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RESEARCH ARTICLE

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# Cash to accruals accounting in British central government: A journey through time

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## Abstract

Departmental and central government accountability to the UK Parliament was based principally on cash transactions for a period of over 300 years commencing with the Glorious Revolution of 1688. Beginning in the second decade of the 19th century, recurrent proposals for the replacement of cash accounting by accruals accounting were founded on the conviction that 'commercial' accounting practices provided a more effective basis for performance measurement, financial control and public accountability. This paper studies the progress of these initiatives through time, with Treasury resistance to the adoption of private sector-type accounting practices by administrative departments recognised as a persistent and effective barrier to innovation up until the 1980s.

KEYWORDS

cash accounting, commercial accounting, new public management, resistance to change, Treasury

## 1 | INTRODUCTION

New public management (NPM) is predicated on a belief in the superiority of information systems developed in the private sector. More specifically, the idea which gained momentum in the 1980s was that modernisation of central government required 'the adoption of business-like management and accounting instruments' (van Helden, 2005, p. 9). To achieve that outcome, so the argument went, 'traditional' cash accounting systems needed to be replaced by accruals accounting (Christiaens & Rommel, 2008, p. 59; see also Hodges & Mellett, 2003). The intention to move to 'resource accounting' – the public sector synonym for accruals accounting (BPP, 1994a, p. 1) – throughout UK central government was broadcast by Kenneth Clarke in his November 1993 Budget Statement (Hansard, 30 November 1993, vol. 233, col. 933):

> Government accounting for public spending has become archaic. In my view, the time has come to move to a system of accounting which identifies more clearly the cost of resources. This will put Departments on to a similar accounting basis not only to commercial organisations but to many other parts of the public sector.

A Green Paper and a White Paper, each entitled *Better Accounting for the Taxpayer's Money: Resource Accounting and Budgeting in Government*, followed, respectively, in 1994 and 1995. The 1994 Green Paper argued that Resource Accounting and Budgeting (RAB) would provide data capable of better informing decision making by departmental managers by placing 'emphasis on what departments produce rather than on what they have available to spend' (BPP, 1994a, p. 1).[1] The limitations of cash accounting were judged to be most pronounced in the case of non-recognition of capital assets: 'With cash accounting, spending on what is used over many years is recorded only when the money is spent. No subsequent account is therefore taken of whether the asset is still in use, has reached the end of its useful life, or has been sold' (BPP, 1994a, p. 4). Such practices were ridiculed by *The Times* columnist, Robert Bruce (1995, p. 28):

> There are some things that appear so extraordinary that you honestly cannot believe they are true. One of these is that the majority of the accounting systems of the civil service, of the central government, of the mighty ministries which power everything from the economy to battleships are run on accounting principles and methods that are marginally less sophisticated than those of your local cricket club.

Announcing the full implementation of RAB for the fiscal year 2001–2002, the Comptroller and Auditor General, Sir John Bourn, highlighted this major discontinuity in public sector accountability: 'After 135 years, 2000–2001 marks the final year of appropriation accounts, which were first introduced by Mr. Gladstone as a means of recording public expenditure and reporting it to Parliament' (BPP, 2002, p. i). The phased introduction of resource accounting over the period 1993–2002 is charted by Heald (2005, p. 165).

To take the move from cash to accruals accounting through to its logical conclusion, the 1990s also saw the emergence of 'public and Parliamentary interest in "whole government accounts" bringing together [i.e. consolidating] the income and expenditure, and assets and liabilities of central government' (BPP, 1995, para. 32). This further change, according to Bourn (BPP, 1995, para.32), 'would allow the public and Parliament to see clearly how taxes have been spent, and the assets and the liabilities held on their behalf by central government'. Progress made in formulating Whole of Government Accounts over the period 2001–2007 is studied by Chow et al. (2007), with the first set of accounts covering the entire public sector[2] published in November 2011 for the fiscal year 2009–2010 (Jones et al., 2013, p. 439).

## 1.1 | Research issue, sources and structure

Prior study of the infusion of 'business-like' methods into the affairs of central government has focused principally on recent events. This paper employs a much wider time-frame – roughly 200 years – to study the transition from cash to accruals accounting so as to enable recognition of income and expenditure arising during a fiscal year and assets owned and liabilities outstanding at the end of an accounting period. The further purpose of this study is to explain when, where and why change occurred or did not take place. The focus is on accounting information used, at departmental level, for the purpose of financial control and made available periodically (usually annually) for parliamentary and public scrutiny.

Scott et al. (2003, p. 104) have argued 'the need for an extended historical perspective to understand contemporary states of accounting'. More specifically, in the context of the present paper, Christensen and Parker (2010, p. 246; see also Ryan, 1998) insist that 'the question of how the idea of P[ublic] S[ector] A[ccrual] A[ccounting] successfully took hold, calls for histories from various jurisdictions'. In responding to these appeals, we will reveal that there is nothing inevitable in the course of history – that it does not evolve in a linear pattern towards its present state (Ryan, 1998, p. 521). Instead, this study portrays the present state of the accounting craft as 'historically contingent rather than immutable and necessary' (Miller & Napier, 1993, p. 640) with new ways of doing things emerging under local, time-specific conditions.

The methodology employed is that used in traditional historical studies, namely the explained narrative based on an in-depth interrogation of primary and secondary sources (Previts et al., 1990). In addition to relevant prior research findings, which are introduced at relevant points in this paper, primary resources include British Parliamentary Papers (BPP), House of Commons debates, the files relating to the Ministry of Munitions deposited at the National Archives and the official *History of the Ministry of Munitions* (1922). These resources are interrogated to identify relevant material which is contextualised and interpreted in light of the stated objectives of this investigation.

For studies of this genre, it is appropriate to present material on a chronological basis which, in this case, commences with the 44-year period culminating in Gladstone's Exchequer and Audit Departments Act 1866; an enactment which provided the framework for central government accountability that remained in force for 135 years. We will see that, between 1822 and 1866, accruals accounting was adopted by civil service departments only to the extent required to provide an improved record of personal and departmental accountability. Section 3 reports the introduction of commercial accounting procedures at government military manufacturing establishments, between the 1850s and the 1890s, leading to the preparation of a profit and loss account and balance sheet. The main causes of this historical discontinuity were to make departmental managers accountable for the full value of resources placed at their disposal, to enable calculation of the total unit cost of manufacturing military supplies and to help ensure fair competition with private-sector suppliers of 'warlike stores'. In the language of the 1994 Green Paper, such reforms began to place 'emphasis on what departments produce rather than on what they have available to spend' (BPP, 1994a, p. 1). Section 4 examines the introduction of broadly similar practices at the Ministry of Munitions during World War I through the influence of professional accountants recruited to better co-ordinate the production and distribution of armaments required for the war effort. This episode is of particular importance as it raised issues that led to the appointment of the Select Committee on National Expenditure, in 1917, to examine, more generally, the appropriate 'Form of Public Accounts'.

Section 5 reveals strong support for the widespread adoption of accruals accounting, within British central government in the years immediately following World War I, followed by the reaffirmation of traditional practices through to 1961 when the Plowden Committee reported. The resistance of Treasury officials to commercial accounting practices, beyond the growing number of 'state trading and manufacturing undertakings' (BPP, 1918, p. 316), continues to feature prominently in this history. Section 6 tracks events post-World War II which served as precursors to the adoption of commercial accounting practices throughout the whole of central government.[3] Concluding comments are presented in Section 7.

