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POLITICAL ECONOMY ORIGINS OF FINANCIAL MARKETS IN EUROPE AND ASIA

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Political Economy Origins of Financial Markets in Europe and Asia*

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Summary. We provide historical evidence from London, Amsterdam and Hong Kong which highlights the essential role played by governments in kick-starting financial development. In the cases of London and Amsterdam, the emergence of financial markets was a by-product of the rise of large, politically affiliated, trading monopolies. These monopolies, partly created to improve public finances, were responsible for major financial innovations and helped to strengthen investors' property rights. In Hong Kong, where the financial development model was bank-based, a large banking monopoly with close links to both the British and Chinese governments, set up to finance international trade, played a similar role.

Keywords: Property rights, monopoly, politics, institutions, finance

JEL: G18, N20, O16

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1. INTRODUCTION

A broad consensus has emerged in the finance-growth literature suggesting that well functioning banking systems and capital markets help to enhance long-run growth.[1] Moreover, the positive causal impact of finance on growth appears to have been present from the earliest stages of financial development in the Netherlands, England, United States and Japan (Rousseau, 2002; Bordo & Rousseau, 2006). This literature is, therefore, increasingly shifting its focus towards understanding the mechanisms that promote financial development. Recent contributions suggest that political economy factors, such as the role of industrial and financial incumbents, may hold the key to successful financial development. Rajan & Zingales (2003), for example, suggest that trade and financial openness, which curtail the power of incumbents and change their incentives, may be a useful mechanism of financial development. Acemoglu et al. (2005a) sketch a dynamic political economy framework in which economic institutions that facilitate economic development are social decisions chosen for their consequences by the interaction between powerful political and economic forces. These authors strongly emphasize the role of broad based property rights protection for economic development in general and the development of financial markets in particular. Much of this literature utilizes a variety of stylized facts or historical examples, mainly drawn from the colonial period, which are primarily aimed at explaining the factors that explain institutional development in the 'colonies'. With few exceptions (Acemoglu et al., 2005b; Rousseau & Sylla, 2003; Sylla et al., 1999) there has been little attempt in the finance-growth literature to gain an understanding of the factors that explain the emergence of financial markets in the colonizing powers themselves.

This paper aims to contribute to the finance-growth literature by examining the political economy origins of some of the most successful financial markets in Europe and Asia, drawing on a variety of historical sources. Specifically, it provides historical evidence primarily from London, but also from Amsterdam and Hong Kong, that highlights the essential role played by the government in kick-starting financial development. While there are important differences between these examples, we show that the emergence of financial systems did not occur spontaneously and that secure property rights alone were not sufficient for

[1] See Levine (2003) and Demetriades & Andrianova (2004) for recent surveys of this literature.

financial development. In the cases of London and Amsterdam governments created large trade monopolies—the English East India Company and its Dutch equivalent—which became the leading joint-stock companies and were responsible for all the important financial innovations of the time, including the emergence of trade in shares and the strengthening of investors' property rights. In the case of Hong Kong, where the financial development model was bank-based, large banking monopolies with close links to the state were created (e.g. the Hongkong and Shanghai Banking Corporation). These were modeled on the Bank of England—itself a banking monopoly for fifty years with close links to government—which also became a template for the development of many other banking systems around the world (Goodhart, 1988).

We argue that the three examples we provide in this paper are not special cases. The role of government in the early stages of financial development has been widespread world-wide, including the Italian city-states of Venice and Genoa, the United States, and, more recently, in the newly industrialized East Asian economies of Japan, South Korea and Taiwan.

The idea that the government can play an important positive role in the financial system is, of course, not a new one. Stiglitz (1993) examines the role of the state in finance primarily from a modern, albeit developmental, perspective. A number of financial historians emphasize the importance of government in the early stages of financial development. Sylla (1999), for example, demonstrates the dominant role of public finance in shaping the US financial system during 1690–1913. Rousseau & Sylla (2003) provide a number of case studies of financial development in its early stages, including the Dutch state and Great Britain; these highlight the importance of the Dutch and English East India companies and allude to their close links with government, but do not explore the important role of monopolies. Sylla et al. (1999) provide an overview of the role of state from the early stages of the emergence of modern financial systems in England post-1688 and 17th century Netherlands; however, they do not explore the period before 1688 in which trading in shares emerged.

Our paper complements these historical studies by exploring the role of both government and trading monopolies in the emergence of financial markets in England during 1672–1688. This period is particularly interesting because it was characterized by the collapse of the government's credibility as a reliable debtor as a result of the temporary suspension of all loan repayments by Charles II in January 1672. We show that, notwithstanding the

erosion of property rights of investors vis-á-vis the state this development entailed, financial markets nevertheless emerged as a by-product of the government's attempt to improve the state of public finances by granting monopoly rights to trading companies. In line with Sylla et al. (1999) we argue that investors saw these companies as offering an attractive combination of expected return, default risk and liquidity. However, in contrast to other studies, we demonstrate that this was already in place before 1688. Moreover, we show that the deeper fundamental that made it possible was the rise of the politically-affiliated trading monopolies, which were not only responsible for all the major financial innovations of the time but also helped to strengthen investors' property rights.

The paper is organized as follows. Section 2 documents the emergence of London as a financial market, highlighting its close connection to the rise of politically affiliated trading monopolies. Section 3 delves further into the ways in which the monopolies helped to promote financial development. Section 4 documents the rise of finance in Amsterdam and Hong Kong, and provides an overview of other cases. Finally, Section 5 summarizes and concludes.

2. THE EMERGENCE OF LONDON AS A FINANCIAL MARKET

A variety of historical sources suggest that London's stock market emerged during the latter part of the 17th century and continued to develop during the early part of the 18th century. Drawing on these sources, this section documents (i) the emergence of trading in stocks which dates back to 1661; (ii) the institutional changes that, as has been previously argued, facilitated the development of the stock market, (iii) the improvement in public finances and its relationship to stock market development. In so doing, it identifies the key players in the private and public sectors in this process, namely the leading joint stock companies, the monarch and parliament. This examination reveals the following inter-related political economy aspects, which played a critical role in the emergence of London as a major financial market:

- The monopoly rights granted by the public sector (initially by the monarch and subsequently by parliament) to all the leading joint stock companies.

- The long-term loans provided by the leading joint stock companies to the public sector in exchange for their monopoly positions.

Additionally, our analysis also highlights the role of foreign trade in the process, in the light of the fact that all but one of the leading joint stock companies in that period were involved in trade with different parts of the world.

2.1. The emergence of trading in stocks: 1661–1703

Even though the London Stock Exchange was formally established in 1773, there is evidence of stock transfers taking place as early as 1661 while the publication of security price movements began in 1681.[2] Scott (1912)—one of the most authoritative historical studies of the emergence of joint-stock companies in Britain and Ireland—provides, among other rich information, a useful list of tables described as "Statistics of the Chief Joint-Stock Companies if England, Scotland and Ireland to 1720". The data, which include capitalization figures and other information on each company, show that by far the largest joint stock company throughout the 17th century was the East India Company (EIC), founded in 1599 to carry out trade with the East Indies and incorporated by Royal Charter in 1600. The second largest joint-stock company up to 1694 was the Royal African Company (RAC), founded in 1662 to carry out trade with Africa (Scott, 1912, p. 325). Table 1 summarizes the available data for share transfers of these two companies alongside Hudson's Bay Company, which was the third largest foreign trade company and is considered by historians as representative of smaller joint-stock companies at the time. In 1694, the market valuation of these three companies was £1,212,720 (EIC), £185,175 (RAC) and £52,762 (Hudson's Bay).[3]

[2]Neal (1990b) identifies Whiston's *The Merchants Remembrancer* of 4 July 1681 as the first printed evidence which documents that stock exchanges were taking place. This particular publication, which was a sheet listing current prices of goods on the London market, also included information on the prices of the shares of the East India Company (EIC) and the Royal African Company (RAC) in the form of symbols that suggested that the price of the former was at its highest ever while that of the latter was at its lowest. The first listing of actual stock prices was in the 3 January 1682 issue of the same publication.

