Introduction

The years between 1685 and 1695 witnessed a revolution in public and private finance in England. Around a hundred new joint-stock companies were established, offering investors the opportunity to commit their capital to projects ranging from the manufacture of paper and textiles to the hunt for sunken treasure ships. Public enthusiasm for those investment opportunities stimulated the growth of a surprisingly sophisticated market in equities and derivative instruments. England's new investors learned quickly how to use the market to enhance investment income and manage risk and, inevitably, a new class of speculators and stock-jobbers were able to create risk and take advantage of the market's flaws and inadequacies. Driven by the costs of the Nine Years' War (1689–97) to find new ways of raising funds and having observed the enthusiasm of investors in the stock market, the state also took advantage of the interest in high finance. Between 1693 and 1698 it raised £6,900,000 through the flotation of lottery schemes, the sale of life annuities, and the incorporation of the Bank of England and the New East India Company.

Typically, the optimism with which the new debt and equity markets were greeted did not last. Fears were soon being expressed that the financial system was dominated by stock-jobbers and speculators and that it would draw investment away from trade, the true backbone of the English economy. Those who were brave enough to risk their capital in the stock-market boom of the 1690s had their hopes of large profits dashed as companies were dragged down by inadequate capitalisation, technical incompetence, poor management and the strains of the war and the recoinage of 1696 to 1697. Unsurprisingly, a few investors even found they had put their funds into projects that were little more than chimeras created to defraud the naïve. The new national debt was equally precarious. It has been argued that, because the Glorious Revolution placed control of the country's finances firmly in government hands, the public creditors could feel confident of the security of their investment.[1] Perhaps

[1] Most notably in D. C. North and B. R. Weingast, 'Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England', *Journal of Economic History*, 49 (1989), 803–32.

they did initially but their confidence was misplaced. By 1696, with the war progressing badly, the economy under strain and the government's credit deteriorating, no money could be found to pay the interest on the new long-term public debts. Boom had turned to bust.

Yet, this was no false start to England's financial revolution. Many of the small joint-stock companies set up during the 1690s may have failed but the new and innovative methods of raising long-term public funds proved permanent, as did changes in investment habits. Moreover, the institutions created at this time – the Bank of England, the national debt and an active secondary market in that debt – survived, flourished and became the foundation of London's modern financial system. On those foundations Britain built the economic and financial stability that allowed it to outspend its enemies during the wars of the eighteenth century and emerge by 1815 as a dominant imperial and world power. Moreover, despite the emphasis that is generally placed on the country's industrial past, the financial sector of the British economy has, on balance, provided a far more diverse and enduring basis for its wealth and stability. Thus, the development of London's financial system is inextricably linked to the evolution of modern Britain.

In spite of their long-term significance, the financial innovations of the late seventeenth century have seldom been the topic of detailed study. Indeed, when economic historians have considered the early development of England's financial system they have generally done so from rather narrow perspectives. Hence, D. W. Jones focused chiefly on the contribution of merchant capital to the successful establishment of the public funds.[2] Gary De Krey and Bruce Carruthers concentrated on the political motives for investment and the way that political associations may have defined investment choices.[3] Articles by K. G. Davies, Christine MacLeod and Ann Carlos and others offer insightful studies of innovation in the stock market before 1720, but were necessarily limited in scope.[4] Only in the

[2] D. W. Jones, 'London Overseas-Merchant Groups at the End of the Seventeenth Century and the Moves Against the East India Company', unpublished PhD thesis (Oxford University, 1970). See also D. W. Jones, *War and Economy in the Age of William III and Marlborough* (Oxford: Blackwell, 1988).

[3] G. S. De Krey, *A Fractured Society: The Politics of London in the First Age of Party, 1688–1715* (Oxford: Clarendon Press, 1985); B. G. Carruthers, *City of Capital, Politics and Markets in the English Financial Revolution* (Princeton University Press, 1996).

[4] K. G. Davies, 'Joint-Stock Investment in the Later Seventeenth Century', *Economic History Review*, 4 (1952), 283–301; C. MacLeod, 'The 1690s Patents Boom: Invention or Stock Jobbing?', *Economic History Review*, 39 (1986), 549–71; A. M. Carlos and J. L. Van Stone, 'Stock Transfer Patterns in the Hudson's Bay Company: A Study of the English Capital Market in Operation, 1670–1730', *Business History*, 38 (1995), 15–39; A. M. Carlos, J. Key and J. L. Dupree, 'Learning and the Creation of Stock Market Institutions: Evidence from the Royal African and Hudson's Bay Companies, 1670–1700', *Journal of Economic History*, 58 (1998), 318–44.

