Preliminary Draft

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Law, Finance and the First Corporations

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The English East India Company (EIC) and the Dutch East India Company (VOC) were incorporated by State charters two years apart, in 1600 and 1602 respectively. They were involved in similar business activities, oceanic trade in high value goods between Europe and Asia, via the Cape Route. They were both organized as joint stock corporations, with huge capital and hundreds of shareholders. In fact they were by an order of magnitude the largest business corporations of their era. The formation of the companies was situated in a crucial junction in the history of business organizations and stock markets. Yet, while the formation of the VOC led to the appearance of a secondary market in shares in the Dutch Republic, in England a share market emerged only a century after the organization of the EIC.

The present article shall focus on a main organizational challenge faced by the two companies, the facilitation of long-term impersonal cooperation between active entrepreneurs and passive investors. It will study of the manners by which legal and political environmental factors were translated into the detailed financial and governance structure of each of the two companies. It will explain the distinct English and Dutch paths to the creation of share markets through these environmental and organizational differences.

My approach and case study will be encountered with three influential, theoretically oriented, approaches to the relationship between law and institutions and the development of the stock market. The approaches are those of Schleifer and his collaborators (hereafter LLSV) that emphasize the effect of legal origins on investor protection, of North and Weingast that view the ability of the State to convey credible commitments as a key to the development of stock markets and of Rajan and Zingales that focus on market infrastructure and on the power of social and interest groups. The purpose of this encounter is twofold; first, to enrich our understanding of the reasons for the historical divergence between the two countries; and second, to analyze these leading theories in light of the empirical findings of our pivotal case study.

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The article will first communicate with the three abovementioned approaches in order to extract from them direct arguments and implicit predictions with respect to the historical case that I am studying. It will next survey the development of government bond markets in The Netherlands and England. It will then analyze the raising of capital by the EIC and VOC in the primary market, after that explain the emergency of secondary market in company shares in the Dutch Republic and the absence of such a market in England for another century, and finally conclude from the history, theory and policy viewpoints.

1. Theories of Law, Finance and Economic Development

Economic theory long assumed that stock market development allowed the transfer of capital from investors to entrepreneurs and contributed to economic growth. In the last two decades, empirical studies have provided clear support not only for the claim that stock market development and economic growth are correlated, but also for the direction of the causality, from stock market to growth. More recently, a rapidly growing body of literature has established the claim that stock market development results from a supporting legal and institutional framework.[2] It is now asserted, on both theoretical and empirical grounds, that by designing the appropriate investor protection law and stock market institutions, developed countries achieved fast and sustainable growth in the past. Today, it is recommended that LDCs do the same, in order to achieve growth in the future.

The definition and protection of property rights by law is essential for investment and for economic development. Individuals are willing to invest more labor and capital in their property when they are sure that the increase in value and in revenues will be captured by them and not by the state or by third parties. Protection of property rights is also good for investment in the stock market. However, investors in the stock market have more particular concerns. The specific concerns of investors in government bonds are different from the concerns of investors in shares of business corporations.[3] The main concern for investors in government bonds is that the State will suspend payment or even write off the debt. In other words, the risk is that the State will expropriate bondholders' intangible property rights in the bonds. A greater obstacle to the development of a government bond market is that States, as absolute and unconstrained sovereigns, cannot credibly commit not to expropriate.

In investment in company shares, a misalignment of interests between insiders and outsiders creates significant agency problems. The main concern for these investors is that insiders will shirk and steal, leaving outsider equity holders with less than their share in the profits or even with a loss of the investment.[4] Personal relationships between investors and insiders provide social and other non-legal mechanisms to moderate the problem; however, when the relationship between the insiders and the outsiders is impersonal, the problem is more acute. The law can reduce these concerns. Significant asymmetry in information between insiders and outsiders augments the agency problem. Outsiders need a law that will not only provide them

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[2] For good surveys of this literature see: Beck, T. and R. Levine (2005). Legal Institutions and Financial Development. Handbook for New Institutional Economics. C. Menard and M. M. Shirley. Dordrecht, Springer, Dam, K. (2006). The Law-Growth Nexus: The Rule of Law and Economic Development. Washington, Brookings Institution Press.

[3] I will focus here on equity investment in corporations, leaving aside corporate bonds.

[4] There is also a secondary concern for expropriation by the State.

with protective contractual rights but also with an institutional structure that enables them to get verifiable information that they are being defrauded.

The law and finance literature (La Porta, Lopez-de-Silanes et al. 1997; La Porta, Lopez-de-Silanes et al. 1998)finds that legal origins matter. Equity capitalization and GDP per capita are predicted by the legal origins of the current legal system of a state. To put it differently, the family of legal systems to which a legal system belongs determines its economic performance. Systems whose modern law is based on French law, through migration of people, colonial imposition or voluntary transplantation, fare worst. Systems whose legal origin is German have better economic performance. Anglo-American systems lead to the best performance.

What can explain this? Here, there are two versions. The first version points to differences in the role of the government in the legal system. The more dominant the State, the less supportive of financial development is the legal system. Where the State was stronger, as manifested in a dependent judiciary, inquisitorial trial procedure or disrespect for private property, the legal system ended up being less investor friendly. Where the judiciary was independent, the trial procedure adversarial and private property rights respected, the system ended up being more protective and supportive of investors.

The second version points to the mechanisms of change that characterizes each type of legal system (Schleifer and Glaeser 2002). The case-law-based common law system responds faster to changes in economic needs than statute or code-based systems. Both versions suggest not only that law matters but also that history matters. What determine present performance are the past features of the legal system. The relevant questions here are: Was the State strong in the past?, Was the judiciary independent in the past?, Was the mechanism of change in the past based on court decisions? The crucial period in the past is the 12th-13th centuries, when common law diverged from continental law and, within a short formative stage, acquired the characteristics that distinguish it from continental law until today. What matters is the legal origin.

North and Weingast, coming from a New Institutional Economics perspective, identify solving the problem of credible commitment by the State as a key to explaining economic development (North and Weingast 1989; North 1990). The British solved this problem around the time of the Glorious Revolution of 1688. The solution marked the emergence of an expanding stock market and the beginning of a century and a half of continuous and unprecedented economic growth. Countries such as France, which were unsuccessful in solving the problem, muddled.

The British solved the problem party by using constitutional design to limit the power of the State. A strong and unconstrained State cannot credibly commit not to expropriate its creditors. The British weakened their Crown by shifting powers to Parliament through the Bill of Rights, and establishing a constitutional monarchy. But their constitution was not paramount or entrenched and Parliament could still expropriate by way of legislation. The British needed additional shackles. These were created by forming institutions that would counterbalance Parliament; notably, the Bank of England. The Bank administered the national debt of Britain, ensuring that bondholders will be repaid through tax revenues and be protected from expropriation. Interest groups of politically powerful investors that organized around the Bank and other financial institutions clustered around Parliament and the Crown to prevent them from defaulting and expropriating. Three layers, constitutional, institutional and interest groups, constrained the State and made its commitments credible.