[3]Scott (1912, Vol. I, p. 325).

Table 1: *Transfers of stock in the foreign trade joint-stock companies, 1661–1689*

Year	*East India Company*		*Royal African Company*		*Hudson's Bay Company*	
	Average Number of Transactions	*Total Value*	*Average Number of Transactions*	*Total Value*	*Average Number of Transactions*	*Total Value*
1661–63	44	18,900	–	–	–	–
1664–66	57	23,900	–	–	–	–
1667–69	71	32,100	–	–	–	–
1670–72	126	47,000	49	19,500	–	–
1673–75	152	53,800	39	50,200	7	5,150
1676–78	131	55,400	42	48,670	6	5,450
1679–81	172	68,100	40	41,200	10	12,550
1682–84	780	268,300	67	49,160	29	13,650
1685–87	537	191,000	77	48,650	22	8,850
1688–89	655	238,000	91	46,800	24	5,390

Source: Carruthers (1996, Table 7.1, p. 167) and Carlos et al. (1998, p. 326, p. 337)

All three companies had monopoly rights granted to them by the monarch in their charter. The EIC was granted monopoly rights over all English trade to the east of the Cape of Good Hope. The RAC was given monopoly rights over all English trade from Sallee to the Cape of Good Hope. Hudson's Bay Company, incorporated in 1670, had a monopoly over trade in the region watered by streams flowing into Hudson Bay in Canada.

The stock exchange was highly localized, with the trades and the circulation of information about the current share prices and profitability prospects for joint stock companies taking place in the coffee houses of Exchange Alley. Table 1 shows that a market for EIC shares existed as early as 1661, while trade in the shares of the other two companies emerged in the 1670s, soon after their establishment, predating the Glorious Revolution of 1688.

In 1694 the Bank of England (BoE) was established by parliamentary statute which provided it with a monopoly right to issue paper money and to take deposits. With an initial capital of £1.2 million, BoE overtook RAC as the second largest joint-stock company. By the end of 1695 there were in excess of 140 joint stock companies with a total

market capitalization of £4.25 million.[4] 50.3% of stock market capitalization or £2.14 million was accounted for by three foreign-trading companies (EIC, RAC and Hudson's Bay). The BoE's capitalization was £0.72 million or 16.9% of total market capitalization. Thus, between them these four monopolists accounted for more than two thirds of stock market capitalization, while other chartered companies (also monopolies in their spheres of activity) accounted for 10.0% of the market. Monopolies, therefore, accounted for more than three quarters of the capitalization of the emerging stock market.

By 1703 total stock market capitalization had reached £8.5 million. By that time the East India Company had been absorbed by the New East India Company (NEIC), which was initially set up to rival the old EIC.[5] The combined stock of the two companies accounted for 26.6% of total market capitalization. The second and third largest joint stock companies were BoE, which accounted for 21.2% of the market, and RAC which accounted for 13%. Thus, even by 1703 the three largest monopolies accounted for over 60% of stock market capitalization.

Smith (1929) quotes historical documents which provide evidence that a specialized class of stock brokers was developing in the latter part of the 17th century; a regular tariff for dealing in securities seems to have existed certainly by 1694. The activities of the brokers and the growth of speculation attracted the attention of the government. In 1697 there was the first attempt to regulate the activities of stock brokers through legislation that took the form of "An Act to restrain the numbers and ill-practices of stock-jobbers". The Act limited the number of brokers to 100 and provided for licensing arrangements by the lord mayor of London. Thus, historical sources confirm that organized, albeit unregulated, trading in stocks existed as early as 1661 and that by the end of the end of the 17th century trading

[4]See Scott (1912, Vol. I, p. 336). Although it is known that 150 joint-stock companies were in existence by the end of 1695, due to fragmentary information for some of these companies it is possible to estimate total market capitalization for only 140 of these.

[5]Even though the New East India Company was initially set up to compete with the 'old' East India Company, and succeeded in being granted monopoly rights over the trading route to India by parliament, the two companies traded in parallel for a short period and eventually merged in 1702. During their co-existence trade with India was managed by a joint committee, i.e. it appears that they acted jointly as a monopolist (Scott, 1912, Vol. III, p. 479).

became regulated. Moreover, it appears that monopoly was the *modus operandi* for all the leading joint-stock companies at the time.

2.2. Politics, institutions and finance

The emergence and steady expansion of the stock market in the 1670s and 1680s in London, as discussed above, prompts the question: What were the factors that brought about the market emergence? A well-established explanation of the development of financial markets in England, due to North & Weingast (1989), highlights the credibility of secure property rights, following the Glorious Revolution of 1688 when constitutional changes substantially shifted the power in favor of parliament and away from the monarch.[6] In England under the Stuarts, the monarch was expected to fund the government ("live of his own") and had considerable discretionary power, largely unchecked by Parliament, to obtain funds for the Crown. As England was embroiled in the wars of the late 16th century (the war with Spain in 1588, with its lasting debt legacy well after Elisabeth's death) and the first half of the 17th century, the legacy of financing the war effort left a chronic gap between the Crown's revenue and expenditure and was forcing the monarchy to search for ever-inventive ways of obtaining revenue: the sale of Crown's lands, hereditary titles, and monopoly licenses, as well as forcing loans on favorable terms for the Crown which in many instances were only partially repaid. These measures, coupled with the unique position of the monarch as the ultimate enforcer of the law, created a permanent tension between the Crown and wealth holders many of whom were members of Parliament.

The gradual erosion of the monarch's credibility to honor loan obligations throughout the first part of the 17th century reached its logical end in January 1672, when Charles II, unable to obtain further loans, had to resort to the temporary suspension of all loan repayments (known as the Stop of the Exchequer). The tension between the Crown and the Parliament was eventually resolved in 1688 when the two main English factions (Tories, the landed elite, and Whigs, the monied interests), who were alienated by the reigning King

[6] For a detailed historical account of political and economic realities of the 17th century England see Smith (1984) and Holmes (1993). A compact but highly informative account can also be found in Roseveare (1991).

James II (the successor of Charles II), invited Mary and William of Orange to seize the throne in exchange for important constitutional concessions. This event became known as the Glorious Revolution of 1688, and its role in making England into the Great Power of the 18th century is well-documented by historians. The key to this momentous historical event was the monarchs' acceptance to respect Parliament and Parliament's laws: constitutional constraints were solidified in 1689 when the English Bill of Rights, the Toleration Act and the Mutiny Act were passed, while the fiscal constraints on the crown were firmly established by 1697 with Parliament given the power to authorize taxation and audit revenues.

There is consensus in the literature (see North & Weingast (1989) and Dickson (1967), among others) that the Glorious Revolution led to a substantial improvement in public finances by removing the possibility of default by the monarch/government witnessed before 1688.[7] Parliament gained the power to scrutinize all government accounts, which severely limited the ability of the monarch to over-spend. Moreover, increased accountability resulted in certain taxes being earmarked for meeting public debt obligations, which made the commitment to repay debt credible.

It has also been argued by North & Weingast (1989) that these institutional reforms were a legal milestone for the development of private capital markets, essentially by strengthening the security of property rights. However, this is a controversial interpretation of these reforms. Undoubtedly, to the extent that the reforms following 1688 enhanced the security of property rights, they must have also strengthened investors' confidence and (together with other characteristics of the early 18th century economic and political life in England) contributed to the growth of financial markets. However, the active exchange of company shares, documented in section 2.1, was taking place well before the Glorious Revolution. The increasing trend in the transfers of company shares over 1660–1688 (see Table 1) suggests that investors felt sufficiently secure to be willing to undertake the trades prior to 1688. Trading in shares was evidently deemed more secure than investing in government debt

[7] Note, however, that Roseveare (1991) strongly argues that the two decades before the Glorious Revolution constitutional, administrative and financial innovations paved the way for subsequent developments in public finance and institutional changes of the 1690s: "The philosophy of accountability which was to shape post-Revolution financial control [on government spending] was clearly articulated in the reign of Charles II" (p. 15, bottom).

during 1660–1688. Hence the *emergence* and expansion of the stock market in Exchange Alley in the 1670s and 1680s calls for a different explanation.

