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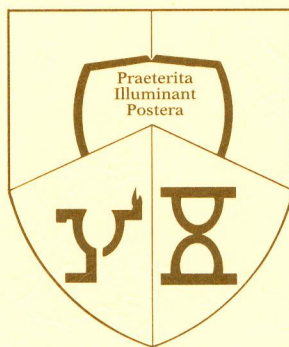
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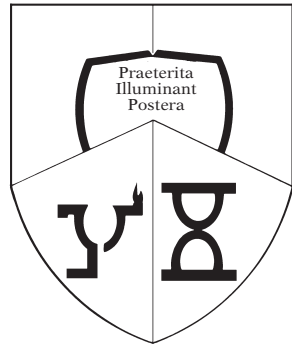


The
Accounting
Historians
Journal

December 1999
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Research on the Evolution of Accounting
Thought and Accounting Practice

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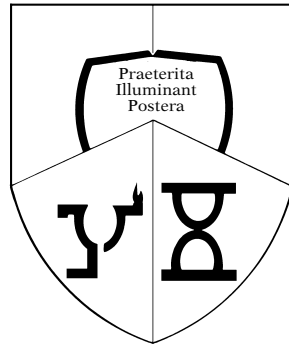
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Accounting Historians Journal
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***1998 Vangermeersch Manuscript
Award Winner***

Michael P. Schoderbek
RUTGERS UNIVERSITY

**ROBERT MORRIS AND REPORTING FOR
THE TREASURY UNDER THE U.S.
CONTINENTAL CONGRESS**

Abstract: This paper examines the accounting and reporting practices established by Robert Morris during his term as Superintendent of Finance under the Continental Congress from 1781 to 1784. Generally known as the financier of the American Revolution, Morris enacted many important accounting reforms, including his rearrangement of the Treasury to speed the settlement of accounts and the establishment of Continental receivers to collect money from the states. His most important contribution was the preparation of annual statements of receipts and expenditures of public money of the Confederation government. These statements, along with a detailed account on money received from the individual states, were circulated to put pressure on the states to meet their tax quotas. Several of these accounts are reproduced as exhibits in this paper.

INTRODUCTION

Historians have generally regarded Robert Morris as an astute merchant and faithful government servant, his paramount role being that of financier of the American Revolution [Sumner, 1891; Ver Steeg, 1954]. When appointed as Superintendent of Finance during the later stages of the war, he was responsible for furnishing the troops, restoring the public credit, and injecting economic efficiency into the Confederation government. In carrying out these duties, he was given a wide range of power over the funds he was able to raise under the

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restrictive terms of the Articles of Confederation.¹ According to some historians, the financier's influence during his term as Superintendent from 1781 to 1784 was probably second only to that of George Washington [*Morris Papers*, Vol. 1, p. xvii].

Generally overlooked are Morris' administrative reforms and contributions made in establishing reporting practices for the Treasury. Upon taking office, Morris rearranged the Treasury to speed up settlement of accounts and improve control over expenditures. He later initiated the preparation of annual statements of revenues and expenditures as part of his plan to raise revenues for the war effort. His financial statements, including a statement of taxes received from the states, were circulated to the public to put pressure on the states to meet their tax quotas. The Treasurer's Reports also served an additional purpose; to silence some of his critics in the Continental Congress (e.g., Arthur Lee).

The annual reporting practices and accounts established by Morris served as a model followed into the next century. The U.S. Constitution, ratified in 1788, required regular statements of receipts and expenditures (Article I, Section 9). There was no such requirement under the Articles of Confederation; Morris published such statements based on his notions of accountability to the public and to promote his long-range fiscal plans. Prior to Morris' appointment as Superintendent of Finance, accounts of the Treasury's affairs were issued on a sporadic basis, if at all [Bullock, 1895, p. 257].

This paper deals with the administrative reforms of the Treasury for payment of accounts under Robert Morris and the external reporting practices initiated during his term as Superintendent of Finance under the Continental Congress. Also examined is the establishment of Continental receivers to help in the collection of taxes from the states. The remainder of the paper begins with a review of the economic and political climate prior to Morris' appointment in 1781 and the previous organization of the Treasury Department. This is followed by background on Robert Morris and his plan to reorganize the Treasury Office for payment of the public accounts. Next is an examination of the Continental receivers used for the collection of taxes and the financier's annual statement of accounts. The

¹For a primer on the relationship and relative timing of the Declaration of Independence, Articles of Confederation, U.S. Continental Congress, and U.S. Constitution, see Patrick [1995] or Curtis [1861].

paper then looks at federal reporting requirements drafted into the U.S. Constitution. The study concludes with a limitations section and a summary.

FINANCIAL CRISIS FOR THE CONFEDERATION GOVERNMENT

In 1781, the U.S., operating under the Continental Congress, was in a financial crisis. Public credit had nearly collapsed as reflected by the rapid depreciation of the Continental bills of credit. These bills of credit circulated as paper money and were first issued in 1775 to raise revenues for the war [*J.C.C.*, Vol. II, June 22, 1775, p. 103]. The plan behind this Continental paper was to allow Congress to pay for current expenditures, while binding the states to pay for the expenditures by taxation, at which time the paper would be destroyed [*Morris Papers*, June 15, 1781]. However, few taxes were collected, and since the bills of credit bore no interest, they began to depreciate. In 1775, Congress passed a plan for regulating and funding the bills of credit under which each colony was to provide the ways and means to sink its proportion of the bills emitted by Congress in the usual mode of levying taxes in each colony [*J.C.C.*, Vol. II, July 29, 1775, pp. 221-224]. However, as later summarized by Congress in 1781, "Unfortunately, the tax failed, and the sums obtained from loans were greatly inadequate to the expenditure; consequently more money was emitted; and notwithstanding the favourable turn in our affairs in 1778, depreciation increased with amazing rapidity" [*J.C.C.*, Vol. XIX, April 18, 1781, p. 408]. By the beginning of 1780, \$241.5 million of these bills of credit had been issued [*U.S. Congress*, 1859, *Statement of the Issues of Continental Money*, Vol. V, p. 764], and their specie value had fallen to two cents per dollar [*U.S. Congress*, 1859, *Amount of Continental Money Issued during the Revolutionary War, and Depreciation of the Same*, Vol. V, pp. 763-771].

Efforts to raise taxes from the states to fund the war achieved little success. The weaknesses of the Articles of Confederation are well known in this regard. Under the Articles, passed by the Congress in 1777 [*J.C.C.*, Vol. IX, November 15, 1777, p. 907], the Confederation government did not have the authority to tax citizens directly. Article eight provided for the establishment of a common treasury, "to be supplied by the several states, in proportion to the value of all land (and improvements thereon), within each state." The state allocations

for funds requisitioned, or quotas, were to be determined by Congress; but the taxes were to be levied and collected by the state governments. The problems encountered by these provisions were numerous. Each state thought its allocation unjust and sought to shift the burden to other states. In addition, the states experienced difficulties in collecting their own taxes from the citizens. Between 1777 and 1779, the Congress made four requisitions upon the states for taxes [Bullock, 1895, p. 158]. These four requisitions totaled \$95 million and allowed for payments in the Continental currency. Based on then current scales of depreciation, the specie value of these requisitions was \$5,054,972. The amount actually collected was estimated at \$1,856,000 specie value [*U.S. Congress, 1832, Money Received From or Paid to the States, Vol. I, pp. 54-55, 59-62*].

This figure was small compared to the domestic and foreign loans acquired prior to 1781. In 1776, loan offices were opened in each state to borrow directly from the citizens [*J.C.C., Vol. V, October 3, 1776, p. 845*]. By 1781, approximately \$67 million in interest-bearing, loan-office certificates had been issued, with a specie value of \$11.5 million [*U.S. Congress, 1832, Public Credit, Vol. I, p. 27*]. This figure, however, greatly understates domestic borrowing because it excludes commissary and quartermaster certificates. These certificates of indebtedness were issued by the army's purchasing agents as compensation for supplies seized to support the troops. A report to Congress in February 1781 indicated that approximately \$64 million of these certificates were outstanding with a specie equivalent of \$852,822 [*J.C.C., Vol. XIX, February 19, 1781, p. 165*]. The Confederation also received help from its allies overseas, securing \$2.2 million from France and Holland in a series of loans from 1777 to 1780 [*P.C.C., Roll 41, p. 23*]. This loan amount does not include secret grants and subsidies supplied by France and Spain, estimated by Bullock [1895, p. 166] at \$2,588,500.

With domestic and foreign debt mounting, the U.S. was pressed to pay its interest and other expenditures. Public credit was substantially ruined and by 1781 the Confederation government was in a desperate financial situation. This situation was second priority to the most urgent need of keeping the war effort moving. The ineffectiveness and disorganization of the Treasury Department contributed to the dilemma.

PRIOR ORGANIZATION OF THE TREASURY DEPARTMENT

The nature of the Confederation hampered establishing an effective treasury body to manage the nation's finances from the outset of the Revolution. Both executive and legislative power were united under the Continental Congress. Special congressional committee's were appointed to handle the nation's treasury. The first such committee, consisting of five members, was appointed in February 1776 [*J.C.C.*, Vol. IV, February 17, 1776, pp. 156-157]. Creation of the treasury "office" did not come until April when Congress resolved that:

... a treasury office of accounts shall be instituted and established, and that such office shall be kept in the city or place, where Congress shall, from time to time, be assembled and hold their sessions [*J.C.C.*, Vol. IV, April 1, 1776, p. 244].

Congress was to appoint an auditor general and a "competent number of assistants or clerks," who would take an oath of secrecy before taking office. The Auditor and his assistants were responsible for "stating, arranging, and keeping the public accounts," under supervision of the Treasury Committee. In addition, the Treasury was to keep on file all contracts, securities, and obligations, for the "use and benefit of the United Colonies."

Few details were provided by Congress concerning actually running the Treasury and settling accounts. These were apparently to be provided later by the Treasury Committee. This first Treasury was primarily an office to adjust accounts and record collections. Congress maintained control over all expenditures and Treasury personnel hiring decisions. Making key decisions on financial matters and raising capital were not among Treasury Committee's duties. This was usually done by the Secret Committee on Commerce or by other congressional committees.² Because Congress refused to delegate power, it spent an inordinate amount of time voting on petty appropriations and debating new ways to regulate the Treasury Department.

Due to an increase in wartime transactions and a desire to change the overall slowness in settling accounts, the Treasury

²In 1778, a special committee was appointed to consider the state of the money and finances of the U.S. [*J.C.C.*, Vol. XI, August 27, 1778, p. 843]. This committee served as a ways and means committee and reported to Congress from time to time.

was remodeled around functional areas in 1778 [*J.C.C.*, Vol. XII, September 26, 1778, pp. 956-961]. The new Treasury consisted of three offices (Comptroller's, Auditor's, Treasurer's) and two Chambers of Accounts. Congress was to appoint officers to run each department, and these officers would appoint their own clerks. For the settlement of accounts, each chamber was to consist of three commissioners and two clerks. The duties of the officers and commissioners were prescribed in more detail in this act. The Auditor received all accounts brought against the U.S. for money lent, expended, or advanced. After examination, the Auditor forwarded the account to one of the two Chambers of Accounts. The clerks in the Chambers of Accounts authenticated and adjusted the account. After endorsement by the commissioner, the account was send back to the Auditor. The Auditor examined the account a second time, hearing any appeals brought by the parties concerned. After final approval by the Auditor, the account was forwarded to the Comptroller.

