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The Bank of England and the Genesis of Modern Management

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Abstract

In 1965 Sidney Pollard published *The Genesis of Modern Management*, an extended discussion of the problems, during Britain's initial period of industrialisation, of the 'internal management' of the firm. But, in his focus on industry, Pollard ignored one of the largest, most significant and most innovative of the enterprises of the late-eighteenth- and early-nineteenth centuries: The Bank of England. This paper focuses on the Bank as a site of precocious managerial development. It first establishes that the Bank, by the latter part of the eighteenth century, encompassed the complexities of a large-scale industrial enterprise. It employed a workforce of several hundred. Its workers operated in specialised and coordinated capacities. Its managerial hierarchy was diffuse and dependent on employed men, rather than the elected directorate. The Bank, therefore, warrants comparison with the types of enterprises identified by Pollard. Focusing on the 1780s, the paper then explores the Bank's organisational and management structure against Pollard's four aspects of management: 'the creation and training of a class of managers; 'the recruitment, training, disciplining and acculturation of labour'; the use of 'accountancy, and other information …in the rational determination of their decisions' and finally the question of whether there emerged a 'theory and practice of "management"'. It will demonstrate that, although not always applied effectively, the Bank's senior men did show managerial innovation and skill in training and organising the workforce and were able to make informed decisions which had the potential to improve some of the Bank's processes.

Keywords: Bank of England, managerial development, organisational structure, banking history.

JEL Classification: N00, N83, L2, J24, J50.

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Sidney Pollard's seminal work posited that a lack of understanding of the genesis of management was a 'glaring gap' in the history of industrialising Britain.[1] Yet his own analysis remained narrowly focused on the factory and other large industrial processes. Forms of economic activity that might have displayed similar complexity were mentioned only in passing. In particular, Pollard failed to acknowledge one of the largest and most significant enterprises of the late-eighteenth- and early-nineteenth centuries: the Bank of England. This paper will demonstrate that, had Pollard turned his attention to the Bank, he would have discovered factory-like organisation of 'production' with well-established and managerial systems in place and strata of lower, middle and senior management.

Pollard, along with other commentators on the history of management, acknowledge that elements of complex organisation existed long before industrialisation.[2] Ancient and classical civilisations planned, organised, controlled and centralised. But these managerial techniques were used in support of religious, political or military endeavour not industry or commerce.[3] Arguably, the systematic application of such techniques in the pursuit of production for profit came with industrialisation and required processes which constituted a significant challenge for the early entrepreneur.[4] These included the need to manage a large amount of fixed capital and stocks of raw materials. Management of labour too presented problems. The workforce needed to be made to conform to longer and more regular hours and oversight was required to ensure efficiency, maximise the output from labour and minimise losses such as those from theft or fraud. All of this required the evolution of systems

[1] Sidney Pollard, *The Genesis of Modern Management* (Harmondsworth, 1968), p. 11.
[2] Pollard, *Genesis of Modern Management*, p. 17; John F. Wilson and Andrew Thomson, *The Making of Modern Management: British Management in Historical Perspective* (Oxford, 2006), pp. 6-7.
[3] Wilson and Thomson, *Making of Modern Management*, p. 6.
[4] Ibid.

to plan and coordinate production and to measure and account for costs, depreciation and profits.[5] The notion of management implies not just a mastery of these issues and techniques but also the emergence of a class of individuals, often separate from owners, to carry those out.[6] The effectiveness of managers and the efficiency of their methods of organisation and control are a key part of this story. Good management is 'widely accepted as the factor of production most able to provide a competitive advantage'.[7]

Sidney Pollard's analysis focused attention on four key aspects of management during industrialisation: first, 'the creation and training of a class of managers; second, 'the recruitment, training, disciplining and acculturation of labour'; third, the use of accountancy, and other available, gathered or created information in the 'rational determination of …decisions' and finally the question of whether entrepreneurs operated by a 'theory and practice of "management", as distinct from merely making *ad hoc* decisions unrelated to information about their businesses.[8] Although Pollard warned against generalisation and did indeed provide some examples of highly effective management techniques, such as those utilised by Bolton and Watt, he concluded that the problems of management during industrialisation were many and while entrepreneurs were inventive, their energies were directed to keeping up with innovation and social change. Management techniques did not lead change and no over-arching managerial theory was developed during industrialisation.[9]

Wilson and Thomson extended the analysis and argued that Britain, so precocious in industrial development, remained behindhand when it came to the development of managerial techniques. Corporate structures developed in impressive ways in the US,

[5] Pollard, *Genesis of Modern Management*, pp. 14-16.
[6] Wilson and Thomson, *Making of Modern Management*, p. 3.
[7] Ibid., p. 5.
[8] Pollard, *Genesis of Modern Management*, p. 16.
[9] Ibid., pp. 313-315.

Germany and Japan driven by their greater reliance on large-scale enterprise. Too long mired in the small- or family-firm type of organisation, British management systems made little progress. Institutional and cultural factors which might have provided networks of support or underpinned a higher status for managers were weak in Britain. Moreover the personal and proprietorial capitalism that persisted tended to concentrate strategic decision-making in the hands of owners.[10]

Britain, therefore, has been argued to represent a case study in the managerial failure of large-scale business. This paper does not seek to overturn the overall findings of scholars like Pollard, Wilson and Thomson but it will establish that failure to consider the financialisation, as well as the industrialisation, of Britain restricts our understanding of the development of managerial capitalism. To that end it will first establish that the Bank of England, by the latter part of the eighteenth century, encompassed the complexities of a large-scale industrial enterprise and thus warrants comparison with the types of enterprises identified by Pollard. It will then explore the Bank's organisational and management structure against the above-mentioned four aspects of management. Because of the wealth of information available about the Bank of England and the longevity of the institution, the paper will focus on the early 1780s, a period that arguably saw a rise in industrial activity and a moment in time when the Bank itself undertook a serious and extensive examination of its own structures.

The Context

Despite its early development, longevity and complexity, the eighteenth-century Bank of England has not featured in histories of business development. Indeed, this period has been

[10] Wilson and Thomson, *Making of Modern Management*, p. 3; pp. 255-273.

characterised by Chandler and others as one of personal capitalism in which ownership and management were intertwined and an individual or a small group made strategic, functional and operational decisions.[11] This characterisation does not suit the Bank of England at any stage of its history.

Equally, the early development of management techniques and organisation have not featured in banking and financial histories. The enforcement of the Bank of England's monopoly and thus the prohibition of joint-stock banking until 1826 ensured that, until that point, banking operations remained small with simple organisational structures. In consequence, most historians of banking do not spend much time on the operational functions of the eighteenth-century incarnations of their subjects.[12] Even Temin and Voth who were more concerned with how banking operated still devoted little space to the question of how the Hoare family ran its business and they failed to write of its organisation in terms that stress any type of management structure.[13] John Brewer's account of fiscal administration is perhaps the closest we have to a discussion of white-collar management during the eighteenth century but it was not written, and has not been read, as an exploration of management techniques.[14]

Moreover, the Bank of England's organisation and management during the eighteenth century has been largely ignored. John Clapham offered some discussion of the Bank's

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[11] John F. Wilson, *British Business History, 1720-1994* (Manchester, 1995), p. 13 Chandler made the same arguments with regard to the US. Alfred D. Chandler Jr., *The Visible Hand: the managerial revolution in American business* (Cambridge Mass. and London, 1977).