## 2 | FIRST STEPS 1822–1866

### 2.1 | First central government balance sheet

Following restoration of the monarchy in 1660, a series of administrative reforms 'created elements of accountability to the public rather than the King' (Chapman, 1997, p. 14). An Order in Council dated 31 January 1668 recognised full administrative responsibility, on the part of the Treasury, for financial questions (Roseveare, 1969 p. 63 and pp. 81–82). The Glorious Revolution of 1688 saw a further shift in the balance of power over public expenditure from the Crown to Parliament but, writing in 1790, the politician and political economist Sir John Sinclair (1790, p. 53) complained that 'the national accounts are far from being distinguished for their regularity or precision. No complete statement has ever been made up, either of the total income and expenditure of one reign, or even of any one year'. Mounting criticism of government expenditure levels and the lack of financial control led to the appointment of a Select Committee on Public Accounts, in 1822, to consider 'the best mode of simplifying the accounts annually laid before the Houses of Lords and Commons' (BPP, 1822, p. 3). The publication of 'an *annual balance-sheet* of the public receipt and expenditure' was recommended in the Select Committee's report and put into effect the following year (BPP, 1869, p. 326, emphasis added).

The content of this new 'balance' sheet (made up to 5 January 1823; BPP, 1823) bore no resemblance to today's balance sheet or, indeed, long-standing practice within the business sector. The document was a balance sheet only in the sense that the inflows (mainly from taxation and borrowing) and outflows (military and civil expenditure, payment of interest and repayment of loans) of cash when added, respectively, to the opening and closing balances at the Exchequer were identical. Moreover, the payments simply represented appropriations (i.e. amounts transferred) to accounting officers in accordance with the parliamentary Vote, with no indication of how much had been spent or why it might be different from the amount authorised. The question of how transactions undertaken by individual departments might be better accounted for became the subject of debate both inside and outside parliament.

## 2.2 | Enhancing departmental accountability

Lord Welby[4] informed the 1902 Select Committee on National Expenditure that the 'great defect in Parliamentary control', in the 1820s, arose from the assumption that it 'could be effectively secured by safeguards on the issue of money from the Exchequer *without following the expenditure further*' (BPP, 1902, p. 229, emphasis added). In the period up to 1866, elements of accruals accounting were introduced to improve departmental accountability to parliament. Specifically, accounting officers were, by 1866, required to: (i) supply a record of amounts actually spent; (ii) analyse expenditure based on the purposes for which money had been voted; (iii) disclose amounts appropriated but remaining unspent at the end of the year; and (iv) provide explanations for differences between amounts authorised and amounts spent. The conceptual framework for these reforms envisaged the adoption of 'commercial' accounting practices in the pursuit or what Perkin (1969, p. 320) describes as 'cheap and efficient government'. It remained, principally, a cash-based system of record keeping and financial reporting based on the personal accountability of departmental officers, but it was one that sought to achieve more effective control over departmental expenditure. Non-monetary assets, however, remained entirely absent from the accounting records.

Change began in 1826 when John Deas Thomson – Principal Officer and Commissioner of the Navy – was authorised to trial a system of record keeping at the Navy Board which provided for the first time a record of money actually spent by the department (Funnell et al., 2016). Over the next 40 years, there was much debate, and serious disagreement, over the question of whether, and to what extent, accruals accounting should be introduced in order to provide better information for departmental managers and to improve accountability to parliament. Prior research reveals that several leading politicians, usually those possessing some connection with business affairs, favoured the introduction of elements of accruals accounting, whereas civil servants, in the main, insisted on retaining an exclusive focus on cash appropriated for departmental use (Edwards et al., 2002; Edwards & Greener, 2003; Mann, 2014; Funnell et al., 2016; McBride, 2021).

Treasury opposition to initiatives designed to achieve accounting change is classically illustrated in initial attempts to extend the kind of system favoured by Deas Thomson to government departments in general in the late 1820s. A parliamentary Finance Committee was set up under the chairmanship of the prominent Whig politician, Sir Henry Parnell, to seek 'economies in government expenditure' (Bartle, 1959, p. 113). One outcome was the appointment of three Commissioners to consider 'how far it may appear to be practicable and advantageous to employ the mercantile system of Double Entry in the keeping of the Public Accounts, in preference to the official system now in use' (BPP, 1828, p. 473).

Commissioners appointed were the leading public accountant of the day, Peter Harriss Abbott (Edwards, 2001), and two senior Treasury officers – Thomas Constantinus Brooksbank[5] and Samuel Beltz (B&B). B&B were determined gatekeepers of traditional ways of doing things, favouring accounting change only to the extent it involved disseminating the Treasury's cash-based system of double entry bookkeeping, which simply tracked appropriations of cash from the Exchequer in accordance with the parliamentary Vote, to other state departments.[6] Abbott, on the other hand, favoured the adoption of elements of accruals accounting consistent with procedures introduced at the Navy Board by Deas Thomson a couple of years earlier. The Board of Treasury unsurprisingly sided with B&B and, on 14 July 1829 (BPP, 1831a, pp. 17–18), issued a minute requiring 'Public Departments' to implement the system of 'double entry, as recommended by Messrs. Brooksbank and Beltz' – that is, one designed to reveal 'actual receipts and payments only' – with effect from 1 January 1831.

Parnell – a staunch advocate of retrenchment in public affairs – was convinced that accruals-based double entry bookkeeping, as advocated by Abbott, was more likely to provide the information required for the purpose of better accountability and financial control. He made the case for accounting change in both the public domain (Parnell, 1830) and Parliament (Hansard, 26 March 1830, vol. 23 col. 936) where he faced stiff opposition from the former Financial Secretary to the Treasury (1823–1827), John Charles Herries. Herries loftily maintained: 'those who were acquainted with the business of the Treasury [i.e. B&B] were better judges of the proper methods of keeping the public accounts than merchants'.

Parnell continued his crusade and, in a memorandum addressed to the Financial Secretary to the Treasury, Robert Gordon (10 February 1840), identified the 'chief obstacle' hindering the adoption of double entry bookkeeping as the Treasury itself (T172/929). More generally, the 'great obstacle' to change was 'the rooted hostility of all the Departments to the system of Double Entry, which arises from the natural effect of long habit and from the total ignorance … of even the elements of Double Entry' (T172/929). Institutionalised opposition to accounting change was also highlighted by a contemporary observer – Isaac Preston Cory, barrister at law – who drew attention to 'the prejudices which may be supposed to exist among the gentlemen employed in the public offices, who would very naturally regard with suspicion any innovation which must tend to unsettle long-established practice' (Cory, 1840, p. 13). Accounting changes achieved during the period up to 1866 are next summarised.

The system trialled at the Navy Board, between 1826 and 1832, was applied to the Board of Admiralty when created, in 1832, to take over the functions of the Navy Board and the Victualling Board. As described above, Deas Thomson's version of double entry bookkeeping continued to fulfil its historic function, which was to provide a record of amounts advanced to accounting officers, but it was one which also reported amounts actually spent and the balances for which departments remained accountable. Deas Thomson was by this time retired and William George Anderson,[7] who had earlier assisted Deas Thomson at the Navy Office, was charged with responsibility for implementing accounting change (Funnell et al., 2016, pp. 748–750). The system introduced by Anderson, under the direction of the First Lord of the Admiralty, Sir James Graham, contained the following important additions to the model devised by Deas Thomson: the purpose for which the money was spent was also recorded, and; returns to parliament incorporated explanations for differences between amounts voted (i.e. authorised) by parliament, under each expenditure head, and the amounts spent. As Graham advised the House of Commons, the aim was to lay before the 'House annually a *balance-sheet*' revealing 'how far the actual expenditure under each head squared with each Estimate' (Hansard, 25 February 1831, vol. 2, col. 954, emphasis added). This system was disseminated to the Paymaster General's Office in 1836, the War Office in 1841, the Ordnance soon afterwards and the Treasury in 1855. William Anderson continued to function as the principal agent of accounting change and, according to Welby (BPP, 1902, p. 230), was instrumental in making the case for extending the revised practices to all other state departments. These innovations were contained in the Exchequer and Audit Departments Act 1866, that is, the Gladstonian measure which, as noted in the Introduction, remained in force for no less than 135 years.