The Comptroller filed all vouchers, recorded the transactions in the public accounts, and maintained the Treasury books. For payment of accounts, it was the Comptroller's duty to notify the payee and issue a draft on the Treasurer. The Treasurer was responsible for receiving, safeguarding, and transmitting all monies of the U.S. After payment, the Treasurer was required to transmit a copy of the receipt to the Comptroller. Under this new arrangement, the five-member Board of the Treasury remained intact to supervise the officers and commissioners involved in running the Treasury.

This changed in July 1779, when Congress passed the *Ordinance for Establishing a Board of Treasury, and the Proper Officers for Managing the Finances of the United States* [*J.C.C.*, Vol. XIV, July 30, 1779, pp. 903-909]. Under the *Ordinance*, the five-member Treasury Board was to consist of two members of Congress and three outside members who were not delegates of Congress. Most of the other provisions in the earlier act remained in place. One noteworthy change was that the Comptroller was eliminated, leaving the Auditor General's Office, the Treasurer's Office, and two Chambers of Accounts. Primary record-keeping duties were now assigned to the Auditor General, under the supervision of the new Treasury Board. In addition, the *Ordinance* provided for six new auditors to examine and settle accounts of the army.

Unfortunately, the reconfiguration of the five-member Treasury Board did little to enhance the efficiency of the department because it did not address the real problems. There

was no authority or accountability at the head of the Treasury and little cooperation between the various offices. The Treasury officers acted with all the autonomy of the individual states. Since these officers were congressional appointments, only Congress could remove them. As a result, affairs at the Treasury during this period were characterized by political infighting and accounts that were slowly or never settled [*J.C.C.*, Vol. XVII, June 12, 1780, pp. 504-505; *J.C.C.*, Vol. XVII, August 10, 1780, pp. 715-716]. The Treasury Board was never able to streamline the system of checks and balances required under the *Ordinance*. Treasury officials constantly quibbled over their record-keeping duties [*J.C.C.*, Vol. XIV, December 14, 1779, p. 1380; *Letters of Delegates*, 1989, October 26, 1780, pp. 267-278]. In one report to Congress, the Auditor General noted:

... the machine is so clogged, as to defeat in a great measure the intention of having the public accounts speedily settled. There are many accounts the Investigation of which will take up a set of Commissioners from three to six months ... they must pass the like Examination in the Auditors Office ... and consequently there cannot be more than from two to four of such [accounts] settled in the course of a year [*J.C.C.*, XIII, April 13, 1779, p. 445].

The administrative procedures and conduct of the Treasury came under intense scrutiny during 1780. Charges were brought against two members of the Treasury Board, John Gibson and Ezekiel Forman. These charges were brought by Francis Hopkinson, the Treasurer of the Loans Department. The Loans Department and the Treasury interacted out of necessity due to the many transactions that flowed through their offices. The two offices often argued over matters such as who had authority to issue warrants for payments and what constituted proper documentation [*P.C.C.*, Roll 147, Item No. 136, June 28, 1780, p. 389; *P.C.C.*, Roll 147, Item No. 136, June 29, 1780, pp. 391-392].

The formal charges brought against the two Treasury Board members were *undue pride and insolence of office, issuing absurd and incorrect orders, a dangerous usurpation of power, and altering records* [*P.C.C.*, Roll 76, October 27, 1780, pp. 309-316]. Gibson and Forman attempted to deflect the charges against them by making their own allegations against the commissioners of the Chambers of Accounts. The charges brought against the commissioners included *neglect of duty, in-*

dolence, inattention to the public interest, incapacity, and partiality [P.C.C., Roll 76, October 27, 1780, pp. 343-347]. As a result of these charges, relations between the Treasury Board and the Chambers of Accounts were so strained that until the Auditor General was appointed to serve as a liaison between the two parties, all communications had been reduced to writing [P.C.C., Roll 33, Item No. 26, May 25, 1780, p. 183].³

A congressional committee was appointed to investigate the charges and the overall "uneasiness" within the Treasury [P.C.C., Roll 76, July 10, 1780, p. 450]. The resulting congressional hearings focused mainly on character issues or personal conflicts. For example, in one instance according to Hopkinson, the door to the Treasury was slammed in his face when he went to visit the Board over the noon hour about loan-office business. The minutes of these hearings also point to incompetent personnel and careless record-keeping procedures in the Treasury [*Letter of Delegates*, Treasury Inquiry Minutes, October 25, 1780, pp. 259-262]. In a report to Congress, the committee investigating the Treasury's conduct and procedures found:

That the several errors in accts. which have been laid before your Committee by the Treasurer of loans . . . are all of such nature as might have been readily adjusted without the least injury to the public, had not the Demon of Discord pervaded the whole Department [J.C.C., Vol. XVIII, November 24, 1780, pp. 1091-1092].

It ended by noting, "it is the opinion of the Committee, the Treasury should be under the direction of a single officer, accountable to Congress for the conduct of the Department." Congress was eager to dispose of the Treasury Board for reasons besides the jealousies and animosities within the department. Due to its lack of reports on the nation's finances, Congress was constantly in the dark about financial matters. Much of the financial picture from this period was reconstructed or estimated years later by Morris or Alexander Hamilton.

All of these events, the ruined economy, the internal disorder within the Treasury Department, the slowness and errors in accounts, and the lack of financial reports finally persuaded Congress to create the office of Superintendent of Finance on February 7, 1781.

³The friction between the Treasury Board and the Chambers of Accounts is not well documented, but some letters suggest that jealousies over office space contributed to the rivalry.

BACKGROUND OF ROBERT MORRIS

Robert Morris came to America from Liverpool with his father in 1747 at the age of 13, taking residence in Oxford, Maryland [Ver Steeg, 1954, p. 3]. His father died in an accident three years later, leaving a modest legacy to young Robert. At the time Robert was attending school in Philadelphia, where he later began work as an apprentice at the mercantile house of Thomas Willing. Morris advanced quickly to become a full partner of Willing & Morris in May 1757. By 1781, Morris was one of the most prominent merchants in the colonies and the owner of ten vessels used in mercantile transactions from Europe to the West Indies. He was involved in numerous partnerships and had interests in trade, land, mills, privateering, and securities [Ver Steeg, 1954, p. 41].

Morris was elected as a member of the Pennsylvania Assembly in 1775. That same year he was appointed a member of the Continental Congress⁴ and quickly became involved in several important congressional committees. One of these was the Secret Committee (later named the Secret Committee of Commerce) to which he was appointed on November 29, 1775 [J.C.C., Vol. III, November 29, 1775, p. 390]. The purpose of this committee was twofold. First, it was to acquire clothing, muskets, gunpowder, etc. to support the Confederation army; second, it had to find the means to pay for these items. Goods were usually acquired through contracting, and the firm of Willing & Morris profited from these wartime business ventures. In many transactions Willing & Morris performed the multiple roles of contractor, shipping agent, and banker. Willing & Morris was one of the largest dealers in the Continental bills of credit and could also lay its hands on gold or silver if the need arose. Thus, it quickly became the primary procurement arm of the Continental government. As a matter of routine, Congress would station guards at the warehouses of Willing & Morris to protect the stores belonging to the United Colonies [J.C.C., Vol. III, December 2, 1775, p. 396].

The U.S. needed someone with Morris' connections to arrange the complex transactions, such as the exchange of tobacco to Europe for military wares. Even so, from the outset, some members of Congress criticized Morris for his business arrangements. Willing & Morris often mixed goods for private

⁴Morris was reappointed to Congress in 1776 and was a signer of the Declaration of Independence [Sumner, 1891, Vol. II, pp. 192-197].

trade with goods belonging to the public. This practice caused problems for Morris in 1779, when he was accused by Henry Laurens of receiving compensation from the Treasury for the loss of private goods. Laurens accused Morris regarding private goods carried aboard the vessel *Farmer*, which was captured by the British [*J.C.C.*, Vol. XIII, January 19, 1779, pp. 78-86]. However, after hearing Morris' testimony and examining documents of the Secret Committee, a committee appointed to investigate the matter cleared Morris of any wrongdoing. The committee investigating the *Farmer* incident concluded that "... Robert Morris has clearly and fully vindicated himself; and ... in the execution of the powers committed to him by the said Secret Committee ... has acted with fidelity and integrity and an honourable zeal for the happiness for his country" [*J.C.C.*, Vol. XIII, February 11, 1779, pp. 163-176].

About this same time Morris came under attack from two of the most notorious dissidents in Congress, Thomas Paine and Arthur Lee. Paine had initiated a campaign against war-time profiteering and corruption in the *Pennsylvania Packet* under the pen name "Common Sense." Morris was one of Paine's favorite targets, along with Silas Deane, who was a political ally of Morris and an agent for the firm of Willing & Morris.⁵ Later, when Morris was Superintendent of Finance, Paine reconciled with Morris, and in 1782 Morris hired Paine to urge the state legislatures to raise taxes to pay for the war and national debt. Paine used his pen in earnest, battling the State of Rhode Island for refusing to accept an import duty of 5 percent on imported goods [Fruchtman, 1994, pp. 139-149].

On the other hand, Lee's "war against the financier," as put by Madison [*Madison Papers*, July 2, 1782], lasted throughout Morris' tenure at the Treasury. Lee harbored a deep resentment over the magnitude of Morris' powers as financier and despised his personal values as a profiteer [Potts, 1981, p. 260]. Lee made constant accusations, mostly unsubstantiated, against Morris and his contracts with the Secret Committee [Potts, 1981, p. 256]. Although the charges never led to any sanctions, the allegations of using his public position for private gain followed Morris throughout his career.

⁵Deane, Franklin, and Lee had been appointed commissioners to France to seek loans from the French court and to acquire military wares to support the war. For an analysis of the commissioners' accounts, see Carstens and Flesher [1987].

REORGANIZATION OF THE TREASURY DEPARTMENT

Notwithstanding the aforementioned criticism, the choice of Robert Morris to fill the newly created position of Superintendent of Finance was unanimous [*J.C.C.*, Vol. XIX, February 20, 1781, p. 180]. Morris did not accept the post immediately. He knew that in order to implement fully his proposed administrative reforms and to liquidate the public debt, he would need complete control. This included control over hiring of all Treasury secretaries, clerks, etc., and “Absolute Power” to dismiss all persons concerned in the expenditure of public monies [*Morris Papers*, March 13, 1781]. When asked for clarification by Congress, Morris stipulated that absolute power included the right to dismiss in the offices of the Quartermaster General, Commissary General, Paymaster General, the Medical Department, and virtually every department that settled accounts in his office, excepting the Secret Service [*Morris Papers*, March 26, 1781]. At first some members of Congress balked at granting these broad powers. Morris insisted that they were critical to “prevent the dangerous affects of inattention or corruption” and to provide for a “proper and early settlement” of accounts. Congress ultimately conceded to Morris the powers he requested, and Morris accepted the position on May 14 [*Morris Papers*, May 14, 1781].