The North and Weingast interpretation of the implications of 1688 for private capital markets has also been questioned by economic historians, political scientists and sociologists. Stasavage (2002), for example, suggests that the multiple veto points introduced by the reforms were neither necessary nor sufficient for the credibility of commitment and that partisan politics played a much more important role. Critique by Carruthers (1996) emphasizes the importance of the joint-stock companies for public finance. Carlos et al. (1998) suggest that "... it is necessary to question the implicit, if not explicit, assumption that the London capital market emerged Phoenix-like from the ashes of the old regime" (p. 319). Their examination of the early market for stock of the Royal African and Hudson's Bay companies highlights the importance of the micro-institutional structure of financial markets, including investor's learning about financial risk and rewards, the gathering of information about companies, how to buy and sell securities, where to buy and sell etc. They conclude that even financial regulation had its roots in investor's learning: "this learning must also have provided the experience that allowed investors to deal with various financial crises in terms of regulation rather than market rejection" (p. 343).

2.3. The improvement in public finances

Up to 1688, crown borrowing was short-term and was mainly carried out through goldsmith bankers.[8] Government debt amounted to more than £1 million, which severely constrained government spending.[9] There was a chronic gap between government revenues and government expenditure which hindered the ability of the monarch to sustain a strong army.[10] As a result England was weak as a military power. From the 1690s onwards the volume of government long-term borrowing expanded very substantially, resulting in gov-

[8]Forced loans from wealthy corporate bodies such as EIC or the Corporation the City of London were also important sources of funds for the Crown (Roseveare, 1991, p. 23).

[9]North & Weingast (1989, Table 3, p. 822).

[10]Carruthers (1996, Ch. 3).

ernment debt rising from £1 million in 1688 to £16.7 million by 1697.[11] Table 2, which portrays the sources of government long-term borrowing during 1693–1698, shows that this period witnessed a remarkable increase in the ability of the government to raise long-term loans.

Table 2: *Sources of government long-term borrowing, 1693–1698*

Date of royal assent to Loan Act	*Sum raised*	*Interest, %*	*Type of fund*
26 Jan 1693	£108,100	10 until mid-1700, then 7	Tontine
26 Jan 1693	£773,394	14	Single life annuities
8 Feb 1693	£118,506	14	Single life annuities
23 Mar 1694	£1,000,000	14	Million Lottery
24 Apr 1694	£1,200,000	8	Bank of England
24 Apr 1694	£300,000	10, 12, and 14	Annuities for 1, 2, and 3 lives
16 Apr 1697	£1,400,000*	6.3	Malt Lottery
5 Jul 1698	£2,000,000	8	New East India Company

* This was a lottery of 140,000 £10 tickets; only 1,763 tickets were in fact sold. The rest were used by the Exchequer as cash.

Source: Dickson (1967, pp. 48–9)

Interestingly, the largest two loans raised by the government during this period were from the New East India Company (NEIC) and the Bank of England, amounting to £2.0 million and £1.2 million, respectively. These loans were provided at the same time the two companies were incorporated by parliamentary statute. This was not a coincidence. In the case of the NEIC Scott (1912) states that "The original capital consisted of 1,662,000 lent to the government, out of a total of 2,000,000, which carried the monopoly of the trade to India" (p. 479). There is, therefore, clear evidence that the loan to government was granted by the NEIC in a direct exchange for the exclusive rights over the trading route to India.

[11] North & Weingast (1989, Table 3, p. 822).

In a similar vein, the Bank of England provided the whole of its initial capital of £1.2 million as a long-term loan to the government directly in exchange for its monopoly license. Scott (1912) describes the bargaining between Parliament, which was trying to raise funds for the war with France (the war of Spanish succession), and the two major syndicates with different political affiliations that were bidding to secure the monopoly right of circulating paper money during 1692–1693. One of these was led by Hugh Chamberlain, who was affiliated to the Tories (who then represented the interests of landowners). The other syndicate, led by William Paterson, who was affiliated to the Whigs (otherwise known as the 'moneyed men'), was the one that succeeded through a revised proposal which provided a loan to the government of £1.2 million at 8%.[12, 13] Historical sources therefore suggest that parliament actively encouraged bids for the granting of valuable monopoly 'licenses' to joint stock companies led by individuals with political connections.

The loans provided by the NEIC and the Bank of England to the government were perhaps the largest at the time but were by no means exceptional. They were very much the normal way in which the business of public finance was conducted in those days. Carruthers (1996, p. 76) aptly summarizes the relationship between the joint stock companies and the government in the 1690s: "Joint stock companies enjoyed special privileges and monopoly power granted by the state and in exchange for this they customarily made a financial contribution. What distinguished this period from earlier ones was the sheer volume of borrowing from companies, and the fact that company shares could be easily traded on the London stock market. In contrast with annuities and lottery loans [the other two prominent methods of government borrowing at the time], and unlike shares in earlier times, by the late seventeenth century company equity was easily transferable to third parties. Through joint-stock companies, public finance became linked to private finance and to the London stock market."

It can therefore be concluded that the emergence of London's stock market undoubtedly contributed to the improvement in public finances. It may also be argued that granting

[12]The capital was raised through subscriptions that were limited to £10,000 per person; the subscription opened on 21 June 1694, the issue was sold by 2 July 1694.

[13]Interestingly, this loan was never repaid (Carruthers, 1996, p. 80).

monopoly licenses to the companies that provided loans to the government made these companies more profitable, which in turn made it easier for them to raise capital. Thus, the development of the stock market went hand in hand with the improvement in public finances.

2.4. Trade and growth

A variety of sources suggest that the period after 1660 was characterized by an expansion in trade and a rise in real incomes. Holmes (1993) describes the period between the late 1660s and 1690 as the English 'Commercial Revolution', which was characterized by an acceleration of trends already in evidence before 1660. He ascribes the acceleration in trade in large part to government measures such as the new navigation policy, legislation that was highly protective of English shipping.[14] Contributing factors were also the acquisition of the Carolinas and the further development of existing colonies. An outstanding feature of the commercial revolution was the expansion of trade beyond Europe, particularly 'the plantations' in North America and the West Indies in the west and India in the east, through the EIC trading posts. Holmes (1993) suggests that the total tonnage of English merchant shipping increased from 162,000 tons in 1629 to 340,000 tones in 1686.[15]

Estimates of trade statistics by Davis (1954) show that total exports increased from 4.1 million in 1663–69 to 6.4 million in 1699–1701, representing an increase of over 50%, while total imports increased from 4.4m to 5.8m during the same period.

3. THE ROLE OF MONOPOLIES

The examination of political and economic history of the 17th and early 18th century England suggests that the leading joint-stock companies of the day played a crucial role in the emergence of financial markets. The role of monopolies in this period was three-fold:

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[14]The 1660 Act for encouraging and increasing of shipping and navigation was aimed at breaking Dutch dominance and boosting the merchant fleet by introducing selective prohibitions or deterrents in using 'foreign' ships e.g. double custom duties on imports if not transported in English-owned or manned ships, prohibition of using 'foreign' ships in all trade with the 'plantations'.

[15]See also Carruthers (1996, Ch. 5, fn. 1).

(i) creating and protecting economic rents in foreign trade and, later, banking, (ii) securing sources of finance for the government of the day and (iii) strengthening of investors' property rights. It was the interplay of these three factors that created the pre-conditions for the financial markets to emerge and flourish in the second half of 17th century England.