[12] See for example, Margaret Ackrill and Leslie Hannah, *Barclays: The Business of Banking, 1690-1996* (Cambridge, 2008); S. G. Checkland, *Scottish banking: A history, 1695–1973* (London, 1975); W. F. Crick and J. E. Wadsworth, *A Hundred Years of Joint-Stock Banking* (London, 1958); L. S. Pressnell, *Country banking in the industrial revolution* (Oxford, 1956); R. S. Sayers, *Lloyds Bank in the history of English banking* (London, 1957).

[13] Peter Temin and Hans-Joachim Voth, *Prometheus Shackled: Goldsmith Banks and England's Financial Revolution After 1700* (Oxford, 2013), pp. 136-140.

[14] John Brewer, *The Sinews of Power: war, money and the English state 1688-1783* (London, 1989). For an older discussion of public administration see J. E. D. Binney, *British finance and public administration, 1774-1792* (Oxford, 1958).

internal structure and decision-making but the institution's historians generally have confined themselves to placing the Bank in its political and economic context, rather than analysis of its internal organisation.[15] The only one to pay more attention to the operation of the Bank was W. Marston Acres but his approach was rather more antiquarian than scholarly.[16] This neglect of the Bank's organisation and management is despite the wealth of sources that have been preserved in the institution's archive and fact that a series of Committees of Inspection were constituted from the 1780s and produced reports which can give us significant insight into the way the Bank operated.

This paper uses the reports of the Committee of Inspection, established in 1783, as a basis for the following discussion. The Committee was set up in the aftermath of the War of American Independence amidst accusations of corruption in the public finances and an attempt by Parliament to put its financial house in order through a Commission for Examining the Public Accounts. The Commission sat between 1780 and 1787, produced fifteen comprehensive reports and began the process of reform of the public finances.[17] The Bank of England did not fall under the purview of the Commission but did, in March 1783, set up its own Committee 'to inspect and enquire into the mode and execution of the Business as now carried on in [its] different departments'.[18] The Committee of three directors were empowered to investigate every aspect of business and inspect 'all such Books and Papers as they may think necessary'.[19]

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[15] Notably A. Andreades, *A History of the Bank of England* (London, 1909); John H. Clapham, *The Bank of England: A History* (2 Volumes. Cambridge, 1966); John Giuseppi, *The Bank of England: A History from its Foundation in 1694* (London, 1966).
[16] W. Marston Acres, *The Bank of England from within* (2 vols., London, 1931).
[17] Binney, *British Public Finance*.
[18] Bank of England Archives [hereafter BEA], M5/212, Minutes of the Committee of Inspection, fo. 1.
[19] Ibid.

The Inspectors were all not senior men at the Bank, Samuel Bosanquet had been a director for twelve years and Thomas Dea for eight years. The third Inspector, Benjamin Winthrop, had joined the directorship just one year before the Inspection.[20] Nonetheless, the cooperation the Inspectors received appears to have been complete and their approach was thorough. Their final report ran to over 80,000 words and it offers a comprehensive record of the various aspects of the Bank's business including the management of the national debt, procedures for discounting of bills of exchange, the printing and issuance of notes, and the management of the cash and customer accounts. The Committee of Inspection also made recommendations to improve efficiency and security.

The report firmly establishes that the Bank was precisely the kind of enterprise that Pollard was discussing. Indeed, by the end of the eighteenth century the Bank of England epitomised managerial capitalism. It was a joint-stock company with, what was by that time, a body of several thousand shareholders.[21] The Bank's dual role as banker to the state and manager of the state's debt must not distract us from its status as a private business answerable to its shareholders and dependent on remaining profitable.[22] The business operated under the directorship of a governor, deputy governor and 24 directors and, in 1783, it employed 321 permanent clerks. This was more than double the white collar staff of the East India Company, which in 1785 had a staff of 159 clerical workers in London, and ten times the numbers employed by the large insurance companies: the Royal Exchange and Sun

[20] Clapham, *Bank of England*, p. 205.
[21] According to Clapham's figures there were 2588 shareholders eligible to vote at shareholders' meetings in 1771 and 2465 in 1791. To be eligible to vote a shareholder had to have £500 or more in stock and to have held that stock for six calendar months. Clapham, *Bank of England*, p. 285.
[22] H.V. Bowen, 'The Bank of England during the Long Eighteenth Century, 1694-1820' in R. Roberts and D. Kynaston (eds.), *The Bank of England: Money, Power and Influence 1694-1994* (Oxford, 1995), 1-18.

Assurance companies.[23] Indeed, the late eighteenth-century Bank of England was undoubtedly the largest private employer of white-collar workers in Britain, if not the world.

The Bank was organised as two large departments: the Cashiers' Office and the Accountants' Office and each of those departments was sub-divided into more than a dozen offices. Within these offices each clerk tended to operate in a specialised capacity. Juniors were supervised by senior colleagues and work was heavily coordinated within and between offices to ensure effective working. The effect was to make the organisation of work at the Bank akin to that in a large factory.

The scale of the work undertaken by the Bank is indicated both by external comparisons and internal measures. Notably, as indicated in table 1, the Bank was managing two-thirds of the state's debt by the mid-eighteenth century. This was a serious commitment as it placed the Bank in a position of trust as the mediator between the state and its creditors.

[23] H. V. Bowen, *The Business of Empire: the East India Company and Imperial Britain, 1756-1833* (Cambridge, 2006), p 139; H. M. Boot, Real incomes of the British middle class, 1760-1850: the experience of clerks at the East India Company. *Economic History Review*, 52 (1999), p. 639. The EIC employed a total staff of over 1,700 if warehouse labourers and dock workers are included in the count. B. Supple, *The Royal Exchange Assurance: a history of British insurance, 1720-1970* (Cambridge, 1970), p. 70.

Table 1: Agencies handling the national debt c. 1764[24]

	Principal Sum	%age handled	Annual Payments	%age handled
Handled at the Bank	77,265,945	69.85	2,682,163	70.72
Handled at South Sea House	27,125,310	24.52	829,507	21.87
Handled at East India House	4,200,000	3.80	127,687	3.37
Handled at the Exchequer	2,022,582	1.83	153,236	4.04
Total National Debt	110,613,836		3,792,594	

Source: J. H. Clapham, *The Bank of England: a history* (Cambridge, 1966), p. 103.

