (De Vries and Van der Woude 1997, 453)—further diminished productivity. The direct cause of the VOC's demise was the Fourth Anglo-Dutch War (1780–1784), which cut access to key shipping routes. Although the VOC survived the war, it could never again turn a profit, let alone pay off the debt accumulated during the war (Steur 1984). The mounting financial problems led to its bankruptcy, which forced the government to nationalize the company in 1796 (Meilink-Roelofsz et al. 1992; Steur 1984), before it ceased to exist altogether in 1800.

If there is a natural tendency to explain decline through a grand narrative—such as higher competition, external shocks, excessive centralization, or low employee morale—there is no conclusive evidence that any of these was sufficient *by itself* to doom the company or that decline was inevitable or irreversible. Steur (1984) argues that at the time of the Dutch-English War (1780–84) the VOC was weakened, but disposed of sufficient resources to return to profitability. Its total capital stock remained large at 62 million guilders, compared to 17.1 million in 1620. Even toward its end, the VOC boasted substantial assets and a larger trade volume than all of the other European trade companies *combined* (Van Boven 2002). De Vries and Van der Woude (1997, 441–42) debunk the popular myth of the post-1680 period as one of "afterglow," with the VOC only resting on its laurels. In fact, the VOC grew over the next decades, confronting challenges in a way consistent with its traditions but still open to experimentation. This is illustrated nowhere better than in its decision to open up private trade.

It is generally believed that the Dutch and English Companies approached private trade in a contrasting manner. If the EIC initially copied the Dutch trade regime, prohibiting entry into the intra-Asian trade, it changed track in the 1670s, renouncing its monopoly rights and freeing private trade. With respect to Dutch private trade, there are two established views. One is that it was allowed in a limited form under Governor General Gustaaf Willem van Imhoff

(1742–1750), but that the liberal reforms were abolished by his successor, Jacob Mossel (1750–1761), because of the apparent lack of success (cf. De Jonge 1877; Steur 1984). The more entrenched view is that private trade was firmly prohibited during the VOC's existence, pushing employees into illegal activities to supplement their poor pay (e.g., Jacobs 2006). This account is echoed by sociologists, notably Adams (1996), who sees the corruption due to illegal private trade as the key impediment to recovery. The extra option of wiring money home through the British network eroded the only real mechanism for the VOC to control its agents. Corruption expanded, and the VOC was "caught in the middle"—unwilling to offer the carrot by freeing private trade and unable to wield the stick through negative sanctions (Adams 1996, 24).

The view that corruption killed the VOC is captured in the widespread alternative translation of the abbreviation "VOC" as "Victim of Corruption" (Schmitz 1986). However, recent scholarship is starting to challenge this assumption. Nierstrasz (2012) repudiates the image of the VOC in the 18th century as inert and clinging to its monopoly against all reason. He provides archival evidence that in the early 1740s the VOC changed its private-trade policy to respond to the English threat. Radically reorganizing its trade, the VOC relaxed its regulations, renouncing many parts of the monopoly and starting to accept money transfers without asking questions.

Data and Method

Motivated by the discrepancies in current accounts of Dutch private trade, we set about to collect the most systematic data to date on private trade at the VOC. Given that there is little factual information on unofficial trading by VOC servants (De Vries and Van der Woude 1997, 451), we concentrated on the legislative process; in particular, the body of regulations and guidelines bearing on private trade in the 18th century. Our research focus is on the legislative activity of the "High Government" (HR) in Batavia, charged with governing the VOC's affairs in Asia and mediating between the HXVII and the Asian outposts. Although HR's decisions on important issues were sent back for approval by the HXVII, who returned instructions, it was the HR that *de facto* handled decision-making in Asia. This was confirmed when we examined the archives related to private trade: the HR appears much more involved in day-to-day private-trade regulation, while the HXVII fulfilled an oversight function (cf. Steur 1984; Gaastra 2003).

Multiple sources of primary data on HR and HXVII legislation were consulted. We drew most heavily on the so-called "source publications," appearing over the past century as part of a series (*Rijks Geschiedkundige Publicatiën*, or "National Historical Publications") that covers many aspects of Dutch history. These publications represent edited and compressed reproductions of archival documents in book form. We made use of three source publications. Most important are the *Plakkaatboeken* ("Decree Books"), containing edited versions of all regulations and bills issued by the HR, sorted by date. Second are the *Generale Missiven* ("General Letters"), containing the official reports on

affairs in Asia sent from the HR to the HXVII. Third, we drew on the original VOC documents compiled by the Dutch Royal Institute of Language, Country, and People Sciences (KITLV) and published in its historical journal. We also had two other sources of primary data: the archives of the HR and the HXVII. The former are now part of the Indonesian National Archive (ANRI) in Jakarta. The HXVII's archive is kept in the *Nationaal Archief* (NA) in The Hague.