One of Morris’ highest priorities was to reorganize the Treasury and to put competent men in place for the payment of accounts. Only when proper record-keeping procedures were established and accounts were settled in a timely fashion, could he focus on other important matters, such as raising tax revenues from the states, pursuing loans from overseas, creating a mint, and establishing the Bank of North America. His first move was to hire Gouverneur Morris, a former Congressman from New York,⁶ to serve in the position as “Assistant to the Superintendent of the Finances of the United States of North America” [*Morris Papers*, July 6, 1781]. Gouverneur Morris was

⁶Gouverneur Morris, no relation to Robert Morris, was from a distinguished Welsh family that arrived in New York in 1688. Their close alliance with the Crown elevated the family to a prominent role in New York, New Jersey, and Pennsylvania politics during the 18th century [Mintz, 1970, pp. 3-6; Kline, 1978, pp. 6-16].

a political ally of Robert Morris and had published several insightful articles on finance in the *Pennsylvania Packet*.⁷

Robert Morris submitted his plan for reorganization of the Treasury to a congressional committee on August 27, 1781 [*Morris Papers*, August 27, 1781]. According to Morris (p. 111), the Treasury office naturally consists of three branches:

1st the Liquidation of Accounts, 2dly. Keeping the public Books, and 3ly. the Custody of public Money. These branches, altho distinct, ought however to be so connected as that the different parts may form one whole.

His plan provided for a comptroller, a register, a treasurer, and auditors and clerks to assist these officers and the Superintendent of Finance. The comptroller had primary authority over the liquidation of public accounts, to see that they were expeditiously and properly adjusted. For settlement, the comptroller would first submit the account to one of his clerks. According to Morris (p. 112):

Every account ought to be first stated in one certain form, so that a person once acquainted with that form, could go through the public Accounts with equal Facility.

The clerk's job was to correct any arithmetic errors, determine the validity of the vouchers, and judge the propriety of the charges. After noting any objections, the clerk would pass the account with his comments to the auditor. The auditor would listen to testimony from the party and the clerk, making any final adjustments if need be. He would then pass the audited account back to the comptroller. As a measure of internal control, the clerks were to be appointed by the comptroller, and the auditors were to be appointed by the Superintendent. Morris reasoned that, "It would not be proper that the Appointment of Auditors should also be in the Comptroller, as that Officer would then be uncheckd . . ." [p. 113].

If the party was not satisfied with the judgment of the auditor, he had the right to appeal his case to the comptroller within a reasonable time. Congress later determined that a

⁷After his work at the Treasury was done, Gouverneur Morris went on to have a distinguished career in public service. He played a major role in drafting the Constitution at the Convention of 1787 [Mintz, 1970, p. 181], and later served as minister to France during the French Revolution [Mintz, 1970, p. 222].

reasonable time for appeal was 14 days [*J.C.C.*, Vol. XXI, September 11, 1781, p. 949]. The comptroller's decision, however, was final. If the comptroller and the Superintendent rejected the party's claim, a final alternative was to apply directly to Congress [*Morris Papers*, March 21, 1782, March 26, 1782]. The adjusted account was then delivered to the Superintendent of Finance, who prepared a warrant for payment. The warrant had to be countersigned by the register, who also recorded the transaction.

The treasurer was responsible for receiving and safeguarding the monies of the U.S. and making payment for warrants drawn by the Superintendent of Finance. He was to issue or take receipts for all money transactions and to render his accounts quarterly to the comptroller. The register had primary record-keeping responsibilities. "He should keep all the Public Accounts, both of Receipts and Expenditures, and every warrant drawn on the Treasurer." According to Morris, the register, or "Book Keeper," "... ought to be a very good Accountant, faithful, Just, accurate, attentive and industrious."

Morris' plan addressed several deficiencies inherent in the old system. The office of the Auditor and the two Chambers of Accounts were eliminated, centralizing power in the comptroller's office for the settlement of accounts. This eliminated duplication in efforts which had caused disputes among Treasury personnel. The change generated more attention to internal control and the importance of record keeping, as evidenced by the addition of the office of the register.

The plan was approved by Congress in the same general form proposed by Morris. On September 11, 1781, Congress issued *An Ordinance for Regulating the Treasury, and Adjusting the Public Accounts* [*J.C.C.*, Vol. XXI, September 11, 1781, pp. 948-951]. With the enactment of this *Ordinance*, the old Treasury Board was dissolved and a new system for the settlement of accounts and accounting for transactions under the U.S. Continental Congress was implemented.

MORRIS' TAX COLLECTION EFFORTS AND THE ESTABLISHMENT OF CONTINENTAL RECEIVERS

After the *Ordinance* to regulate the Treasury was approved by Congress, Morris needed to fill the open posts in the Treasury Office. Congress appointed Joseph Nourse as Register of the Treasury [*J.C.C.*, Vol. XXI, September 19, 1781, p. 974]. Nourse had previously served on the Board of War before

joining the Treasury as Assistant Auditor General in 1779. Nourse's job was to keep track of revenues and expenditures and to prepare statements of accounts. On the same day as Nourse's appointment, Michael Hillegas was named Treasurer. Hillegas had served as Treasurer under the old Treasury Board since inception of the office in 1776, and thus provided continuity in the handling of public monies. The position of Comptroller took longer to fill because the first choice, Congressman William C. Houston of New Jersey, declined the office. Congress settled on James Milligan, who had served as Auditor General under the prior Treasury Board [*J.C.C.*, Vol. XXI, October 13, 1781, p. 1050]. Thus, all the men appointed to serve under Morris had prior experience in the Treasury.

With competent men in place to settle accounts under his supervision in Philadelphia, Morris turned his attention towards Treasury business affecting the individual states. Generating tax revenues was imperative. It was also time to reign in the loan offices which had begun to outlive their usefulness. As noted earlier, these offices had been opened to borrow from the public (see FINANCIAL CRISIS FOR THE CONFEDERATION GOVERNMENT). The loan-office business essentially dried up in 1779 when Congress demanded specie instead of depreciated Continental bills of credit in exchange for loan certificates. Also, the loan officers, in order to make interest payments on outstanding loans, were issuing outdated certificates in lieu of monies. Morris ordered this practice stopped and requested that all blank certificates be returned to the Treasury for destruction [*Morris Papers*, October 13, 1781].

With public creditors relentless in requesting payment, Morris stepped up efforts to collect tax revenues from the states. Morris continued to face the problems caused by the Articles of Confederation. Only states could levy specific taxes, and a portion of these would be applied to the state's quota. The state's quota would go into the "common treasury." Unfortunately, taxes were usually collected locally by officials who were loyal to their own communities. There was little left over for the Confederation government. Alexander Hamilton, in a letter to Morris [*Hamilton Papers*, August 13, 1782, pp. 135-136], summarized the problems incurred in New York:

The Legislature first *assesses*, or quotas the several counties. The members cabal and intrigue to throw the burthen off their respective constituents. . . . The supervisors, of whom are upon an average of sixteen in each county, meet at the notification of the county clerk,

and assign their proportions to the sub-divisions of the county; and in the distribution play the same game.

According to Hamilton, the state was composed of 14 counties. Of these, five “are in the hands of the enemy,” two have revolted, and two others are desolated. In terms of actually collecting the taxes, Hamilton [August 13, 1782, p. 136] noted:

It now remains for the collectors to collect the tax, and it is the duty of the supervisors to see that they do it. . . . The collector is entitled to the trifling of sometimes four — sometimes six pence out of each pound he collects. . . . The supervisors have no interest at all in the collection; and it will on this account appear not extraordinary, that with continual delinquencies in the collector[s] there has never been a single prosecution.

After taxes were collected, they were remitted to the county treasurer, who, according to Hamilton (p. 137), also had “no sufficient inducement to incur the odium of compelling them (i.e., the collectors) to do their duty.” Finally, the county treasurer paid what he received into the state treasury.

Morris was determined to change this arrangement with the states, notwithstanding the Articles. In November 1781, Congress requisitioned an additional \$8,000,000 from the states [*J.C.C.*, Vol. XXI, November 2, 1781, p. 1090]. The act recommended that the states fill the requisitions by levying taxes “separate from those laid for their own particular use,” and that taxes were to be paid to the Commissioners of the loan officers (as before), or to “such other person as shall be appointed by the Superintendent of Finance.” Congress also recommended that the “receivers” be given power to recover money from the collectors, and that the funds received were subject “only to the orders of Congress, or the Superintendent of Finance [p. 1091].” Conceptually, this act gave Morris power over the collection process. He could now bypass the state treasurers and the loan officers who were appointed by the individual states. Morris could appoint his own receivers to represent the interests of the Confederation. In April 1782, Morris [April 13, 1782] instructed his receivers:

You must use the most strenuous and unremitting Efforts, by all the lawful and just Ways and Means in your Power, to urge the Collection of Taxes within that State; as also from Time to Time to impress the Legislature with the Necessity of laying such Taxes as may be necessary to comply with the Requisitions of Congress.

Morris also requested that the receivers update him on all developments regarding state tax levies, the state's economic picture, and even the "character and disposition" of the state's high-ranking public officials.

Morris sent instructions to his receivers regarding their duties, including directions on handling bank notes and a request for weekly transmissions on receipts of money [*Morris Papers*, February 12, 1782]. However, Morris used his receivers for many duties besides the collection of taxes. For example, they were asked to place advertisements in local newspapers soliciting bids for government contracts [*Morris Papers*, October 10, 1782] and subsequently to execute contracts [*Morris Papers*, December 12, 1782]. As transactions increased, the receipt of specie caused problems for the receivers due to its bulk and the threat of robbery [*Morris Papers*, June 15, 1782, letter of W.C. Houston]. To obviate the need to transfer specie, Morris had government contractors draw on the receivers for payment by the Treasury Department [*Morris Papers*, September 14, 1782, letter of W.C. Houston; *Morris Papers*, October 3, 1782].⁸ The receivers' compensation was also deducted from their cash receipts. Receivers were paid on a commission basis, which varied from .00125 to .005 of monies collected [*Morris Papers*, March 10, 1783].

In addition to keeping Morris informed about tax receipts, Morris requested that at the end of every month, the receiver should "cause to be published in one of the News papers of the state," the names, dates, and amounts of monies received by the taxpayers for the support of the war [*Morris Papers*, April 13, 1782]. Morris had these receipts published for two reasons. A first was to inflict social pressure on the state and its residents, including pressure on individuals to pay taxes, collectors to remit taxes to the receivers, and state assemblies to levy taxes [Ver Steeg, 1954, p. 101]. In a letter to W.C. Houston, the receiver for New Jersey, Morris [October 29, 1782] noted:

Your Publications of Receipts from the Collector would stimulate Curiosity and besides that, when Persons of Influence in the Counties have paid it would be well to hint to them an Enquiry why others have not paid.

⁸The hazards of safekeeping and transferring specie were also experienced by receivers of public monies for the district land offices created under the Land Act of 1800 [Schoderbek, 1994]. The Secretary of the Treasury, Albert Gallatin, followed Morris' example by having departments of the U.S., such as the Surveyor General, regularly draw on the receivers for payment.

Social pressure was only one reason for the publication of tax receipts. According to Morris [February 12, 1782], it was “proper and necessary that, in a free Country the People should be as fully informed of the Administration of their Affairs as the Nature of things will admit.” This was Morris’ view on government accountability, and the beginning of his policy on financial disclosures that would lead him to disclose comprehensive statements of accounts. These accounts, along with the subsidiary statement of tax revenues received from the states, are discussed next.

THE FINANCIER’S STATEMENTS OF ACCOUNTS OF THE U.S.

Morris was persistent in his efforts to open a stream of permanent revenues from the states. It was his view that the injustice suffered by unpaid creditors of the government was morally wrong. It was the states’ duty “to comply with the Requisitions of their Sovereign Representative” [*Morris Papers*, May 9, 1782]. Morris constantly harassed governors of the states and the President of Congress for revenues to pay for the war and meet outstanding interest. He initiated the practice of preparing annual operating statements of revenues and expenses as part of his efforts to persuade.