It was unquestionably work for the state that created the most significant workload for the Bank's clerks. For example, the issue of 4% annuities during the War of American Independence resulted in the need to open 19,500 new accounts in one day.[25] The work of compiling a list of unpaid dividends for the Exchequer was so time-consuming that it could take up to 5 or 6 months.[26] More than 65,000 dividend warrants were issued for payment on 5 January 1783 and nearly 59,000 in April 1783.[27] The sheer scale of regular business also presented problems. The clerks who kept the K cash book, in which were recorded notes in long lists for the Exchequer, other public offices and some bankers, estimated that they made up around 20,000 notes a month.[28] Mr Isaac Pilleau estimated that 137,000 bills of exchange had been discounted in the course of 1782. Each discount required a posting to the account

[24] Amounts rounded to the nearest £1.
[25] BEA, M5/213, fos. 43-44.
[26] BEA, M5/213, fo. 62.
[27] Ibid., fo. 126.
[28] BEA, M5/212, fo. 91; fo. 99.

with and the account upon at the time of discount and from the two accounts at the time of payment.[29] The type of work conducted by the Bank and the need to ensure that records were updated by the end of each day necessitated the creation of what could be termed as two shifts within the Bank. Most men worked office hours from 9.00am or a little earlier to between 3.30 and 5.00pm. Other men continued their working day well into the evening to update the records to reflect the day's business. This process started at around 4.00pm and continued sometimes beyond 8.00pm.[30]

As this level of complexity suggests, the Bank could not operate without a significant and well-established management structure. The discussion will now turn to the Committee of Inspection reports and will use them to address Pollard's four aspects of modern management: the creation of a class of managers; the acculturation of labour; the use of information in decision-making; and the existence of a theory of management.

A class of managers

The management of the Bank's business began with a court of 24 directors, a deputy governor and governor elected from amongst the most prominent shareholders. These men were not paid employees, although the governor and deputy governor did receive an allowance of £200 each per annum, while each Director received £150 per annum.[31] The directors tended to be affluent businessmen, often bankers or merchants. Some did a very good job and others certainly did not. Some attended the Bank's meetings regularly and others did not. The Bank's bye-laws stipulated that not more than sixteen of those who had been directors in each year

[29] BEA, M5/213, fos. 8-9.
[30] See for example, BEA, M5/212, fo. 65.
[31] Acres, *Bank from Within*, p. 91.

could stand for re-election in the following year.[32] In practice, however, some directors stayed long in post, only taking short breaks when necessary to abide by the bye-laws. Clapham's analysis noted several who served for over thirty years including during the late eighteenth century, Edward Payne, a director from 1756 to at least 1794; Samuel Beachcroft who served, albeit with a couple of short breaks, from 1760 to 1796 and Richard Neave who began as a director in 1763 and continued until well into the nineteenth century.[33]

Although the Court of Directors met weekly, day-to-day management was dominated by the Bank's various Committees. The Committees were appointed to superintend business and make strategic decisions. Some came and went – like the Committee for Accounts – which operated only in the very early days of the Bank. The Committee in Waiting was constantly constituted to superintend the day-to-day running of the Bank. It was the Committee of Treasury, however, that was most prominent. It was made up of the governor, deputy governor and a selection of senior directors. It was regarded by one critic of the Bank, Alderman William Pickett, as a 'dark and concealed system of management' which sat and made decisions 'without the deliberation of the whole Court'.[34] The Minutes of the Courts of Directors might reflect this account. Clapham found that some 'important business' was not presented to the Court of Directors and the Minutes of Court offer little sense of active discussion of the business that was presented to them.[35] Yet, this was the nature of such documents and lack of detail in the record is not uncommon. Equally, there is no indication that the majority of shareholders were dissatisfied with the way the Bank was being managed. Indeed, William Pickett's aim in writing was to arouse the shareholders to some action after

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[32] Ibid., p. 90.
[33] Clapham, *Bank of England*, p. 199.
[34] William Pickett Esq., *An apology to the Public for a continued Intrusion on their Notice with an Appeal to the free and independent Proprietors of Bank Stock, demonstrating that it is highly proper for them to examine into the State of their Affairs* (London, 1788), p. 36.
[35] Clapham, *Bank of England*, p. 202.

a period in which very few participated in the Bank's democratic processes. Clapham estimates that, during the early 1780s, only around 100 to 130 of the more than 2,000 shareholders eligible to vote attended meetings. Thus, although the shareholders theoretically had the right to influence the management decisions taken by the Bank, they did not exercise it, at least not while things were going well and dividends were being paid regularly.

Below the directors sat the clerks who made the business happen. That there was a hierarchy at the eighteenth-century Bank of England in which men regarded themselves in positions above their colleagues is absolutely clear. The term management is used, albeit sparingly, in the Committee of Inspection's reports, indicating that there was an expectation that business was being organised and ordered. Indeed, the report speaks of the overall 'management' of the institution and refers several times to the 'management' of government debt undertaken on behalf of the state.[36] The term manager was not used at all but the report makes numerous mentions of the term supervisor and speaks of the superintendence of business. It also makes numerous mentions of the terms 'superior' and 'chief', with regard to chief men, and as a common description for the head of an office.[37]

The Bank's chief men found it straight-forward to articulate the structure and organisation of their departments. Thus when Abraham Newland, the chief cashier, was called before the Committee of Inspection 'he laid before them a List of the Several Officers in his department'. The list read:

No. 1. The InTellers who receive & pay Money.

[36] BEA, M5/212, fo. 1; fo.123; fo. 136; M5/213, fo. 173; fo. 179.
[37] BEA, M5/212 and M5/213, passim.

2. The OutTellers who receive Money for bills of exchange & notes of hand at the houses of the persons to whom they are address'd.
3. The Clerks in the Drawing Office where the Accounts are kept of those persons who keep cash at the Bank.
4. The Clerks in the Bill Office where the Accounts are kept of the bills & notes left by those persons who keep cash at the Bank to be receiv'd when due & placed to their accounts. And the Clearers who receive of the OutTellers the money collected daily by them for payment of bills.
5. The Clerks at the Cash Books where the Bank Notes & Bank Post Bills are made out & entered when issued & when paid.
6. The Clerks in the Discount Office
7. The Clerks in the Bullion Office.
8. The Clerks who receive the public money on acco^{t} of Loans.
9. The Clerks who attend the Receipt of his Majesty's Exchequer on the Bank's Acco^{t}.
10. The Care of the Treasure not in the Vaults under the inspection of the Cashiers.
11. The Clerks who pay the Interest to the Proprietors of Bank Stock & of such part of the national Debt as is transacted there.
12. The Clerks who check the same or the Warrant Office.
13. The Clerks who receive & pay money on acco^{t} of the Suitors in the Court of Chancery, &
14. The Clerks at the General Cash Book.[38]

[38] BEA, M5/212, fos. 3-4.