The vastness of the archives necessitated the use of a systematic procedure to find documents relevant to the company's policy on private trade. The *Plakkaatboeken* and *Generale Missiven* contain topic-based indices, permitting the search for private-trade documents by way of keywords. Our list of keywords at first included established terms for private trade, such as *particuliere vaart en handel* ("private sailing and trade"), *inlandsche vaart* ("domestic sailing," referring to intra-Asian sailing), and *vrije vaart en handel* ("free sailing and trade"), to which were later added the terms *fraude* ("fraud"), *morshandel*, *sluikhandel*, and *smokkel* (all meaning "smuggling"). These terms were cross-referenced and used interchangeably to refer to the same phenomenon. The search results added up to thousands of pages, which were interpreted and coded over a period of 10 months. This large database of official and unofficial documents represents a broad, representative sample of the discussions and legislative activity on private trade at the VOC in the 18th century.

At the next stage, we coded the sampled documents in a way that permitted quantitative analysis. As communication frequency at the time was limited by prolonged travel time, documents typically included provisions on multiple issues, with private trade as a dominant theme. On the basis of a small initial sample of documents, we developed a coding scheme to capture the nature of each provision related to private trade and the attitude toward it—approving or not. Comparing new texts with those already analyzed, the list of codes (12 in total) was regularly updated and then applied to all relevant documents. The list of codes, together with appropriate examples, are presented in table 1.

For analytical reasons, we decided to aggregate the codes into a discrete category, coding all provisions as either positive toward private trade (expanding private-trade rights) or negative (reducing them). For example, the code standing for "maintenance of a trade limitation" is labeled "negative," while that for "facilitation of private trade" is labeled "positive." Thus, all provisions on private trade were classified according to whether they furthered private trade (e.g., by enlarging the circle of those allowed to exercise it or of the ports they had access to) or suppressed it (e.g., by reducing the granted rights or the scope of trade or by encouraging company officials to crack down on unofficial trade in their area). This relatively simple coding scheme maximizes our ability to capture the fluctuation of private-trade policy over time. Given the ambiguity of language in many regulations, we reassessed our coding procedures to ensure consistency, recoding a sample of documents at regular intervals.[1]

To test whether the simplification of the coding scheme and the creation of dummy variables for positive-negative legislation led to the loss of valuable information, we ran a factor analysis of the twelve codes.[2] In both the positive and negative cases, the analysis extracted a very powerful factor that accounts

Table 1. Coding Scheme and Examples for Provisions on Private Trade (negative and positive)

Code	Example
Prohibition	It is forbidden to sail between Malacca and Batavia.
Prohibition with exception(s)	It is forbidden to sail between Malacca and Java, except for carriers of rice.
Conditional prohibition	It is forbidden to trade rice on Java for as long as supply is abundant.
Obstruction of private trade	Those who want to sail between Malacca and Batavia have to obtain passes at the harbor of departure.
Reinforcement of limitation	Reinforcement of the prohibition to sail between Malacca and Batavia/violation will lead to confiscation of the cargo and a fine of four times its value.
Negative statement on private trade	Private trade hampers the monopoly interest of the company.
Liberalization	It is allowed to sail between Malacca and Batavia.
Liberalization with exception(s)	It is allowed to sail between Malacca and Batavia, except for carriers of rice.
Conditional liberalization	It is allowed to trade rice on Java for as long as the shortage lasts.
Facilitation of private trade	Those who want to sail between Malacca and Batavia can do so without having to report to the harbor authorities.
Reinforcement of liberalization	Private vessels are to be protected by company frigates.
Positive statement on private trade	Private trade will significantly lower the company's costs.

for most of the variation across the codes over time—92 percent in the negative case (eigen vector = 3.59) and 82 percent in the positive one (eigen vector = 3.41). The factor loadings appear high, with all but one exceeding 0.6 and four of the six exceeding 0.8 in both the positive and negative cases. The results of the analysis thus lend supporting evidence for the consistency of our coding scheme and the validity of the indicators for positive and negative private-trade legislation. These reflect the same underlying dimension. The factor analyses imply that little substantive information is lost by aggregating the data.

Complementing the primary data are secondary data on the VOC and the Dutch economy, compiled by economic historians and available through digital data portals maintained by the *Huygens Institute for the History of the Netherlands* (HING), the *Data Archiving and Network Services* (DANS) of the Royal Netherlands Academy of Arts and Sciences, and the *International Institute for Social History* (IISG). We constructed a longitudinal data set, where the variables are in an annual format, forming several subsets. The first one includes the number of VOC servants in Asia, the number of soldiers, the number of voyages to and from Asia, and the number of lost ships.[3] The second one includes

the shipping costs and wages in the Dutch Republic—these represent indices, with 1600 as the base year.[4] The third set includes financial variables, such as the amount of bills of exchange issued by the VOC,[5] its working capital, and the financial balances for its Dutch and Asian operations (the amount of profit or loss). These numbers are the result of careful reconstruction of the financial data by De Korte (1984). The VOC never developed an integrated accounting system, keeping separate accounts for its Dutch and Asian operations throughout its existence. As historians have noted (e.g., Steur 1984), officials seem to have had a good overall understanding of whether the company was losing or making money in Asia, but only an approximate idea of the precise amount of profit or loss. Basic descriptive statistics for all the variables in the analysis are presented in table 2.