His first operating statement covered the period from the day of his appointment on May 14, 1781 to December 31, 1781.⁹ It was a partial-year statement because he did not want to include Treasury transactions from the previous administration. When Morris accepted the position as financier, he noted “. . . the adjustment of all past transactions and of all that relates to the present system may be completed by the Modes already adopted” [*Morris Papers*, May 14, 1781]. While he was mostly referring to liquidation of the public debt, he did not want to be held accountable for transactions adopted before he took office. The 1781 statement was for a partial year and did not encompass the complete spectrum of transactions. It is omitted here in favor of his statement for 1782. Most notably, the statement for 1781 did not include any tax revenues from

⁹This first operating statement in the handwriting of Joseph Nourse is titled *A General View of Receipts and Expenditures of Public Monies, by Authority from the Superintendent of Finance, from the Time of his Entering on the Administration of the Finances, to the 31st December, 1781* [P.C.C., Roll 155, Item 142, Vol. II, pp. 23-24].

the states as there was no collecting going on when he took office. However, the format as well as the principles upon which these statements worked are substantially the same.

Morris' operating statement for 1782, entitled *A State of the Receipts and Expenditures of Public Monies upon Warrants from the Superintendent of Finance, from the 1st of January 1782, to the 1st of January 1783*, is reproduced in Exhibit 1. Exhibit 1 is divided into two pages, with the receipts in part A and the expenditures in part B.¹⁰ The first item in part A represents the fund balance of receipts over expenditures from the prior year in the amount of \$292,453.69.¹¹

The third item is the taxes that were paid into the Treasury by the Continental receivers. These taxes, totalling \$302,734.84, are from the \$8,000,000 requisition of November 2, 1781. The subsidiary account for these tax receipts is presented in Exhibit 2. This account has both a debit and a credit side. On the credit side appears a breakdown by state of the taxes paid to the Treasurer, Michael Hillegas.¹² Of the 13 states, seven had remitted taxes to the Treasury, with Pennsylvania being the largest contributor. Note that while the amount paid into the Treasury was \$302,734.84, the amount actually collected by the receivers was \$422,161.63. The difference represents the amounts still in the receivers hands and due to the Treasury. A breakdown of the amounts payable by each receiver is provided directly underneath the first schedule. One state, New York, had two receivers (Alexander Hamilton and Thomas Tillotson). Some of the states, such as Massachusetts and Virginia, had fairly large sums not yet remitted to the Treasury. Both schedules in Exhibit 2 make reference to account numbers for each state. The account referred to as No. 6 for the State of New Jersey is provided in Exhibit 3. This schedule shows all the separate remittances from the receiver for New Jersey to Treasurer Michael Hillegas, as well as the balance due of \$687.36.

¹⁰The original handwritten statement of Joseph Nourse has the receipts and expenditures on the same page, with receipts on the left and expenditures on the right [P.C.C., Roll 155, Item 142, Vol. II, pp. 121-122]. In all other respects the statements are the same.

¹¹Note that at the time this statement was prepared in 1783, the convention of using dollars signs had not been adopted.

¹²In some cases there may be insignificant arithmetic errors in the totals (i.e., \$302,734.84 should be \$302,734.64). The totals provided by the register will be cited in the paper.

EXHIBIT 1
Part A
A State of the Receipts and Expenditures of Public Monies upon Warrants from the Superintendent of Finance, from the 1st of January 1782, to the 1st of January 1783

	Dollars 90 ^{ths}	Dollars 90 ^{ths}
Balance remaining in the Public Treasury on the 31st of December, 1781, as per account rendered for that year Received,		2,292,453 69
From David Ross, in discharge of bonds given for goods sold in Virginia, viz. Original cost, including charges returned outstanding in the last years account Advance thereon,	3360 0 4 4092 11 6 <hr style="width: 50%; margin: 0 auto;"/> 7452 12 0	
Sterling amount equal to		33,122 60
The federal Receivers of Continental Taxes, in part of 422,161 63-90 dollars, the amount of payments made to them by their respective states on account of the sum of 8,000,000 dollars, required by the United States in Congress assembled, for the effective supplies of the year 1782, as per account No. 1		302,734 84
Note, The states of South-Carolina and Georgia have contributed towards their quotas by furnishing Southern army with provisions, the accounts whereof have not yet been received at the Treasury,		000,000 00
Bills of Exchange drawn by the Superintendent of Finance, as per account sales thereof filed in this office, viz. On Mons. Grand, Banker at Paris, 6,330,995 Liv. 15 s. 10 d., produced at various exchanges,		1,080,447 77
On Messes Fizeau, Grand and Co. Merchants at Amsterdam, 15,510 liv. 10 s.		2,672 8
On Messes Wilhelm, J. Willinck, Nicholas and Jacob Van Staphorst, and De la Lande and Finje, of Amsterdam, for 2706 Florins		1,056 80
Sundries, Viz.		1,084,176 75
Amount of account sales of provisions delivered by the Commissary General Issues to Mons. Le Ville Brune, of the French navy, for which he paid 9,316 Liv. produced,		1,738 89
Nett proceeds of sundry articles, being part of the specific supplies from the state of Maryland, per Levi Hollingsworth his account sales,		7,074 73

EXHIBIT 1
Part A (continued)

A State of the Receipts and Expenditures of Public Monies upon Warrants from the Superintendent of Finance, from the 1st of January 1782, the 1st of January 1783

Sales of cannon not deemed necessary for public use,	519 40	Dollars 90 ^{ths} 4,413 30	Dollars 90 ^{ths}
Profit and loss account for gain on the receipt, exchange, and payment of paper money	356 8		
Interest arising on notes of hand given for bills of exchange,			
Ephraim Blaine, late Commissary General of Purchases, on account of public flour sold by him		875 48	
John Moylan, Clothier General		840	
Net proceeds of sundry public goods imported in the Heer Adams, sold at vendue,		1,700	
as per account sales filed in this office		42,889 41	
Net proceeds of sundry naval stores, as per ditto,		4,534 69	
Upon the settlement of accounts at the Treasury, viz.,			64,066 80
Balance paid by the Honble Jelfe Root, in two sums,			
paid by the Inspectors of the Press,		143 53	
paid by Major David S. Franks, in two sums,		19	
paid by John Brown, late Secretary of the Marine Board, in three sums,		525 45	
Freight of private money in the General Washington from Havanna,		7,959 2	
from the discharge of German prisoners on account of their subsistence		525 14	
Clothing delivered to John Moylan, Clothier General, being a part of the cargo of the Heer Adams, original cost,		20,560	
whereof, as per entry in the public books, 84,268 Guilders, which at the average advance on imported goods of 6s. per Guilder, is the amount included in the clothing department, as per contra,			29,713 43
Excess of payments beyond the receipts, being an anticipation on the public credit,			67,414 36
			404,713 9
			<u>2,278,396 6</u>

EXHIBIT 1
Part B
A State of the Receipts and Expenditures of Public Monies upon Warrants from the Superintendent of Finance, from the 1st of January 1782, the 1st of January 1783

Payments made to the several Departments, viz.	per Account, No.	Dollars 90 ^{ths}
Paymaster general's department,	1	299,611 33
Military and ordnance stores, do.	2	56,651 43
Quartermaster General's, do.	3	343,697 53
Clothier General's do.	4	296,755 13
Contractors for supplying the army with provisions, &c.	5	617,152 38
Medical department,	6	22,629 51
Late Commissary General of Issues, do.	7	6,810
Late Commissary General of Purchases, do.	8	7,290 20
Civil and Military Staff, do.	9	10,038 11
Commissary of Prisoners, do.	10	1,025
Marine, do.	11	166,249 11
Settled accounts,	12	103,555 20
Civil List, do.	13	70,948 64
Salaries of Ministers and Foreign Agents,	14	38,467 64
Contingencies,	15	198,159 54
General Post Office,	16	12,952 18
Annunities and Pensions,	17	3,569 23
Invaded States,	18	6,500
Paid John Chaloner for 100,000 Livres, to be delivered in bills of exchange on France, at 6s. 1/2 for five Livres, pursuant to an agreement made with the Superintendent of Finance,		16,333 30
JOSEPH NOURSE, Register.		
Register's Office, January 31st, 1783.		2,278,396 6

Source: P.C.C., Roll 155, Item 142, Vol. II, pp. 121-122.

EXHIBIT 2
**General Account of Monies Received and Paid by the Several Receivers of
 Continental Taxes in Account with the United States**

Dr.

Cr.

1782 Dec. 31 The Amount received as per Account herewith	422,161.63	By Michael Hillegas Esq; Treasurer, paid to him by the Receivers as follows viz: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">James Lovell</td> <td style="width: 20%;">Massachusetts</td> <td style="width: 10%;">as per</td> <td style="width: 10%;">No. 2</td> <td style="width: 10%; text-align: right;">51,390.00</td> </tr> <tr> <td>George Olney</td> <td>Rhode Island</td> <td>" "</td> <td>No. 3</td> <td style="text-align: right;">32,115.60</td> </tr> <tr> <td>Hezekiah Merrill</td> <td>Connecticut</td> <td>" "</td> <td>No. 4</td> <td style="text-align: right;">37,126.60</td> </tr> <tr> <td>Alex: Hamilton</td> <td>New York</td> <td>" "</td> <td>No. 5</td> <td style="text-align: right;">6,250.00</td> </tr> <tr> <td>W^m: C. Houston</td> <td>New Jersey</td> <td>" "</td> <td>No. 6</td> <td style="text-align: right;">38,849.88</td> </tr> <tr> <td>Jr: Swanwick</td> <td>Pennsylvania</td> <td>" "</td> <td>No. 7</td> <td style="text-align: right;">107,925.24</td> </tr> <tr> <td>Benj: Harwood</td> <td>Maryland</td> <td>" "</td> <td>No. 9</td> <td style="text-align: right;"><u>29,077.32</u></td> </tr> <tr> <td colspan="5">Balance due by the Receivers as follows - Viz.</td> </tr> <tr> <td>W^m: Whipple</td> <td>N. Hampshire</td> <td>as per</td> <td>No. 1</td> <td style="text-align: right;">3,000.00</td> </tr> <tr> <td>James Lovell</td> <td>Massachusetts</td> <td>" "</td> <td>" 2</td> <td style="text-align: right;">41,455.86</td> </tr> <tr> <td>George Olney</td> <td>Rhode Island</td> <td>" "</td> <td>" 3</td> <td style="text-align: right;">5,669.17</td> </tr> <tr> <td>Hez: Merrill</td> <td>Connecticut</td> <td>" "</td> <td>" 4</td> <td style="text-align: right;">17,128.45</td> </tr> <tr> <td>Alex: Hamilton</td> <td>New York</td> <td>" "</td> <td>" 5</td> <td style="text-align: right;">184.90</td> </tr> <tr> <td>T. Tilloison</td> <td>Ditto</td> <td>" "</td> <td>" 6</td> <td style="text-align: right;">2,550.00</td> </tr> <tr> <td>W^m: C. Houston</td> <td>New Jersey</td> <td>" "</td> <td>" 5</td> <td style="text-align: right;">687.36</td> </tr> <tr> <td>Benj: Harwood</td> <td>Maryland</td> <td>" "</td> <td>" 9</td> <td style="text-align: right;">13,041.56</td> </tr> <tr> <td>Geo: Webb</td> <td>Virginia</td> <td>" "</td> <td>" 10</td> <td style="text-align: right;"><u>35,710.00</u></td> </tr> <tr> <td colspan="4"></td> <td style="text-align: right;">119,426.69</td> </tr> <tr> <td colspan="4"></td> <td style="text-align: right;"><u>422,161.63</u></td> </tr> </table>	James Lovell	Massachusetts	as per	No. 2	51,390.00	George Olney	Rhode Island	" "	No. 3	32,115.60	Hezekiah Merrill	Connecticut	" "	No. 4	37,126.60	Alex: Hamilton	New York	" "	No. 5	6,250.00	W ^m : C. Houston	New Jersey	" "	No. 6	38,849.88	Jr: Swanwick	Pennsylvania	" "	No. 7	107,925.24	Benj: Harwood	Maryland	" "	No. 9	<u>29,077.32</u>	Balance due by the Receivers as follows - Viz.					W ^m : Whipple	N. Hampshire	as per	No. 1	3,000.00	James Lovell	Massachusetts	" "	" 2	41,455.86	George Olney	Rhode Island	" "	" 3	5,669.17	Hez: Merrill	Connecticut	" "	" 4	17,128.45	Alex: Hamilton	New York	" "	" 5	184.90	T. Tilloison	Ditto	" "	" 6	2,550.00	W ^m : C. Houston	New Jersey	" "	" 5	687.36	Benj: Harwood	Maryland	" "	" 9	13,041.56	Geo: Webb	Virginia	" "	" 10	<u>35,710.00</u>					119,426.69					<u>422,161.63</u>	302,734.84
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Hezekiah Merrill	Connecticut	" "	No. 4	37,126.60																																																																																														
Alex: Hamilton	New York	" "	No. 5	6,250.00																																																																																														
W ^m : C. Houston	New Jersey	" "	No. 6	38,849.88																																																																																														
Jr: Swanwick	Pennsylvania	" "	No. 7	107,925.24																																																																																														
Benj: Harwood	Maryland	" "	No. 9	<u>29,077.32</u>																																																																																														
Balance due by the Receivers as follows - Viz.																																																																																																		
W ^m : Whipple	N. Hampshire	as per	No. 1	3,000.00																																																																																														
James Lovell	Massachusetts	" "	" 2	41,455.86																																																																																														
George Olney	Rhode Island	" "	" 3	5,669.17																																																																																														
Hez: Merrill	Connecticut	" "	" 4	17,128.45																																																																																														
Alex: Hamilton	New York	" "	" 5	184.90																																																																																														
T. Tilloison	Ditto	" "	" 6	2,550.00																																																																																														
W ^m : C. Houston	New Jersey	" "	" 5	687.36																																																																																														
Benj: Harwood	Maryland	" "	" 9	13,041.56																																																																																														
Geo: Webb	Virginia	" "	" 10	<u>35,710.00</u>																																																																																														
				119,426.69																																																																																														
				<u>422,161.63</u>																																																																																														