The Chief Accountant, Payne, did likewise for the offices under his control. In a modern business these structures would be expressed as organisational flowcharts. This 'descriptive, linguistic system' of analysis, however, is typical throughout the Inspectors' report and is the way inspections were conducted over the next century or so.[39] Consistent with that approach, the chief men's overviews were further explored in specific interviews about the way particular offices worked and interacted with each other. Thus:

> Mr Newland was called in & ask'd in what light he consider'd the Clearers:
> He said, the two Juniors are accountable to Mr Pamphilion the senior Clearer & are bound to follow his directions; their Office is separate from the Bill Office & they are accountable only to himself as Chief Cashier. Mr Newland inform'd the Committee that the OutTellers are not immediately under the Senior OutTeller so as to be oblig'd to follow his directions; but are accountable to Mr Church in the first instance. That the InTellers are immediately under Mr Campe, the senior, & he is expected to attend to their good behaviour.[40]

The men, therefore, understood that there was a rigid reporting structure outside of the directorship and use of words like 'accountable' and 'obliged' confirm that the senior men were responsible for the organisation and efficiency of their part of the business, were empowered to issue instructions and expected to be heeded. Equally, the Committee of Inspection overtly acknowledged the hierarchies that existed by always turning first to the senior men in each office. In doing so they validated the managerial system that had been put in place.

Although the evidence is limited, the records preserved in the Bank's archives can give a sense of the training and career development routes towards a senior position in the Bank.

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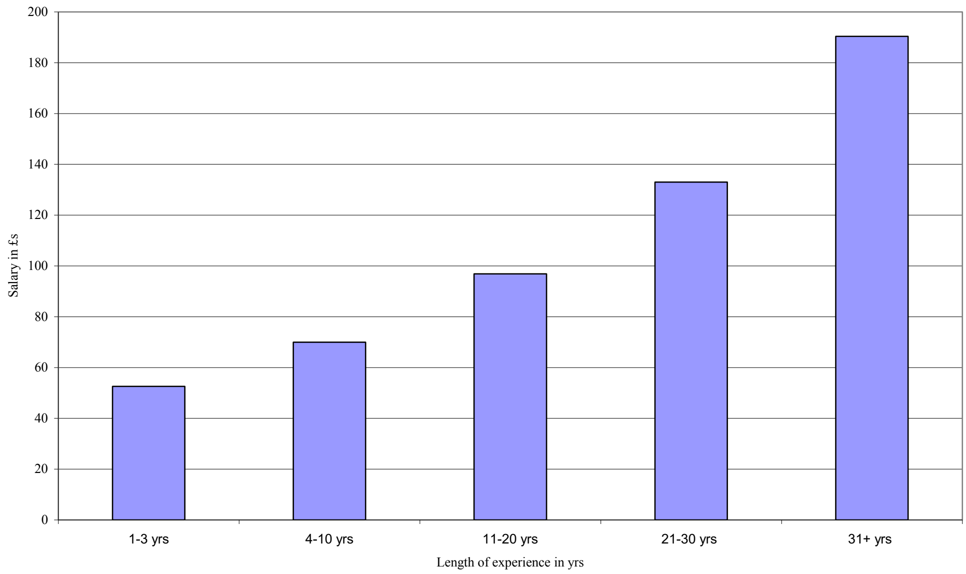
[39] A. McKinlay and R. G.Wilson, '"Small acts of cunning": bureaucracy, inspection and the career, c. 1890-1914', *Critical Perspectives on Accounting*, 17 (2006), p. 658.
[40] M5/212, fo. 29.

The Bank operated an internal labour market. Men were recruited only at entry level and on an initial £50 salary. It is not made clear how long it was before men were considered fully competent but it has been possible to trace the amount of time the men on the payroll in 1783 waited for their first salary increment. This shows that, on average, the first pay rise came after 3.5 years of service, which perhaps indicates a minimum period of service before clerks were considered fully competent in their work.[41] At the East India Company, clerks were asked to work for three years before receiving a salary, which offers some corroboration to the suggestion that this was a minimum requirement.[42] As the following charts demonstrate, salary certainly rose with age and experience.

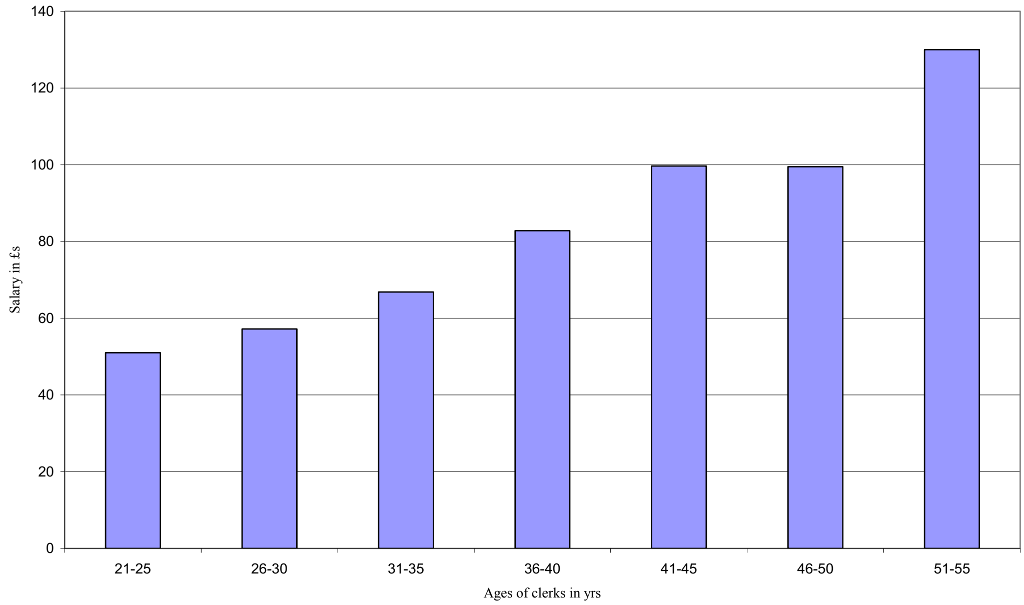
Figure 1: Salary of cohort of 1783 by length of experience



Source: BEA, E41, Staff salary ledgers, passim.

[41] Calculation based on a sample of 287 out of 321 cases.
[42] Bowen, *Business of Empire*, p. 141.

Figure 2: Salary of cohort of 1783 by age



Source: BEA, E41, Staff salary ledgers, passim.

Salaries also reflected a high status for the chief men and managers. In 1783 the highest paid men were the chief accountant, John Payne and Abraham Newland, the chief cashier, both of whom earned £250 per annum. Payne's deputies earned £170 p.a. and Newland's deputies were paid £200 a year. The average salary in the Accountants' office was £87 per annum and the average in the Cashiers' office was £101 per annum, a differential which reflected the slightly different service profiles of the clerks in the two departments. The Bank's total clerical wage bill for 1783 was £31, 085.[43]

Although somewhat anecdotal, the career trajectory of Mr Walsh of the 3 per cent Consols office, as reported to the Committee of Inspection, is instructive about how men might have learned their trade and progressed into senior positions. He told the Committee;

> That he had been 12 years in the Bank, & for the last 4 years one of the 3 Chief Clerks of this Office, being appointed Assistant to Mr Miller & Mr Vickery. That

[43] BEA, E41, passim.