Rajan and Zingales claim that governments don't always want to develop mechanisms for conveying credible commitments (Rajan and Zingales 2003). The knowledge of how to design mechanisms that would prevent governments from withdrawing their commitments was available in the Dutch republic in the late 16th century and in Britain in the late 17th century. It could have been transferred to other places. The fact that the mechanism did not spread throughout Europe indicates that there was opposition to its adoption. Interest and class groups did not want to encounter a strong State. For credible commitment to be adopted, the aristocracy had to be weakened, the gentry had to emerge and Parliament had to become a more powerful coordinating body. While for North and Weingast, the State is an agent of change, for Rajan and Zingales, it is only an arena, which different social groups try to control. While for North and Weingast, learning how to design institutions is central, for Rajan and Zingales, overcoming opposition to change is central. Law matters for finance, but it serves as a tool whose use is determined politically. It is not an exogenously and historically provided system as it is for LLSV. Rajan and Zingales go beyond the constraining of expropriation, which is a precondition. But for financial markets to expand, they need infrastructure. This infrastructure includes transactional standards, information disclosure, legal constructs (such as collaterals and bankruptcy law) and contract enforcement. The infrastructure is a public good. Thus, it can best be provided by the State. Note that this infrastructure can serve the secondary market in government bonds and the secondary market in corporate shares. I shall return to this point below.

When do stock markets emerge and where? The three theories do not all aim to predict timing. But I will try to identify their implications, even if implicit, regarding timing. For LLSV, the stock market was likely to emerge earlier in England. The 12th century divergence of the common law, and the development of the basic characteristics of the common law during the formative period that ended with the death of Edward I in 1307, created the preconditions. How long it should have taken for the maturation of conditions and the development of the necessary legal protection for investors is not altogether clear. But one would imagine that not too long. For North and Weingast, the precondition is the creation of credible commitment devices. These are associated with the rise of Parliament, with the 17th century upheavals and with the Glorious Revolution. For Rajan and Zingales, the key period is the reign of the Tudors in 16th century, when Henry VII, Henry VIII and Elizabeth I weakened the aristocracy and opened the way to the rise of the gentry and eventually to pro-market, pro-financial market merchants and investors. In their view, opposition to the stock market was sufficiently weakened by the turn of the 17th century. But they assert that for a stock market to develop, elimination of opposition or even protection of investors is not enough. Market infrastructure has to be supplied as a public good by the State. They claim that the infrastructure was not in place before the late 17th century.

What about the Dutch Republic? It receives less attention from all three. For LLSV, the Dutch are of inferior continental legal origin. For North and Weingast, the Dutch did not go through a Glorious Revolution and did not solve the credible commitment problem. For Rajan and Zingales, what is most crucial is not what is peculiarly English – the common law or the English constitution. If the Dutch had been able to weaken the aristocracy and put a market infrastructure in place, they could have been the first to develop stock market.

Which market was likely to appear first, the share market or the government bond market? Here the prediction of the three theories is not clear because each of them has a different emphasis. LLSV focus on the share market. North and Weingast focus on the bond market. Rajan and Zingales do not always distinguish between the two.

The demand for a stock market may arise separately for government finance and for corporate finance. The government needs to borrow in the market when government expenses increase. In the pre-modern setting, the main cause for this is wars. Longer, more frequent or more costly wars create new demands. Wars were funded by collecting military services from feudal lords, by turning the feudal duties to financial, by taxation or by sale of lands, offices, monopolies and the like. The feudal services and dues could fluctuate with wars. Other sources of income were more constant. Loans could smooth out the fluctuations, provide the needed resources rapidly in war time and be paid gradually out of the stream of constant revenues in the peace time that followed. Loans could be obtained on a personal basis from those well connected with the State, could be arranged through intermediaries such as corporations (guilds, cities, etc.) or banks, or through the market. We shall see that the demand for market-based government loans was created in the Dutch Republic in the last quarter of the 16th century. In England, it was created in the last decade of the 17th century. We will consider the possibility that in England, demand was created in earlier periods as well, but was not supplied.

Demand for a market in corporate shares emerges when the cost of doing business increases; for example, when economies of scale provide more advantages or when entry barriers become higher or when risks are greater. This demand can be met internally. It can be met externally on a personal basis. It can be met by intermediaries. But when these are unavailable, the market could be used for raising impersonal external finance. We shall see that both in the Dutch Republic and in England, impersonal external finance was sought with the beginning of the oceanic trade with Asia in the closing years of the 16th century.

The focus of this article is on the founding of the EIC (1600) and the VOC (1602), and the relationship between their organization and the formation of stock markets in England and the Dutch Republic. The two companies were larger by an order of magnitude, in terms of capital and number of shareholders, than any earlier merchant company in existence in England and the Dutch Republic. They were the largest business corporations in Europe for the next two centuries and served as the basis for the formation of the British and Dutch Empires.[5] As widely held public corporations, their development could be linked to the development of a primary and a secondary market in shares. But here they diverge. The VOC relied on a pre-existing market in government bonds and its formation marked the origin of the Dutch share market. The EIC did not rely on a preexisting bond market and did not contribute to the formation of a share market in England.

The EIC and the VOC are usually viewed in the literature as similar joint-stock companies – the forerunners of the modern public corporation. They differ from older forms of organizing Eurasian trade, the Silk Road caravans, the medieval merchant ship partnerships of the Asians, and the State-owned enterprises of the Iberians. A main purpose of this article is to identify and analyze the major institutional differences between the companies. It will explain these differences by dissimilarities in the political, legal and stock market environments in which the two companies were formed.

The present article will also connect the growing literature on the role of law, the government and institutions in the development of stock markets with the crucial historical juncture in which these first large corporations were formed in the two soon-to-be-leading economies in Europe. The purpose of this connection is to gain insight from the literature and to challenge it through this pivotal historical case study. The challenge is not posed here by systematic, large scale econometric empirical testing. Such tests have been performed elsewhere

[5] The article deals only with the first decade in the history of the companies. It focuses on finance and governance aspects, touches only indirectly upon trade and does not deal at all with colonial and military consequences of the activities of the two companies.

by others.[6] It is hoped that the historical study can enrich the theory and contribute to the contemporary policy discussion.

2. The Dutch and the English Government Bond Markets

Dutch Bond Market

The Dutch revolt against the Habsburg Empire that began in 1568 placed new demands on public finance. The tax burden had to be increased and wartime gaps in tax collection had to be filled by borrowing. As the federal government did not have the administrative apparatus or the political power to collect taxes, the seven provincial states that comprised the United Provinces had to carry the burden. They negotiated a formula to split this burden among them through a quota system. Each of the provinces, in turn, allocated part of the burden to the city magistrates and tax farmers within its territory(de Vries and Woude 1997) pp. 91-129).