Departmental accountability nevertheless remained predominantly cash based with accruals accounting applied only to the extent amounts were owing to or from other government departments or affiliated institutions (e.g. the East India Company) and amounts advanced on imprest to various accounting officers which remained unspent at the balance sheet date. It was within the government's military manufacturing establishments that more clearly recognisable commercial accounting procedures, involving recognition of tangible assets, were formulated in the second half of the 19th century.

## 3 | GOVERNMENT MILITARY MANUFACTURING ESTABLISHMENTS

Beginning in the 1850s, the accounting practices employed at government military manufacturing establishments (GMMEs)[8] were expected to do more than provide a record of cash receipts and payments. The principal driving force for accounting change was the need for knowledge of production costs (a) to demonstrate fair competition between GMMEs and private sector suppliers of weaponry, and (b) to help ensure the government was not overcharged by companies in the business sector (Edwards, 2015). Therefore, when a new rifle manufacturing facility was built at the Royal Small Arms Factory, Enfield Lock, in the late 1850s, Superintendent Colonel William Manley Hall Dixon decided that double entry bookkeeping should be used to enable management to prepare, for parliamentary scrutiny, both a profit and loss account and a balance sheet 'made out upon *strictly commercial principles*' (BPP, 1860, minute 5513, emphasis added). Rifles manufactured during the year to 31 March 1860 were valued at market price so as to disclose, in the profit and loss account, 'saving or profit' made by comparison with in-house production costs (Edwards, 2015, p. 423). The balance sheet, consistent with best contemporary accounting practice within the business sector, reported real assets (buildings, machinery stores, etc.) in addition to monetary assets, with grants provided by Parliament to finance rifle manufacture taking the place of share capital.

Bookkeeping and financial reporting practices were the subject of revision at other GMMEs where, starting in the 1860s, Henry Whiffin and James Henry Hurst were key agents of accounting change. Whiffin rose through the ranks, at the War Office, to become Accountant General of the Army in 1870. On retiring from the civil service in 1871, he became a partner in Lovelock & H.W.S. Whiffin, public accountants. Both Samuel Lovelock and Whiffin became professionally qualified accountants when the Institute of Chartered Accountants in England and Wales was created in 1880. Their firm merged with Price, Waterhouse & Co. in 1900. James Henry Hurst gained business experience when working as a clerk/accountant in the City of London prior to joining the civil service in 1855. He was promoted to the position of Accountant and Auditor to the War Office in 1863 (Black & Edwards, 2016).

Of importance in the context of the present study is evidence presented by Whiffin to the Select Committee on Ordnance, 1862. There, Whiffin recommended the publication of accounts conforming to 'strict mercantile principles' (BPP, 1862, p. 180) and, to expedite reform, supplied the Select Committee with revised forms of 'profit and loss account' and 'balance sheet' (BPP, 1862, pp. 181–182). Changes in the content of annual returns from GMMEs to the House of Commons were made in three stages over the next 32 years. The 'annual accounts of the several manufacturing establishments under the war department' for the year ended 31 March 1862 contained a 'balance sheet' though, again, not in the form we would recognise today (BPP, 1863).[9] The purpose of the statement was to provide a more accurate calculation of unit cost of production and, for that purpose, recognised opening and closing figures for inventories ('stores in stock') and, as a footnote, the percentage increase in unit cost of production which would result from including a notional charge for depreciation based on valuations made of each department's buildings and machinery.

Four years later, charges for both depreciation and interest on capital were included in a supplementary financial statement captioned 'Balance Sheet, No. 2'. This further change was made in response to persistent objections from Chambers of Commerce that their omission failed to ensure fair comparison with prices charged by business sector based armaments manufacturers (BPP, 1888, p. 122).[10] The third elaboration of reporting practices occurred in the 1890s when leading chartered accountants of the late-Victorian era, Frederick Whinney and Edwin Waterhouse[11] were engaged by the government to examine the costing and accountability practices of GMMEs (Edwards, 2016).

Their recommendation for the publication of a business-style balance sheet that contained figures for expenditure on fixed assets and depreciation bore fruit, somewhat belatedly in 1894, with the publication of a 'Statement of Liabilities and Assets' (BPP, 1894, p. 9).

It was not until the end of World War I that arguments for the more widespread use of the commercial balance sheet began to move centre stage.

## 4 | THE MINISTRY OF MUNITIONS

Serious supply failures in the early months of World War I, most notably the so-called 'Shells Scandal' – the army's stock of high-explosive shells ran out on the very first day (9 May 1915) of the Battle of Aubers Ridge – created a political hullabaloo that set in train a series of events that led to the creation of the Ministry of Munitions (MofM) on 2 July 1915. The Ministry, initially headed up by David Lloyd George, took over from the War Office responsibility for military supplies, with the scale of its operations simply enormous. Addressing the House of Commons on 25 April 1918, the Parliamentary and Financial Secretary to the MofM, Sir Laming Worthington-Evans, described his department as 'the biggest buying, importing, selling, manufacturing and distributing business in the world' (Hansard, 25 April 1918, vol. 105, col. 1182). There were 180 national factories (including the Royal Ordnance Factories[12]) under its control employing 281,000 people, with a weekly wage bill of £1 million and annual output worth £300 million (col. 1184). Expenditure totalled £620 million each year and turnover 'about' £2,000 million (col. 1185).

Marriner's (1980) pioneering study of accounting practices at the MofM focused principally on the replacement of single by double entry bookkeeping, the development of improved costing procedures and the massive influx of accountants, from business and private practice, to help achieve those outcomes. She pays little attention to key outputs from a system of double entry bookkeeping central to the present study, namely the adoption of accruals accounting to enable the preparation of a business-style profit and loss account and balance sheet.

The first proposal for the publication of business sector-type annual accounts was put forward by Samuel Hardman Lever, famously recruited for his costing expertise from the New York accounting firm, Barrow, Wade, Guthrie & Co. A letter (23 February 1916) from Lever, then Secretary of the MofM, to the Joint Permanent Secretary to the Treasury contained proposed forms of production statements and balance sheets for the 'National' shell, projectile and filling factories for the period ending 31 March 1916 (MUN 5/108/450/27). Sir John Bradbury's response was favourable but Lever's initiative was overtaken by more pressing priorities, namely the need to formulate adequate costing and investigatory procedures to help ensure the MofM was not overcharged by private sector companies and, if it had been overcharged, to ensure the money was recovered. It is known that John Henry Guy and Gilbert Garnsey (G&G) together played a prominent role in the resolution of those problems (Marriner, 1980), eliciting the following tribute from Winston Churchill who succeeded Christopher Addison as Minister of Munitions on 17 July 1917 (Hansard, 25 April 1918, vol 105, col. 1158):

> My predecessor directed two very able and distinguished accountants, Messrs. Guy and Garnsey, to overhaul the munitions accounts with contractors in the early part of 1917. The exertions of these gentlemen, which have been continued from that date, have already recovered a very considerable number of millions.