The main estimation issues with time-series data are autocorrelation (when the error terms from the estimated regressions are correlated over time) and heteroskedasticity. To ensure that the correlation across time does not affect the consistency of parameter estimates and the standard errors, we estimated the models with standard errors corrected through the Newey-West (1987) procedure. The error structure is assumed to be heteroskedastic and autocorrelated up to some lag. A lag of two was used in the analysis, with lags of three and four also considered. As is customary in studies of this kind, the independent variables were lagged to reduce concerns of simultaneity. Given the large distance separating the Asian and European operations and the slow maritime travel in the era, we applied a lag of two to all independent variables. Additional analyses with lags of one and three returned substantively similar results. To reduce their skewness and discrepancies in measurement scales, some variables were

Table 2. Descriptive Statistics of the Variables in the Analysis of Private-Trade Legislation at the VOC

Variable	Mean	Standard deviation	Min	Max
Total servants in the East	130.75	11.49	74.31	147
Total soldiers	98.12	8.4	50	110.65
In-voyages	24.68	6.22	3	40
Out-voyages	31.21	8.21	0	51
Lost ships	1.07	1.64	0	8
Wages (Netherlands)	143.35	1.49	140	147
Shipping costs	135.5	10.55	114	176
Bills of exchange	1,371.21	542.16	338.41	2,477.32
Working capital	6,112.17	612.97	4,771.63	7,421.43
Asian balance	3,276.19	395.78	252.01	3,812.29
Dutch balance	3,247.43	698.72	323.87	4,457.3
Positive legislation	13.64	36.65	0	276
Negative legislation	21.02	42.68	0	262

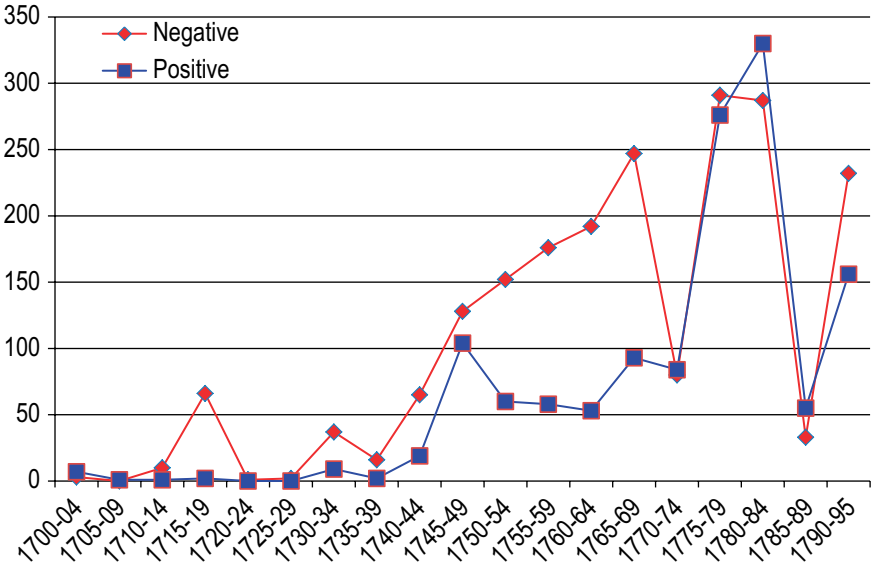
root-square transformed, including Asian and Dutch Balance, bills of exchange, working capital, number of soldiers, and number of servants in Asia. The coefficients were estimated with the quasi maximum-likelihood estimator, providing reliable estimates under potential model misspecifications (White 1982).

Results

Using data from the *Plakkaatboeken,* figure 1 presents five-year counts of the provisions on private trade in VOC regulations, coded as overall "positive" (encouraging free trade) and "negative" (limiting free trade).

The data confirm that the number of provisions on private trade increased considerably over the second part of the 18th century. Two stages in private-trade legislation emerge—one of growing resistance, marked by the dominance of negative over positive policies (1750–1770) and one where positive and negative policies are almost perfectly balanced (1771–1795). The data suggest that the introduction of reforms provoked a backlash and trade rights were curtailed, but from about 1770 the company changed course, adopting bolder measures in support of free trade, finely balanced against those of restriction. It also supports Nierstrasz's (2012) contention that 1771 marks a turning point in VOC's private-trade policy, when a wave of regulations encouraging private trade was set in motion. To summarize these trends, in the period after 1742, the HR issued around 59 private-trade provisions on average per year, of which 35 were negative and 24 positive. Yet, looking only at the period after 1770, there is complete parity in the number of positive and negative provisions per year—35.7 and 36, respectively. It is toward the end of this decade that the peak in private-trade

Figure 1. Five-year counts of "positive" and "negative" provisions on private trade in HR regulations (1700–1795)