Wartime gaps in tax collections had to be filled by borrowing. The mechanism used in taxation – of shifting the burden down from the federal to provincial governments – was used for borrowing as well. By 1574, the public debt of Holland, by far the largest (and best-documented) province, stood at 1.4 million guilders. In 1600, it reached nearly 5 million guilders.(Tracy 1985; ‘T Hart 1993) The debt kept rising throughout the 17th century (See Figure 1). Much of the borrowing was from lenders with close ties to the State. Some of it was forced upon involuntary lenders. The province facilitated the creation of a secondary market in its bonds in order to allow liquidity to its coerced creditors. As we shall see, a similar order of things and similar motivation allowed the formation of a market in shares. The secondary market in bonds would make use of the well-developed commodities marketplace with its regularly published (since 1583) price list and other information-flow and transaction-cost-reducing institutions. By the end of the 16th century, Amsterdam, the dominant city in Holland and in the federation as a whole, was an active marketplace for commodities, freight, insurance, foreign currencies and government bonds (Braudel 1982) pp. 100-106 (Kohn 1999). As we shall see, shortly after the formation of the VOC, its shares were also traded there. The Amsterdam *Beurs* building was built in 1611, shortly after the establishment of the Bank of Amsterdam (*Wisselbank*). The Tulip Mania of 1636-7 manifested the sophistication and centrality of the Amsterdam markets (de Vries and Woude 1997) pp. 147-58; (Garber 2000), pp. 15-83).[7]

The fundamental change in taxation and borrowing that took place in the Dutch Republic in the late 16th and early 17th centuries is often referred to by historians as the financial revolution. It is viewed as a key to the economic growth and political power of the Dutch Republic in its 17th century Golden Age. There are a number of disagreements with respect to the exact nature of this

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[6] For LLSV, see, for example: Berkowitz, D., K. Pistor, et al. (2003). "The Transplant Effect." American Journal of Comparative Law **51**(2): 163-204, Berkowitz, D., K. Pistor, et al. (2003). "Economic Development, Legality, and the Transplant Effect." European Economic Review **47**(1): 165-195, Pistor, K., Y. Keinan, et al. (2003). "Evolution of Corporate Law and the Transplant Effect: Lessons from Six Countries." World Bank Research Observer **18**(1): 89-112.; Beck, T., A. Demirguc-Kunt, et al. (2003). "Law and finance: why does legal origin matter? ." Journal of Comparative Economics **31**(4): 653–675. Beck, T. and R. Levine (2005). Legal Institutions and Financial Development. Handbook for New Institutional Economics. C. Menard and M. M. Shirley. Dordrecht, Springer.For North and Weingast, see: Clark, G. (1996). "The Political Foundations of Modern Economic Growth." Journal of Interdisciplinary History **26**(4): 563-588, Sussman, N. and Y. Yafeh (2006). "Institutional Reforms, Financial Development and Sovereign Debt: Britain 1690 1790." The Journal of Economic History, **66**(4): 906-935.

[7] For the Amsterdam stock market of the late 17th century, see Neal, L. (1990). The Rise of Financial Capitalism: International Capital Markets in the Age of Reason. New York, Cambridge University Press..

revolution.[8] This may have led North and Weingast not to interpret it as solving the basic problem of conveying credible commitment. But there is agreement with respect to the fact that this revolution predated the English financial revolution by almost a century. It is agreed that the creation of public debt was a precondition for the creation of a market for trading in public-debt instruments. It is agreed that a significant public debt was created in the Dutch republic long before it was created in England. Tracey, Hart and others date the formation of a market for government bonds in the Dutch Republic a few decades before the formation of the VOC. This enabled the market for VOC corporate shares, when it emerged, to free ride on institutions that were already in place. Even Fritschy's revisionist account of the Dutch financial revolution, that delays its timing and downplays its extent, concludes that public finance played a role in the development of Dutch financial markets. He notes that, "Holland's 'post-revolt' public credit and the Amsterdam stock market were apparently born around 1600 as Siamese twins!" (Fritschy 2003).

English Bond Market

How and why did English sovereigns manage their public finance until then without Dutch-type borrowing and a Dutch-type bond and share markets? It is now common wisdom that England's commercial credit market, intended for small-scale, short-term, overseas transactions and based on bills of exchange, followed advances on the Continent. This was not the case with public finance. The massive sale of Church lands due to the Reformation enabled Henry VIII and Elizabeth, during whose reign the EIC was formed, to be less heavily dependent on borrowing than were later English monarchs or the Dutch. In hard times, such as wars, when they needed liquidity, they resorted to foreign lenders. Henry and Elizabeth raised all of their loans in the period 1544-1574 in Antwerp, the leading financial center of the time. Between 1574 and 1588, Elizabeth was able to avoid borrowing altogether. When war resumed against the Spanish Armada in 1588, she had to return to limited domestic borrowing. This borrowing did not rely on a functioning stock market. Elizabeth used archaic, cumbersome and unpopular methods to coerce loans from wealthy individuals and from the Corporation of London. Of the £461,000 she borrowed after 1588, all but £85,000 was raised at zero interest and only £10,000 at market terms (Outhwaite (Outhwaite 1966; Outhwaite 1971). The early Stuarts gradually increased their loans but maintained the same practice of raising money from corporate bodies such as the City of London, and by receiving advances from tax farmers (Ashton 1960), pp. 79-131) (Braddick 1996). Thus, at the time of the formation of the EIC and in its years of infancy, the financial needs of the State were met without the existence of a government stock market. State loans were based on personal connections, on ad hoc intermediaries, on coercion, and on short-term borrowing. A domestic secondary market, which is essential for the creation of public debt that is based on long-term, irredeemable and voluntary bonds because it allows liquidity, did not exist.

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[8] Some scholars place its timing in the 1570s while others around 1600. Some call attention to the fact that municipal borrowing began in the 15th century. Some stress the introduction of public borrowing while others view the reorganization of taxation as equally important. Some argue that the fundamental change was achieved by a shift to the level of the province while others believe that it was accomplished on the city level. Several scholars argue that on the debt side, it was the shift from short-term debt to long-term debt in the form of annuities that allowed more creditworthiness and increased borrowing, while others argued that transferable short-term obligations were in higher demand. Some argue that the suppliers of credit were mostly *rentiers*, while others claim that they were primarily merchants in search of liquid investment. See Tracey (1985); Hart (1992); Fritschy (2003).

As conflicts between Crown and Parliament intensified with the progression of the Stuart reign, and as the stock of land for sale decreased, so did the creditworthiness of the State. The use of voluntary loans declined. Strict parliamentary control over taxation after the 1660 Restoration forced Charles II to seek new lenders (Wheeler 1996). After the Glorious Revolution of 1688, public finance entered a new phase. Expenses rose due to prolonged wars with France, and tax incomes, with the excise leading the way, increased, but an unprecedented degree of borrowing was nevertheless needed to bridge the deficit gap.

A variety of institutional novelties coupled with the changing tax system to bring this about. These included the subjection of the Crown to parliamentary supervision through the Bill of Rights; the linking of loans to specific taxes that were supposed to provide the assured stream of income out of which interest would be paid – the so-called funded debt; the incorporation of the Bank of England as a pivot that connected private lenders with the Exchequer, and the evolvement of interest groups that used their political power to prevent expropriation of lenders. These political-constitutional-institutional changes were inspired by the Dutch model, which was well known to the newly arrived King William of Orange. An effective market for government bonds developed within a few years that introduced brokers, a marketplace, price reports, transaction techniques and a volume of trade to allow liquidity. All these changes and others amount to what is known as the Financial Revolution (Dickson 1967; Mathias and O'Brien 1976; O'Brien 1988; North and Weingast 1989; Brewer 1990; Harris 2004). The national debt mounted from around £1 million in 1688 to £15m a decade later, to £78m in 1750 and to £244m in 1790 (See Figure 2).