Garnsey is a prominent figure in the accounting literature, not only for his work at the MofM but as an agitator for improved corporate financial reporting practices during the inter-war period and as a senior partner in the leading firm of accountants at that time, Price, Waterhouse & Co. (Jones, 2004). Guy, in contrast, remains absent from the accounting literature other than for his work at the MofM. However, even Marriner appears unaware of the fact that Guy was also a chartered accountant who worked for Price, Waterhouse before the war, though in its New York office. Like Lever, Guy returned to his country of birth in 1916 to support the war effort. Given the Price, Waterhouse connection, it may be that Garnsey, who was already at the MofM, played a part in Guy's recruitment. Guy moved into industry soon after the war, spending most of his career as financial director of the confectioners, John Mackintosh & Sons Ltd (Obituary, 1955).[13]

In June 1917, G&G turned their attention to the construction of annual accounts for the MofM that complied with best commercial practice. They claimed the following role for business sector-type accounting statements (MUN 5/107/450/16(7), p. 1):

> management uses the accounts as an instrument of practical administration; the Balance Sheet with relevant schedules to examine the concern's status at any time, and its employment of capital, and the earnings statement to examine its costs of operation.

In contrast, they continued: 'In Government accounting, the Balance Sheet was not much used, money spent being regarded as gone when it was charged to an Appropriation Account'.

G&G's proposals were considered by the Ministry Finance Board chaired by another prominent chartered accountant, John Mann of Mann, Gordon & Co. (*History of the Ministry of Munitions*, 1922, p. 50). The Board decided that the MofM was analogous to the Royal Ordnance Factories (ROFs) and its accounts should, therefore, also be prepared on a 'commercial basis'. A particular advantage, identified by the Board, was that the balance sheet would 'show all work in progress by carrying both materials and cash advances in the hands of contractors as open accounts' rather than charging all expenditure 'indiscriminately to the Vote' (*History of the Ministry of Munitions*, 1922, p. 85).

G&G pressed the case for reform in oral and written evidence presented to the Select Committee on National Expenditure (BPP, 1918, pp. 252–260, 306–308) and offered the following example of the way in which such information might be used:

> You might find a large accumulation [of inventories] at the end of a particular year, and Parliament should know that there is this accumulation. They would then cut down the Vote for further supplies in the next year accordingly. That is the whole essence of presenting a balance-sheet.

G&G's further explained the value of the 'ordinary commercial Balance Sheet and Production Statement' (BPP, 1918, p. 307) in the following words:

> The Balance Sheet would … show exactly in what way the money advanced by the Treasury in any financial year has been disposed of. The Treasury might, for the purpose of their accounts, wish to treat this money as gone: but the Balance Sheet would show precisely what part of the money is locked up in Capital Assets, or is represented in Working Capital …
>
> The Production Statement or Statement of Income and Expenditure should show exactly what had been manufactured for, say, Army use, and should provide for the analysis of expenditure under heads descriptive of its final form – e.g., Guns, Shells, Small Arms, etc.

To illustrate how the proposed system might work, a provisional set of accounts was prepared for the MofM covering the first 24 days of April 1918. Extracts from these accounts are reproduced as Figure 1. The 'Approximate Balance Sheet' made out as on 24 April 1918 contained a capital account of £422 million and total assets of £548 million. The latter figure included the cost of producing supplies for the army amounting to £34 million over a period a little in excess of 3 weeks. The Statement of Production for the first 24 days of April provided a detailed build-up of total production costs. It also reported an average weekly figure which could be compared with other weeks of the year and also with the 'Estimated weekly average'. The accounts prepared by G&G also contained four schedules providing further break down of 'production' costs. Schedule 1, headed 'shells, guns etc', is reproduced for illustrative purposes. For four of its cost categories, Schedule 1 reports the 'price difference' between the actual cost of manufacture and what the cost would have been if sourced from the private sector.

MINISTRY OF MUNITIONS
APPROXIMATE BALANCE SHEET 24TH APRIL 1918*

LIABILITIES

| | | |
|---|---|---|
| H.M.TREASURY | | |
| Exchequer Issues from Vote of Grant | 71,175,529 | |
| Less Sundry refunds to Exchequer | 26,252,328 | 44,923,201 |
| SUNDRY LIABLITIES | | |
| (i) To Contractors for goods delivered but not yet paid for | 111,600,174 | |
| Less: Payment on account | 60,546,020 | |
| | 51,054,154 | |
| (ii) To other Government Departments | 27,770,543 | 78,824,697 |
| OVERDRAFT with Paymaster General | | 1,795,031 |
| CAPITAL ACCOUNT | | 422,735,554 |
| | | 548,278,483 |

ASSETS

| | | |
|---|---|---|
| FIXED ASSETS. Capital Expenditure at | | |
| 1) National Factories | 61,923,824 | |
| 2) National Factories abroad | 973,059 | |
| 3) Royal Ordnance Factories | 5,000,000 | |
| 4) Contractors Costs | 13,623,324 | |
| 5) Storehouses and Bonds | 1,647,473 | |
| 6) Inspection and Experimental Depots | 89,527 | |
| 7) Filling Stations | 462,636 | |
| 8) Training Schools | 115,224 | |
| 9) Railway Buildings | 865,377 | |
| 10) Housing Scheme | 2,723,239 | |
| 11) Prisoners of War Camps | 105,196 | |
| 12) Miscellaneous | 943,531 | 88,472,410 |
| FLOATING ASSETS | | |
| Stocks and stores at cost | | |
| 1) Ministry Storehouses and Bonds | 166,242,216 | |
| 2) Ministry Storehouses and Bonds abroad | 28,949,145 | |
| 3) National Factories | 50,872,194 | |
| 4) Royal Ordnance Factories | 5,010,947 | |
| 5) Contractors Work on "Free Issue" | 27,159,050 | |
| 6) Munition Committees | 1,244,303 | 279,477,855 |
| Debts due to the Ministry | | |
| 1) From Contractors for Material | 38,205,252 | |
| 2) From Contractors for Cash | 26,600,733 | |
| 3) From Contractors for Standing and other Advances | 7,841,807 | |
| 4) From other Government Departments | 32,284,257 | |
| 5) From Allied Governments | 10,421,786 | 115,353,835 |
| BALANCE on ACCOUNTS of Sub-Accountants | | 28,203,697 |
| DEFERRED DEBITS | | 2,531,817 |
| ARMY PRODUCTION ACCOUNT (as per Statement attached) | | 34,238,869 |
| | | 548,278,483 |

* shillings and pence omitted from financial totals

Source: MUN 5/108/450/31.