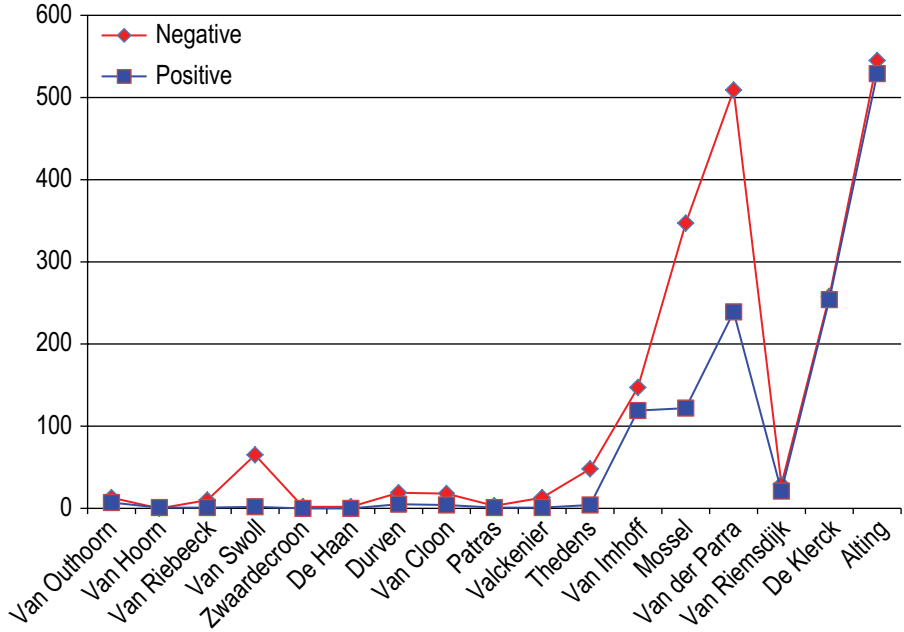


legislation was reached—in our sample, there are 455 provisions in 1778 (210 positive and 245 negative) and 538 in 1781 (276 positive and 262 negative). This burst of activity and the sharp increase in the number of positive policies compared to previous years can be explained with the outbreak of the Fourth Anglo-Dutch War in 1780, which necessitated the reorganization of the trade and the increasing reliance on private traders to circumvent English blockades. But even in those trying times, the VOC made sure to keep private traders in check, as the balanced numbers of positive and negative provisions indicate. The very high correlation between the two series in the 18th century (.87) emphasizes the Janus-like stance of the VOC, taking back with one hand what it gave with the other.

Figure 2 presents the data aggregated by the tenure of Governor Generals. Finely balanced spells, where the numbers of positive and negative policies almost match, characterize four of the six governors—Van Imhoff, Van Riemsdijk, De KLerck, and Alting. The degree to which these officials managed to maintain an even-keeled approach to private trade is remarkable.

Having established the ambivalent nature of private-trade regulations, we next examine their drivers and effects. We test and confirm two expectations—that positive private-trade regulations were adopted in response to subpar economic performance and also that these policies truly mattered—that they were implemented and affected both the degree of private trade *and* the financial situation of the company. This modeling strategy developed from our archival research. The qualitative data suggest that the positive private—trade regulations issued

Figure 2. Counts of "positive" and "negative" provisions on private trade in HR regulations (1700–1795) over the tenure of Governor-Generals



by the High Government were in essence a response to the financial performance of the Asian operations ("Asian Balance"), for which the HR was responsible—as performance declined, officials were more likely to adopt measures favoring private trade. The telling example is the first wave of private-trade legislation in the 1740s. As the financial health of the company started deteriorating in the 1730s (Gaastra 2003), its balance sheet showed negative equity for the first time in 1736 (Steur 1984). Alerted by these results, in 1741 the HXVII dispatched to Asia Van Imhoff (soon to be named as Governor General) to evaluate the situation. He laid down his findings in a report known as *Consideratiën* ("Considerations"), presented before the HXVII on November 24, 1741,[6] which proposed the liberalization of private trade in areas where the company was relatively unprofitable (cf. *Consideratiën,* 495, §6) or where it could not successfully enforce its monopoly (e.g., 494, §3; 497, §15). The HXVII agreed with his proposals and provided the formal mandate for the implementation of these policies on April 2, 1742. Observations of this kind reinforce the expectation that *the financial balance of the Asian operations (and not the Dutch ones) should be associated with the number of positive private-trade regulations*.

Our archival work suggests that this reasoning cannot be applied to the negative regulations. The positive regulations were promulgated with the explicit purpose of rectifying the performance of the VOC. Negative regulations, on the other hand, were not so much a response to improving performance as a reaction to positive regulations perceived as too liberal in autonomy granted to private traders. If the positive regulations were motivated by economic reasoning, while the negative ones emanated from the resentment that freeing private trade provoked, *the financial balance of the Asian operations should be associated with the number of positive, but not negative, private-trade regulations*.

Moving from antecedents to consequences of private-trade policy, we examine two outcomes —the amount of issued exchange bills and the financial performance of the company. Exchange bills presented the only legal way in which money earned from private trade by company servants could be transferred back to the Dutch Republic (Adams 1996). As archival evidence from 1742 attests, to encourage participation in private trade, the HXVII permitted company servants to transfer money within Asia as well as from Asia to Holland.[7] Unsurprisingly, the amount of exchange bills increased steadily in the 18th century (Gaastra 1994). Hence, we expect that *the number of positive regulations is associated with the amount of exchange bills issued every year.* Furthermore, we expect that, net of financial and organizational factors, *the number of positive private-trade regulations is associated with better financial performance (in Asia)*. If positive regulations were drafted with the explicit goal of redressing financial performance, then these regulations were meaningful only to the extent that they achieved their stated goal.