The timing of the Financial Revolution in England has been thoroughly researched by leading economic and political historians. Unless one is to challenge this timing, one has to acknowledge that throughout most of the 17th century, the Dutch had an effective stock market while the English did not. This timing fits North and Weingast's credible commitment theory well. But the timing generates two puzzles. Did the Dutch solve the credible commitment problem a century before the English and if so, how? How could widely held English corporations function throughout the 17th century, before the development of a government bond market and apparently also a share market? Rajan and Zingales do not have a problem with the Dutch being able to develop a bond market before the English and as early as the 16th century. LLSV do not have a clear prediction as to timing, but the order of emergence of bond markets, in which the Dutch appeared before the English, does not fit their theory. I will deal below with the puzzles generated by North and Wengast's theory.

Table 1: Financial Environment

EIC	**VOC**
No accumulated Asian trade capital	Accumulated Asian trade capital
No government bond market	Government bond market
No banks	Municipal bank (since 1609)

Sources: See text

From its inception, the VOC functioned in an environment that included a bond market that could be utilized for its shares, and the EIC functioned in an environment that did not have such a market. The VOC was formed after the appearance of a bond market and simultaneously with the market in shares; the EIC predated a bond market and a share market by close to a century. As I will show below, the absence of an effective share market in England did not altogether prevent the transfer of shares in the profits of the EIC.

3. Financing the Formation of the Companies – The Primary Share Market

The Dutch and the English were attracted to the lucrative Asian-European trade that promised considerable profits due to the vast arbitrage gaps in high value luxury goods between the two markets. Merchants of both nations were dismayed at being excluded by the Portuguese and Spaniards, who had dominated the oceanic trade since its establishment at the beginning of the 16th century. The direct Iberian trade with Asia, which amounted to buying Asian goods at source, put English and Dutch traders who bought spices at the western terminals of the Silk Road and other old caravan routes and from Spaniards and Portuguese in Europe, at a considerable disadvantage. The Iberian dominance also extended to controlling the network that distributed Asian goods, particularly spices, in Europe. In the closing decades of the 16th century, there were signs of a weakening of the Iberian holding of the sea routes to Asia. These were manifested in the defeat of the Spanish Armada at the hands of the English, the advance of the Dutch Revolt and the crisis of the Portuguese State-owned Asiatic trade enterprise – the *Estado da India*.

Based on the historical context and theoretical considerations, I will now try to characterize the financial needs of the companies and the modes by which could they be supplied. In order to enter the oceanic Cape Route trade with Asia, the Dutch and the English had to overcome not only navigational and military obstacles but also financial and organizational ones. This trade required a leap in capital investment compared with shorter-distance trade. The merchants had to finance larger ships, a larger quantity of export goods (mainly silver), and, particularly, they had to be able to provide this finance for a longer period of time – typically 2-4 years per round-trip voyage that included several Asian stops. The Eurasian trade also involved greater uncertainties and higher risks than short-distance trade. These were incurred by oceanic currents and monsoons, by pirates, by inhospitable Asian rulers, and by unknown market conditions.

Direct State ownership based on the Iberian model was not an option. It seems that the English State was not even willing to provide significant trade infrastructure and protection. The Dutch were willing to provide some indirect support. While the Iberians funded their Asian trade primarily by plundering their American colonies and sending the silver from there to Asia, the Dutch and English States had to raise money by way of unpopular taxes or loans. They preferred that this be done by private or semi-private trade entities and not directly by the State.

The promoters of both companies needed external finance because of the high entry barrier into this long-distance trade, because of their liquid wealth constraints and because they wanted to limit their risk and spread some of the risks to others. Thus, both Dutch and English merchant-entrepreneurs aimed at raising capital from a wider circle of passive investors. It is impossible to fully reconstruct the social networks of family, kin, neighbors and business partners of the insiders. But it is quite safe to assume that money of such magnitude could not be raised only based on personal relationships. The task, then, was to raise long-term external and impersonal investment. It also seems likely that this had to be mainly equity and not debt investment. While credit could be built into some of the supply and service transactions, the main funding for ships and goods had to come from the new companies themselves. They could not borrow from a few individuals or from intermediary banks.[9] Debt finance had to come mainly from the offering of bonds to the public. This would involve market access problems similar to

[9] The Bank of Amsterdam (*Amsterdamsche Wisselbank*) was founded in 1609. The Bank of England was founded in 1694.

those of raising share capital from the public. Investors in bonds would not enjoy the upside payoffs that would attract share investors. It is not clear whether they would assume the downside risks.[10] They searched for market and institutional mechanisms that would bring hundreds of investors into their conceived enterprises: the VOC and the EIC. But while the Dutch entrepreneurs could benefit in some way from the existence of a market in bonds, the English could not.

Table 2: Political Environment

England	**Dutch Republic**
Centralized	Federal (Central, Provincial, Municipal)
Landed classes dominate politics	City merchants dominate politics
Weak State support	Substantial State support

Sources: See text

Dutch East India Company

The VOC was formed on top of earlier business entities. The Dutch used various kinds of partnerships in their short-distance maritime trade (Riemersma 1950; Riemersma 1952). At first, the Dutch Asian trade was organized into partnerships that were, in retrospect, called *voorcompagnieën* or pre-companies. These were based on two classes of partners, active *bewindhebbers* and passive *participanten*. The passive partners were not members of the undertaking and did not participate in decision-making. They invested through active partners who, supposedly, represented them. These pre-companies were a variation on the *commenda* or limited partnership form.[11] The intense competition between these pre-companies raised prices in Asian markets and lowered the prices of Asian goods in Dutch and other European markets and was wasteful in terms of infrastructure. The desire to form a cartel, to save in costs and to coordinate the struggle against the Portuguese and the English, led to the integration of six city-based pre-companies into the United East India Company (the VOC) in 1602 (Steensgaard 1977; Prakash 1985; de Vries and Woude 1997).

The VOC was chartered on March 20 1602 by the States-General, the federal assembly of the Dutch Republic. It was established for 21 years with a trade monopoly for entire area between the Cape of Good Hope and the Straits of Magellan. Its structure reflected the fact that it was a unification of six pre-companies. It had six city-based chambers that were in charge of raising capital and fitting ships. Each Chamber had two classes of shareholders *bewindhebbers* and *participanten*. The former had the status of Governors and took active role in management of the Chamber, the later had no voting rights and did not take part in decision making (hereafter they'll be called active share holders and passive shareholders respectively). The united company had a central management, the *Heren XVII* (hereafter 17 Directors), that was in charge of general policy(Gaastra May 19, 2008). Only Chamber Governors were eligible to serve as VOC Directors (Figure 3 sketches the VOC governance structure).

[10] This depends mainly on whether the new companies offered their shareholders limited liability. Though some scholars claim that the VOC was a limited liability company, others do not find evidence for this. The debate about the legal nature of EIC is not developed. I side with those who do not find support for the limitation of liability of members in either of the corporations.

[11] According to one version, they were associations of limited partnerships each of which was composed of an active merchant and his passive investors. According to another version, the pre-company was an association of several active partners and several passive partners.

The VOC had three possible methods for raising initial capital: Social networks, business reputation and government-induced investment. Initial capital for the VOC was raised in August of 1602. Each city-based chamber opened its own register. The active members of the VOC, those who were active partners in the pre-companies, led the marketing of shares and opened subscription offices. The news about the new company, the lucrative Asian trade and government support were circulated in various ways. By the last week of August, a mania erupted. Altogether, 6,424,588 guilder were raised in all six chambers. The number of subscribers in Amsterdam was 1,143 and in Zeeland 264.[12] The capital and the number of investors were by far higher than in any previous enterprise. What can explain this accomplishment?