The above amount carried to the Debit of the
 General Account of Receipts and Expenditures
 for the year 1782

Register's Office January 31, 1783
 Extract from the Treasury Books
 Joseph Nourse Register

Source: P.C.C., Roll 155, Item 142, Vol. II, pp. 162-163.

EXHIBIT 3
William C. Houston, Receiver of Contingental Taxes in the State of New Jersey for the Year 1782, in Account with the United States

	Dollars 90 th		Cr.
To State of New Jersey on Account of their Quota required by Act of Congress of 30 th October 1781. for the Effective supplies of the year 1782, received at sundry times	39,537.34	By Michael Hillegas Treas ^r . for warrants in his favor granted by the Superint ^r of Finance - viz. May 14 Warrant in his favor for June 18 ditto ditto for " 25 ditto ditto for " 26 ditto ditto for " " ditto ditto for Aug ^r 8 ditto ditto for " 22 ditto ditto for Oct ^r 14 ditto ditto for Dec ^r 7 ditto ditto for Balance due by said Houston:	5,500.00 5,505.00 3,472.79 1,002.20 4,807.50 2,130.00 3,000.00 7,484.74 5,947.45 38,849.88 687.36 39,537.34
1783 Jan ^y 1 st To Balance as above brought down	687.36	Register's Office 31 January 1783 Extract from the Treasury Books Joseph Nourse	

Source: P.C.C., Roll 155, Item 142, Vol. II, pp. 210-211.

Returning to Exhibit 1, after the tax receipts are bills drawn on foreign banks, including bills in the neighborhood of 6,330,995 *livres* (equivalent to \$1,080,447.77) on Ferdinand Grande.¹³ Loans from France and Holland were typically deposited in these foreign banks so Morris could draw on them, using up their lines of credit in the process [*Morris Papers*, December 3, 1781]. Under sundry accounts are the proceeds from miscellaneous sources. For example, there is the sale of extra cannons for \$4,413.30 and the sale of flour and beef for \$7,074.73 by Levi Hollingsworth, a Philadelphia merchant and flour factor [*Morris Papers*, February 25, 1782, May 6, 1782, June 1, 1782; June 1, 1782 (letter from L. Hollingsworth)].

The largest sundry item was from the sale of goods for \$42,889.41 which arrived on board the ship *Herr Adams* on September 10, 1781 [*Morris Papers*, September 11, 1782]. Also aboard the *Herr Adams* was cloth for uniforms delivered to John Moylan, the Clothier General of the Continental army (third line from bottom). Both of these were procured in Amsterdam by Colonel John Laurens and were financed by a donation of six million *livres* from the French court [*Morris Papers*, July 26, 1781, letter from B. Franklin]. Unfortunately, Franklin and Comte de Vergennes, the French minister, had a prior agreement that the goods would be purchased in Paris. Indeed, many of the goods were manufactured in Britain and could not be brought into the country. To salvage the whole situation, Thomas Barclay, American counsel to France, exchanged the British material for the clothing which was then shipped on *Herr Adams* and turned over to Moylan [*Morris Papers*, March 4, 1782, letter from B. Franklin].

The final revenue discussed here is the receipt of \$20,560 from the discharge of German prisoners. During this time, it was customary for countries at war to pay for the subsistence of their soldiers held prisoner by the enemy. However, the British refused to pay for the Hessians [*Morris Papers*, May 1, 1782]. Congress tried different strategies, including trying to enlist them in the Continental army or having them work as indentured servants (*J.C.C.* June 5, 1782, pp. 317-318). Few prisoners wanted to fight for the American side, so they were allowed to

¹³Grand was a banker in Paris who had earlier conducted secret business with the commissioners before the Franco-American alliance [Carstens and Flesher, 1987].

buy their freedom for \$80 each if they swore an oath of allegiance to the U.S. [*Morris Papers*, July 11, 1782].

Morris classified the expenditures in part B of Exhibit 1 into 18 accounts.¹⁴ The majority of these accounts are for departments of the military, such as the Quartermaster General's Department and Military and Ordnance Stores Department. The number of transactions in these accounts are too numerous to include here. An account that is more manageable, the Hospital Department, is reproduced in Exhibit 4. Most of the transactions involve the Purveyor General, Dr. Thomas Bond, who handled the disbursements for supplies and salaries for the hospitals. The specific entries in the expenditure accounts follow the same format, beginning with the date of entry, which is usually the same as the date the warrant was issued. The next column references the blotter or wastebook, which were books used to record the original entry or detail on account transactions. The next two columns include the person to whom the warrant was issued and a description of the transaction. This is followed by an additional account reference and the amount of the transaction.

For comparison, the Marine Department account is shown in Exhibit 5. The purpose of the Marine Department was to procure vessels and supplies for the Continental navy. The Marine Department was one of the five executive departments. As such, the salaries of Marine Department employees, such as Joseph Pennell, paymaster of the navy, are included in account No. 13, "Civil List." The Treasury was another one of the executive departments, so the salaries of its officers and clerks also appear under "Civil List." Account No. 15, "Contingencies," contains several hundred transactions, mostly miscellaneous expenditures. For example, there is a payment of \$70 for the purchase of firewood for Congress and \$79.74 to rent office space for the Treasury Department [*P.C.C.*, Roll 155, Item 142, Vol. II, pp. 321-325]. The total expenditures listed in part B for 1782 is \$2,278,396.06, which is greater than the total receipts in part A by \$404,713.09. This difference is a plugged number at the bottom of part A and represents unfunded expenditures.

¹⁴These 18 accounts are on microfilm in *Papers of the Continental Congress* [*P.C.C.*, Roll 155, Item 142, Vol. II].

EXHIBIT 4

Payments Made to the Hospital Department from the 1 January 1782 to the 1 January 1783

Date of Entry	Warrants or payments	W. Book or Blotter Entry	to whom paid	for what purpose	General or particular Account	Dollars 90 ^{ths}	Dollars 90 ^{ths}
1782							
Jan ^r 11	Jan ^r 11	C 113	Thomas Bond	for the use of his department as Purveyor General of the Hospitals	Thomas Bond	2,000	
Feb ^r 1	Feb ^r 1	166	ditto	for the use of ditto	d ^e	1,000	
March 8	March 8	226	ditto	to enable him to break up the Hospitals at Wilmington	d ^e	200	
			ditto	to enable him to discharge a Draft of Doc. Crates	d ^e	909	
13	13	228	ditto	to enable him to discharge part of the Act. of B. Davis for Medicine	d ^e	1,400	
20	20	242	ditto	to enable him to purchase sundries for the use of Apothecaries Depart.	d ^e	1,000	
21	21	244	ditto	to discharge the Act. of Dean Timmons for Soap & Candles	d ^e		
			ditto	for the Hospitals	d ^e	666	60
			ditto	to discharge the Act. of M. Shaw for Carpenters work done at the Hospitals	d ^e	200	
April 29	April 27	314	ditto	to discharge sundry debts & for pay due several persons employed at ditto	d ^e	1,293	
May 14	May 14	335	ditto	for the use of his department	d ^e	2,808	
May 23	May 23	343	ditto	to pay for 2 casks of Madeira & Port Wines & 2 Hhds of Rum	d ^e	666	30
July 22	May 25	493	ditto	for his draft favor of John Ross for 12 cases of Chirurgical Instruments	d ^e	4,495	72
Aug. 15	Aug. 15	510	ditto	for the use of his department	d ^e	500	
Octo. 5	Octo. 4	D 35	ditto	for the use of ... d ^e	d ^e	500	
Nov. 5	Nov. 23	89	ditto	for the use of ... d ^e	d ^e	4,000	
" 6	Aug. 7	100	ditto	for the use of ... d ^e	d ^e	160	
" 20	Aug. 7	97	Nathan Brownson	for the use of ... d ^e as purveyor of the Hospitals So. department	Nath. Brownson		21,798 72
27	Nov. 27	120	Wadsworth & Carter	for sundries supplied the General Hospital in Virginia	General Hospital		500
Dec. 31	Dec. 26	B1031	Mon ^r Boullange	for Am ^r . of Provisions, Medicines &c furnished the Sick at Williamsburgh	ditto		125 37
							205 32
							22,629 51

Source: P.C.C., Roll 155, Item 142, Vol. II, pp. 314-315.