> when he first came into the Bank, he was placed in the department of the Chief Cashier where he went through the Offices of OutTeller & InTeller, & was some time at one of the Cash books & assisted in the Bullion Office at the time of taking in the deficient Gold Coin; he was afterwards removed into the Accountants Office, which he went through; & from thence to the 3 P C^{t} Consols, where he has seen every part of the business before he was appointed one of the Chief Clerks.[44]

Walsh's description is in contrast to the experiences of his counterparts at the East India Company who often ended their careers in the same office in which they began and in many cases had no direct experience of the Indian affairs that they managed.[45]

There is no way of ascertaining whether Walsh's rise to seniority was typical of the Bank's clerks but we can argue that his expertise was gained on the job and at the Bank's expense, rather than being a product of external training or indeed education. As Pollard argues, this was a time when 'formal management training was so rare as to be negligible'.[46] Equally, general education provision more generally was poor and did not fit men well for clerical work.[47] Nonetheless, clearly technical competence could be learned on the job and Mr Walsh's career history seems to demonstrate precisely that.

Yet detailed knowledge of working practices and systems is not the same as managerial skill. Pollard's analysis revealed that many eighteenth-century entrepreneurs, like James Watt, had 'excessive difficulty in finding intelligent managing clerks'.[48] This would seem to suggest that finding men who had the requisite skills, and in whom trust could be reposed, was not straight-forward. With regard to the Bank, the Inspectors' report is generally silent on individual men's abilities. Nonetheless, a separate notebook kept by one of the Inspectors,

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[44] BEA, M5/213, fo. 78.
[45] Bowen, *Business of Empire*, p. 141; p. 143.
[46] Pollard, *Genesis of Modern Management*, p. 147.
[47] David Mitch, 'Education and skill of the British labour force' in R. Floud and P. Johnson (eds.), *The Cambridge Economic History of Modern Britain. Volume I: Industrialisation, 1700-1860* (Cambridge, 2004), pp. 346-47.
[48] Quoted in Pollard, *Genesis of Modern Management*, p. 160.

Samuel Bosanquet, can give some revealing insights. Bosanquet wrote of Mr Walsh as 'very intelligent, very able, and the only one fit for a head yet seen'. Mr Walton of the 3 per Cent Reduced Office was pronounced to be a 'very clever hand, very sensible and capable'. Mr Priaulx was judged to be 'allway [sic] ready to act, & very capable'. However, there was not universal praise for the senior men. Mr Bridges, principal of the dividend warrants was condemned as 'a chattering fellow, not fit to be placed in any more conspicuous light'. Mr Wilde was noted as having ability but apparently he 'drinks & then [gets] muddled & lost'.[49] Ability and fitness to lead, therefore, were not skills automatically to be found even in men who had risen to the more senior ranks.

The acculturation of labour

Pollard regarded the recruitment and 'rational and methodical management of labour' as a central problem facing entrepreneurs during industrialisation.[50] He cited contemporary arguments that the workforce available to entrepreneurs was temperamentally unsuited to long hours spent in monotonous work. Workers were regarded as 'transient, marginal and deviant'.[51] Thompson too wrote of contemporaries' attempts to inculcate a new form of time-discipline into workers.[52] Both Thompson and Pollard argued that factory owners were battling to enforce a wrench from a past in which labour in the domestic workshop allowed the worker more freedom and autonomy. Yet, in spite of the importance attached to the acculturation of labour, Pollard investigations suggested that factory owners made no scientific breakthrough here. Problems were met and resolved through improvisation. Some,

[49] BEA, M5/471, Memorandum book of Samuel Bosanquet, 1783-1791.
[50] Pollard, *Genesis of Modern Management*, pp. 189-90.
[51] Quoted in ibid., p. 190.
[52] E. P. Thompson, 'Time, Work-Discipline and Industrial Capitalism', *Past and Present*, 38 (1967), pp. 56-97.

like Robert Owen were supportive of their workers. Others relied on more draconian methods, with corporal punishment, especially of child workers, fines or even dismissal being meted out as a means of maintaining discipline.[53]

The Bank was undoubtedly a more pleasant working environment than the factory, it attracted workers of a higher social status and offered better long-term prospects, including a pension for those who were unable to work though ill-health or who sought to retire in later life. More recent studies of working time also demonstrate that many were already working long days prior to the rise of the factory system. Voth's study of time and work in London suggests an average working day that started between 6.00 and 7.00am and continued until around seven in the evening.[54] We may be confident, therefore, that the Bank of England was drawing on a pool of workers, at least some of whom were attuned to long working days and were incentivised to at least do the minimum required to keep their positions.

Yet, there were also unpleasant aspects to labour at the Bank. Sitting cramped over ledgers did indeed take a toll on general health and eyesight.[55] There is some evidence to suggest that conditions could be unpleasant in some offices. It was reported to the Inspectors that 'the Library is so cold & damp for the greatest part of the year, that the Clerks are afraid of continuing there the necessary time for doing the business required'.[56] On another occasion it was noted that the Transfer Offices 'not having any chimnies or other apertures for the admission of fresh Air, are so unwholesome as greatly prejudice the health of the

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[53] Sidney Pollard, 'Factory Discipline in the Industrial Revolution', *Economic History Review*, 16 (1963), pp. 254-271.
[54] Hans-Joachim Voth, 'Time and Work in Eighteenth-Century England', *Journal of Economic History*, 58 (1998), p. 33.
[55] Rosenhaft notes the impact on occupational health of clerical work. Eve Rosenhaft, 'Hands and Minds: Clerical work in the first "information society"', *International Instituut voor Sociale Geschiedenis*, 48 (2003), p. 39.
[56] BEA, M5/213, fo. 164.

Persons employed in them'.[57] Occupational health might also have been affected by stress. The work was intensive and errors could have serious financial consequences.

Nonetheless, finding men prepared to risk the unpleasant features of work at the Bank in order to gain the potential rewards was not difficult. The directors might have filled each vacancy several times over. However, finding men who were able to perform the work was more problematic and thus, by the end of the eighteenth century the Bank had advanced procedures for recruitment. Its policies ensured that all new employees had been recommended by one of the directors of the Bank. While this personal introduction did not guarantee fitness for a position, the Bank followed up by testing new entrants prior to acceptance. Each applicant was subjected to tests of their ability to write well, to add columns of figure and to be able to deal with money.[58] Some candidates did well but, where systematic examination is possible, there is revealed a clear gap between the skills possessed by the men applying for jobs at the Bank and the skills required by the institution.[59]

The Bank addressed the skills gap by through training and development, as we have seen, but principally through specialisation of functions. Most men working at the Bank at junior levels spent their days engaged in mundane and repetitive work. They did the same task over and over again throughout the day and, we can assume, repetition brought competence. Arguably what can be observed here is actually a process of 'deskilling' of what we typically might think of as skilled work. Breaking such work down into its component parts simplified it and made it easier to train individuals to do it well. A similar process apparently

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[57] Ibid., fo. 22.

[58] For a full account of the recruitment process see Anne L. Murphy, 'Writes a fair hand and appears to be well qualified': recruiting Bank of England clerks at the start of the nineteenth century', *Financial History Review*, 22 (2015), pp. 19-44.