work of W. R. Scott can we find a comprehensive account of the period before 1720 but Scott's purpose was to explain the workings and financial structure of British business not to provide an account of the functioning of the early stock market.[5] Moreover, it is often the case that the innovations of the 1690s are acknowledged only as an interesting prelude to what in many people's eyes was the defining event of the early development of England's financial system: the South Sea Bubble of 1720. The dominance of the Bubble is to some extent understandable. Depending on your point of view it either provides a timeless insight into the depths of human folly or an early test case for the argument that all financial markets are inherently efficient. But countless reams of paper have been expended on this topic without reaching any definite conclusions. Moreover, neglect of the earlier period and obsession with the Bubble has distorted our view of the course of England's financial revolution in several regards.

First, ignorance of the origins of the English financial markets has led to the assumption that developments in public finance were the driving force behind innovation. Richard Dale went so far as to suggest that the development of a market in government debt preceded the emergence of a market in corporate securities.[6] Even P. G. M. Dickson's commanding study of the financial revolution barely mentioned the developments that took place in the private equity market during the 1680s and 1690s.[7] And Dickson's lead has been followed by many subsequent historians of the financial revolution who have concentrated their attention on explaining the structure and management of the national debt and, with the exception of Roseveare, have tended to look forward from 1720 rather than back to the origins of the market.[8] Yet, by the time of the government's first experiment with long-term funding an extremely active and innovative stock market had already been established, a clear indication that the development of the public funds was led by innovation in the private market.[9]

[5] W. R. Scott, *The Constitution and Finance of English, Scottish and Irish Joint-Stock Companies to 1720*, 3 vols. (London: Cambridge University Press, 1910–12).

[6] R. Dale, *The First Crash: Lessons from the South Sea Bubble* (Princeton University Press, 2004), p. 22.

[7] P. G. M. Dickson, *The Financial Revolution in England: A Study in the Development of Public Credit, 1688–1756* (London: Macmillan, 1967).

[8] H. Roseveare, *The Financial Revolution, 1660–1760* (Harlow: Longman, 1991); L. Neal, *The Rise of Financial Capitalism: International Capital Markets in the Age of Reason* (Cambridge University Press, 1990); J. Brewer, *The Sinews of Power: War, Money and the English State, 1688–1783* (London: Unwin Hyman, 1994).

[9] This has been shown to have been equally true of the Amsterdam market in which, as Gelderblom and Jonker argue, it was the trading of VOC (Verenigde Oostindische Compagnie) shares rather than government debt that provided the crucial breakthrough

Secondly, in the history of English financial innovation too much credit has been given to the influence of Dutch expertise. The notion that the secret for funding a modern state was brought to England 'in William III's baggage' is still common in spite of the work of Roseveare and others, which shows quite clearly the legacy of changes made to the country's financial system during the period between 1660 and 1688 and the limited impact of Dutch innovation on the English public funds.[10] The chapters that follow will reiterate the point that English endeavour deserves as much, if not greater, credit for the development of England's financial systems and will show that when domestic projectors needed inspiration they looked not only to the Netherlands but to a variety of European financial innovations.

Thirdly, our understanding of the mechanisms for creating trust in the public funds has been distorted by the assumption, expressed most prominently by North and Weingast, that the Glorious Revolution was the turning point in relations between the state and its creditors.[11] North and Weingast argued that it was the promises offered by a state, rather than a sovereign, debt that convinced people to invest in the new long-term debt instruments. Those promises, they suggest, were underpinned by the fact that interest and annuity payments were backed by the appropriation of tax revenue and guaranteed by Act of Parliament and made credible by institutions which ensured that Parliament had no incentive to behave like the sovereign and renege on its debt. North and Weingast's analysis has proved remarkably influential but they had a poor understanding of the early financial revolution.[12] The following chapters will

to an active secondary market. O. Gelderblom and J. Jonker, 'Completing a Financial Revolution: The Finance of the Dutch East India Trade and the Rise of the Amsterdam Capital Market, 1595–1612', *Journal of Economic History*, 64 (2004), 666.