EXHIBIT 5
Payments made to the Marine Department from the 1 January 1782 to the 1 January 1783

Date of Entry	Date of Warrants or payments	W. Book or Blotter Entry	to whom paid	for what purpose	General or particular Account	Dollars 90 ^{ths}	Dollars 90 ^{ths}
1782							
March 20	March 19	C 242	John Brown	for the use of the marine department	John Brown	2,954	75
July 22	June	493	ditto	for the use of ditto	ditto	981	5
March 25	March 25	251	Joseph Pennell	for the use of ditto	Joseph Pennell	500	
June 15	April	393	ditto	for the use of ditto	ditto	1,798	30
June 28	June 28	457	ditto	for the use of ditto	ditto	1,000	
July 1	July 1	"	ditto	for the use of ditto	ditto	800	
22	May & June	491	ditto	for the use of ditto	ditto	3,088	23
Sept. 17	Sept. 13	D 15	ditto	to pay Capt. James Nicholson to compleat the Frigate Bourbon	ditto	5,000	
Nov. 6	June & Sep.	95	ditto	for the use of the Marine department	ditto	40,596	21
Dec. 9	Dec. 9	129	ditto	to pay a Balance due to the Chev. Paul Jones	ditto	596	30
Dec. 31	Oct. & Nov.	B 963	ditto	for the use of his department	ditto	3,738	29
				sundry Marine stores sold by him	ditto	4,534	69
June 15	March 11	C 406	James Nicholson	to defray his Expenses on a Journey to the Eastward	James Nicholson	433	30
" "	Feb. & Mar.	407	John Langdon	for the use of the Ship America	John Langdon	483	45
July 22	Ap. & May	487	ditto	for the use of the Marine Department	ditto	20,100	
Nov. 6	August	D 96	ditto	for the purpose of equipping the Ship America	ditto		
July 15	July 15	C 474	Allibone, Patton, & Guernevy	for the Hire of the Ship Gen. Washington	Allibone, Patton, & Guernevy	4,000	
Nov. 20	Nov. 19	"	ditto	for ... ditto ... ditto	ditto	3,942	34
27	"	119	ditto	for the purchase of the Ship Gen. Washington	ditto	21,507	30
"	"	"	ditto	for Balance of the Outfits of ditto	ditto	2,085	64
21	21	113	Peter Whiteside & Co.	for Freight of 9 Casks of IndigoShip Gen.	ditto		
Dec. 31	Oct. & Dec.	B 968	Thomas Fitzsimmons	on account of the Ship Duke O La Lauzun	Washington Thomas Fitzsimmons		
						288	60
						47,620	60
						166,249	11

Source: P.C.C., Roll 155, Item 142, Vol. II, pp. 324-325.

Morris prepared his statements of revenues and expenditures for several reasons. First, he wanted to use them to apply pressure on the states to ante up and fill their tax quotas. Morris had 500 copies of his statements for 1781 and 1782 printed [*Morris Papers*, November 25, 1782, April 3, 1783].¹⁵ The copies were distributed to both the governors and receivers of the individual states [*Morris Papers*, April 7, 1783]. Morris also circulated the account of taxes received and paid to the Treasury (Exhibit 3) so each state would know how much the others had paid. Upon receipt of his statements, William Whipple [*Morris Papers*, April 23, 1783], the receiver for New Hampshire, responded that at the next meeting of the legislature:

I shall then lay before that body the accounts You have Published, and endeavour to draw their attention to the situation of the Public debt — which I hope they will now consider as an object of the first Magnitude . . .

Morris sent his statements to General Washington. He also sent them to Benjamin Franklin in France, possibly to help secure more foreign aid from the French [*Morris Papers*, January 11, 1783, April 7, 1783].

Preparing operating statements was also a response to the oversight committees formed to investigate civil departments. These committees were formed partly in response to the persistent agitation of Arthur Lee. Lee, having been reelected to the Continental Congress in December 28, 1781, continued his efforts to discredit Morris [Potts, 1981, p. 253]. Lee distrusted all mercantile men from Philadelphia, and he viewed Morris' power as financier a threat to the "liberties of the country" [Potts, 1981, p. 260]. The settlement of Lee's account from his service as commissioner to France was also a source of friction between Lee and Morris. Lee's account had been settled under the old Treasury, and he had the misfortune of being paid with a loan-office certificate. Loan-office certificates were not being redeemed at that time because of a lack of funds [*Morris Papers*, October 7, 1782, letter from J. Nourse; *Morris Papers*, October 9, 1782]. Morris refused to make payment on Lee's certificate until funds had been provided for the "general Mass of Loan Office Certificates." Lee complained to Morris that all the other

¹⁵The printed versions of these statements can be found in *P.C.C.*, Roll 150, Item 137, Vol. III, p. 319 (1782 statement) and p. 337 (1783 statement).

foreign ministers had been paid in money certificates (bills of exchange), and it was therefore Morris' duty to correct this "Manifest injustice" by redeeming his certificate for cash [*Morris Papers*, November 2, 1782, letter from A. Lee]. The situation was not resolved until Congress passed an act permitting the exchange of Lee's certificate of \$9,850.55 for £2,238.17.9 [*J.C.C.*, Vol. XXII, November 18, 1782, pp. 727-728].

On June 17, 1782, following a motion by James Madison, Congress resolved that committees should be formed to examine the proceedings of the Department of Finance as well as the other civil departments.¹⁶ The first such committee, appointed on July 2, included James Duane, Samuel Osgood, Abraham Clark, Arthur Lee, and Thomas McKean [*J.C.C.*, Vol. XXII, July 2, 1782, p. 370]. This committee met on an irregular basis and changed members several times [*J.C.C.*, Vol. XXIII, November 21, 1782, p. 748]. It does not appear to have accomplished much although Lee used every opportunity to badger the financier about Treasury affairs.¹⁷ On January 6, 1783, a new committee headed by Nathaniel Gorman was selected to investigate the Department of Finance [*J.C.C.*, Vol. XXIV, January 6, 1783, p. 37]. After a six-month investigation which included an examination of the Superintendent's accounts of 1781 and 1782, the committee issued a report to Congress on June 17, 1783 [*J.C.C.*, Vol. XXIV, June 17, 1783, pp. 396-399]. The report spoke favorably about the success of Morris' administrative reforms, including the "order and economy which has been introduced" into the Treasury and the "great savings of public money." In the report [p. 397] it was noted:

In the course of this enquiry, the committee have found that since the appointment of the Superintendent of finance, the public accounts of receipts and expenditures have been regularly kept; that many of the accounts which preceded this institution have already been settled, and most of the others put on a train of adjustment.

¹⁶The other departments under review were the Department of Foreign Affairs, the Department of War, the Department of Marine, and the Post Office [*J.C.C.*, Vol. XXII, June 17, 1782, p. 334].

¹⁷Morris had the following entry in his diary on August 20, 1782: "The Hon: Arthur Lee Esqr. came this morning as a member of a Committee of Enquiry, staid one hour and no other Member of that Committee appearing he then retired and I complained of loosing my time so uselessly" [*Morris Papers*, August 20, 1782].

The report was clearly supportive of Morris and served to silence some of his critics. Thus, his statements of receipts and expenditures, while consistent with his notions of government accountability and instrumental in his tax-raising plans, served other purposes as well.

FRAMING THE U.S. CONSTITUTION

After Morris' statements for 1781 and 1782, he prepared a statement of receipts and expenditures covering the first six months of 1783 (*P.C.C.*, Roll 149, Item 137, pp. 635-636). But by the end of 1783, Morris was already preparing for his departure from the Treasury. The war over, he was eager to return to his mercantile concerns. Morris resigned his position as Superintendent of Finance in November 1784 [Ver Steeg, 1954, p. 187]. He prepared a final statement of receipts and expenditures covering his complete administration which was submitted to Congress on March 26, 1785 [Sumner, 1891, Vol. II, p. 208].

Congress then appointed a three-member Treasury Board to supervise the nation's finances. With Morris' reporting mechanism in place, the new Treasury Board continued the practice of preparing statements of revenues and expenditures. These statements were prepared on a quarterly basis and signed by Joseph Nourse,¹⁸ who remained Register of the Treasury for the duration of the Continental Congress.¹⁹

The significance of Morris' statements well outlasted the Continental Congress. In drafting the U.S. Constitution, a clause was inserted requiring the preparation of operating statements. Article 1, Section 9, Clause 7 states:

No Money shall be drawn from the Treasury, but in Consequence of Appropriations made by Law; and a regular Statement and Account of the Receipts and Expenditures of all public Money shall be published from time to time [*Documentary History*, p. 311].

¹⁸These quarterly statements prepared by Joseph Nourse are scattered about in *P.C.C.*, Roll 154, Vol. II. As an example, the statements for the first, second, third, and fourth quarters of 1785 are on pages 49, 231, 283, and 57 respectively.

¹⁹After the Continental Congress was disbanded, Nourse was reappointed as Register of the U.S. Treasury by President Washington. He served in this same position until 1829 [*Appleton's Cyclopaedia of American Biography*, 1887-1888, Vol. IV, p. 541].

Among the framers of this reporting requirement were James Madison and Gouverneur Morris, both of whom had been schooled by Morris on the relation between taxation and federal reporting [Prescott, 1968, p. 734]. Under the Articles of Confederation, there was no such reporting requirement.

An appropriate question is, why did the framers require statements from “time to time,” when Morris had published the statements annually? The debates surrounding the 1787 Convention shed light on this question.²⁰ Madison thought that one-year time intervals were too short for accurate and meaningful financial statements. In the Virginia debates, he reasoned:

Because if the accounts of the public receipts and expenditures were to be published at short, stated periods, they would not be so full and connected as would be necessary for a thorough comprehension of them, and detection of any errors. But by giving them an opportunity of publishing them from time to time . . . they might be more full and satisfactory to the public, and would be sufficiently frequent [Elliot, 1863, Vol. III, p. 460].

Madison additionally thought that this provision went farther than the constitution of any state in the union, or perhaps in the world.

George Mason, also from Virginia, felt that the public had the right to know about the expenditures of its money, but was worried about potential damage to national interests. Mason argued, “In matters relative to military operations and foreign negotiations, secrecy was necessary sometimes” [Elliot, 1863, Vol. III, p. 459]. He concluded that, although from “time to time” was an ambiguous expression, it allowed flexibility to avoid conveying sensitive information in statements of receipts and expenditures.

The New York contingent felt differently about this “time to time” clause. In its convention, a delegate from Dutchess County, Melancton Smith, noted that “from ‘time to time’ might mean from century to century, or any period of twenty or thirty years” [Elliot, 1863, Vol. II, p. 347]. The problems caused by

²⁰Robert Morris was a delegate from the State of Pennsylvania to the federal convention, but he did not play an active role in the proceedings or drafting the Constitution [Farrand, 1913, p. 206].

some of the Antifederalists in New York and other states in adopting the Constitution is well known. New York grudgingly ratified the Constitution by a vote of 30 to 27 and submitted a list of 32 subsequent amendments. One of these proposed amendments related to the statements of receipts and expenditures. It read:

Provided, That the words from time to time shall be construed, as that the receipts and expenditures of public money shall be published at least once in every year, and be transmitted to the executives of the several states, to be laid before the legislatures thereof [Elliot, 1863, Vol. II, p. 407].

In Fall 1788, the first federal Congress met in New York City. In addition to setting up the new government, it had to deal with the constitutional amendments proposed by the individual states during ratification. Most of these amendments concerned states' rights and individual liberties. The debates in the House and Senate culminated in December 1791 when the states ratified ten amendments to the Constitution, comprising the Bill of Rights [Patrick, 1995, p. 247]. But New York's proposal on the publication of receipts and expenditures was not among those amendments adopted.