3.1. Economic rents

The first of these factors, an exclusive right over a valuable resource (such as a trading route or the issuance of bank notes) ensured that the monopoly endowed with such right could generate and protect substantial—and lasting—economic rents, of interest to both investors desiring a highly profitable opportunity and the government seeking to finance its war- and/or state-building efforts. From the viewpoint of rent-creating, the large monopolies were efficient forms of organizing overseas trade (EIC, RAC and Hudson's Bay) and banking activities (BoE). The companies evidently enjoyed economies of both scale and scope. In the case of the trading monopolies, there were operational economies of scale largely due to security considerations which, among other things, dictated creating and maintaining a private army, a right stipulated in their charter of incorporation.[16]

The trading technology itself exhibited economies of both scale and scope because there were large set up costs in establishing trading outposts along a particular trading route; these outposts, in turn, facilitated the expansion of trade into neighboring regions.[17] In addition, the large size of these monopolies, particularly the EIC, created financial efficiencies that were responsible for financial innovations that arguably were responsible for the emergence of financial markets. In the early years of the EIC (up to the 1650s), the company raised capital for each voyage, at the end of which the investment was liquidated and profits, if any, were distributed to investors (Scott, 1912, Vol. II). Thus, investment

[16]Scott (1912, Vol. I, p. 179) documenting the public debate on monopolies in the late 1600s and early 1700s notes that "Companies for foreign trade were generally admitted to require extensive immunities, since they performed functions which the State was not able to undertake". Specifically, the state was reluctant to offer protection to these companies in overseas territories because it wanted to avoid unnecessary wars (Scott, 1912, Vol. I, p. 253).

[17]See, for example, Scott (1912, Vol. II, pp. 21–22) for an illustration of the costs involved in the case of the Royal African Company.

was highly risky. From the 1660s, the company started issuing permanent capital, leading to the emergence and expansion of trade in shares.[18] This innovation resulted in much lower risk for investors who benefited from the diversification offered by multiple voyages, thereby providing an important stimulus for savings mobilization. The subsequent emergence of trading in stocks triggered another financial innovation which involved a simplified procedure for transferring the ownership of shares (*ibid.*).

It is hard to see how these critical financial innovations could have been delivered by smaller foreign trading companies, in competition with each other.[19] It would have been too expensive for each of them to set up and maintain a private army. Without this protection, the voyages of these companies would have been much riskier than the voyages of the EIC. Thus, savings mobilization by smaller companies would have been much more problematic. Raising permanent capital would have also been problematic without the diversification offered by a large number of voyages.

There were also economies of scale and scope in banking activities. Note issue technology exhibits economies of scale due to large fixed costs emanating from, for example, the need to prevent forgery. Deposit taking typically facilitates making loans and vice versa. Providing banking services to the state may also involve such economies. However, these economies quickly disappear when the market becomes sufficiently large. This suggests that the market for banking services may exhibit features of a natural monopoly in the very early stages of banking development but more than one bank may operate efficiently once the market reaches a certain size. This may well explain why the BoE lost its monopoly status after fifty years of operation as a result of competitive pressures.

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[18] Upon the renewal of the EIC's charter in 1657, a provision was made to issue capital which were to be permanent for 7 years. At the end of this period, in October 1664, it was announced that "the whole gain for the seven years may be taken at 90 per cent or an annual average of about 13 per cent", which signified the fact that the transition from terminable to permanent capital was complete (Scott, 1912, Vol. II, p. 129, 132).

[19] A case in point is the formation of the Dutch East India company through the amalgamation of several competing companies which resulted in the creation of a private army (see Section 4.1).

3.2. Source of government finance

The second factor, creation of a lasting source of finance for the government of the day, is all but explicit in historical accounts of the founding of these joint-stock companies. Granting and renewing a royal charter, which confirmed the exclusive rights of the joint-stock companies (in the case of EIC and other foreign trade monopolies) was concurrent with a transfer of large funds from the company to the reigning monarch. These funds—loans made on favorable terms and often not repaid—were supplemented by regular annual gifts of money (Scott, 1912; Carruthers, 1996). The legal rights over a valuable resource bestowed upon a joint-stock company and exchanged for loans to the monarch, moreover, solidified the political bond between the two actors, the monarch and the monopoly. For example, the old East India Company, share holdings of which in the mid– to late–1600s came to be dominated by the landed elite, was closely aligned with the reigning king. Over the decades when the monarchy enjoyed political and legal power unchecked by Parliament (before 1688), the future of EIC was bright and any attempts of competition to snip at the rents of the highly profitable East India trade (by rival shipping expeditions to India) were fiercely and successfully eliminated by the EIC, aiding the share price to soar.[20]

The other famous example of a monopoly as an explicit source for government finance lies in the history of founding the Bank of England in 1694 (Acres, 1931; Clapham, 1945). The need for government finance, which was fueled by the war of the Spanish accession, produced the idea of creating a bank that could raise £1.2 million from subscribers, the funds that can be made available to the government as a loan in exchange for exclusive rights of bank note issue and dealing in bullion and bills. As noted above in section 2.3, of the two leading competing proposals the winning one, i.e. the proposal that secured the parliamentary approval, was the one lead by Paterson, a Scottish merchant with close links

[20]This political affiliation, naturally, was detrimental to the EIC after the Glorious Revolution, when the power balance shifted from the monarch to the Parliament: the privileges conferred by the royal charter to the EIC (still under substantial control of the Tories) needed to be confirmed by the hostile Parliament (dominated by the moneyed interest, the very same men who previously failed to establish a competitor to the EIC). It is well-documented that the incorporation of the English East India Company, the rival of old EIC during 1698–1702, which occurred despite EIC's fierce opposition to the creation of the rival, was owing to unfavorable political affiliation of the old company in the post-1688 period.

to the Parliament and moneyed men.[21] Both of these important examples illustrate the mutual dependency relationship between the borrower and the lender (see also Carruthers (1996)). The monopoly (the lender) was not unhappy to furnish the government (the borrower) with the funds required by the latter, since the lender's own survival as a monopoly rested with the borrower. At the same time, from the borrower's point of view, granting a monopoly over a valuable resource allowed the government to create a lasting source of finance whereby large funds could be secured from dealing with a politically affiliated, powerful and wealthy few, rather than levying heavy taxes on disparate and poor masses or risking the revolt and overthrow from expropriating wealthy political enemies.

3.3. Strengthening of investors' property rights

The third factor, the strengthening of investors' property rights, comes to prominence through the observation that the monopoly in the accounts above effectively served as an intermediary in channeling the investor's money to the government's coffers. Lack of monarch's credibility in borrowing directly from the public (demonstrated most spectacularly in the episode of the Stop of the Exchequer in 1672, but also apparent in numerous historical accounts of forced loans in the course of the 1600s)[22] certainly inhibited investors' willingness to transact with the monarch directly. Through the creation of a monopoly, the government (the monarch and later the parliament) were able to remove successfully the problem of credibility of its promise to repay. The monopoly's stocks were profitable per se because of the rents afforded by the monopoly position: the investments in the joint-stock company were productive in the sense that there was a valuable resource to exploit, compared to the investments in government bonds. In addition, the political affiliation with the borrower (government) and the political muscle of the monopoly (the government's lender, the joint-stock company) restrained the government's ability to extract the rents created. An example of the limits on the government's ability to expropriate large surplus of the monopoly funds is provided by Scott (1912, Vol. II, p. 133), who makes the following

[21] It is all the more noteworthy, since the rival proposal by Chamberlain, a Tory, would have secured, if approved the same amount of the loan to the government but on more favorable terms. See Scott (1912, Vol. III, p. 204) for details of the proposed schemes.