Table 3 presents the results of the antecedents analyses.[8] As expected, the financial balance of the Asian operations has a strong negative impact on the number of positive private-trade regulations. However, the effect of the Dutch balance is insignificant at the accepted levels. This suggests that private-trade regulations were drafted as a response to performance in Asia—as it declined, the High Government

Table 3. Newey-West Regression of Number of Positive and Negative Private-Trade Provisions at the VOC (1700–1795) on Asian and Dutch Financial Balances

Variables	Positive	Positive	Negative	Negative
Asian balance	–.009***	–.009*	–.001	–.001
	(.002)	(.004)	(.004)	(.008)
Dutch balance		–.001		–.001
		(.004)		(.008)
Constant	46.548***	46.492***	23.578	23.528
	(11.797)	(11.943)	(14.581)	(14.834)
F-statistic	11.28***	6.42*	.02	.01

*** $p < .001$ * $p < .05$

Table 4. Newey-West Regression of Number of Amount of Bills of Exchange at the Dutch East India Company (1700–1795) on Selected Independent Variables

Variables	Model 1	Model 2	Model 3
Asian balance	–.447***	–.314*	–.371*
	(.132)	(.165)	(.167)
Dutch balance		–.125	–.063
		(.124)	(.133)
Positive legislation			3.558***
			(1.09)
Constant	2,846.82***	2,823.17***	2,759.48***
	(430.23)	(400.01)	(382.64)
F-statistic	11.47***	6.74***	9.05***

*** $p < .001$ ** $p < .01$ * $p < .05$

was more likely to adopt policies that encouraged private trade. The results for the negative regulations confirm that the Asian balance influenced the number of positive, but not negative, regulations, lending a measure of support to the contention that negative policies were not adopted as a response to financial performance, but as a reaction to policies fostering private trade.

The analysis of the amount of issued exchange bills, presented in table 4, reveals the same pattern as above—the Asian balance has a strong negative impact on the amount of exchange bills, while the effect of the Dutch balance is insignificant at the accepted levels. Model 3 confirms the expected strong positive relationship between the number of positive regulations and the amount of exchange bills, reinforcing the contention that the legislation on private trade had direct economic consequences—as private trade was loosened, the amount of funds transferred back home increased. The strongest support for the financial impact of private-trade legislation (controlling for economic and organizational factors) is provided in table 5.

Table 5. Newey-West Regression of Financial Balance in Asia at the Dutch East India Company (1700–1795) on Selected Independent Variables

Variables	Model 1	Model 2	Model 3
Total servants in the East	–2.623	.724	–.015
	(13.251)	(10.451)	(10.499)
Total soldiers	11.787	6.571	6.879
	(18.812)	(14.294)	(14.205)
In-voyages	.539	–1.628	–.686
	(7.876)	(8.081)	(7.863)
Out-voyages	–1.778	–.388	1.665
	(4.658)	(5.005)	(4.467)
Lost ships	–43.06#	–45.686*	–44.926*
	(24.263)	(21.015)	(21.036)
Wages (Netherlands)	–69.689***	–108.449***	–112.95***
	(17.686)	(23.011)	(23.237)
Shipping costs	–13.084**	–7.337	–9.906*
	(4.414)	(5.04)	(4.915)
Bills of cxchange	–.007	.032	.043
	(.046)	(.059)	(.055)
Working capital		.211*	.217*
		(.108)	(.107)
Positive legislation			**1.331*** **
			(.459)
Constant	14264.88***	17776.54***	18666.9***
	(2523.7)	(2362.8)	(2377.56)
F-statistic	5.38***	6.97***	7.73***

*** $p < .001$ ** $p < .01$ * $p < .05$ # $p < .1$

The dependent variable in this analysis is the financial balance of the Asian operations for the period 1700–1795. The control variables provide a baseline against which to measure the relative weight of the main predictor. They were suggested by previous studies and by our archival work, and were included for their expected relevance for performance. The results appear consistent with conclusions reached in past research. The coefficients in the first two models lend support to a core claim in economic history—that expansion of the VOC did not achieve the intended effect of reducing fixed costs and improving profitability (De Vries and Van der Woude 1997). As revealed in model 1, none of the variables capturing scale of operations—number of employees in the East, number of soldiers, and number of voyages to and from Asia—displays a significant association with profitability. Expansion by augmenting the number of voyages

and the size of the workforce in Asia, particularly in the early 18th century, was not accompanied by improvements in productivity and profit margins; the increasing competition, falling commodity prices, and high fixed costs (from the upkeep of ships and trading outposts) eroded the scale economies, resulting in a lengthy period of "profitless growth" (cf. De Vries and Van der Woude 1997).

The coefficients in model 2 provide supporting evidence for the role of economic factors in the performance of the company. Profitability fluctuated as a function of the Dutch wage rate, the costs of shipping, and the amount of working capital available. At a consistently low productivity of labor, increases in wage—for example, to attract foreign seamen when the Dutch labor market became depleted (Lucassen 2004)—ate directly into profit margins. The observed effects of shipping costs and working capital are well documented in economic history research. Under conditions of rising competition, the level of profitability depended heavily on the efficiency of shipping operations and the amount of capital available to purchase supplies in bulk (De Vries and Van der Woude 1997). The "profitless" growth of the company necessitated the increasing use of working capital to nonproductive ends, such as the payout of dividends, which further eroded the efficiency of the trading operations. Unsurprisingly, we find also that profitability was hurt by the loss of ships—due to storms at sea or wartime destruction. The financial impact of these losses was significant and is a key reason for the inability to return to profitability after the Fourth Anglo-Dutch War (1780–1784).