LIMITATIONS OF THE STUDY

This study involving Robert Morris and matters concerning finances of the Revolutionary War has several limitations. First, this paper looks at Morris' contributions in the area of accounting with primary emphasis on his operating statements. His many other contributions during his term as financier, such as the establishment of the Bank of North America, the creation of the Morris notes, and his plans for a mint generally fall within the realm of finance and have been examined elsewhere [Sumner, 1891; Ver Steeg, 1954]. Also, the various books and journals used internally by the Treasury to record, classify, and summarize transactions are not examined. This system, which utilized "wastebooks" and "blotters," was largely in place before Morris took office. This study has focused on the accounting innovations of Robert Morris, mainly his statements of receipts and expenditures and the subsidiary accounts that comprised these statements.

SUMMARY AND CONCLUSIONS

This paper has examined the accounting practices established by Robert Morris during his term as Superintendent of Finance under the Continental Congress from 1781 to 1784. Although known mostly by his reputation as a merchant and as *financier* of the American Revolution, Morris enacted many important administrative reforms. Among them were his plans for the settlement of accounts and the establishment of Continental receivers to collect money from the states. He initiated the preparation of annual statements of receipts and expenditures of funds for the Confederation government. These financial statements, including a statement of taxes received from the states, were printed and circulated. Morris believed circulation was required for public accountability and for pressuring states to meet their tax quotas. An additional outcome of the circulated statements was to silence some of his outspoken critics in Congress, most notably his nemesis Arthur Lee of Virginia.

Morris supervised the department for just over three years, but his establishment of reporting practices at the Treasury was a lasting contribution. The Treasury Board that succeeded Morris continued his reporting practices, and when the U.S. Constitution was drafted in 1787, a clause was inserted in Section 9 of Article 1 requiring a regular statement of receipts and expenditures of public money to be published from time to time [*Documentary History*, p. 311]. His contribution was indeed lasting!

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MANAGEMENT ACCOUNTING AT THE HISTORICAL HUDSON'S BAY COMPANY: A COMPARISON TO 20TH CENTURY PRACTICES

Abstract: Using an environmental contingency approach, Johnson and Kaplan [1987] argued that virtually all management accounting practices used at the time of their study had been developed by 1925 in response to increased uncertainty caused by geographical expansion and large-scale operations. During the 1821 to 1860 subperiod, the Hudson's Bay Company had significant uncertainty which was largely a result of the dynamic environment of its fur-trade operation. Consequently, it should have developed management accounting practices in response to uncertainty. Moreover, the management accounting practices should have been less extensive in the subperiods before and after 1821 to 1860, as these subperiods had less uncertainty. The Company's accounting and related records were examined for 1670 to 1914, and provided evidence to support the contention of Johnson and Kaplan that management accounting practices evolved positively with uncertainty.

INTRODUCTION

Johnson and Kaplan [1987, p. 12] argued that by 1925 virtually all management accounting practices used at the time of their study had been developed. Those practices had evolved in the 19th and early 20th centuries to serve the information and control needs of manufacturing and retail managers facing a higher level of uncertainty caused by increasingly complex and geographically dispersed operations. Complexity, Johnson and Kaplan argued, had increased as these organizations grew in size to capture economies of scale available with new tech-

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nologies and expansion from single to multiple activity operations.

The Johnson and Kaplan [1987, p. 62] argument was premised on the environmental contingency approach; management accounting practices develop in response to the uncertainty. Accordingly, the fur-trading operation of the historical, London-based Hudson's Bay Company (HBC) should have developed management accounting practices for information and control purposes as it faced substantial uncertainty while trading for furs in the frontiers of North America. Uncertainty was greatest, it will be shown, from 1821 to 1860, but less in the earlier (1670 to 1774) and later (1880 to 1914) subperiods. Drawing upon the contingency approach as did Johnson and Kaplan [1987], it is expected that given the extensive uncertainty, the HBC's management accounting practices would have been the most developed for the 1821 to 1860 subperiod. Consequently, as there was less uncertainty for 1670 to 1774 and for 1880 to 1914, management accounting would have been less developed during those subperiods.

As for the organization of the paper, the next section briefly describes the setting for the study. The subsequent section reviews in more detail the HBC's uncertainty. Then, the HBC's specific management accounting practices are described for each subperiod. The penultimate section discusses the association between uncertainty and management accounting practices. The final section contains some concluding comments about the different ways management accounting practices were used.

THE SETTING

The HBC is the world's oldest commercial entity that continues its original line of business [Milgrom and Roberts, 1992, p. 9]. Economists have judged the fur-trading HBC to have been one of the few companies in the world to have earned an economic rent, or, in other words, to have been uniquely successful [Schoemaker, 1990, p. 1180]. The HBC is also unique in that from 1670 to 1914, accounting and related documents have been preserved and made accessible to researchers through the Hudson's Bay Company archives (HBCA).¹ Because of the es-

¹The HBCA are located at the Manitoba Archives in Winnipeg, Manitoba, Canada. The archives cover the entire company history except for the last 30 years, which are still confidential. Researchers access the 1670 to (approx-

established business practices that prevailed during the study period, a large part of the instructions between superiors and subordinates was carefully recorded in letters. In addition, traders and other officers were required by the Committee (or, as it was called in the latter part of the 19th century, the Board of Directors) to maintain narrative journals of their daily business activities, thereby adding to the archive's richness.

In 1670, the HBC was incorporated by a royal charter from England's King Charles II to Prince Rupert and his 17 fellow adventurers. The charter provided a monopoly on trade and commerce for Rupert's Land, consisting of the lands whose rivers and streams drain into the Hudson Bay. The HBC soon established posts (e.g.; Albany, Moose, and York) at the mouths of rivers flowing into the Hudson Bay. This pattern was known as a "factory system," meaning that the HBC had opted for the trading methods used by other English merchants in Africa and Asia [Ray and Freeman, 1978, p. 30]. With this system the bulk of the trade was conducted at coastal establishments rather than from aboard ships. For the first hundred years, the approach to fur acquisition was to wait for the aborigines at the bayside posts and then to convince them to return annually.

Early competition came from the French colony in Canada known as New France. Confrontation was often violent as the HBC posts were being captured by the French colonists. In 1713, the Treaty of Utrecht confirmed the British possession of the Hudson Bay. Without direct French competition, trade improved and the HBC experienced profitability and even prosperity, which was indicated by a constant succession of dividends and by the accumulation of a substantial reserve of capital [Rich, 1960a, p. 58]. Although excluded from the Bay, the French of Montreal did not withdraw from the fur trade. Instead, they intercepted the aborigines inland, away from the Bay and up the Moose and the Eastmain Rivers [Rich, 1960a, p. 503], shortening the aboriginal trade trips. After 1730, the French competed from the southwest as La Verendrye and his sons developed a series of posts to intercept the aborigines from the west on their way to the Bay [Rich, 1960a, pp. 517-524]. These posts were supplied from Montreal via the Great Lakes.

mately) 1914 materials via microfilm which can be borrowed. These materials are in relatively good condition; nearly everything can be read although some materials take more reading time than others. Most post-1914 materials are restricted in their use because they have not been catalogued and microfilmed.

There were a number of reasons, in addition to decreased competition, for improved performance during the 1713 to 1763 subperiod. The HBC captains were more skilled with navigating the Atlantic Ocean and the Hudson Bay, and the HBC Committee understood more about trading with the aborigines. Although food and clothing were primarily received from London and from aborigines through trade, some HBC employees had become competent at hunting and fishing.

France lost its Canadian territories with the British conquest of Canada in 1763 [Rich, 1960a, p. 660]. This encouraged "the rush of the English into Rupert's Land" from the U.S. and England [Rich, 1960b, p. 13]. These "peddlers" were able to form partnerships with French Canadians and one another, and to expand the trade to the south and west of the Bay to such an extent that the HBC's trade was dramatically harmed [Rich, 1960b, p. 18]. Increasingly fewer aboriginal furs reached the bayside posts. In 1774, the HBC reacted by finally establishing a post inland named Cumberland House. More inland posts were set up in subsequent years.

By 1783, a group of Montreal traders formed the North West Company (NWC) to reduce costs and competition among themselves, and to compete more effectively with the HBC [Rich, 1960b, p. 119]. The NWC was reorganized in 1787 to include the entire resources of the Montreal traders [Rich, 1960b, p. 122]. The organization of the NWC and the expansion of the HBC inland led to intensified competition between the two companies. By 1816, their competition further intensified with the depletion of beaver in many areas; they competed head-to-head farther west, into present-day Saskatchewan and Alberta, and later still farther west and north.

Major changes resulted from the move inland. There was a longer lag, now a minimum of two or three years as opposed to one or two, from shipment of trade goods and supplies to the eventual sale of furs in London. There was also the challenge of "living off the land" as supplies were expensive to transport inland. The HBC responded to the challenges by introducing in 1810 "a Radical Change in the System of Carrying on the Trade" [HBCA, reels 6 and 39]. In effect, the Committee assigned more responsibility to senior managers for coordinating operations. Creating two areas and appointing two superintendents for managing them was recognition that more detailed coordination was needed. Furthermore, the introduction of incentives for officers was also recognition of the need to complement existing management methods. Another attribute of the

“retrenching system” of 1810 was a push by the Committee for better information. This need led to a system of annual reports being submitted by managers to superiors which required managers who could write well and to understand, if not to keep, accounts [Burley, 1993, p. 66].

The result of this transformation was more competition and even hostility between the HBC and the NWC. Both companies were suffering seriously when, as a solution, they merged in 1821, retaining the HBC name. Ultimate control remained in London with a new group of owners, also called the Committee. The Committee hired an inland governor, or governors², and geographically divided the operations into departments, districts, and posts. Generally, districts were managed by chief factors, while posts within districts tended to be managed by chief traders.

In 1870, the HBC gave up its right to Rupert's Land to the Canadian government in exchange for land and cash. The influx of settlers was made easier by the modernization of communications and transportation. Steamboats, railways, and the telegraph replaced the HBC transportation network of crude boats. At the same time, the settlers contributed to an infrastructure that allowed the HBC to stop providing its employees with food and clothing.

UNCERTAINTY OVER TIME

High uncertainty was defined by Duncan (1972, pp. 318-321) as complexity in a dynamic environment. More specifically, he measured high uncertainty in terms of a large number of parts³ that differ and which change in unpredictable ways. This description paralleled the manufacturing and retail firms discussed by Johnson and Kaplan [1987, p. 95]; those firms had expanded in size and into additional businesses and products, as well as geographically. The consequence was many more

²After the amalgamation of the HBC with the NWC in 1821, there were two governors. George Simpson was the governor for the larger Northern Department. However, he had at least some responsibility for all departments. In 1826, he became governor of the Southern Department and, therefore, head of all departments. Nevertheless, it was not until 1839 that he was officially awarded the grand title of governor-in-chief [Williams, 1973, p. xii].

³Duncan actually used the terms “factors and components.” As the word “factor” is used in another way in this research, the synonym “part” is used instead.

parts which were increasingly different. Also, as the managers of these firms did not fully understand them, the parts were perceived to change for reasons not fully understood.

The HBC also experienced a high level of uncertainty. Based in London, it operated a multifaceted, dispersed fur-trading business in North America. Although trading per se was not particularly complicated, the same was not the case with the long and difficult trip to bring trade goods to the aborigines and then return to London with the furs. Furthermore, the simple act of trading was complicated by there being neither a monetary system nor an infrastructure. Consequently, the HBC's fur-trading operation had many different parts that were not always predictable.