The Dutch Republic already had a lively bond market in 1602 that VOC promoters could make use of. But at the primary share market initial offering stage, the bond market infrastructure did not have a lot to offer. The bond market could not offer a legal framework for the formation of the VOC or for the designation of property rights in its shares. The bond market did not offer a protective regulatory system to passive investors in the VOC. Its professional brokers, meeting places, trading practices and information dissemination methods would be relevant, as I will show below, only to the formation of a secondary market in company shares. But the pre-existence of a bond market may have widened the pool of individuals that were willing to consider investing in intangible assets such as bonds and shares.

The two-stage process, beginning with pre-companies, made the raising of equity capital more gradual. The investors in the pre-companies were natural candidates for investment in the VOC. The reputation acquired by the active partners could be used to convince the passive partners to reinvest. The prospects for high profits based on past success could also attract new investors who by now knew more about the risks and expected payoffs. Asymmetry in information between insiders and outsiders could be reduced due to the first stage. The formation of the VOC was gradual in another sense as well. Payment for the shares was made in four installments over the years 1603-7 (1602; den Heijer 2005) pp. 60-61. The installments were paid according to the need to send annual voyages to Asia. This structure may have made investors sense that the VOC was not dramatically different in its financial structure from the pre-companies.

The organization of the pre-companies and the two types of investors of the VOC may suggest that the raising of capital was based on hierarchical social networks. It can be suggested that each active member raised capital from his kin and associates through reputation mechanisms (coupled with social sanctions) that were not based on the trading entities. Each passive shareholder invested equity capital with an active shareholder whom he knew and trusted. It is very likely that some of the money came through social networks. But the number of investors, the fact that many of them came from professions that were not connected to trade, and the wide geographical area from which investors came, suggest that they were quite heterogeneous (van Dillen 1958) pp. 42-59, (den Heijer 2005), pp. 70-80. Many investors decided to deposit money with an anonymous company – with business plans – and not with familiar faces.

The success of the VOC was important to the government. The VOC promoted the policy aims of the Dutch Republic by expanding Dutch influence into the Indian Ocean and by diminishing the political and naval power of Iberian and English competitors(Israel 1989). It did so not at the expenses of the government. On the contrary, if profitable, it could generate additional revenues for the Republic. The Federal government assisted by coordinating among the

[12] Subscription books for the other chambers did not survive.

city-based pre-companies and by granting them monopoly (Mansvelt 1922) p. 54). According to my interpretation, the federal government was one of the players that ignited interest in the company and optimism about its prospects. But the government played another, unnoticed, role. After luring investors to invest in the company, it locked them in. The VOC charter issued by the federal government locked in the invested equity capital for 10 years VOC Charter (1602). As it turned out, during these years, the passive investors did not receive financial accounts and even at the end of the first joint stock, accounts were partial and un-audited ((den Heijer 2005) pp. 66-68). They took no part in corporate management. They were paid dividends for the first time only in 1610 and then, in spices.

Based on the current literature. it is impossible to determine which of the factors discussed above were more important in facilitating the raising of initial capital. It is likely that a combination of factors – the pre-existing bond market, government support, social networks, and the gradual transformation from pre-companies, all contributed to the successful raising of capital.

English East India Company

The EIC could not rely on a preexisting bond market, on significant State support or on a gradual transformation from earlier business entities, as could the Dutch. As we saw, the government bond market developed in England only around the Glorious Revolution of 1688.

As a result of the expanding Portuguese oceanic trade between Asia and Europe, the overland caravan routes of Central Asia and the Middle East, notably the Silk Road, and the Red Sea route that supplied the English Levant and Russia companies with Asian goods became outmoded. The success of the Dutch pre-companies served as a final warning to English merchants with established interests in Asian goods ((Scott 1910-12; Chaudhuri 1965; Chaudhury and Morineau 1999) (Furber 1976)). In September 1599, a group of London merchants, dominated by members of the Levant Company who felt it was crucial for them to enter the oceanic trade with Asia, held a number of meetings that in retrospect turned out to be the founding meetings of the EIC. The promoters negotiated with the Privy Council for a Charter of Incorporation, customs privileges, license to export specie, monopoly, and possible political and military support. The Crown was not highly supportive. In 1599, Elizabeth refused the promoters' request because she thought that the presence of English merchants in the Indian Ocean could damage improving relations with Spain. The following year, because relations with Spain worsened, she changed her mind and on December 31, 1600, the EIC was formally chartered (Harris 2005) pp. 224-234). But Elizabeth promised no investment or naval support. The company was on its own.

The first recorded meeting of the EIC promoters was devoted primarily to raising capital. Potential external investors were invited and asked to invest in joint stock of the company in return for a proportional share of the profits. By the time the Charter was granted, there were 219 charter members, presumably all subscribers. By the time of the departure of the first voyage, total invested capital had reached £68,937.(Scott 1910-12; Harris 2005)

The charter of incorporation defined the basic governance structure of the EIC. This included a Governor, a Deputy Governor, a Committee of 24 – also called the ‘Court of Committees’ (and after 1709, the ‘Court of Directors’) and a General Court (For the Governance Structure of EIC, see Figure 4). The General Court was composed of all members of the company. Every member, of whatever status and however large a share in joint stock, had one vote in the General Court. The Court was to convene at least once a year, in the first week of July, and elect the Governor, the Deputy and the Committees. The General Court was empowered by the charter to remove from office the Governor or any of the members of the Committees on the grounds of “not demanding themselves well in their said office” (EIC Charter (1600)). Committees (Directors) of the EIC, unlike those of the VOC, could come from among all shareholders, were nominated for only one year, and could be removed from office. There was only one class of shares. Voting in the General Court, for Committees and on other issues, was based on one vote per member. Only gradually, beyond our period, was the strict equality of the EIC voting system altered.

The Charter, together with the by-laws, created a participatory framework for managing the EIC (Harris 2005). Membership in the EIC afforded both voting rights and information. Members received information on EIC affairs in Asia and in London on a regular basis. The records of the early days of the company are packed with examples of how information that reached the executives was in fact shared with the Committees and members according to the prescription of the Charter and the by-laws (Harris, 2005). Members could elect directors and officers and be elected as such and elections were conducted annually. The EIC was a democratic and egalitarian company compared with the oligarchic, two shareholder classes, governance structure of the VOC. Subscription to the joint stock of a specific voyage entitled the subscriber to receive a proportional share in the company’s profits. Principal and profits were shared at the end of each voyage, unless it was decided explicitly, on a case-by-case basis, by the General Court to carry capital from one voyage to the next. In this respect as well, the EIC was substantially different from the VOC that locked-in capital for 10 years.

The VOC and the EIC faced different challenges when raising their initial capital. The VOC benefited from the pre-existence of a bond market, from government support and assistance in locking-in investors, and from the gradual development from pre-companies to a united company. The EIC had to raise external finance without these benefits. It had to develop institutional means for fostering impersonal cooperation. The better starting point of the VOC was not foreseen by LLSV, who expected the common law origin to provide England with a better investor protection law. Rajan and Zingales emphasize the capture of the State by classes and interest groups. For them, the fact that in England the aristocracy was dominant while in the Dutch republic the merchants were dominant is conclusive for predicting that the Dutch would develop business corporations and share markets earlier. For North and Weingast, the fact that the Dutch republic gave rise to a major corporation and to a primary market would be a surprise as the English were the first to solve the credible commitment problem. For them, there are three ways around this. First, they would say that they have predictions primarily regarding bond markets. Secondly, they might say that they were willing to reconsider their tentative conclusion that the Dutch did not solve the credible commitment earlier than the English. Thirdly, they would say that even though the Dutch were able to develop as large a corporation as the VOC and a secondary market, these were in fact traditional coercive institutions while the EIC was a modern institution based on voluntary and informed cooperation. With these insights from the literature, I shall turn to a discussion of the rise of the secondary market.