The organizational and economic influences form the background against which we tested the impact of positive private-trade regulations on performance. The positive and significant coefficient in model 3 reveals that the adoption of regulations facilitating private trade had a wholesome effect on the results of the Asian operations. This is the first systematic evidence that private trade benefited the company rather than hurt it, as is typically asserted. Of course, unobserved heterogeneity in performance studies is always a concern—for example, we could capture the effects of competition only indirectly. Nevertheless, the analysis suggests strongly that the regulations had important financial consequences.

There are several methodological issues that demand additional scrutiny. One is the recursive relationship between performance and legislation (regulations drafted in response to performance and affecting performance on their turn), marking a core observation in sociological research (cf. Bourdieu 1984). The results suggest that declining performance encouraged the adoption of regulations favoring private trade, which bolstered performance but also provoked opposition that led to the scaling down of the positive regulations, hurting performance. Our analysis does not provide sufficient quantitative evidence to prove this relationship, but qualitative data from the archives lend support to the existence of this feedback loop for the period of observation.

A related question is that of the nature of the interdependence between positive and negative private-trade regulations. The substantive focus of this paper is on the positive regulations and their role in the adaptation of the VOC to the changing economic context, rather than on the resistance to reforms at the VOC, which is amply documented (e.g., Adams 1996; Gaastra 2003). However,

their relationship is important in understanding the reasons why VOC's adaptation did not progress more intensely than the observed. Finding that the positive regulations responded to performance in Asia while the negative did not led us to infer that the latter were at least partly a product of the former. Yet, direct evidence for this is lacking. In trying to distinguish the two variables and prove causality, the main methodological difficulties are the very high correlation (0.87) and the absence of autocorrelation. In additional analyses, we found that the two variables fluctuated very closely over time, but were poorly predicted by their past values—none of the first three lags predict well their own values or those of the other variable. This reinforces the impression from our archival work that the regulations were adaptive in nature, modifying and superseding each other in quick succession, thereby contributing to the sense of confusion expressed by some VOC officials as to the nature and scope of the regulations on private trade currently in force. One can venture a guess that the slow, irregular communication between the homeland and the Asian outposts entailed the temporal clustering of regulations that were promulgated within relatively short time spells, without having strong influence on legislative activity in the longer run.

One methodological drawback of this configuration is the inability to apply multivariate time-series models to tease out the causality between these two variables. Sims (1980) introduced Vector Autoregression (VAR) as a technique for modeling the joint dynamic behavior of a pair or a collection of variables, where each of a set of m variables is expressed as a linear function of p lags of itself and of the other $m - 1$ variables, plus an error term. However, this method is not well suited to the case of private-trade regulations, where the lagged values exhibit little predictive power. Unsurprisingly, a Granger Causality test[9] within a VAR framework did not provide significant evidence to establish the direction of causality. Given the simultaneity of their interdependence, we regressed the positive and negative regulations on each other, finding that the positive predicted the negative significantly better than vice versa. This simple method provides some suggestive evidence that the negative regulations were formulated in reaction to the positive ones.

The assumptions of the VAR models are appropriate in the analysis of the financial balance of the Asian operations. To verify the robustness of results, we reran the analysis presented in table 5 in a VAR framework, with the Asian and Dutch balances as dependent variables, where each is modeled as a linear function of three lags of itself and the other variable. We found few substantive differences from the results of the Newey-West regression. Most importantly, the established effect of the number of positive regulations on the Asian balance remained fully intact, reinforcing the conclusions reached.

Discussion

The organization of overseas trade posed a critical challenge for company principals: to reconcile the desire of employees to pursue opportunities to enrich themselves and the need to suppress malfeasance and ensure that organizational interests took precedence over individual ones. The magnitude of this problem

was a function of economic factors—as the Dutch economy and its foremost company flourished over the course of the 17th century, the willingness of the overseas agents to engage in self-interested economic activity increased accordingly (Adams 1996; Gaastra 2003). Dutch principals were faced with a problem that time served only to aggravate: how to control a distant, poorly paid workforce.

This study revises the assumption that the VOC's decline resulted from its inability to introduce reforms realigning public and private interests. It depicts an organization that reacted adequately by relaxing control over trade. That this course of action did not follow a consistent line, but proceeded in fits and starts, is probably the key reason why it has been overlooked by scholars so far. As shown, what appears on the surface as irregular series of permission and prohibition amounted to an overall balanced policy on private trade in the second part of the 18th century. The seeming inactivity of the company was an optical illusion, whereby normative ambivalence appeared as organizational stasis.

The idea that inactivity could mask inconsistent activity is not new in sociological research (e.g., Padgett and Ansell 1993). The VOC principals neither opened up the floodgates of private trade, nor closed down the hatches, as past research affirms. Our qualitative and quantitative analyses attest to their pursuit of a "middle way"—between market and monopoly trade, between encouragement and restriction of private trade. This finding is important for several reasons. First, it enables us to reconsider how principals controlled agents in early global trade. While past research shows that English and Dutch principals developed distinct models of control in the 17th century (Adams 1996), our analyses reveal that the differences in the organization of overseas trade decreased over time. We uncovered evidence that the Dutch were aware of the benefits that private trade provided to their competitors and that they initiated decentralization partly as a response to the ascendancy of the English Company. In this, we confirm a core sociological expectation—that in markets with increasing competition, practices tend to diffuse over time as a result of mutual imitation and as a reaction to competitive pressure (Burt 1992).