STATEMENT OF PRODUCTION FOR THE PERIOD APRIL 1ST – 24TH 1918

| | | Total | Weekly average | Estimated weekly average |
|---|---|---|---|---|
| Headquarters salaries &c. | | 85,822 | | |
| Inspection charges | | 693,936 | | |
| Storage expenses | | 1,338 | | |
| Expenses of munitions, inventions & research | | 13,221 | | |
| Experimental expenses | | 644 | | |
| Expenses of labour supply | | 119,061 | | |
| Miscellaneous effective charges | | 4,309 | | |
| Extra regulation expenses | | 11 | | |
| Rent carriage and other expenses | | 89,277 | | |
| Freight rebate | | 15,000 | | |
| Non-effective charges | | 954 | | |
| Compensation to contractors | | 14,767 | | |
| U.S. Agency commission | | 182,183 | | |
| Maintenance of filling stations, experimental grounds &c. | | 102,454 | | |
| Subsidies on pig iron & steel | | 288,327 | 400,166 | 576,923 |
| Loss on sale of raw material | | 1,085 | | |
| Loss on sale of machinery | | 293 | | |
| | | 1,612,682 | | |
| Less | | | | |
| Miscellaneous receipts | 240 | | | |
| Net receipts on housing schemes | 13,880 | | | |
| Gifts, aeroplanes | 3,000 | | | |
| Interest | 199,059 | | | |
| Profit charges on sale to Allies | 9,210 | | | |
| Profit on sale of raw material | 268 | | | |
| Share of profits Glasgow Shell Scheme | 15,027 | 240,684 | | |
| | | 1,371,998 | | |
| Production | | | | |
| Shells, guns, optical &c. (as per Schedule 1) | | 21,280,124 | 6,206,703 | 7,230,769 |
| Mechanical transport (as per Schedule 2) | | 2,303,285 | 671,791 | 673,077 |
| Trench warfare (as per Schedule 3) | | 549,974 | 160,409 | 576,923 |
| Railway material (as per Schedule 4) | | 864,299 | 252,087 | 192,308 |
| Aeronautical supplies | | 7,527,878 | 2,195,631 | 2,788,461 |
| Tanks | | 341,311 | 99,549 | 346,154 |
| | | 34,238,869 | 9,986,336 | 12,384,615 |

SCHEDULE 1

STATEMENT OF PRODUCTION. SHELLS, GUNS ETC.

| | | |
|---|---|---|
| Machine guns and rifles | 1,184,932 | |
| Less Price difference (Nett Profit) | 8,125 | 1,176,807 |
| Other small arms | | 213,019 |
| Guns | | 105,439 |
| Gun ammunition | 18,827,375 | |
| Add Price difference (Nett Loss) | 26,243 | 18,853,618 |
| Small arm ammunition | | 866,269 |
| Horse drawn vehicles | 85,095 | |
| Add Price difference (Nett Loss) | 13,480 | 98,575 |
| Optical munitions | | 25,446 |
| Boxes and packing | 59,683 | |
| Add Price difference (Nett Loss) | 4,543 | 64,226 |
| Sundries | | 94 |
| | | 21,403,493 |
| LESS Issues of Guns ex D.D.O.S, | 122,799 | |
| Issues of scrap metal ex D.D.O.S. | 570 | 123,369 |
| | | 21,280,124 |

**FIGURE 1** Accounts of the Ministry of Munitions, 1–24 April 1918

The next section reveals strong support for the commercialisation of central government accounting practices in the years immediately following cessation of hostilities but was followed by the reassertion of traditional practices that remained in favour when the Crick Committee reported in 1950.

## 5 | ACTION AND REACTION 1918–1950

When the Select Committee on National Expenditure met, in 1918, it was not only G&G who favoured 'proposals aimed at the complete "commercialising" of Government accounts' (BPP, 1950a, p. 69). Senior civil servants lined up, one after the other, to voice strong support for accounting change, with their views summarised under the heading 'Present form of little value for purposes of control' (BPP, 1918, p. 63). Sir Charles King, Comptroller and Accountant-General of the Post Office: 'we cannot make much use of the Appropriation Accounts for administrative purposes; we rely on the Commercial Accounts'. Sir H. J. Gibson, Comptroller and Auditor General: 'I have always felt that the subjective classification [see below], though very simple and convenient, did not lend itself to establishing a unit of cost by which you could control and compare the cost of one service with another'. Sigmund Dannreuther, Accounting Officer of the MofM: 'I do not think Estimates as furnished in the past to Parliament are worth the paper they are written on from the point of view of Parliamentary control'. Sir Charles Harris, Assistant Financial Secretary to the War Office: 'You cannot get any real control of expenditure by cash issues or cash payments excluding such factors as liabilities, consumption of stores from Stock and things of that sort'.

But not all the witnesses favoured G&G's proposed course of action. The Joint Permanent Secretary to the Treasury, Sir John Bradbury, agreed that the proposed 'new system' might be suitable for 'all state trading and manufacturing undertakings', given that it enabled comparisons to be made with private sector 'undertakings which are run for profit', but '[i]n regard to administrative departments more properly so called, I think it is a more open question' (BPP, 1918, p. 316).

The essence of the dilemma was the choice between two very different conceptual bases for financial reporting. The 'first, known as the "subjective basis", classifies the expenditure according to its subject or nature under primary account headings, such as Salaries or the Purchase of Stores' (BPP, 1950a, para. 112), that is, the traditional system of central government accounting that tracked payments made in accordance with the Vote. 'The second, known as the "objective basis", classifies the expenditure according to its object or purpose, such as 'Civil Aerodromes'" (BPP, 1950a, para. 112), that is, it allocates expenditure in the manner employed by management accountants, within the business sector, to calculate the unit cost of departmental outputs.

Weighing up the evidence, the Select Committee responded positively to the opinions expressed by senior civil servants from outside the Treasury. Its seventh report recommended the progressive adoption of 'income and expenditure' accounting throughout all Government Departments (BPP, 1918, p. 68). The official *History of the Ministry of Munitions* (1922, p. 87) summed things up as follows:

> the Select Committee on National Expenditure recommended … certain changes in the form of Public Accounts, designed to bring these accounts more into line with commercial practice, so as to present to Parliament a more significant statement, and at the same time to make the internal departmental accounts a better instrument for financial administration and control.

To test the effectiveness of objective accounting as the conceptual basis for central government accounting practices, the so-called 'Army Costing Experiment', 1919–1925, saw accruals accounting applied to some of the activities of a non-trading department (the War Office) so as to disclose 'the true costs of each unit and establishment in the Army' (BPP, 1950a, para. 3).[14] It was hoped that, furnished with such data, 'it would be possible to de-centralize control of expenditure to Unit Commanders and encourage them, with the aid of fully costed accounts of their work, to attain economical control of the units under their command' (BPP, 1950a, p. 70).

The experiment was opposed by the Treasury, from the outset, and only got off the ground due to the persistence of the Assistant Financial Secretary to the War Office, Sir Charles Harris. Earlier in his career, Harris had succeeded Hurst (1892) as chief accountant and auditor of the ROF's accounts and 'the nucleus of the experiment itself' was based on the practices introduced at the ordnance factories by Hurst, and others, between the 1850s and the 1890s (Black, 2001, p. 146).

In evidence presented by the Public Accounts Committee, 6 years after the commencement of the experiment, the Treasury opposed its continuation on two grounds: first, because of the additional cost 'which never fell below £200,000 a year' (BPP, 1950a, p. 70) and, second, because of objective costing's perceived lack of relevance where the focus of departmental activity was not 'the production of commodities in concrete form readily capable of valuation'. The Treasury's overall conclusion, accepted by the Public Accounts Committee, was: 'it is doubtful whether any important economies have been effected as the result of the new system' (BPP, 1926, p. 758). In Funnell's (2006, p. 745) estimation, Treasury opposition was motivated by the desire to maintain centralised control of expenditure, as objective costing 'would greatly diminish the Treasury's importance by allowing the devolution of authority and responsibility for spending away from the centre', that is, to Unit Commanders.

Frustration over Treasury resistance to accounting change is evident in Harris's farewell address to the Corps of Military Accountants in 1926 (quoted in Black, 2001, p. 162):

> I remain absolutely unshaken in my conviction that Army expenditure can only be controlled and exhibited to Parliament through a proper scheme of modern accountancy and I cannot believe that, having got so far on the road in the last five years, we shall be forced back into the bow-and-arrow methods of the Gladstone age.