[22] See Scott (1912, Vol. II).

observation while describing the large dividend (50 per cent) paid in 1667, when it was revealed through publication of financial accounts of EIC that the company had large liquid resources available: the payment of the large dividend to stockholders was considered wise as a measure of protecting the company's profits from the monarch.[23]

These restraints on the government's ability to extract rents were introduced by the unique configuration of the monopoly position in relation to the government and the investors; the restraints strengthened the investors' property rights well before 1688, as documented by the expansion of the trade in EIC and other leading joint-stock companies' shares. In effect, by creating a monopoly with exclusive rights over a valuable resource in exchange for loans, the government was able to outsource its borrowing without making formal changes to "small" investors' property rights protection. Put plainly, the investors' holding of the monopoly's stocks signified indirect lending to the government and it was in the interest of the latter not to ruin the monopoly, the government's source of future large loans as well as the government's base of political support. At a deeper level, this analysis suggests that granting of a royal charter underpinned the security of investors' property rights in 16th and early 17th century England. Hence this development sowed the seeds of secure property rights, which were subsequently further strengthened in the aftermath of the Glorious Revolution.

3.4. Monopolies' limitations

Two separate observations on the monopolies created at this time are also in order. Firstly, even though monopolies were efficient forms of organization at the time, they did not result in the creation of economic oligarchies because their ownership was broad-based. This also meant that they could mobilize saving by raising capital from a large number of investors. Table 3 shows the number of shareholders in the leading joint-stock companies during 1601–1720. The number of shareholders in the EIC grew from about 200 at its foundation to 1,200 by the end of the 17th century. The Bank of England had more than

[23]The mutual dependency of the government and the company, discussed earlier, however, was manifest in this example as well, since despite the payment of the dividend to stockholders that presumably diffused the rents, the Crown succeeded in forcing a loan on the company in both 1666 and 1667.

1,200 shareholders when it was founded in 1694. Even the Hudson's Bay Company, the capitalization of which was less than 5% of the EIC, had as many as 89 shareholders by 1720.

TABLE 3: *Number of shareholders in leading joint-stock companies*

Year	*EIC*	*RAC*	*HB*	*BoE*
1601	198	–	–	–
1617–1628	954	–	–	–
1670	–	–	18	–
1672	–	–	32	–
1680	–	186	–	–
1681	530–600	–	–	–
1688	320	–	–	–
1693	482	–	–	–
1694	–	–	–	1,267
1698	1,200	–	–	–
1701	763	–	–	–
1702	759	–	–	–
1703	960	–	–	–
1707	916	–	–	–
1708	965	–	–	–
1720	–	–	89	–

Source: Scott (1912, Vol. III, pp. 464–7, 472–3, 476–7).

Secondly, the granting of monopoly rights to joint-stock companies was not uncontroversial. Nevertheless, it was felt that on balance these monopolies were beneficial forms of organization. A prominent statesman of the time, Sir Robert Walpole (a Whig, First Lord of the Treasury, and the leader of the Cabinet over 1730–1742), joining the debate on the detriments of monopoly in usual economic activity, notably supported monopoly in foreign trade and banking when he stated in 1737: "...though in most sorts of trade, an exclusive privilege may be of bad consequence, I am nevertheless of opinion, that with respect to the Banking trade, and the trade to the East-Indies, neither the one nor the other can be carried on with such success, or in such an extensive manner, by private adventurers, as

by a public company with such an exclusive privilege as our present companies have; and in this opinion I am supported by the example of our neighbors the Dutch, who, I believe, understand trade as well as most of their neighbors." (*Parl. Hist.* x.54, II March 1737, cit. op. Dickson (1967).)

3.5. Synthesis

The emergence of London's stock market in the period 1661–1703 is clearly associated with the emergence and establishment of large trading companies which enjoyed exclusive rights over their trading routes such as the EIC and RAC. The monopoly rights protected economic rents, thus contributing to monopolies' profitability and high liquidity of trade in their shares. Profitability and liquidity of shares, combined with the perception of more secure property rights, due to the political affiliation and influence of the monopoly, aided savings mobilization and ultimately financial development. Granting of monopoly rights in itself allowed the government to establish in effect a credible financial intermediary which could help improve public finances. These developments facilitated the mobilization of savings and therefore contributed to the growth of stock market capitalization while their success inspired the establishment of new companies. It is therefore clear that the granting of monopoly rights, initially by the monarch and subsequently by parliament, played a critical role in the emergence of the London stock market and its subsequent development.

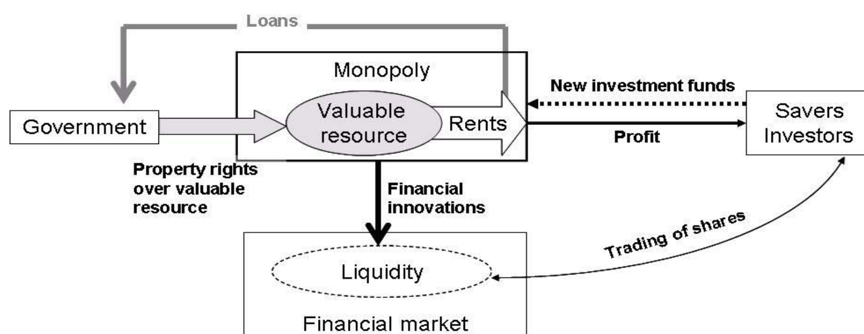

Figure 1: Government's role in kick starting financial development

Figure 1 presents a diagrammatic exposition of the argument. It shows the interplay between government and the (politically affiliated) joint stock company that was granted monopoly rights over a valuable resource. It also shows that monopoly rents were handed

out in the form of profits to investors and in the form of loans to government. Given the strength of the monopoly vis-à-vis the government investors felt sufficiently secure to supply new investment funds to the joint stock company; the absence of an arrow depicting flow of funds from investors to government signifies the reluctance of investors to lend to the government directly. Figure 1 also depicts the importance of the financial innovations by the monopoly for the emergence of a liquid financial market, which enabled trading in shares among investors. These developments set in motion a virtuous finance-growth cycle that helped to generate more profits for investors and more loans for the government. Note that secure property rights vis-à-vis the joint stock company were only one of several ingredients that helped the market to emerge. The other key ingredients were the granting of the monopoly rights over a valuable resource to the joint stock company—which made investments profitable—and the financial innovations that the monopoly put in place that facilitated the trading in shares. All this was made possible because of the political links between the government and the joint stock company and, ultimately, the need to improve the state of public finances.

The above analysis suggests that secure property rights alone, albeit important, were not sufficient by themselves to kick start financial development. Government intervention was necessary to ensure that the investments were sufficiently profitable while the financial innovations that the government created monopolies put in place helped to ensure that the investments were liquid. There is therefore little doubt that the emergence of London's financial market was far from spontaneous, owing much to the interplay between politics and economics, which resulted in the formation of large trade monopolies with close links to government. While various kings received "forced" loans and "gift" loans in return for granting monopoly rights to EIC and RAC during the early part of the 17th century (Scott, 1912, Vol. II), it appears that by the end of the same century its benefits for public finances were well understood by parliament. What can also be concluded from our analysis is that the much discussed influence of the institutional reforms of 1688 on the development of the stock market was, at best, an indirect one and does not at any rate explain the emergence of trading in stocks before 1688.

The same monopoly companies that accounted for the emergence of London as a financial market can also be credited for the improvement in public finances, as well as the expansion

of trade. The rise in real incomes which followed the expansion of trade created additional wealth, setting in motion a virtuous finance-trade-growth cycle which transformed England from a weak state in the early part of the 17th century to Europe's foremost military power by the beginning of the 18th century.

4. OTHER EXAMPLES

4.1. Amsterdam

A pre-cursor of the London stock market, the Amsterdam stock exchange, from its establishment dominated by trade in the shares of the Dutch East India Company, can be seen as the end-product of a natural experiment progressing along quite dissimilar lines, when compared to London, yet producing a remarkably similar relationship between the state, the foreign trading monopoly and the emergence of the stock market.