Similarly, finding considerably more fluctuation and uncertainty in the organization of early global trade than what has been recognized so far should come as no surprise to historical sociologists. Our analysis documents that Dutch principals were in a state neither of full control, nor of passivity. They were pushed by conflicting interests with agents and the need to adapt to a changing economic landscape to adopt new practices in a logic familiar from sociological research (e.g., Lachmann 2000). From the early 1740s, forces and counterforces acted to generate temporary equilibria, never lurching into the extremes of reassertion of principals' rights, as typically assumed, or into full decentralization.

The positioning in between those extremes was powerfully shaped by economic, cultural, and identity factors. Our archival and quantitative analyses suggest strongly that the observed pattern was in essence a pragmatic response to economic exigencies and declining profitability. The VOC was faced with the challenge of reinventing its old economic model, whose relevance decreased in the 18th century. As the company's power declined, it became less and less able

to prevent illicit trade and impose favorable terms of trade on local rulers. It had to either start paying market prices for goods or enforce monopoly-based contracts by military means. Both options were unappealing—military interventions were too costly to mount on a regular basis, while reinforcing free markets threatened to expose the company to increasingly severe competition by rivals and private traders with lower overhead than that of a colonial power with a vast infrastructure to maintain. Hence, the VOC seesawed between these two options (Jacobs 2006, 69): while allowing its servants to engage in private trade as an incentive for loyalty, it also imposed limitations wherever possible to safeguard old privileges. Prohibition and permission went hand in hand, partly as a result of the understanding that its declining political power made it inevitable to open up monopolistic markets, but that market forces imposed an economic logic of competition that endangered the survival of the company in the long run, as private traders were both more efficient and more flexible in their operations. Furthermore, the expansion of private trade was inherently a recognition of the declining ability of the VOC to control commercial flows.

The ambivalence toward private trade reflected cultural constraints as well. One particularly notable fact is that even Van Imhoff, the champion of private trade, referred occasionally to it in his letters as "cancer" and "evil." That private trade could have been seen *simultaneously* as a lifeline and an affliction is paradoxical only at first sight. Private trade encroached on economic monopolies, but also on widely held beliefs about the primacy of collective over individual interests. As Goldgar (2007) makes clear, early modern commerce was embedded in social, intellectual, and cultural systems in ways that made the Dutch apprehensive of the social consequences of modern economic practices and the impact of furthering individual interests on Dutch society. If risk and speculation increasingly permeated economic life, they were balanced by social arrangements preventing profit-seeking behavior from threatening the underlying bonds of trust in urban communities. This is best illustrated by the fact that the private-trade reforms under Van Imhoff and Mossel were accompanied by the introduction of "Societies" to mediate between individual and collective interests, and to ensure that private trade was sufficiently controlled, so as not to undermine the social fabric of the company. That VOC officials saw private trade as a "necessary evil" is not surprising when regarding them not just as economic agents, but as 18th-century men. Network roles, individual strategies, and organizational policies are refracted through personal and collective identities (Padgett and McLean 2006). Critically, at the center of the early modern Dutch world was not a *bourgeois*, but a *burgher*, who was a member of a political community (Schama 1987). This distinction is vital to understanding economic practices at the time, because the burgher was a citizen first and *homo oeconomicus* later. Even in promoting private enterprise, it was never dissociated from the concern with collective good.

What is observed at the VOC is inseparable from broader social processes. Dutch 18th-century public discourse was dominated by the problem of "privately oriented civic virtue" (Burtt 1993)—of finding a form of virtuous citizenship

adapted to a highly developed, commercial, and civilized society (Velema 1997, 441). One should also note long-standing traditions of compromise in administrative practices at community, town, and country levels, combining permissiveness and control in sustaining mutually good relations (Mijnhardt 1998, 346). Accustomed to self-regulating systems of give-and-take between citizens and the community (e.g., Roodenburg 1992), VOC officials reacted to economic hardships through a worldview encouraging the pursuit of balance between contradictory forces.

With respect to the scholarly debate on the nature of the control systems used by early trading companies, our analyses assert that Dutch principals moved toward decentralization of operations, but did not do so with unequivocal intent. The findings support the claim in economic research that in the presence of synergies between public and private trade, the permission to pursue the latter can serve as an incentive device, benefiting the principal (Hejeebu 2005). But if Dutch principals were aware of the synergies between private and public trade, they did not know how far these synergies extended, nor where they should have drawn the line. Instead of a linear pattern reflecting unequivocal intent, we observe a sequence of irregular actions attesting to the ambivalence of principals concerning an economically useful but morally dubious practice. This sequence, observed in the context of the 18th century, is in agreement with institutional research seeing ambivalent organizational behavior as a means of coping with contradictory pressures (Brunsson 1989). Organizations are generally able to tolerate substantial internal tension, experimenting occasionally with alternative courses of action in an attempt to navigate between contradictory demands and interests (Clemens and Cook 1999).