[59] Ibid.

occurred in industrial production where, it is suggested, dividing processes into specialised steps meant considerably less investment in skill acquisition.[60]

Specialisation was not a solution for all the Bank's potential labour-related issues. It was, of course, particularly vulnerable to errors and fraud. One way of combatting those risks was to create a culture of loyalty among clerks. At their election, or initial employment, each clerk was required to swear an oath of fidelity and to commit to keeping the Bank's business private. Technically clerks were re-elected each year and, therefore, renewed their oaths each year as well.[61] The Bank did not just rely on its clerks' sense of loyalty. Each clerk was also expected to provide the Bank with personal security backed by an independent bond guarantor. These bonds started at £500 for junior clerks and rose to a maximum of £5,000, depending on responsibility. The Bank was diligent both in maintaining up-to-date records for guarantors and pursuing compensation in the event of significant losses resulting from errors or dishonesty.[62] For less serious offences or occasions when the Bank incurred financial losses through negligence, clerks could find their wages stopped in order to compensate the institution.

With regard to day-to-day work discipline, a particular problem in the factory was ensuring the regularity of work and attendance. Pollard cites high turnover of labour and frequent tardiness and absence.[63] Like all large-scale workshops and early factories, the Bank kept an appearance book to record the clerks' arrival times. Matthias Alcock, the principal door-keeper and the man charged with keeping that book, told the Inspectors that he drew 'a line every day about 10 minutes after 9, to mark the names of those who do not come to

[60] Mitch, 'Education and skill', p. 347.
[61] Acres, *Bank from Within*, p. 132.
[62] Ibid., p. 133.
[63] Pollard, *Genesis of Modern Management*, p. 213.

their time'.[64] Tardiness was not ignored and the Inspectors reinforced the expectation of punctuality. In their interviews with each senior man, they asked for an account of their staff which included details of their time-keeping. Thus Mr Clifford, head of the Drawing Office, informed the Committee that his men were 'very regular & well qualified for their business, which was very necessary, for matters of immense consequence passed through their hands'.[65] Indeed, all heads except for Mr Vickery praised the men under their supervision. Vickery, on the other hand, when interviewed by the Committee said, 'that a custom prevailed among the Clerks of going out frequently during the day without making application to him for leave: & that some do give in their names as having had leave till 10 in the morning, without his knowledge'.[66] Vickery was known to have poor working relationships with the men under him yet his account of petty absenteeism was probably more accurate than his colleagues' accounts of absolute compliance. Although the 1783 Committee did not find much to complain of, later Committees did find regular tardiness and absence among some men.[67] There is, however, no indication that the Bank could not function or was materially affected because of nonattendance.

Although the Bank of England had 'sticks' with which to enforce compliance to its rules, there is little evidence that they were used except in the most serious of cases. Only thirteen dismissals can be traced among those employed in 1783, just over 4% of the total number of employees.[68] Moreover, while Pollard emphasised the imposition of strict discipline in factory work, more recently scholars have focused on communication and negotiation between

[64] BEA, M5/213, fo. 165.
[65] BEA, M5/212, fo. 85.
[66] BEA, M5/213, fo. 64.
[67] Acres, *Bank from Within*, pp. 356-57.
[68] BEA, E41, passim.

employees and employers.[69] There is evidence of this in the Committee of Inspection's reports as well. In particular, when clerks in the Accountants' Office, who were employed in posting bills of exchange, used the occasion of the Inspection to petition for an increase in pay. Their case was taken up by the Inspectors who agreed that they were indeed paid 'very inadequately to the additional trouble & labour bestowed by them in doing this Business' and 'recommended to the Governor & Committee of Treasury to take their case into consideration'.[70] The acculturation of labour, therefore, was a complex process in which punishment or threat of punishment coexisted with the support of, and negotiation with, workers.

Use of gathered information in rational decision-making

In his discussion of rational decision-making, Pollard focused on accounting. Accounting, based primarily on double-entry book-keeping, was well-established in eighteenth-century Britain and used by individuals at all social strata. The plebeian farming family, the Lathams, for example, kept an account book throughout the mid-eighteenth century.[71] For the Bank of England accounting was a key technology.[72] The institution had been using highly complex bookkeeping systems since its inception in 1694. Including the General Ledger and Stock and Annuity Ledgers, the Bank maintained a wide variety of cash books, account ledgers, ledgers relating to the issuance of bank notes, lists of lost notes, details of discounted bills, bullion

[69] Kate Smith, *Material Goods, Moving Hands: perceiving production in England, 1700-1830* (Manchester, 2014), pp. 86-87.
[70] BEA, M5/213, fo. 48.
[71] Alice Dolan, 'The Fabric of Life: Time and Textiles in an Eighteenth-Century Plebeian Home', *Home Cultures: The Journal of Architecture, Design and Domestic Space*, 11 (2014), pp. 353-374.
[72] For a discussion of bookkeeping as a key technology, especially in European state-formation, see Pepijn Brandon, 'Accounting for Power: Bookkeeping and the Rationalization of Dutch Naval Administration' in Jeff Fynn-Paul ed. *War, Entrepreneurs and the State in Europe and the Mediterranean 1300-1800* (Leiden, 2014), p. 151.

ledgers and a variety of different registers covering all aspects of its business.[73] There is evidence that the books, and abstracts taken from them, were checked by the various Committees and the Court of Directors and used in decision-making. Thus with regard to bills it was noted that they 'must pass the Committee in waiting, with the assistance of any other Directors that chuse to attend, & are not carried to the credit of the discounter until they have pass'd the Court on the following day'. Abstracts then prepared were 'laid before the Court on Thursday, together with another made out alphabetically expressing the sums that go off'.[74] Likewise systems of accounts were used as checks and balances. Thus the accounts of the Court of Chancery, which were managed by the Bank, required 'a general balance being taken every year in the month of October, when the Account is pricked over, & agreed with the Chancery Account: after which it is signed by the Head of this Office, & then certified by the Chief Accountant of the Bank, when it is sent to the Accountant General of the Court of Chancery, who delivers it to the Lord Chancellor'.[75]

The very existence of these systems say something of the Bank's precocity as an eighteenth-century business. The level and complexity of its work could not be managed without robust accounting systems. This is especially clear in the management of the national debt and it sets the Bank apart certainly from some departments of the state which were sometimes chaotic.[76] Yet, Pollard's underlying question was whether information gathering and analysis was used in the control and development of the business. Arguably the establishment of a system of Inspection at the Bank provides insight into this issue that moves

[73] For a short digest of the surviving ledgers see Clapham, *Bank of England*, I, p. 303.
[74] BEA M5/212, fo. 53.
[75] BEA, M5/213, fo. 115.
[76] Brandon, 'Accounting for Power', p. 152.

beyond accounting systems. Indeed, the Committee's reports give us several excellent examples of the use of information in rational decision-making.