The Dutch example differs from the English one in several important respects. In the historical period of interest, the Netherlands, or more precisely the United Provinces, represented the only federal state in Europe. The strength of Amsterdam in the late 1500s as a center of commercial activity, the trading entrepôt of Europe with its massive commodity warehouses, sophisticated credit techniques, and emergence of speculative financial activity, is well-documented (Barbour, 1950; Israel, 1989; de Vries & van der Woude, 1997). The Dutch actively began exploring the trading route to the East Indies in the 1590s, successfully checking the Portuguese supremacy and making this route consistently important for the United Provinces from then on (Israel, 1989). Noteworthy, there was a number of Dutch enterprises established in the period of 1594–1599 for the sole purpose of trading with the East Indies: starting with the Compagnie van Verre at Amsterdam in 1594, and quickly followed by two more East India companies at Rotterdam in 1598, and a second company at Amsterdam in 1599. High profits of these early companies in 1598–9 stimulated proliferation of new companies in Amsterdam, Rotterdam, Zeeland, and the North Quarter, based at Hoorn and Enkhuizen, and with investment being drawn from inland towns such as Delft and Dordrecht. The ensued competition between rival companies, however, was beginning to affect profits by 1601 so much so that the merchants and burgomasters of the towns felt "it was getting out of hand": in the six years to 1601 the price of pepper paid by the Dutch

merchants in Indonesia rose by 100 per cent, while at home the stock piles of pepper and fine spices led to the inevitable drop in the price charged to the consumer (Israel, 1989). The merchants therefore persuaded the head of the Dutch government (Johan van Oldenbarnevelt, Advocate of the States of Holland) to consolidate the trade in one company. However, given the federal structure of the republic and the geographical spread of investment capital, the intricate detail of the new organization took months of intense negotiation between Oldenbarnevelt and the directors of the independent companies. The United Dutch East India Company (*Verenigde Oostindische Compagnie*, or VOC) was eventually issued its charter (*octrooi*) by the States General in early 1602 to enjoy monopoly of all Dutch trade east of the Cape of Good Hope. Noteworthy, the charter bestowed upon the VOC not just vast commercial privileges, but also extensive military and political powers (such as deploying armies and navies in Asia in the name of the States General and conducting diplomacy under the States General flag and seal).[24] It is also important to note that the company was subject to supervision, and its charter to periodic renewal, by the States General.[25] In fact, the amalgamation of individual companies was as much an economic act as it was a political act, since the managerial group of the united company had close affiliation and unity of interests with the political authorities (Steensgaard, 1982). The historical sources, therefore, strongly suggest that "the VOC was the creation of the Dutch state, as much as of the merchants who had actually opened up the East India traffic" (Israel, 1989, p. 72).[26]

[24]In 1751, a century and a half later, commenting on the might of the VOC at the zenith of its economic and political power, Malachy Postlethwayt asserted in the Universal Dictionary: "one of the reasons why the Dutch East India company flourishes, and is become the richest and most powerful of all others we know of, is its being absolute, and invested with a kind of sovereignty and dominion, ...[it] makes peace and war at pleasure, and by its own authority; administers justice to all; ... settles colonies, builds fortifications, levies troops, maintains numerous armies and garrisons, fits out fleets, and coins money". *Cit. op.* Neal (1990a, p. 196).

[25]Israel (1989, p. 71) documents that "the charter stressed that the VOC's purpose was not just to enable all subjects of 'these United Provinces' to invest in the East India traffic, but also to attack the power, prestige, and revenues of Spain and Portugal in Asia".

[26]A distinguished historian of the Dutch East India Company, Niels Steensgaard suggests that "The VOC integrated the functions of a sovereign power with the functions of a business partnership. Political decisions and business decisions were made within the same hierarchy of company managers and officials, and failure or success was always in the last instance measured in terms of profit. By these means the company as a

The perception of the VOC as the extension of the state in the far-flung territories of Asia, in fact, led to some discontent among investors who felt that "the profit was being sacrificed to the political objectives of the Dutch state" (Israel, 1989, p. 72), with substantial amounts of the company funds being spent on arms, munitions, troops and fortifications.[27] Still, as the arm of the state, the VOC proved astoundingly successful within a short space of time, achieving global supremacy in the spice trade by 1605.

Importantly for our argument, the emergence of the stock market in Amsterdam is firmly linked to the establishment of the VOC. As de Vries & van der Woude (1997, p. 385) suggest, in the early years of the VOC operations an important principle was established that the capital invested in the company would be permanent and any investor wishing to liquidate their interest in the VOC could sell their share to a buyer on a stock exchange (*Beurs*), thus linking the birth of the Amsterdam stock market to trade in the VOC shares. By 1608, the method of selling and buying VOC stock, as well as forward share selling, was well established (Dehing & 't Hart, 1997). Moreover, using company records, notarial deeds, government ordinances and the business papers of an Amsterdam merchant, a recent article by Gelderblom & Jonker (2004) reconstructs the finance of Dutch East India trade in 1595–1612, to demonstrate that shortly after the VOC was chartered in 1602, a vigorous secondary market in VOC shares emerged in Amsterdam, complete with extensive speculative activity and the first bear raid in 1609–10. Gelderblom & Jonker (2004, p. 654) also find that the establishment of the VOC had a consequence of spreading the share-ownership much wider than was previously observed. "The Amsterdam chamber [of the VOC] had more than 1,100 initial subscribers on an estimated adult population of no more than 50,000 people. The huge profits of some Asian expeditions had created a keen public interest, to the point of attracting even small savers investing up to 150 guilders."

In conclusion, what this example illustrates is that the way the monopoly was obtained (be it by the Royal Charter granted by a monarch in England or the charter drawn up following fierce negotiations between the merchants and political elite of the independent

business venture was able to internalize protection costs, and protection costs were added to overheads that might be calculated rationally" (Steensgaard, 1982, p. 237).

[27]A more detailed picture could be seen in Steensgaard (1982, p. 247).

federal states in the United Provinces) was not as important as the purpose it was assigned by the state: to consolidate the trading profits which could then be relied upon in the state of either peace or war, and which at any rate the government could tap in for the purpose of state- and empire-building. The trading monopoly in both London and Amsterdam was the vital ingredient in generating substantial resources for the government at the early stages of financial development. The substantial resources were creating the virtuous cycle of growth and development: greater resources allowed the monopoly to fortify its operations and reap greater profits, which made the trading in company shares increasingly more desirable; the increasing profitability of shares led to increased volume and innovation in share trading and that fostered stock market emergence and expansion.

4.2. Hong Kong

The financial development in Hong Kong in the 19th century, in contrast to that of England or the United Provinces of the 17th century, was bank-based, rather than stock-market-based. Nevertheless, a similar pattern of a monopoly actively supported by the government as the key ingredient of the emergence and expansion of finance is confirmed by historical sources (King, 1983, 1987; Ji, 2003). The monopoly that played a special role in the financial development of Hong Kong was the *Hongkong and Shanghai Banking Corporation*, often referred to as the *Hongkong Bank* in historical sources, or, as we know it today, HSBC. At present, HSBC is the largest bank in Hong Kong and the only bank established outside developed economies to become one of the largest banks worldwide.[28] Despite being a British overseas bank, HSBC had been headquartered in Hong Kong (from its foundation until 1991), with 80 per cent of its earnings originating from outside Britain, and grew mainly in the Far East, not Britain.

To place the foundation and operations of HSBC, or more appropriately, the Hongkong Bank, in historical perspective, it must be noted that the Hong Kong island emerged in 1841 as a free trading post of great economic significance, lying on the "cross-roads" of trading routes between Europe, China and Japan. Hong Kong became a British colony in

[28] According to *The Economist* (6 July 2006), HSBC was the largest banking group in the world by tier-one capital as of end-2005.