More than a story of a predetermined end, the Dutch East India Company in the 18th century is a story of adaptation to increasing economic pressure under numerous constraints. The VOC is an early example of a "hybrid" organization, with political, economic, and social functions that diverged more and more over time. As the VOC contracted in size, it was hobbled by obligations to suppliers, shareholders, bondholders, local chambers, and the state. It remained by far the largest employer in the Republic, if not in the world; it anchored many municipal economies, paid taxes to the Admiralties, paid dividends to hundreds of shareholders, and borrowed from thousands of bondholders (De Vries and Van der Woude 1997). This probably accounts in part for the ambiguity that permeates the regulations—already Heeres, the publisher of Van Imhoff's *Consideratien* noted the oblique style in which they were written, leaving much room for interpretation and giving only a rough idea of what Van Imhoff really had in mind (Nierstrasz 2012). The vagueness of the articulation was likely driven by the desire to avoid firm commitments with respect to an issue that provoked disagreements within the company.

Our analysis reinforces the argument that the VOC's demise is overdetermined (Nierstrasz 2012), due in no small part to forces beyond organizational control, such as the growth of English maritime power or the 1795 French invasion of the Netherlands. If the VOC perished in the end, it was not for lack of efforts—as inconsistent and reversible as these were. However, these efforts can

also be read in a way that echoes the observation that not only the VOC, but the Netherlands in the 18th century, tried and largely failed to reinvent themselves (De Vries and Van der Woude 1997, 715). Accounts along these lines contend that vested interests proved too strong to reform an economic system that by the late 18th century had an archaic character, encumbered by antiquated fiscal rules and legal systems of local government, a decentralized political organization bordering on the chaotic, and other institutional relics of a commercial economy that stood in the way of industrialization (Mokyr 1976).

From this angle, the observed vacillation in private-trade legislation reveals an institutional logic more attuned to finding short-term gains than to searching for long-term solutions. If the VOC responded with some success to its predicaments, the response was not deep enough, unable to resolve the structural problems behind decreasing profitability and unblock the resistance of commercial elites to change. This response is understandable in the context of 18th-century Dutch society, looking to reconcile reforms with existing social structures, but also forgoing the opportunity to adopt radical changes. The pursuit of *a middle way* by Dutch principals is indicative of a state of mind dominant in the second part of the 18th century—as a historical "transition" stage, when societies in a number of Western European countries were confronted with the need to adapt to a dynamic economic landscape with increasingly modern practices that inexorably eroded traditional hierarchies and moral precepts. Anchored in the Golden Era of commercial capitalism in the 17th century, the VOC was swept away by its diminishing returns. The company was modern in more than one way, as in the need to adapt to increasing competition and manage a far-flung network of agents. Yet, it was also traditional in trying to contain self-interest and uphold collective trust. It is in these contradictory developments that a new era in the organization of economic systems emerged.

Notes

1. We took multiple steps to ensure the consistency and accuracy of coding, such as recoding at regular intervals and comparing patterns across two separate databases and across decades. We took particular care in this regard, as using an external coder proved impractical—it required a huge personal investment in developing sufficient competency in old Dutch, in contextual knowledge of the VOC and the history of the Dutch Republic, as well as knowledge of the organization of the vast VOC archives in Holland and Jakarta. The consistency and rigor of our coding practices and the results of the statistical tests provide a high level of confidence in the findings' validity.
2. The results of these analyses are not presented here to preserve space, but are readily available upon request.
3. These come from the HING, *The Dutch East India Company's shipping between the Netherlands and Asia 1595–1795*, available at http://www.historici.nl/Onderzoek/Projecten/DAS/voyages.
4. Obtained from the NEHA (IISG) data set, *Freight Rates between Amsterdam and Various Port Cities 1500–1800, and Factors Costs of Shipping Industry 1450–1800*, available at http://www.iisg.nl/hpw/data.php#netherlands.

5. From the DANS EASY data set, Department of History, Leiden University, *Bills of Exchange of the Dutch East India Company (VOC), 1690–1740*, available at https://easy.dans.knaw.nl.
6. Extracten uijt de Resolutien door de vergadering der Heeren Seventienen binnen Amsterdam, vrijdag 24 November 1741, in *De Condieratiën van Van Imhoff* by J. E. Heeres (1912), 556.
7. See J. E. Heeres, *Consideratiën van Van Imhoff* (1912), "Extracten uijt de Resolutien door de vergadering der Heeren Seventienen binnen Amsterdam," April 3, 1742, 589–90.
8. This is a confirmatory analysis in a regression format—it is intended to confirm the nature of the dependent variables by analyzing the pattern of their relations with Dutch and Asian trade balances. We verify expectations derived from our archival work that we know are true, such as the fact that Governor Generals took into account the financial results in Asia when deciding on private-trade policies. These expectations concern only those four variables in a 2x2 format. But even when we add the control variables from table 5 to the models, there is little change in the dependencies of interest. For reasons of parsimony and substantive focus, we present the truncated analyses in tables 3 and 4. Results of the full models are available upon request.
9. The Granger causality test uses *F*-tests to verify whether lagged values of a variable X provide any statistically significant information about a variable *Y* in the presence of lagged Y. If yes, then *X* "Granger-causes" *Y*.

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