The Inspectors were not just engaged in an inspection of process, they were interested in formulating improvements. In one case, they dedicated much time to finding 'safe' systems for the storage of notes and bills. Indeed, they explained in their first report that 'To form a plan that may put so very large a property in a State of Security; without at the same time impeding the established course of business; has engaged much of our attention'.[77] The issue was simple. Notes and bills had to be to hand throughout the day and thus they were removed from the safes each morning and then lay

> exposed through the whole course of the day, not only to every Clerk in that Office…but also to many others who transact business near the place; & even to Persons unconnected with the Bank, whose occasions frequently require their being admitted into the Bill Office.[78]

Ultimately a solution was found to the problem but it is the process of identifying the problem that is of most interest. It came to light through the Inspection and was highlighted, as the Inspectors' report demonstrates by the evidence of 'Mr Church, Mr Mayor and Mr Bourne, the 3 Chief, & of Mr Holland, one of the subordinate Clerks in the Bill Office'.[79]

In addition to their attempts to improve security, the Inspectors committed time to exploring the most efficient means of doing the work. In this they worked on the same principles of gathering information but they also consulted the clerks about possible solutions. Thus, a plan to revise systems of issuing banknotes was discussed with Mr Newland, the chief cashier, and put before several of the senior men before being implemented. Mr Gething commented that 'he did not at present see any objection to its being adopted, &

[77] BEA. M5/213, fo. 72.
[78] BEA, M5/212, fos. 70-71.
[79] Ibid., fo. 70.

thought under proper alterations it was very feasible'.[80] Mr Gardner, on the other hand, was recorded to have offered objections to the plans but according to the Inspectors' account 'did not state any one which seemed well founded: his objections arising principally from the apprehension of having so considerable a Charge committed to his care'.[81]

The most significant set of changes implemented by the Inspectors, however, was in the Transfer Offices where, it was argued, customers were being inconvenienced by being kept waiting for long periods of time. This apparently had been the cause of many complaints.[82] Reorganising the timings of the various tasks in the Transfer Offices was the proposed solution to this problem and here the solutions came from the clerks themselves. Thus, Mr Reeves, when called before the Inspectors suggested that the

> time for putting in Transfers might be restrained to ½ past 12 o'clock… no objections would be raised to it by the Principal Brokers: for it would facilitate their attendance at the East India house & South Sea house, where the time of Transfer is from 12 'till 1 o'clock, which at present interferes very much with their business at this house.[83]

This demonstrates both Reeves' familiarity with the internal workings of the Bank and the wider rhythms of the City but also the Inspectors' willingness to rely on the expertise they found among the Bank's clerks.

The flows of information and expertise between sites and individuals is being emphasised in more recent scholarship.[84] In this respect, perhaps the Bank's directors were doing little different to other employers in listening to their workers and acting on their analyses of problems. Nonetheless, Pollard's assessment of the use of accountancy and gathered information in business was 'largely negative'. His view was that business owners

[80] Ibid., fo. 111.
[81] Ibid., fo. 112.
[82] BEA, M5/213, fo. 68.
[83] BEA, M5/212, fo. 55.
[84] See for example Margaret C. Jacob, *Scientific Culture and the Making of the Industrial West* (Oxford, 1997), Smith, *Material Goods, Moving Hands*.

encountered technical difficulties in compiling data and the monopolistic advantages that many entrepreneurs enjoyed during the late eighteenth century meant that few had to take precise account of their costs or to consider ways of cutting those costs or improving efficiency.[85] The Bank, on the other hand and although also enjoying a significant monopolistic advantage, was nonetheless concerned with improving the efficiency of its business and in order to do that, it was, from the point of the first Inspections in 1783 and after, gathering, and acting upon, evidence.

A Theory of Management

The discussion so far has established that, at the eighteenth-century Bank of England, there existed a class of supervisors and managers, that there were attempts to acculturate labour and that information was collected, analysed, consulted upon and acted upon in attempts to improve the institution's efficiency and security. To argue that there is evidence of a theory of management, however, requires us to establish that the Bank's directors and senior men were doing more than what Wilson and Thomson describe as 'the traditional or rule-of-thumb' approach to management, defined as considering issues as they arose and devising solutions based on past experience.[86] A more systematic approach to management, again using Wilson and Thomson's useful definitions, requires direction and control from above, the definition of management jobs, dealing with problems in a systematic fashion and seeking solutions in the 'experience and thinking of others' and in encouraging an exchange of information.[87]

[85] Pollard, *Genesis of Modern Management*, p. 245.
[86] Wilson and Thomson, *Modern Management*, p. 31.
[87] Ibid.

While the foregoing discussion has demonstrated that there was direction of the day-to-day business of the Bank and that solutions to problems that arose were sought in knowledge exchange, it might be argued that the overall development of business was not strategic. Expansion and contraction usually occurred in response to the demands of a state at war. The Bank's business, its staff and the space it occupied all expanded at times when the burdens of state debt increased. Since that was usually at the onset of war, it was impossible to plan for such eventualities. Yet, if the Bank did not undergo planned, strategic expansion into a larger scale of business and more intimate connections to the state, there is still evidence that the Inspectors, at least, had a very strong sense of a wider purpose to their business. In their final report they asserted 'a religious Veneration for the glorious fabrick [of the Bank, and] a steady and unremitting attention to its sacred Preservation'.[88] It was their view that given

> the immense importance of the Bank of England not only to the City of London, in points highly essential to the promotion & extension of its Commerce, but to the Nation at large, as the grand Palladium of Public Credit, we cannot but be thoroughly persuaded that an Object so great in itself & so interesting to all Ranks of the Community, must necessarily excite care & solicitude in every breast, for the wise administration of its Affairs, but principally and directly in theirs who are entrusted with the immediate management of them.[89]

The act of reflection that was the year-long inspection also led to the identification of more fundamental issues relating to the management of the Bank which indicated a desire to give more definition to managerial jobs and to be more systematic in the management of staff. The Inspectors' recommendations included, 'a better defined system of subordination' among the clerks with the intention of creating 'a chain of obedience, from the Juniors

[88] BEA, M5/213, fo. 179.
[89] Ibid., fos. 178-79.

towards the Heads of their respective Offices'.[90] Essentially the Inspectors were demanding that the Bank's managers should become more managerial and the more junior men should pay more attention to the directions of their superiors. This issue principally arose because the Inspection uncovered the practice of the most senior men leaving the Bank every day at around 3.00pm and thus leaving some of the most important aspects of the business, including securing the records and the buildings overnight, in the hands of the more junior men. The Inspectors defined this as 'extraordinary'.[91] And they asserted, 'Time may have sanctified the custom, [but] the reverse of it would have appeared a much more natural regulation: for surely if in any situation of Trust a compleat superintendence is desireable, it must be more immediately necessary where the Trust is of such infinite importance'.[92]

In addition to requiring greater managerial diligence from the senior men, the Inspectors reflected upon how such men rose to prominence and recommended that the directors on appointing committees 'pay great attention to the abilities & characters of those they nominate; & at the time of Election, to their performances: for though amongst so great a number it cannot be expected that all shall be equally capable, yet care should be taken not to elect such as are apparently liable to exception'.[93] Promotions also required greater consideration according to the Inspectors. While the system that pertained at the time of the Inspection ensured that promotion was chiefly governed by seniority and that was regarded as 'fair & equitable', the Inspectors noted that it 'will not apply in all cases, nor ought it to be resorted to where particular Talents are required'.[94]

[90] Ibid., fo. 173.
[91] Ibid.
[92] Ibid., fo. 174.
[93] Ibid., fos. 174-75.
[94] Ibid, fo. 175.