World War II again brought to the fore concerns with the usefulness of financial information available to departments and presented to Parliament. The 11th report from the Select Committee on National Expenditure 1943–1944 reviewed initiatives mounted by the House of Commons, from the beginning of the 19th century onwards, in the endeavour to exercise more effective financial control over departmental expenditure. It found that little of substance had been achieved: 'the House has been successful in setting up machinery capable of securing that money is spent only upon the objects for which it was voted but has not succeeded in devising satisfactory permanent machinery to secure due economy in that expenditure' (BPP, 1944, para. 15). Anticipating Bruce's derogatory metaphor published in *The Times* 50 years later, the committee cited a witness's observation that 'the nation's accounts are kept on the penny note-book system' (BPP, 1944, para. 10) and concluded: 'the need for the presentation of statements in an "objective" form appears to them essential if departmental officials, Ministers and the House itself are to keep an effective control over public expenditure' (BPP, 1944, para. 16(i)). Such accounting statements, they observed, were the only way of 'enabling those who were responsible for the control of expenditure within a Department to get a true knowledge of what the work of the Department was costing' (BPP, 1944, para. 10).

These concerns were investigated by a Sub-committee of the Select Committee on Estimates for the session 1946–1947. Particular attention was again given to the relative merits of the objective and the subjective methods of accounting. The Select Committee reported: 'the Treasury, while willing to consider changes in detail, saw very strong objections to any substantial or fundamental change' (BPP, 1947, para. 5). The Treasury rehearsed the traditional function of appropriation accounting and argued that any change would 'vitiate' comparisons with earlier years. Also, that there 'will not be for some time to come, sufficient accounting staff … to undertake the additional work which any fundamental change in presentation would entail' (BPP, 1947, para. 5).

The adoption of commercial accounting procedures again came under the microscope with the appointment of the Crick Committee by Clement Attlee's Labour government in 1947. Its remit was 'to examine the existing systems of accounting in Departments in the light of modem accounting practice, and to make recommendations for improvements' (BPP, 1950a, para. 1). In addition to the chairman, Wilfred Frank Crick of the Midland Bank, the Committee comprised five civil servants, including the Treasury Officer of Accounts, and two prominent chartered accountants:

Sir John Morison of Thomson, McLintock & Co. and Percy Montague Rees, formerly chief accountant of Lever Brothers & Unilever Limited. The committee's Secretary was a second Treasury official. Forty-six witnesses were interviewed of whom no less than 20 possessed accounting qualifications. These included partners in leading firms of accountants, such as Henry Benson, joint senior partner of Cooper Brothers, representatives from two leading professional accounting bodies – the Institute of Chartered Accountants in England and Wales and the Society of Incorporated Accountants and Auditors – and accountants working in industry, commerce and government departments.

The Crick Report acknowledged evidence taken from business sector accountants that was critical of central government accounting practices on the grounds that they comprised 'only a partial application of double-entry methods' (BPP, 1950a, p. 35). Written evidence submitted by the Institute of Chartered Accountants in England and Wales is cited but deprecated as 'strongly coloured by advocacy of an income-and-expenditure basis of accounts' which was judged inappropriate for the government sector, except in the case of trading organisations. The abandonment of the 'Army Costing Experiment' is boldly presented as evidence of the lack of relevance of full accruals accounting though, as reported above, the rejection of that initiative is believed to have been driven by the Treasury pursuing a self-interested agenda (Black, 2001; Funnell, 2006, p. 741). Among the Crick Committee's conclusions, the following are most pertinent to the present study (BPP, 1950a, p. 57):

> The main Exchequer Accounts and the framework of both Estimates and Appropriation Accounts to remain on a cash basis …
>
> No practical advantage would be secured from the adoption of 'an income-and-expenditure basis of accounting' in respect of services other than trading services.

Thus, the committee's report vindicated a system which, they observed, had remained 'unchanged in any essential particular, for more than eighty years' (BPP, 1950a, para. 4) and, by the time RAB was put fully into effect, a further 51 years. But, as the next section reveals, commercial accounting practices were becoming more common among entities under the control of central government, and attitudes were beginning to change.

## 6 | EMBRACING MORE BUSINESSLIKE PRACTICES

When the Crick Committee reported (1950), the government had recently taken control of two major sectors of the economy whose accounting practices had developed unfettered by the civil service bureaucracy. The 1946 National Health Services Act, which came into effect on 5 July 1948, brought together municipal and voluntary hospitals which employed, in the main, commercial accounting practices (Mellett, 1992, p. 163). The exception was to write down fixed assets in accordance with related loan repayments rather than to charge depreciation based on estimated useful economic life. This departure from 'businesslike' practices was addressed in 1991 when a commercial style depreciation charge was initiated (Christiaens & Rommel, 2008; Mellett, 1992, p. 161; see also Ellwood & Newberry, 2007, pp. 558–559). In Mellett's (1992, p. 176) estimation, this innovation occurred because NHS hospitals had, effectively, become 'trading organizations' with their income 'directly related to the number and types of patients they can attract and treat … To ignore capital charges would also invalidate comparisons between the NHS and private sector organizations'. Commercial accounting practices were also already employed by heavy industry companies and public utilities that came under state control in the late 1940s (coal, iron and steel, electricity and gas, transport by rail, road and inland waterways, civil aviation), though many were, of course, returned to private ownership by 1990.

Also relevant to this history is the fact that the number of government 'trading departments' employing business sector-type accounting practices, which started with the ordnance factories in the late 1850s, had increased over the years. Attention has been drawn to the fact that Sir Charles King informed the Select Committee on National Expenditure (1918) that management of the post office was based on its 'Commercial Accounts'. These were introduced following Stevenson A. Blackwood's appointment as Financial Secretary to the Post Office in 1874, with the remit to 'enable the Treasury to monitor postal affairs' (Reynolds, 2004). Two years later, the Select Committee on the Post Office (BPP, 1876, minutes 5280–5281) accepted Blackwood's argument that, in addition to traditional cash-based reporting practices, a 'supplementary account' should be submitted to Parliament reporting financial affairs according to 'proper commercial principles'.[15] Later additions to the list of government trading undertakings employing business sector reporting practices included the Export Credits Guarantee Department (now UK Export Finance) established in 1919 to help reclaim trade lost during the submarine blockade of World War I. For details of these and other trading undertakings conducted by government departments, and the commercial accounting practices that they employed at the time of the Crick Report, see BPP (1950b, 1950c).

Just over a decade later, the fruits of an internal Treasury enquiry entitled Control of Public Expenditure (BPP, 1961) were submitted to the Chancellor of the Exchequer. The Plowden Report has been acknowledged as 'the starting point for the growing emphasis on the managerial role of senior civil servants over the following decades' (Theakston, 1995, p. 86). But it was no more than a 'starting point' according to Lowe (1997, p. 463) who dismisses it as 'a prime example of how British institutions, under the guise of reform, have traditionally deflected criticism, truncated discussion and thereby stifled the fundamental reforms required to halt Britain's decline'. Lowe (1997, p. 463, emphasis added) continued: 'The reason for [the investigation's] failure was its restricted nature as an internal enquiry with largely ineffectual "outside" members, which enabled *vested Treasury interests* increasingly to dictate its deliberations'. The report's stance on departmental accountability also chimes with the history recounted in this paper (BPP, 1961, para. 67):

> We drew the conclusion therefore that the right course was to retain the present system whose advantages and limitations are clearly understood and to strengthen it by ensuring that trading account methods are used in those cases where they are appropriate.