[10] Roseveare, *The Financial Revolution*; H. Roseveare, *The Treasury: The Evolution of a British Institution* (London: Allen Lane, 1969); H. Roseveare, *The Treasury, 1660–1870: The Foundations of Control* (London: George Allen and Unwin, 1973); M. J. Braddick, *State Formation in Early Modern England c. 1550–1700* (Cambridge University Press, 2000); C. D. Chandaman, *The English Public Revenue, 1660–1688* (Oxford: Clarendon Press, 1975); J. K. Horsefield, *British Monetary Experiments, 1650–1710* (London: G. Bell and Sons, 1960); S. Quinn, 'Banking before the Bank: London's Unregulated Goldsmith-Bankers, 1660–1694', unpublished PhD thesis (University of Illinois at Urbana-Champaign, 1994). M. 't Hart, '"The Devil or the Dutch": Holland's Impact on the Financial Revolution in England, 1643–1694', *Parliaments, Estates and Representation*, 11 (1991), 39–52; D. D. Coffman, 'The Fiscal Revolution of the Interregnum: Excise Taxation in the British Isles, 1643–1663', unpublished PhD thesis (University of Pennsylvania, 2008).

[11] North and Weingast, 'Constitutions and Commitment'.

[12] As Sussman and Yafeh argue, the influence of North and Weingast's argument has extended far beyond the financial systems of early modern Britain. N. Sussman and Y. Yafeh, 'Institutional Reforms, Financial Development and Sovereign Debt: Britain, 1690–1790', *Journal of Economic History*, 66 (2006), 906–35. The supposed importance of

show that the financial promises of the post-Glorious Revolution government were no more credible than those of previous Stuart monarchs. Indeed, credible commitment was not offered from above by the institutions of government, it was demanded from below by those who invested in the public funds and it was supported by the creation of an active secondary market in government debt. As such, a far more pertinent analysis of the mechanisms for creating trust is offered by Carlos and Neal's recent article examining the reasons why the British financial sector was able to withstand the shock of the South Sea Bubble. They highlight the resilience and 'sheer vitality' of eighteenth-century English public finance in the years immediately after 1720 which they rightly attribute to the liquidity of the secondary market, the diversity of the customer base for the government's debt, and early modern investors' commitment to the new vehicles for saving created by the financial revolution.[13] But their arguments were made entirely with reference to the period after 1720. Looking back to the origins of the financial market would have revealed that those factors had been a generation in the making. To discover the origins of a liquid market in government debt and account for the trusting relationship that, in the face of numerous obstacles, developed between the state and the public creditors we must look to the events of the 1690s.

Lastly, our understanding of the behaviour of early modern investors has been distorted, most notably by the Bubble debate, which has focused chiefly on whether or not investors responded rationally to the opportunities offered by the South Sea scheme. Opinions range from Charles MacKay's assertion that during 1720 the 'public mind was in a state of unwholesome fermentation' to Garber's dismissal of the episode as speculators 'working on the basis of the best economic analysis available and pushing prices along by their changing view of market fundamentals'.[14] The former arguments tend to draw on anecdotal evidence rather than a comprehensive analysis of behaviour. The latter, although more considered and based on a closer examination of the evidence, tend to ignore the

the Glorious Revolution is also emphasised in analyses of the rise of London's modern financial systems. See G. Burn, *The Re-emergence of Global Finance* (Basingstoke: Palgrave Macmillan, 2006), pp. 176–7.

[13] A. M. Carlos and L. Neal, 'The Micro-Foundations of the Early London Capital Market: Bank of England Shareholders During and After the South Sea Bubble, 1720–1725', *Economic History Review*, 59 (2006), 498–538.

[14] C. Mackay, *Extraordinary Popular Delusions and the Madness of Crowds* (Ware: Wordsworth Reference, 1995), p. 71; P. Garber, *Famous First Bubbles: The Fundamentals of Early Manias* (Cambridge, Mass.: MIT Press, 2001), p. 122. For a variety of other opinions between those two extremes see J. Carswell, *The South Sea Bubble* (Stroud: Allan Sutton, 1993); E. Chancellor, *Devil Take the Hindmost: A History of Financial Speculation* (Basingstoke: Macmillan, 1999); Dale, *First Crash*; C. P. Kindleberger, *Manias, Panics and Crashes: A History of Financial Crises* (London: Macmillan, 1989); Neal, *Rise of Financial Capitalism*.

human face of the financial market. Instead, such studies examine the behaviour, and most particularly the rationality, of early investors through the action of equity and debt prices.[15] In studying these idealised markets historians and economists have added something to our knowledge of the way price mechanisms work but they leave us with a woefully inadequate understanding of the aims and actions of early modern investors. Many questions remain, therefore, about who invested in the early financial markets, how they came to learn about the opportunities being presented to them and the factors that governed their decision-making.

This gap in our knowledge has become more obvious in recent years as the scope of investigations into the nature of the financial markets and the actions of investors has been widened by behavioural theorists and economic sociologists. Their work has shown that people do not always behave in the ways predicted by economic models.[16] Individuals are affected by their environment and by the opinion of their fellows, they often are unable to assimilate and interpret information correctly, and they frequently allow emotion to dictate their choices. A full understanding of the nature of the financial markets cannot be reached without giving due consideration to these factors and this is especially true of London's first financial markets.