4. Secondary Share Market

The VOC and the Rise of the Share Market

In the Netherlands, despite the preexistence of a stock market, the VOC did not raise equity capital on a purely voluntary basis. Why did the insiders lock-in the external investors of the VOC? Because the mechanism that had performed quite well in the earlier period – that of per-voyage partnerships and pre-companies – collapsed with the transition. The VOC was not formed for a single voyage. On the contrary, it was formed as a perpetual enterprise. The intention was to send annual voyages to Asia and to maintain permanent agencies and warehouses – fortified, if needed – in India and Indonesia. For this reason, its Charter incorporated a new and separate legal personality that would exist for at least 21 years. Further, the Charter created joint stock that would exist for 10 years. This shift from a single voyage to a long-term horizon was motivated by factors that had nothing to do with the supply of capital or the cooperation of insiders and outside investors. The VOC was formed in order to assure continuity, from voyage to voyage, in the flow of commodities between Asia and Europe; to coordinate among competing Dutch city-based companies; and to overcome Portuguese and English competition. The institutional reorganization had a negative effect on the ability to raise capital.

As we saw, passive investors were asked to put in their money in annual installments over a four-year period. These installments may have conveyed to the passive investors that it was business as usual despite the formation of the VOC, and that they were still investing per voyage. But, in fact, they were not. They were locked in. They could not withdraw their money at the end of every year or every voyage. Further, once they had subscribed, they were legally obliged to pay all four installments in full, irrespective of the performance of the VOC. As described above, even when the VOC was doing well and making profits, its dividend policy was very restrictive. The active shareholders retained control of the joint-stock capital of the VOC through the City Chambers and the *Heren XVII* for no less than 10 years. They offered passive investors no voting rights, no information on trade, no account of profits and thus no share in control. The active shareholders used their positions as both merchants and city magistrates to exercise political influence on provincial and federal governments and to unilaterally lock in the external investors by way of the Charter. They could, and in fact did, lock-in the passive investors again at the end of the 10-year period by using their political clout to amend the terms of the original Charter and extend the duration of the joint stock.

Table 3: Lock-In of Investors

EIC	**VOC**
One voyage (2-3 years)	10 years (and further extension)
Voluntary investment	Politically induces investment
In return: Voting rights, information, exit at end of voyage	No voice or information. Partial commitment to dividends.
In practice: Also exit through privately matched transactions	To preempt protest: Secondary stock market exit option

Sources: See text

Once locked in, the passive investors became dissatisfied and agitated. They were dissatisfied with their legal status. But many of them were also dissatisfied because they realized that the VOC did not aim only at maximizing profits and returns. The VOC was also used by the financial-political elite to promote the military, religious and political aims of the Republic and the leading provinces ((Adams 2005) pp. 52-61). The VOC financed armed ships to attack the Spanish-Portuguese fleet in the Indian Ocean and capture territorial strongholds. The passive investors sensed that profits were compromised at the expense of political aims. It was not easy for them to organize. But in time, they protested the fact that they were locked in as well as their lack of voice and information, and demanded generous dividends and democratizing reform in the governance structure of the corporation (den Heijer 2005; Gepken-Jager 2005). On these two fronts, they did not achieve much; however, they were more successful with the exit option.

We don't know of significant trading in shares of pre-companies, probably for two main reasons: the pre-companies were limited in time to one venture, and the number of members of each was small and they were personally connected and unwilling to include outsiders. The VOC was a much larger and more impersonal enterprise. Its shares were not bearers' and no certificate was issued to holders (van Dillen 1958) pp. 32-34). Thus, no physical asset was conveyed by private contract. However, its Charter included a clause that allowed transfer by registering the transfer in the VOC books in the presence of two directors, and paying a small fee. Thus, in contrast to the EIC, while passive shareholders had no voice in VOC affairs and their initial investment was locked-in for 10 years, they were able to exit the company by selling their shares. Because a clause in a Charter cannot in itself assure liquidity, the emergence of a market for government debt instruments before 1600 was crucial in facilitating this option.

A recent study (Gelderblom and Jonker 2004) convincingly documented the volume of Amsterdam Chamber VOC shares that were traded in the years 1603-1612 (See Figure 5). The Amsterdam market was sophisticated, with full-time brokers, a meeting place, and several non-spot transactional designs. One may argue that the availability of a government bond market led to the introduction of the exit option for VOC passive investors. That the trade in VOC shares was a natural advance over the non-traded shares in the pre-companies. That a share market naturally follows a bond market. My reading is that this explanation is not sufficient. The exit option and the transfer of shares were introduced because the previous cooperation system, based on reputation, recurring transactions and social networks, had collapsed. They were used with growing frequency because of the dissatisfaction of passive investors with the lock-in of their money and because they were nevertheless deprived of share in control. The exit partly offset the oligarchic and cooperation-damaging effects of the other institutional features of the VOC. It is likely that VOC's share prices were affected by the lack of voting rights. But this was not necessarily detrimental to active shareholders, whose shares were of a different class. The voting privileges attached to them were not transferable as they resulted from the social status of these active shareholders and could not be bought in the share market, soon to be based in the Bourse building.

The EIC as a Pre-Share Market Corporation

In order to attract external investors, the EIC offered them voice and information on a level far higher than in the VOC, in an attempt to offset the lack of liquidity in the absence of an effective market for shares in 1600 England. Further, the EIC was designed in a manner that would allow its members an exit option despite the lack of a pre-existing stock market. This option had to be formulated in an unusual way, unfamiliar to modern scholars who view exit through the market as the standard form of exit(Harris 2005). Members of the EIC were given the option to invest, or not to invest, in any voyage beyond the first. Some invested; others did not. Often, when not enough capital was raised from existing EIC members, resort was made to outsiders who were invited to invest in the stock and join the corporation. In this sense, the corporation was a club of potential, though not necessarily actual, investors. All potential investors (members) had a voice in the decision to undertake a new voyage and to raise more money. They then received an option to join by investing in the voyage.[13] Those who decided not

[13] The goods offered to club members, a share in the voyage's profit, was non-rivalrous because there was in fact no upper bound to investment in a voyage. When more capital was raised, more ships could be fitted or more goods (mainly silver) could be loaded on the given ships.

to subscribe for a specific voyage could not get a share of its profits. Different groups of individuals, all supposedly members of the corporation, contributed to each of the first twelve voyages (1600 – 1612). There was significant overlap between the groups of investors but they were not identical in composition. Membership allowed potential investors to receive first-hand information about the outcome of past voyages, the status of ongoing voyages and the prospects and business plans with respect to future ones. Their meaningful exit opportunity did not involve selling their shares in a non-existing market, but rather lay in deciding whether to join unfolding business opportunities. This was not a full exit, because the initial outlay remained invested in the EIC.