1842 under the Treaty of Nanking; it had no representative government (with the colonial governance being enacted by the Hong Kong Governor), neither did it have local currency. The Hongkong Bank was founded as a British overseas bank in 1865, initially as a limited company, by representatives of the major trading houses (*hongs*) on the China coast.[29] The explicit objective of the founders was to set up a 'local' bank—local in a sense of an overseas regional bank, headquartered locally—that would cater for the needs of merchants involved in the growing trade between Europe and China. Thus, from its inception, the Hongkong Bank had a clear link to overseas trade. The historical sources also clearly identify the founding fathers' intent to achieve incorporation of the bank by a special dispensation from the British Treasury[30] which, once obtained in 1866, moulded the activities of the Hongkong Bank in the tradition of a royally chartered bank.[31] The important privilege granted to the Hongkong Bank at its (re)incorporation in 1866 was the right to issue bank notes in Hong Kong and in South East Asia, while the significance of the special dispensation was in the assurance it provided that the notes would be accepted by colonial government treasuries (e.g. in payment of government dues and taxes). The latter lent credibility of the note issue with the general public. Incorporation by the special ordinance, therefore, implied a kind of endorsement by the British government of the Hongkong Bank and of its notes, and that came at the price of the bank agreeing to provisions which ensured the public's ability to encash the bank's bank notes.[32]

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[29] In his authoritative four-volume history of HSBC, King (1987, Vol. I, p. 54) states that "The success of the Hongkong Bank undoubtedly rested from the first on the broad international base of its directorate. This was a British bank in a British colony on whose founding committee eight of the fourteen members were not from Britain."

[30] The special dispensation is known as the 'special Hong Kong ordinance' and it was drawn up to be consistent with the provisions of the Colonial Banking Regulations (King, 1987, Vol. I, p. 110). The ordinance was for the term of 21 years, renewable on expiry.

[31] The alternative to the special ordinance at the time would have been to register the bank as a limited company, which in fact is exactly the organizational form that the Hongkong Bank adopted in the period 1865–66. However, the registration as limited company would have prevented the bank from enjoying important monopoly rights, discussed below, which were only attainable through incorporation by special ordinance.

[32] The specific provisions under the special ordinance included the bank's shareholders bearing double liability (i.e. double of their capital invested in the bank) and shareholders' unlimited liability in relation to

In the 1860s, the Hongkong Bank was one of only two private banks enjoying the privilege of note issue in Hong Kong.[33] However, an important monopoly right granted to the Hongkong Bank in 1872 by the Hong Kong Governor, hotly and unsuccessfully contested by its rivals, was issue of notes with denomination less than 5 dollars. Following the fiscal difficulties of the Hong Kong Mint which closed down (was sold to the Japanese) in 1866 after having existed for barely two years, this monopoly right was subsequently confirmed by the British Treasury, which at that time saw itself as the guardian of financial stability throughout the British Empire. Moreover, the Hong Kong Governor found legal solutions for the Hongkong Bank to expand its operation (including that of note issue) beyond the colony into South China, Singapore, Malaya and elsewhere, in effect permitting excessive profits to a privately owned institution (King, 1983, p. 153).

Another important privilege enjoyed under the special ordinance of the Hongkong Bank was the ability of the bank to bid for government accounts. After a successful bid for the British Government 'Treasury Chest' and for the principal account of the Hong Kong Government in the 1870s, the Hongkong Bank became, in effect, the banker to both the British Government and the local government. By 1895, the Hongkong Bank had become the virtually permanent banker to the British Government in China and was responsible for over 80 per cent of the local note issue (King, 1987, Vol. II). From then on, the Hongkong Bank was called upon to provide banking services for the British armed forces and for the consular services. As experts and government bankers, its officers were also called to give advice on important economic and political decisions pertaining to the British financial interests in the East. The Hongkong Bank's direct involvement in assisting the British Government in political and economic negotiations with the Imperial Government of China was manifested in the bank's sponsorship of the founding of the British and Chinese Corporation, a company designed to bring together British China interests (King, 1987).

note issue. See King (1983, pp. 150–4) and King (1987, Vol. I) for further details.

[33]The other private bank was the Chartered Bank of India, Australia and China which was founded by Royal Charter in 1853 and allowed to issue bank notes in Hong Kong from 1862. Along with only two other private banks, HSBC has retained the privilege to issue bank notes to the present day, its bank notes becoming legal tender in 1935.

Along with holding the British Government accounts, the Hongkong Bank succeeded in becoming the government's banker for the Chinese Imperial government or Qing government (before the 1911 revolution), dealing extensively in government loans for political indemnities, national railways and even military campaigns (Ji, 2003). In 1870 it provided a loan of 4 million silver taels at 14 per cent interest to the Chinese government for its Northwest Campaigns. In the period between 1878 and 1890, the Chinese Imperial government contracted 26 foreign loans, of which 17 were provided by the Hongkong Bank.[34] The bank's total loans over the period of 1874–1890 amounted to 28,970,000 tael, or over 70 per cent of all foreign loans (Ji, 2003). These loans provide additional evidence for the statement found in King (1987, Vol. I, p. 17) that the Hongkong Bank "regarded the Chinese authorities as a major constituent and was commercially interested in providing sound advice and in maintaining, *sometimes at considerable expense*, the credit-worthiness of the Chinese Government" [emphasis added].

It is, therefore, evident from the above, that during the first three decades of its operations, the Hongkong Bank evolved from having a status of 'local' bank to become by the end of the 19th century the most important foreign financial institution in the East. It acted as the government's banker to both the British and Chinese governments. It became the leading bank throughout East Asia, enjoying the privilege of note issue in Hong Kong, China, Thailand, Singapore and elsewhere. For more than half a century the financial markets of East Asia, including China, set their daily foreign exchange rate based on exchange rates set by the HSBC. As outlined above, from its very beginning the HSBC had the following features: (i) it enjoyed close support by the Hong Kong and British governments for its monopoly power; (ii) this monopoly power provided the HSBC with a huge influence far beyond Hong Kong; (iii) the bank was highly involved in financing international trade, particularly so when it was founded; (iv) the bank served for the British/Hong Kong government as a quasi-central bank; it was the most important bank which issued loans to the British/Hong Kong governments and the Chinese government. These features and the record of the bank's enormous success throughout its history provide support for our

[34] These included three major loans of 1,604,276 pounds at 8 per cent interest in 1877, 1,949,500 tael at 8 per cent interest in 1878 and 4,834,000 tael at 8 per cent interest in 1881 (Ji, 2003).

argument that a monopoly actively backed by the government was also the key ingredient of the emergence and expansion of banking in East Asia.

4.3. Italian city-states

The successful examples of London and Amsterdam in Europe were pre-dated by those of the Italian cities during the Renaissance. Banking, trade and industry flourished during those times and government played a central role in these developments. Genoa and Venice were very important in Mediterranean trade, with the latter becoming the most prosperous; its merchants became the intermediaries between East and West, receiving trading privileges from the Byzantine and German emperors, and even the Mohammedans (Gilbert, 1998). Numerous other cities grew and flourished, making Italy the most highly urbanized region in Western Europe in the 14th century. Political power within the Italian cities belonged to the possessors of urban wealth, i.e. the bankers, the merchants and the businessmen.

Fratianni & Spinelli (2006) argue that Genoa and Venice in the 15th and 16th centuries had developed many of the features of the 'financial revolutions' that were to be found much later on in the Netherlands, England and the United States. Specifically, these features include (i) credibility of debtor's promises; (ii) the role of national banks in facilitating the development of financial markets; (iii) the extent and depth of financial and monetary innovations. Fratiani and Spinelli show that both Genoa and Venice exhibited all three features, even though there were some important differences between the two.

Genoa and Venice had in place different commitment mechanisms that enabled them to issue long-term debt. Venice set aside specific tax revenues to service the public debt; while early period loans to the state were compulsory and based on income, they subsequently became voluntary. In Genoa, which was more politically divided than Venice, the commitment mechanism passed through the national bank (the *Casa di San Giorgio*), which was a semi-public institution with control over the tax revenues. San Giorgio represented the interests of the states creditors, but at the same time it was also concerned about the political and economic viability of the debtor. Neither Venice nor Genoa defaulted on their debt, even though Venice often delayed paying interest. Both Genoa and Venice—Genoa more than Venice—carried a low cost of public debt. Investors believed in the state honoring its promises and were willing to accept a lower return on invested funds.