London's early investors did not operate in a vacuum. They were profoundly influenced by a society that was itself struggling to assimilate the many changes imposed by the development of public and private finance. The nature of London's financial markets was closely scrutinised, and hotly debated, by a variety of social and political commentators whose arguments had a powerful effect on the perception of investment. Contemporaries frequently questioned the value of the joint-stock company as a means of raising money to pursue trade and manufacturing. Speculators were characterised as dishonest and manipulative individuals acting without regard for the social disruption that resulted from their

[15] See, for example, Neal, *Rise of Financial Capitalism*; Garber, *Famous First Bubbles*; P. Mirowski, 'What Do Markets Do? Efficiency Tests of the Eighteenth-Century London Stock Market', *Explorations in Economic History*, 24 (1987), 107–29; and more recently a study of irrational behaviour that offers a similarly restricted focus, R. S. Dale, J. E. V. Johnson and L. Tang, 'Financial Markets Can Go Mad: Evidence of Irrational Behaviour During the South Sea Bubble', *Economic History Review*, 58 (2005), 233–71.

[16] For an overview of these theoretical developments see G. Gigerenzer and R. Selten, eds., *Bounded Rationality: The Adaptive Toolbox* (Cambridge, Mass. and London: MIT Press, 2001); J. H. Kagel and A. E. Roth, *The Handbook of Experimental Economics* (Princeton University Press, 1995); H. Shefrin, *Beyond Greed and Fear: Understanding Behavioral Finance and the Psychology of Investing* (Boston, Mass.: Harvard Business School Press, 2000); A. Shleifer, *Inefficient Markets: An Introduction to Behavioural Finance* (Oxford University Press, 2000); N. J. Smelser and R. Swedberg, eds., *The Handbook of Economic Sociology* (Princeton University Press, 1994).

actions. And there was some antagonism between the landed and moneyed interests with many accusations of political manipulation being levelled against the great moneyed companies. In consequence, investing in the early modern financial market often was depicted as a dangerous and dishonest endeavour. Investors were warned to be cautious in their approach and to be suspicious of professional speculators and rumourmongers. Consideration must be given to how people would have reacted to a market that was viewed in such negative terms especially since this issue not only impacted upon the behaviour of investors but also affected the attitudes of those who sought to regulate and control the new financial markets.

Those who did use the market had to contend with its failings. Information gathering was difficult. Poor communications forced them into the City where they would have struggled to find pertinent information among rumour, opinion and gossip. The assessment of risk was hampered by the dearth of consistent financial information and the limited progress of the complex mathematical techniques that are required for analysis. Where risk could be fully identified, methods of controlling it were limited. Derivative instruments were available but difficult to use. The possibilities for arbitrage were limited by a number of factors including the illiquid nature of the market, the absence of effective substitutes, the potential for collusion between market leaders and high transaction costs. This study will suggest that these factors created an inherently flawed market, one that failed to provide fully for the needs of all investors.

However, the fact that the market survived such unstable beginnings must indicate the presence of a group of investors whose objectives lay beyond mere capital gains. The financial markets in the late seventeenth century are indeed notable because, for many investors, the pursuit of economic goals was accompanied by non-economic ones. For some shareholders, the ownership of stock brought economic or political power and influence that was unattainable through more conventional channels. For many investors, the dominant view of shareholding during the late seventeenth century was one in which shareholder and company had reciprocal rights and responsibilities. Loyalty was demanded on both sides. Thus, the ability to pursue the rational course, that of switching into a more profitable area of investment, was constrained not only by lack of information but also by a sense of loyalty and by the perceived advantages that joint-stock ownership afforded – voting rights, status and, to some extent, political and economic power. The stability that this gave to the larger joint-stock companies of the period formed the foundation for the long-term survival of the financial markets.

Clearly, therefore, to ignore the human face of London's early financial market is to give a misleading impression of its development, its failures and its triumphs. As a result, this book, although predominantly about the construction of a market and, in particular, the complementary development of private and public finance at the end of the seventeenth century, contends that markets are built on and by the people that inhabit them. The main focus of the following chapters, therefore, will be the projectors, brokers, stock-jobbers and investors who provided and utilised England's first financial market. The aim is to understand who those people were, how they came to learn about the opportunities being presented to them, and what were the factors that governed their decisions to commit their capital, and their trust, to the new financial market.