To exit their initial investment, members had to match up with buyers – without benefit of a functioning market or of pre-structured low-cost transactions. Networks based on kin and family connections always assisted in this. The transfer of interest was subject to approval by the EIC, approval that in the first few years was not always granted without delay. This was not an adequate solution for the widely held corporation that the EIC turned out to be. The option for full exit was somewhat facilitated by the institutional structure of the EIC that served as a participatory meeting place for potential sellers and buyers. In a way, the regular meetings of its Courts were a good marketplace for company shares. There, potential buyers could locate a seller, obtain information on the quality of the goods (shares) offered by learning about the state of affairs in Asia, and get some sense of the market price of the goods. These meetings functioned more like annual fairs than like modern capital markets. It is important to remember that the sale of shares was subject to approval by the corporation and to registration in its books. I have constructed a database, the first of its kind, of transactions in EIC shares based on reports in the EIC minutes on transactions that were presented for approval in the EIC Court. In 1607, the number of such transactions was 47. For the period until the introduction of the new EIC Charter in 1609, I identified 100 transactions altogether, not including the allocation of shares in profits to employees (See figure 6). Taking into account that the EIC minutes for the period 1604-1606 were lost and that 1600 and 1609 were not full years, the annual average can be extrapolated to be around 40 transactions. This number is high for an environment that was devoid of a stock market. Still, liquidity was limited. If a transaction could not materialize, either for lack of approval or for failure to match a buyer, the investor had to hold his share until the end of the voyage, hoping that it would be successful and that there would be a final settlement of accounts for the voyage. Thus, the more viable exit option at this stage in the history of the EIC still involved opting out of a specific voyage rather than exiting the corporation altogether. The real challenge for the promoters of the EIC, because of the exit option at the end of each voyage, was not to convince investors to subscribe £68,373 for the initial voyage, substantial as that sum was by contemporary standards, but rather to maintain the relationship so that investors would be forthcoming in future voyages. Almost £400,000 was raised in the years 1603-12 for voyages 2 - 12, about six times the initial investment. With free access to an effective market, the liquidity of VOC shares was higher than that of EIC shares. But the liquidity of EIC shares was higher than any historians, economists or legal scholars have hitherto attributed to pre-1688 England.

Throughout much of the 17th century, the shares of the EIC were trades in company meetings, on a personal basis or by ad-hoc matching. There is no evidence of the creation of an infrastructure for a secondary share market in EIC shares or in the shares of any other corporation before 1688. After the Glorious Revolution, things changed. A market in government debt emerged, as described above. Thereafter, a handful of corporate shares, the EIC, Bank of England, Royal African Company and Hudson's Bay Company, free rode the government bond boom and were traded in this market place in the 1690s. Only with the South Sea boom of 1720 did a larger number of companies, mostly short-lived bubbles, make use of the English stock market.(Morgan and Thomas 1969; Neal 1990; Chancellor 1999; Michie 1999; Harris 2000)

5. Conclusion

The analysis of the formation of the EIC and VOC and of the development of the stock markets in England and the Dutch Republic confirm the general thesis that law and the State matter. The Dutch government bond market developed more than a century earlier than the English because of a variety of demand and supply side factors, including the federal structure of the Republic, the balance of powers between classes, and the creation of facilitative institutions by the State. We observed a close link between the legal and political environment and the development and design of the two corporations. The VOC, supported by the State, could lock-in investors and legitimize a hierarchical and oligarchic governance structure. The English company, lacking strong State support, could not lock-in investors, had to provide an exit option at the end of every voyage, to base itself on fully voluntary cooperation and to offer outside investors a more democratic and participatory governance structure. The VOC had to provide the locked-in passive and voiceless investors with an exit option by developing a liquid secondary share market. The VOC offered liquidity that did not amount to withdrawing the initial investment (and in fact even the accumulated profits) while the EIC offered a full withdrawal option. The EIC did not give rise to a secondary share market in England. But it gave rise to a path in which a widely held corporation existed for nearly a century in a pre-share-market setting.

This analysis challenges the existing literature on law and finance in several respects. First of all, it does not conform to LLSV's conclusion that the common law as judge-made law better supports the development of a stock market. Both the bond market and the stock market developed fully earlier, in the Dutch republic, a country that applies continental law, and not in the birthplace of the common law – England. In addition, the markets developed in both countries on the margins of the legal system. They did not develop within core province of judge-made law in England or of civil code based law on the continent. It did not benefit from the allegedly superior mechanisms of change of the common law. It developed out of charters – constitutional and administrative tools. It developed in interaction with merchant law and maritime law, which were not very different on both sides of the Channel.

Secondly, LLSV predict that an active and dominant State, such as the typical continental State, would discourage the development of a share market. We have seen that the Dutch State was much more involved in trade and in the economy than the English State. Was this detrimental as LLSV predicted? This article suggests a mixed bag. On one hand, Dutch State involvement assisted in raising huge sums by contemporary standards. It convinced investors that VOC prospects were good and it locked-in unwary investors.[14] State support allowed the VOC to maintain annual voyages to Asia and to fund military operations. The VOC could send more ships than the EIC, to capture larger markets, grow faster and be more profitable (and destructive). But the State support inhibited the development of a more innovative and cooperative institution. In the long run, the inactivity of the English State forced entrepreneurs and investors in England to design an institution that would better protect external investors and would serve as the basis for

[14] It can be argued, however, that the Dutch Republic was not a typical continental State. It was not an absolute monarchy. For this reason, LLSV's prediction may not apply to the Dutch Republic but can still apply to France or Germany.

the modern public corporation. In the present case, LLSV predicted the long-run but not the short to medium term.

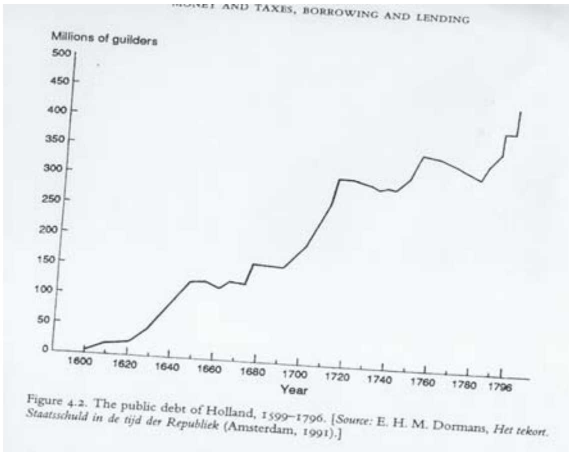
Third, North and Weingast are correct in identifying the resolution of the credible commitment problem as a precondition for the rise of a government bond market. They focused on Glorious Revolution England, but nothing in their theoretical analysis rejects the possibility that the Dutch Republic could solve the problem a century earlier even if not through a grand constitutional revolution. They are also correct in predicting a synergy between the development of the bond market and the development of the share market. But the relationship between the two can be refined. The ability of the sovereign to make a credible commitment was only partially relevant for the development of a share market. The creation of stock market infrastructure, to which Rajan and Zingales referred, was at least as important. The Dutch secondary share market was able to free-ride the bond market infrastructure. The formation of joint-stock companies with numerous shareholders was a pre-condition. The search for liquidity in the secondary market by the original primary market investors was also important.