Both Genoa and Venice had their own public banks. Venice had (i) the *Banco di Rialto*, which was a pure payment bank—the closest predecessor of the Wisselbank of Amsterdam—and (ii) the *Banco Giro*, which was an issue bank and the fiscal agent of the Republic of Venice: it was the closest predecessor to the Bank of England and the First Bank of the United States.[35] Genoa had the San Giorgio, which was a predecessor of the Bank of England.

Finally, both Genoa and Venice, but especially the former were financial innovators. Genoas San Giorgio invented the debt-equity swap and both cities understood the relationship between reputation and cost of debt. In Genoa there was an active money market in which merchants used declared but not matured interest on government debt to settle due payments and to extend short-term credit.

4.4. U.S. state banks

Even in the United States the role of the government in the early stages of financial development was an important one. Sylla et al. (1987) outline the 'intimate' relationships which existed between state banks and state governments, whereby state-chartered banks became integral elements of public finances between 1790 and 1860. In several instances, such banks were either wholly owned or operated by state governments, but even when this was not the case, states purchased bank shares either when a bank was launched or at a later stage. This was very much a two-way relationship not unlike the relationships that were common during the emergence of London's financial system in that (state) governments, at the time of granting or renewing charters, were obliging state-chartered banks to pay lump sum bonuses to them. Sylla et al. (1987) find that about one fifth of state revenues during that period was derived from banks.[36]

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[35]The Wisselbank of Amsterdam was established in 1609 as a public deposit bank and economic historians are in virtual agreement that it was patterned after the Venetian Banco della Piazza di Rialto of 1587.

[36]Rousseau & Sylla (2005) show that the same period in the US history of financial development was characterized by finance-led growth, suggesting that these 'intimate' relationships between banks and state governments were conducive to economic growth.

4.5. Japan, Korea and Taiwan

The emergence of strong banking systems that supported the remarkable growth of post-war Japan and Taiwan and post-1960's South Korea is well documented in recent literature. It is also widely recognized that the role of government in the early stages of the financial development of these countries was critical (see, for example, World Bank (1993), Amsden (1989), Wade (1989) and Wade (1990)). The banking systems of these countries, which were tightly controlled by their respective governments for at least two decades, if not more, are widely credited with transforming their respective economies into the industrialized nations that they are today (Patrick & Park, 1994). Government interventions took many forms, including partial or total ownership of major banks, extensive government involvement in credit allocation, interest rate controls etc.[37]

What is perhaps less widely emphasized in the literature on East Asian financial development is the fact that certain forms of government interventions—such as restrictions on entry—amounted to restrictions on competition, which helped tightly controlled banks to remain profitable. This also enabled governments to use them as cheap sources of finance not so much for themselves but for their priority industrial sectors, which were central in their industrialization strategies. Moreover, restrictions on competition did not result in a reduced volume of loans because of the parallel existence of interest rate controls, which effectively guaranteed gross profit margins for banks (see Kitagawa & Kurosawa (1994)). In such a set-up banks could increase profit by increasing volume, which encouraged financial development by enhancing competition among existing banks.[38]

[37]Teranishi (1994) outlines the emergence of the Japan's heavily regulated financial system during the high growth period (1956–70) and analyses the ways in which it contributed to economic growth, focusing on the realization of dynamic scale economies. Park & Kim (1994) document the extensive controls of the Korean government over commercial banks, which for many years included the determination of deposit and lending rates at practically all financial institutions (p. 191). Shea (1994) outlines the emergence of the Taiwanese system, which has been dominated by government owned and managed banks.

[38]See Demetriades & Luintel (2001) for evidence of the positive role played by government-imposed financial restraints on the development of the South Korean banking system. Their theoretical analysis of a cartelized banking system explains how a positive association between financial development, the degree of state control over the banking system and mild repression of lending rates can arise.

5. CONCLUSIONS

This paper provides evidence from historical sources which suggests that the emergence of London and Amsterdam's financial markets can be ascribed to the rise of large trading monopolies with close links to government. These monopolies were responsible for the main financial innovations that gave rise to the emergence of trading in shares as well as the strengthening of investors' property rights. We argue that London and Amsterdam were not special cases in the sense that government has played a critical role in the emergence of financial systems worldwide.

An important feature of the trading monopolies in London and Amsterdam was their broad based ownership which enabled them to mobilize saving from a wide class of investors. The monopoly position seems to have been critical in enabling them to issue securities with attractive risk-return characteristics, which, as a result, were easily tradable, giving rise to a secondary market. In this context, the establishment of banking monopolies with close links to government seems to have been a natural consequence and it is the prevalence of such monopolies that facilitated the emergence of banking systems worldwide.

The evidence presented here also suggests that the London market emerged well before the institutional reform that followed the Glorious Revolution of 1688 in England. We have in fact argued that one of the features of the rise of monopolies was the strengthening of investors' property rights prior to 1688. Thus, ascribing the emergence of the London stock market to the reforms of 1688 is historically inaccurate.

Could the models of Amsterdam and London be mimicked by countries that remain financially underdeveloped today? The VOC and East India models suggest that careful exploitation of a valuable natural resource—trading routes in those cases—may help to mobilize saving and improve public finances, both of which may be critical to kick start financial development. Whether this avenue is open to low income economies in a modern context is an important question for policy makers which warrants further investigation, both theoretically and empirically. A tentative prediction of our analysis is that countries endowed with valuable tradable resources, such as oil or gas, which also have sufficiently secure private property rights may be able to kick start their financial systems through careful government intervention. Specifically, inviting bids for monopoly licenses for the

exploitation of such resources from domestic investors could deliver benefits for both the government and domestic private sectors, as long as ownership of such monopolies is broad based. This is an important caveat. If this vital ingredient of the London and Amsterdam models is neglected, the formation of such monopolies would not only fail to mobilize saving but it could also result in the creation of new economic oligarchies that are likely to stifle financial development for a long time.

As a final remark, the analysis of the emergence of financial markets in London and Amsterdam and the emergence of banking in Hong Kong, can also be related to recent work by North et al. (2009) [henceforth, NWW]. The key concepts in NWW are the 'natural state' and the 'open access state'. The natural state is characterized by limited access in the sense that it provides order by "using the political system to limit economic entry to create rents, and then using the rents to stabilize the political system and limit violence". The most important mechanism of a limited access order is to contain violence and to provide social stability and order. Such system, however, fails to achieve sustained economic growth: according to NWW, most contemporary countries, including all developing countries, are natural states. In contrast, an open access state, as the name suggests, is characterized by "open access and entry into economic and political organizations". Social order in such society is sustained by competition rather than rent-creation. Moreover, an open access state is able to achieve sustained rates of economic growth and development. According to NWW, only about two dozens contemporary countries, such as the US, the major EU countries, and Japan etc., are open access societies.

Re-interpreting our work within the NWW framework, our treatment of the political economy of initial financial development in pre-industrial revolution era can be regarded as a successful development being achieved in a 'natural state', which lays the foundations for later transformation of the natural state into an open access society. We show that historically successful initial financial development in the case of London, Amsterdam and Hong Kong started with political protection and monopoly (or oligopoly), and that part of the reason for political protection was to limit competition in order to create rents. In these examples, rent-creation by means of political power has played an important positive role in trade and financial development. Essentially, as we argued above, without this protection or limitation to access, large scale trading and large scale financial development, which pro-

vided a base for later industrial revolution, may have never happened. We conjecture that only when financial development has passed a certain threshold does it become beneficial to lower entry barriers to allow for more competition, i.e. open access. Our analysis therefore suggests that certain types of 'natural states' may be useful at earlier stages of development since they provide necessary conditions for achieving open access society later. To this extent, our discussion sheds lights on conditions of initial financial development which determines later transformation from the natural state to the open access society. Without this initial financial development, countries even with plenty of wealth and advanced technology (technologies comparable to those developed during the industrial revolution), e.g. a country such as China in the 1200s or in the 1500s and the 1600s, were not able to further develop and were not able to transform from natural state to open access society.

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