Things were not allowed to rest there for long. Another noteworthy investigation, prior to the emergence of NPM, was undertaken by a parliamentary committee appointed on 8 February 1966 to 'examine the structure, recruitment and management, including training, of the Home Civil Service' (BPP, 1968, p. 2). The committee, chaired by Lord Fulton, emphasised the need for 'Accountable management', by which it meant 'holding individuals and units responsible for performance as objectively as possible' (BPP, 1968, p. 51). Achieving this objective depended 'upon identifying or establishing accountable units within government departments – units where output can be measured against costs or other criteria' (BPP, 1968, p. 51). For this to happen, according to Fulton, the civil service needed to 'abandon faith in the cultivated amateur as the best type of administrative leader and turn instead to professionalization, specialization and a concept of active management' (Johnson, 1985, p. 420). The committee also recommended 'hiving off' a number of functions then discharged by central government departments; instead 'entrusting them to independent public bodies' (BPP, 1968, p.107). These were not recommendations likely to elicit a ringing endorsement from the civil service bureaucracy, and the signs are they did not. Garrett (1980, p. 3) concluded: 'optimists had over-estimated the capacity of a huge and long established organization to change its ways, particularly when top management was not committed to change and the political will for change was not maintained'. The concept of 'Accountable management', however, was a key component of the NPM philosophy to which we now turn.

NPM aims to make government more businesslike and, thereby, more efficient. Central to its ideology is 'the principle that you can only manage what you can measure' (Slamet, 1998, p. 60), therefore requiring recognition of full cost as the basis for managing individual departments and full disclosure of assets and liabilities to improve parliamentary and public accountability (Likierman, 2000). It is a philosophy which, starting in the 1980s, was given practical application within 'the public sector of many countries and jurisdictions' (Christiaens & Rommel, 2008, p. 59; see also Paulsson, 2006).

Within the British context, it was the Financial Management Initiative, unveiled in the White Paper entitled *Efficiency and Effectiveness in the Civil Service* (BPP, 1982), that had, as its purpose, to alter the structure and operation of the UK's Civil Service to achieve better value for money through 'the pursuit of restrictively specified standards of efficiency and effectiveness' (Humphrey et al., 1993, p. 7). The key role of accruals accounting is indicated by the White Paper's observation that 'the manager should be concerned with his total costs and not simply with his annual cash flow', where examples of non-cash costs requiring recognition were superannuation liabilities and depreciation (BPP, 1982, para. 13; see also: Annex B, para. 5; Paulsson, 2006, p. 47). To make management more accountable, on the lines earlier suggested by Fulton, the White Paper insisted that central government's new 'management accounting' should 'allocate or apportion all such costs, direct and indirect, to outputs or to an organisational unit' (BPP, 1982, Annex B, para. 4). As Christiaens and van Peteghem put it (2007, p. 375), such changes signalled an endeavour to 'shift from process accountability towards greater accountability in terms of results'. The desired outcomes were greater financial transparency, a better basis for evaluating performance at the operational level and scope for enhanced parliamentary scrutiny.

The process of applying NPM to British central government continued with the Next Steps initiative (Jenkins et al., 1988) that led to much work being devolved to executive agencies, most of which quickly adopted accruals accounting (Pina et al., 2012). These agencies were set up within existing departments (e.g. the Driver and Vehicle Licensing Agency became an executive agency within the Department of Transport in April 1990), each with a 'clear focus and targets' and with accruals accounting employed as the basis for performance assessment. It was reported to parliament, in 1994, that Next Steps had produced 'a much stronger focus on performance in relation both to quality of service for the customer and to efficiency; the strengthening of accountability and greater openness' (BPP, 1994b, p. 13). By the mid-1990s, 'almost three-quarters of the UK's home civil service had been transferred to agencies' (Ellwood, 2003, p. 107; see also Pina et al., 2012, p. 274).[16]

The decision to move to full accruals accounting (RAB) throughout British central government was announced by Kenneth Clarke in his November 1993 Budget Statement – see Introduction of this paper.

## 7 | CONCLUDING REMARKS

According to Scapens and Roberts (1993, p. 2), 'an understanding of accounting practice (as a form of social practice) can only be achieved by exploring the historical development of accounting and identifying the various influences on accounting change'. It has been the purpose of this chronologically framed research study, stretching over a period of 200 years, to provide a better understanding of the issues surrounding the adoption of accruals accounting as the basis for recording and reporting the financial affairs of UK government. Throughout the study period, accounting practices employed within the business sector were trumpeted as the desired goal. As Commissioners appointed by the Lords of the Treasury in 1831 expressed the matter: 'we have not the slightest hesitation in advising the employment of the *Commercial system of Book-keeping*, in its purest and most simple form, in all the Public Departments' (BPP, 1831b, p. 17, emphasis added). The fundamental difference between government and business accounting practices – the former based on flows of cash and the latter on flows of goods and services – was understood, but the implementation of the goal articulated by the Commissioners required the following question to be addressed: what version of accruals accounting is appropriate for government departments and, in due course, government as a whole? We have seen that it was a question which proved difficult to resolve throughout the study period, and we know it is one which continued to prove problematic, in recent times, when implementing RAB and the Whole of Government Accounts (Chow et al., 2007; Heald & Georgiou, 2011; Pina et al., 2012).

The story recounted in this paper starts in the 1820s when returns to parliament were confined to a record of the amounts transferred (i.e. appropriated) to accounting officers in accordance with the vote. The failure to provide a record of the extent to which that money had been spent and, therefore, a record of amounts unspent was tackled through a system devised by the civil servant Deas Thomson and trialled at the Navy Board between 1826 and 1832. This accounting innovation was extended, step by step, to all government departments in the period up to 1866, supplemented by further requirements (i) to report comparisons between amounts voted for specific purposes and amounts actually spent, and (ii) to provide for each category of expenditure an explanation for differences between the two sets of figures. The civil servant, William Anderson, was instrumental in implementing these changes while politicians, often with a business background, helped to overcome resistance to desired reform.

It was within military manufacturing establishments – the GMMEs/ROFs – that major changes in financial reporting practices occurred between the 1850s and the 1890s. There, Dixon, Whiffin, Hurst, Whinney and Waterhouse played important roles in formulating the preparation and publication of income (production) statements and balance sheets containing recognition of tangible assets, that is, inventories and fixed assets. These reports were modelled on practices employed within the business sector but, in certain respects, were superior to their private sector counterparts in the systematic treatment of depreciation and the inclusion of a notional interest charge on capital for the purpose of calculating full unit costs (Edwards, 2015, pp. 426–430). Similar practices were the subject of an initiative mounted at the MofM in 1918, under the guidance of Guy and Garnsey, and for the purpose of the 'Army Costing Experiment', 1919–1925. These latter two schemes reached an impasse, at the time, but, in Black's estimation (2001, p. 162), came 'full circle' with the 'RAB reforms, and their MOD application through the Project Capital scheme' in 2002.

Between 1946 and 1950, undertakings were brought under state control – the hospitals and nationalised industries – which already employed commercial accounting practices. Also, by this time, there had been a significant increase in the number of 'trading activities' (BPP, 1950a, para. 57) for which businesslike accounting practices were deemed appropriate. It was not until the fiscal year 2001–2002, however, 135 years after passage of Gladstone's Exchequer and Audit Departments Act, that such procedures were fully used to measure performance within the civil service's administrative departments.