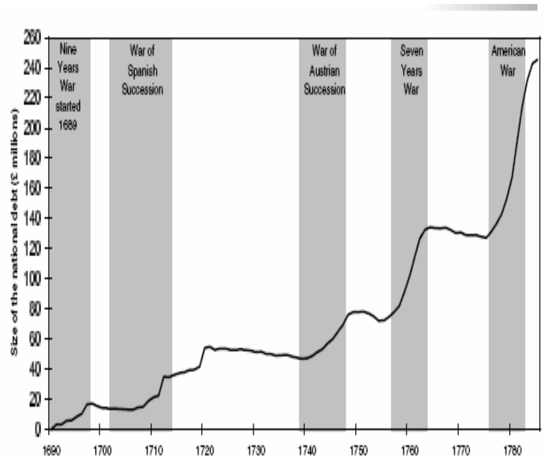
Fourth, Rajan and Zingales argue that interest and social groups that capture the State may block the development of a stock market. It is clear in our case that the Dutch Republic was dominated by merchants. This was the case not only because of their absolute political power compared to the landowning classes. It was also because of the political and constitutional structure of the Republic, a federation in which the aristocracy was divided throughout the various provinces, while merchants were concentrated in several key-positioned cities. In England, the Crown and Parliament were dominated by the landowning classes. What can be learned from this is that it is not sufficient to view the State as an independent player representing the preferences of the sovereign. While Rajan and Zingales are right in identifying the breaking up of opposition to the stock market in England, they miss a similar and earlier process in the Dutch Republic. By adding their State capture perspective to North and Weingast's credible commitment problem, one may explain the earlier timing of the rise of the stock market in the Dutch Republic. The institutional knowledge needed for conveying credible commitment was available in both the Dutch Republic and in England. But it could be applied in the Dutch Republic because of political support that would be lacking in England for another century.

Can we draw any policy recommendations from the encounter between the theories and the historical case study? Not directly implementable ones. The above conclusions are based on an early modern European case, not on case locted in a modern emerging market or LDC. The contexts are quite different. But we can gain some useful insights. The law matters for the development of business organizations and stock markets. But law reform is constrained by pre-existing institutions and by social and interest groups. Reform in legal rules, say investor protection laws, can not be fully effective without careful design of organizations that would inhance information flows and transparant governance structure. As the English example shows it is not essential for secondary share market to develop symultaneously with widely held business corporations. When designing policy recommendation there are often several possibilities that are not necessarily better or worse. They often present different tradeoffs, between the long term and the short term, between smaller scales voluntary cooperation and large scale coherced investment, between institutions that offer easy exit and institutions that allow more voice. Because political and social environments and institutional baselines are often different in different LDCs and emerging economies, the same size cannot fit all. It is wise to recognize that conditions are different and that preferences in tradeoffs are different in different localities and accordingly there should be plurality in policy recommendations.

Figures

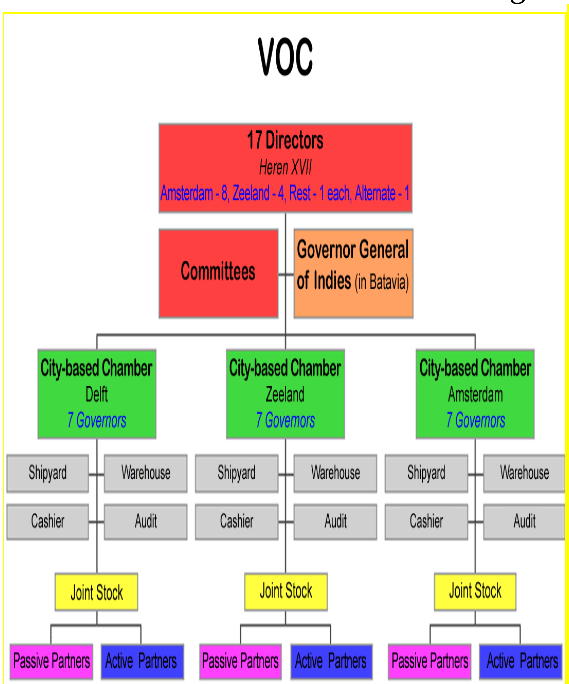
Figure 1: Timing of Creation of Public Debt in Holland Figure 2: Timing of Creation of Public Debt in England

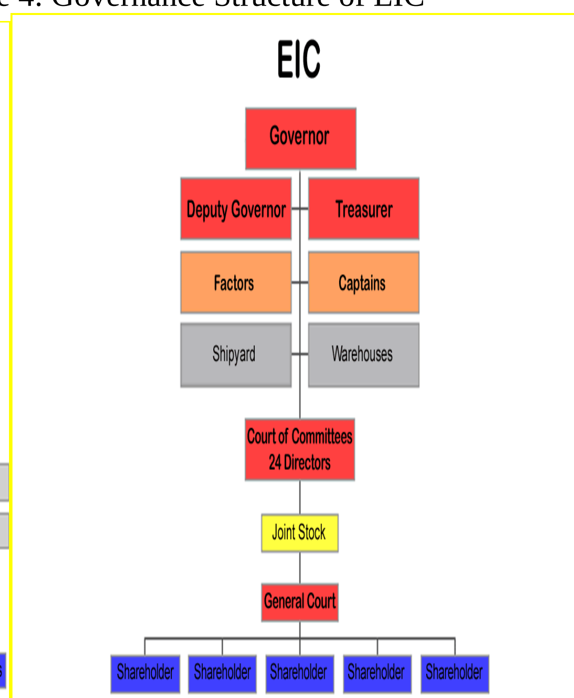




Source: de Vries & van der Woude (1997) Source: Brewer (1990)

Figure 3: Governance Structure of VOC Figure 4: Governance Structure of EIC

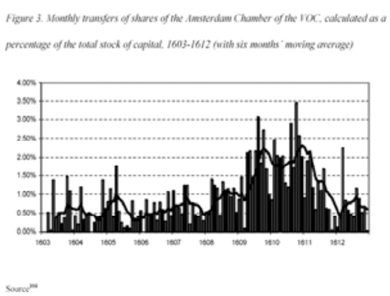


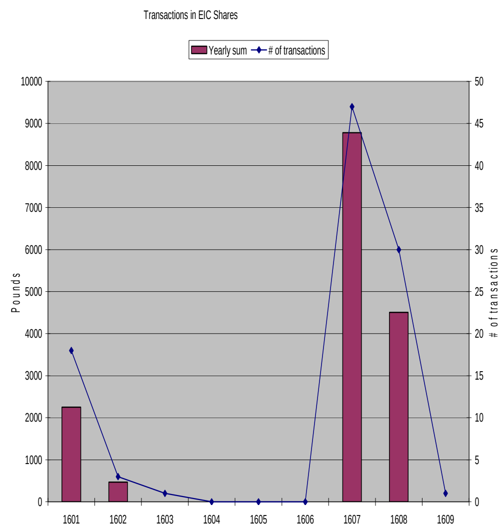


Note: The Rotterdam, Hoorn and Enkhuizen Chambers, which were identical to Delft's, are not shown in the Figure

Source: VOC Charter, 1602 Source: EIC Charter, 1600

Figure 5: Transfer of Shares in VOC Figure 6: Transfer of Shares in EIC





Source: Gelderblom & Jonker (2004)

Source: Harris (2005) database, based on *Calendar of Stat Papers*

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