Thus it is clear that although the Inspectors may not have been formulating a theory of management in their final report, much thought had been given to the factors that would contribute to the effective running of the institution. The conclusions reached encompassed an acknowledgement that the people in managerial roles mattered. Those men who rose to high office had to be selected on merit not just seniority, they had to have authority and they had to be prepared to demonstrate authority.

Conclusion

The system of inspection at the Bank of England once implemented was not halted. Permanent committees were established for monitoring the most important of its functions. From the start of the nineteenth century, a closer eye was kept on the recruitment and management of staff and the implementation of what was by this time a set of written regulations governing each office. The result of this was tighter internal controls and the maintenance of the efficiency for which the Bank was already justly feted. If we seek the genesis of modern management, therefore, the Bank surely offers a place to start.

Yet, one issue does remain and that is the question of broader impact. Good managerial practice may have begun to develop at the Bank but there is no evidence at all that those practices were disseminated or adopted outside the institution. It is, however, possible to argue that the institution's efficiency and effectiveness were observed and noted by the investing public hence making a contribution to the development of trust in the British public finances. This point has been acknowledged in the work of scholars like Brewer and Daunton, who have focused on the ways in which efficient systems of taxation underpinned the workings of the national debt.[95] It is time that scholars turned their attention in this respect to the British state's systems of borrowing. Taxation was essential certainly but borrowing provided the immediate funds needed in emergent situations like war. Taxation could be enforced, lending was voluntary. To understand the success of the British state, it is necessary to understand much more fully how it borrowed. Giving attention to the processes by which it managed that borrowing is an important, and hitherto neglected, part of the story.

REFERENCES

Ackrill, M. and Hannah, L., *Barclays: The Business of Banking, 1690-1996* (Cambridge, 2008).

Acres, W. M., *The Bank of England from within* (2 vols., London, 1931).

Andreades, A., *A History of the Bank of England* (London, 1909).

Bank of England Archives, E41, BEA, E41, Staff salary ledgers.

Bank of England Archives, M5/212 and M5/213, Minutes of the Committee of Inspection.

Bank of England Archives, M5/471, Memorandum book of Samuel Bosanquet, 1783-1791.

Binney, J.E.D., *British finance and public administration, 1774-1792* (Oxford, 1958).

Boot, H. M., Real incomes of the British middle class, 1760-1850: the experience of clerks at the East India Company. *Economic History Review*, 52 (1999), pp. 638-668.

Bowen, H. V., 'The Bank of England during the Long Eighteenth Century, 1694-1820' in R. Roberts and D. Kynaston (eds.), *The Bank of England: Money, Power and Influence 1694-1994* (Oxford, 1995), 1-18.

Bowen, H. V., *The Business of Empire: the East India Company and Imperial Britain, 1756-1833* (Cambridge, 2006).

Brandon, P., 'Accounting for Power: Bookkeeping and the Rationalization of Dutch Naval Administration' in Jeff Fynn-Paul ed. *War, Entrepreneurs and the State in Europe and the Mediterranean 1300-1800* (Leiden, 2014), pp. 151-169.

Brewer, J., *The Sinews of Power: war, money and the English state 1688-1783* (London, 1989).

Chandler, A. D., *The Visible Hand: the managerial revolution in American business* (Cambridge Mass. and London, 1977).

Checkland, S. G., *Scottish banking: A history, 1695–1973* (London, 1975).

Clapham, J. H., *The Bank of England: A History* (2 Volumes. Cambridge, 1966).

Crick, W. F. and Wadsworth, J. E., *A Hundred Years of Joint-Stock Banking* (London, 1958).

Daunton, M., *Trusting Leviathan: The Politics of Taxation in Britain, 1799-1914* (Cambridge, 2001).

[95] Brewer, *Sinews of Power*; M. Daunton, *Trusting Leviathan: The Politics of Taxation in Britain, 1799-1914* (Cambridge, 2001).

Dolan, A., ‘The Fabric of Life: Time and Textiles in an Eighteenth-Century Plebeian Home’, *Home Cultures: The Journal of Architecture, Design and Domestic Space*, 11 (2014), pp. 353-374.

Giuseppi, J., *The Bank of England: A History from its Foundation in 1694* (London, 1966).

Jacob, M. C., *Scientific Culture and the Making of the Industrial West* (Oxford, 1997).

Mitch, D., ‘Education and skill of the British labour force’ in R. Floud and P. Johnson eds., *The Cambridge Economic History of Modern Britain. Volume I: Industrialisation, 1700-1860* (Cambridge, 2004).

McKinlay, A. and Wilson, R. G., ‘“Small acts of cunning”: bureaucracy, inspection and the career, c. 1890-1914’, *Critical Perspectives on Accounting*, 17 (2006), pp. 657-678.

Murphy, A. L., ‘Writes a fair hand and appears to be well qualified’: recruiting Bank of England clerks at the start of the nineteenth century’, *Financial History Review*, 22 (2015), pp. 19-44.

Pickett, W., *An apology to the Public for a continued Intrusion on their Notice with an Appeal to the free and independent Proprietors of Bank Stock, demonstrating that it is highly proper for them to examine into the State of their Affairs* (London, 1788)

Pollard, S., ‘Factory Discipline in the Industrial Revolution’, *Economic History Review*, 16 (1963), pp. 254-271.

Pollard, S., *The Genesis of Modern Management* (Harmondsworth, 1968).

Pressnell, L. S., *Country banking in the industrial revolution* (Oxford, 1956).

Rosenhaft, E., ‘Hands and Minds: Clerical work in the first “information society”’, *International Instituut voor Sociale Geschiedenis*, 48 (2003), pp. 13-43.

Sayers, R. S., *Lloyds Bank in the history of English banking* (London, 1957).

Smith, K., *Material Goods, Moving Hands: perceiving production in England, 1700-1830* (Manchester, 2014).

Supple, B., *The Royal Exchange Assurance: a history of British insurance, 1720-1970* (Cambridge, 1970).

Temin, P. and Voth, H., *Prometheus Shackled: Goldsmith Banks and England’s Financial Revolution After 1700* (Oxford, 2013).

Thompson, E. P., ‘Time, Work-Discipline and Industrial Capitalism’, *Past and Present*, 38 (1967), pp. 56-97.

Voth, H., ‘Time and Work in Eighteenth-Century England’, *Journal of Economic History*, 58 (1998), pp. 29-58.

Wilson, J. F., *British Business History, 1720-1994* (Manchester, 1995).

Wilson, J. F. and Thomson, A., *The Making of Modern Management: British Management in Historical Perspective* (Oxford, 2006).

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