Looking back on this sequence of events, there could be a temptation to interpret the evolution of central government accounting practices as an inevitable process leading towards a better system of financial accountability and control. The question of whether present arrangements are an improvement is not addressed here, but this study certainly reveals that the pathway to the present state of affairs was not pre-ordained.

Huczynski and Buchanan (2007, p. 598) warn that attempts to implement change may be thwarted by 'parochial self-interest'. They continue: 'We develop vested interests in the perpetuation of organization structures and technologies. Change can mean a loss of power, prestige, respect, approval, status and security'. As might be anticipated, this study has been able to rehearse examples of opposition to accounting change from people who had spent their entire career employing cash-based methods of accounting and accountability within the civil service bureaucracy.

The disagreement between Abbott and B&B, in the late 1820s, is presented as a classic example of Treasury resistance to accounting change. B&B were senior Treasury officials who opposed the adoption of accruals accounting and, in so doing, received institutional support from the Treasury which was authorised to act as adjudicator in that dispute. When Parnell raised the issue in Parliament, strong opposition was voiced by John Charles Herries, a former Financial Secretary to the Treasury whose predispositions should have been clear and obvious. Parnell remained undeterred and an internal memo, date 10 February 1840, identified the Treasury as the 'chief obstacle' hindering the adoption of accruals accounting.

Many years later, the minutes of the Select Committee on National Expenditure (1918) reveal support from a number of senior civil servants for the adoption of commercial accounting practices, but not from the top Treasury official, Sir John Bradbury. The Treasury nevertheless acquiesced to the 'Costing Experiment', designed to discover whether commercial practices might be applied successfully to army expenditure, but only on condition that the new system should operate in tandem with existing arrangements. This proved a shrewd ploy. When momentum for reform died down, and the Treasury successfully opposed continuation of the experiment, it was easy to revert to earlier cash-based accounting practices. When the respective merits of objective (cash based) and subjective (accruals based) methods of accounting came under scrutiny from the Select Committee on Estimates, 1946–1947, the Treasury again expressed strong objection to any substantial change being made; similarly when the Crick Committee reported 3 years later. Thus, arrangements which Harris dismissed (1926) as 'the bow-and-arrow methods of the Gladstone age' and the Select Committee on National Expenditure (1944) as 'the penny note-book system' remained the nation's system of accounting and financial reporting until RAB was launched in the 1990s.

The journey towards accruals accounting and the preparation of 'commercial-type' final accounts by all government departments has certainly proved a difficult route to negotiate and one which time and again wound up in an impenetrable cul-de-sac. The history recounted in this paper chimes with the following assessment made by the acknowledged pioneer of research into public sector accounting, John Perrin (Lapsley, 2005):

> the Treasury view was that accruals accounting, involving allocating costs between years on the basis of resource use rather than cash funding, was incompatible with Parliamentary sovereignty, and therefore unacceptable. Parliament voted cash funding year-on-year, so therefore the main control accounts, reports and accountability must be on an annual cash basis (Perrin, 1998, p. 8).

Given embedded institutional resistance to central government accounting innovation, what changed to make innovation a reality? Again Perrin (1998, p. 10): 'That it [accounting change] happened at all was probably the result of political will – possibly owing more to Keith Joseph than to anyone else – triumphing over bureaucratic inertia and a lack of interest in accounting and its uses'. Also important was the fact that Thatcher's administrations included other ministers sympathetic to private sector accounting practices, notably Kenneth Clarke and Michael Heseltine. At the operational level, credit also attaches to Andrew Likierman who spent the 10-year period up to 2004 as one of the Managing Directors of the UK Treasury and Head of the UK Government Accountancy Service. In that role, he led the project which changed the basis of government planning, control and reporting from cash to accruals, although vacating that role before the accruals based Whole of Government Accounts became fully operational in 2010. In Heald's estimation (2005, p. 163), Likierman nevertheless requires recognition as 'the architect of accounting reforms in UK central government'.

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## NOTES

[1] For more details on the advantages claimed for RAB, see *Resource Accounting and Budgeting in Government* (BPP 1995, pp. 3–4).

[2] For the definition of public sector, which includes local authorities, see *Financial Glossary* (2017).

[3] Despite the idea that resource accounting should follow business sector accounting practices, a fundamental difference is acknowledged. That is, the required use of current values to measure non-monetary assets in the government sector; an obligation driven by the management accounting role of central government accounts in determining the true cost of services (Jones, 1998, pp. 13–14). Thus "the historic cost convention" which remained the basis for corporate financial reporting was "modified out of all recognition" for the purpose of RAB (Jones, 1998, p. 14). See Hodges (2016) on continued tensions and inconsistencies between commercial and government sector measurement practices.

[4] A career civil servant who rose through the Treasury ranks to serve as Permanent Secretary to the Treasury 1885–1894 (Wright, 2016).

[5] Brooksbank entered the Treasury in 1796 and ended his career in 1850 as Chief Clerk of the Financial Division of the Treasury (Edwards et al., 2002, pp. 644–645).

[6] According to Brooksbank, the accounts of the Revenue Department of the Treasury had been "kept by double entry for many years" prior to the Report of the Commissioners of Public Accounts in 1831 (BPP 1844, p. 1).

[7] Anderson started his career in the Navy Office in 1821 and rose through the ranks to become Assistant Comptroller and Auditor General of the Exchequer and Audit Department in 1867. He was knighted in 1870 and retired from the civil service in 1873.

[8] The principal GMMEs were the Royal Small Arms factories at Enfield Lock and Birmingham, the Royal Gunpowder Factory at Waltham Abbey, the Royal Army Clothing Factory at Pimlico and the following three components of the famous Woolwich Arsenal, London: the Royal Carriage Department, the Royal Gun Factory, and the Royal Laboratory.

[9] As Whinney and Waterhouse (see next paragraph) point out: "The term 'Balance Sheet' is incorrectly applied to these accounts. They are not statements setting out the Balances of the Books, but Accounts showing in a somewhat confused manner the whole transactions of the Department for the year" (BPP 1888, p. 122).

[10] For copies of these two documents, see Edwards, 2015, p. 428 and p. 430.

[11] In the early 1880s, Whinney was in practice with the foremost corporate liquidator of the day, Robert Palmer Harding. Their firm and its successors are the main forerunners of Ernst & Whinney created in 1979 and now called Ernst & Young. Waterhouse jointly founded a firm whose name lives on in today's PricewaterhouseCoopers. Both men were active in the development of professional organisations in England: Whinney served as President of the Institute of Chartered Accountants in England and Wales from 1884 to 1888 as did Waterhouse between 1892 and 1894. Whinney was therefore President at the time his services were called upon by the government.

[12] Royal Ordnance Factories was a collective term used, from 1887, to describe GMMEs.

[13] John Mackintosh & Sons Ltd merged with Rowntree & Co. Ltd, in 1969, to form Rowntree Mackintosh Confectionery Ltd which was, in turn, taken over by Nestlé S.A. in 1988. At the time, it was the largest foreign takeover of a British company creating the world's second-largest confectioner, behind Mars Inc.

[14] For detailed studies of the Army cost accounting experiment, see Black (2001), Funnell (2006, esp. pp. 738–745) and Grimwood (1919).

[15] A particular drawback of existing arrangements was seen to be the non-recognition of capital expenditure. Commercial accounts for the post office telegraph service were first prepared for the year ended 31 March 1876.

[16] For a review of Next Steps and other key initiatives designed to improve civil service efficiency, performance and accountability, see BPP (1994b) and Panchamia and Thomas (2014).

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## DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analysed in this study.

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