The book is organised into three parts. The first will focus on the emergence and early development of London's financial market. Chapter 1 will examine London's first stock-market boom. In doing so it will draw particularly on the ledgers of the broker Charles Blunt, which include a large number of brokerage accounts covering the years between 1692 and 1695, a key period in the development of the financial markets and one that has, until now, been inadequately explored. Just under 1,500 transactions are contained in these ledgers. They provide a snapshot of a market that was highly sophisticated, and enable a detailed reconstruction of the level and type of business undertaken by specific investors, and by the market as a whole. Chapter 2 will look specifically at the development of the public funds in the period between 1693 and 1698. It will detail the broad European origins of financial innovation and demonstrate that both in terms of development and ongoing survival the public funds owed much to the inventiveness and determination of English projectors and financiers.

The second part will ask what investors knew about the market and how they found the information on which they based their decisions. Using the wealth of published literature that debated issues raised by the development of the market, Chapter 3 will examine how representations of the market were constructed and question the impact this had on investors and on those who sought to regulate the market. Chapter 4 will give attention to the type of printed market information made available in newspapers and market guides, and will attempt to understand how, and to what extent, such information was used by investors. Chapter 5 will reconstruct verbal networks of information in order to understand how those networks functioned and how they defined the investment choices made by individuals.

The final part of this book considers the aims and actions of the first investors in England's financial market. It draws on personal ledgers and account books, in addition to a database of more than 22,000 financial transactions created from information contained in the surviving transfer books,[17] subscription books and stock ledgers of the main joint-stock companies of the period. Chapter 6 will consider how the innovations of the 1690s functioned to extend the scope of the financial market and entice new investors to commit their capital. Chapter 7 will examine the actions of stock-jobbers. It will argue that although stock-jobbers certainly had the power to manipulate the prices of the smaller joint-stocks, their influence did not extend to the larger companies of the period. One of the factors that limited the power of the stock-jobbers was the presence of many risk-averse or inactive investors in England's first financial market. Chapter 8 will examine the aims, choices and behaviour of those investors.

[17] Transfer books, as the name suggests, were kept as a record of stock transfers and, although the transaction price was not recorded, they do contain a range of information including the names of the buyer and seller, the amount and the date of transaction. In many cases the occupation and addresses of both buyer and seller were listed. If either individual was absent at the time of the transaction, details would also be given of the person acting with power of attorney. On occasion other personal details were also recorded.

1 London's first stock-market boom

In June 1687, Captain William Phips sailed into London carrying a haul of Spanish treasure salvaged from a ship that had sunk off the coast of Hispaniola in the West Indies in 1641. The treasure, which chiefly consisted of silver, was valued at more than £200,000. At the time this was an astonishing sum and Phips was greeted as a returning hero.[1] Besides his share of the haul, which amounted to £11,000, Phips received a knighthood and was made provost marshal of New England. Phips's backers, among them Christopher Monck, the second Duke of Albemarle, were paid a dividend of just over £5,000 for every £100 invested.[2] Albemarle received an impressive £43,000, much of which went to pay the spendthrift duke's enormous debts.[3]

The incredible profits made by the adventurers ensured that Phips's triumphant return became the most talked-about event of the moment. John Evelyn wrote in his diary:

> There was about this time brought into the Downes, a Vast treasure which after 45 years being sunk in a Spanish Galioon … was now weighed up, by certaine Gentlemen & others, who were [at] the Charge of Divers &c: to the suddaine enriching of them, beyond all expectation: The Duke of Albemarles share came

[1] The contemporary account of Phips's life was C. Mather, *Pietas in Patriam: The Life of His Excellency Sir William Phips* (London, 1697) and the most recent and most comprehensive account of his adventure, P. Earle, *The Wreck of the Almiranta: Sir William Phips and the Search for the Hispaniola Treasure* (London: Macmillan, 1979). Other notable accounts include V. F. Barnes, 'The Rise of William Phips', *New England Quarterly*, 1 (1928), 271–94; C. H. Karraker, 'Spanish Treasure, Casual Revenue of the Crown', *Journal of Modern History*, 5 (1933), 301–18; R. H. George, 'The Treasure Trove of William Phips', *New England Quarterly*, 6 (1933), 294–318.

[2] The investors were Monck, Lord Falkland, Sir James Hayes, Sir John Narborough, Francis Nicholson, Isaac Foxcroft and John Smith, a London merchant. They agreed to share the treasure in proportion to their subscriptions after one-tenth had been offered to the Crown and Phips had been awarded one-sixteenth.

[3] For details of Albemarle's colourful life see E. F. Ward, *Christopher Monck, the Duke of Albemarle* (London: John Murray, 1915).