During the period 1670 to 1914, uncertainty was affected by the HBC's strategy and operating context. Of course, strategy and context were interrelated; nevertheless, they each affected the level of uncertainty. After the commencement of operations in North America, there were two major turning points in regard to uncertainty. The first occurred in 1774 when the HBC pursued its new strategy of inland trade rather than continuing from the handful of posts on the shore of the Bay. This change in strategy increased uncertainty. However, uncertainty decreased with the second turning point, the modernization of communications and transportation. These two turning points divide the entire study period into three subperiods with respect to uncertainty. Uncertainty was greatest from 1821 to 1860, compared to the prior (1670 to 1774) and subsequent (1880 to 1914) periods. The demarcation between subperiods recognizes that there were transitions which do not fit well with the subperiod on either side. More specifically, although the move inland occurred in a small way in 1774, it took until 1821 before changes were implemented in response to the new strategy. Similarly, modernization started gradually in 1859, but the momentum was not significant until the 1880s. The uncertainty for each subperiod will now be discussed

1821 to 1860: Uncertainty increased after 1774 as the HBC expanded inland from the Bay. Following the merger with the NWC in 1821, the HBC traded over half a continent, from Labrador on the Atlantic Ocean to Vancouver Island on the Pacific Ocean, from the Canada-U.S. border on the south to Great Slave Lake on the north, including parts of the present states of Washington and Oregon. The mode of transportation among the dispersed employees and posts (1,983 and 172 respectively

in 1821) was the birch-bark canoe, and later crude (York) boats. Uncertainty was increased by the time lag between the shipping of the outfit of trade goods and supplies and the eventual receipt of monies from the sale of the furs. This lag might be two or three years to account for the shipment from London to a Canadian port, offloading, and freighting, often more than 1,000 miles by rivers and lakes, to inland posts. From there the trade goods were exchanged for furs. A reverse trip was necessary to transport the furs to market in Europe. At each stage uncertainty could increase because of natural disasters, and at each market there were variations with actual prices and costs.

In this context, uncertainty can be categorized to include inland travel on rivers and lakes, trade conditions, and living off the land. These categories of uncertainty relate to major groupings of parts or activities in the fur-trade operation. The uncertainty relates to the nature of the HBC's business which changed over the study period. These discussions are summarized in Exhibit 1.

Inland travel was particularly complicated. The ships from London had to be unloaded; then the trade goods and supplies either stored in warehouses or directly loaded into canoes or boats for shipment to posts. The trips took weeks or months, and for each day there were demanding tasks in order to maneuver man-powered canoes and boats along rocky-bottomed rivers and lakes. These trips often required portages or the carrying of the canoes, boats, and their contents around rapids or waterfalls, or from one water system to another. Portages were physically demanding on the men, but as the operations expanded to 200 boats and 1,200 men [Glover, 1949, p. 19], horses were used for the task. Roads were built at the portages along with stations for maintaining the horses and men to expedite portaging.

Predictability with inland travel was problematic for several reasons. First, employee actions were unpredictable; i.e., behavior of the employees with canoes and boats could not be observed. Efforts and diligence were unknown. Second, there was environmental uncertainty from random events; i.e., the arrival times at the various posts could not be predicted with so many weather and environmental factors interfering with schedules. Moreover, exact distances between posts were uncertain. Third, there was the opportunistic behavior of employees; i.e., the out-of-sight employees could misuse equipment, trade goods, or supplies.

EXHIBIT 1
Uncertainty at the HBC
Components of High Perceived Uncertainty

<u>Subperiod</u>	<u>Significant Parts</u>	<u>Differences</u>	<u>Predictability</u>
1670-1774	Inland travel	Not applicable	Not applicable
	Trade conditions * no monetary system * barter economy	Many	Not predictable because of aboriginal languages, customs
	Living off the land * no infrastructure * largely London supplies * little obtained locally	Not applicable	Not applicable
1821-1860	Inland travel * loading * daily trips * portages (manpower, stations, horses) * 200 boats * 1200 voyagers	Many	Not predictable because of natural dangers, weather, frontier conditions, and isolation
	Trade conditions * no monetary system * barter economy	Many	More unpredictable because of additional aboriginal languages, customs
	Living off the land * no infrastructure * few London supplies * most supplies obtained locally	Many	Very unpredictable because of variations in weather, migration patterns, and soil fertility
1880-1914	Inland travel * railroad * steamboats	Many fewer	Predictable
	Trade conditions * monetary system * cash economy	Fewer	More predictable, aborigines more exposed to European languages and customs
	Living off the land	Not applicable	Not applicable

Trade conditions had many different parameters because of the lack of a monetary system. A large number of furs were traded for an even larger number of European trade goods. As there was a barter system, there were no market prices for furs and trade goods. Predictability was further complicated by distance and the large number of different aboriginal groups who differed in languages and customs. Moreover, the behaviors of traders could not be observed to ensure they acted in the best interests of the HBC.

Food and clothing could not be economically sent from London because of high transportation costs, and there was no infrastructure in North America to supply them. Consequently, living off the land was necessary. Food and clothing had to be supplied locally at hundreds of posts either by HBC employees or through trade. Hunting, fishing, and farming were pursued. There was transformation uncertainty as employee behavior could not be observed. Weather was always crucial for these primary activities; it varied significantly because of seasons and according to geographical location. Furthermore, hunting and fishing were precarious because of unpredictable migration patterns. In addition, the short growing season and infertile soil, especially at some northern posts, yielded poor and uncertain crops.

1670 to 1774: Overall there was less uncertainty during this earlier subperiod. One reason was that there was no inland travel, with all its different and often unpredictable parts, because all trade was conducted at bayside posts. There was also less uncertainty in regard to living off the land. Food and clothing were relatively inexpensive to ship when all posts were at the bayside. To supplement and add variety to the European food, a few crops were grown at some of the semi-Arctic bayside posts. In addition, HBC employees fished and hunted, and aborigines were hired to do the same.

However, the 1670 to 1774 subperiod demonstrated uncertainty similar to the 1821 to 1860 subperiod in regard to trade conditions. Trade was complicated by the lack of a monetary system, in conjunction with aboriginal languages and customs, multiple goods, and multiple fur varieties. One difference was that there were fewer different aboriginal groups at the bayside posts. North American aborigines had developed a system of middlemen for transporting furs to bayside posts. The distant aborigines who did the trapping would trade with others who

would take the furs to the bayside posts or trade with still others who made the trip [Innis, 1956, pp. 119-122].

1880 to 1914: This subperiod also had less uncertainty than during 1821 to 1860. Uncertainty of inland travel was drastically reduced by the modernization of communications and transportation. The first significant change came with the introduction in 1859 of a steamboat on the Red River, which flows from the U.S. into the present-day Canadian province of Manitoba. This boat greatly increased the speed, reliability, and volume of goods that could be delivered in a single trip. Steamboats were introduced on the Saskatchewan River in 1874, making it the baseline for transportation in the region of the present-day Canadian provinces of Manitoba, Saskatchewan, and Alberta [Innis, 1956, p. 344].

In 1878, the American Northern Pacific Railway was extended to Winnipeg, in effect rendering steamboats obsolete on the Red River [Barris, 1977, p. 41]. The transcontinental Canadian Pacific Railway, however, had a much greater impact when it linked the eastern and western extremities of Canada in 1885. Rail was not only cheaper than the York boats and steamboats, it was also faster and more reliable. Modernization significantly reduced the HBC's uncertainty with inland travel.

Uncertainty with trade conditions also declined significantly during 1880 to 1914. With modernization, the barter system was replaced with a cash economy complete with competitive prices. The development of better communications made it possible for traders to obtain the current market price of furs offered for auction in London. In this respect the mail service and the increasing circulation of newspapers were important, but it was the introduction of the telegraph which revolutionized the information flow to the posts. Completed in 1887, the telegraph broke the HBC's monopoly on information [Ray, 1990, p. 66].

Less importance was placed on living off the land during this subperiod. An infrastructure developed for providing food and clothing [HBCA, reel 733, transcribed by Bowsfield, 1977, p. 85]. Farmers were settling the prairies and producing grain crops and other farm products. Small businesses that produced an increasing variety of food and clothing products started in the major urban centres of Victoria, Vancouver, Calgary, Edmonton, and Winnipeg. The HBC did not have to be self-sufficient any longer. In-house production was replaced, allowing the HBC largely to withdraw from responsibilities for

feeding and clothing employees. The earlier uncertainty with these responsibilities was eliminated.

In summary, the 1670 to 1914 period exhibited three types of uncertainty – inland travel on rivers and lakes, trade conditions, and living off the land. Within the context of Duncan's [1972] definition, each uncertainty type was rated as high for 1821 to 1860. Lower uncertainty was assessed for all categories of uncertainty for the 1880 to 1914 subperiod. However, for 1670 to 1774, trade conditions were judged to demonstrate high uncertainty, while inland travel and living off the land were deemed to have lower uncertainty. Consequently, there is evidence supporting the contention that uncertainty was greater for the HBC during 1821 to 1860 than in either the prior (1670 to 1774) or the subsequent (1880 to 1914) subperiod.

MANAGEMENT ACCOUNTING PRACTICES

HBC's management accounting practices for the three subperiods were described in depth elsewhere (i.e., respectively, Roy and Spraakman [1996], Spraakman and Davidson [1998], Spraakman and Wilkie [1998]). Although the use of management accounting practices varied among the three subperiods, four management accounting techniques were used virtually throughout the period from 1670 to 1914 — operating statements, budgets (i.e., outfits and indents), inventory records, and standards. These methods will be described below, but note that each technique is comparable to contemporary practice. During the 1670 to 1914 study period, each functioned as a component of various management accounting systems.

OPERATING STATEMENTS

1821 to 1860: The purpose of the accounting records in the 1821 to 1860 subperiod was set out in an 1843 memorandum by the HBC's London-based accountant, Edward Roberts [HBCA, reel 508]. "Directions for Keeping Accounts" described the purpose of the "country accounts" as furnishing the cost of the furs from each district. These costs, in conjunction with recent fur prices provided by the Committee, allowed for the calculation of profit for each district. Subsequently, the district results were combined into department totals. This memorandum stated that profitability indicated the "merit" of managers. As revenues in the country accounts were calculated using past prices, actual profits calculated by the London office had to await the sale of furs at public auctions, typically six months to

two or more years after the end of the outfit year [e.g., HBCA, reel 480].

The country accounts were prepared with debits and credits on the basis of an outfit, the annual shipment of trade goods and supplies for the trade expedition with the aborigines, rather than for a set calendar period. What was called a balance sheet was merely a means of closing the district books at the end of the outfit. The balancing figure was the profit (or loss). Exhibit 2 contains an example of the balance sheet for the Severn District [HBCA, reel 1M590]. The same format was used for departments [e.g., HBCA, reel 1M690] and irregularly for posts [e.g., HBCA, reel 1M567]. Each line, except the balancing (profit) line, was the summary of one or more books or records, which will be described subsequently.

EXHIBIT 2
Severn District Balance Sheet, Outfit 1823⁴

(Left side)	<u>Pounds</u>	<u>Shillings</u>	<u>Pence</u>
To inventory 1st June	1713	16	8
To received from York Factory	886	13	9
To servant wages	391	—	—
To balance	<u>1711</u>	<u>3</u>	<u>10</u>
	4702	14	3
(Right side)			
By supplies to York Factory	24	9	10
By servants book debts in the district	215	19	6
By advances to servants not residing in the district	50	19	4
By inventory in the district	570	7	1
By inventory at Skallop Creek	591	9	2
By returns of furs	<u>3249</u>	<u>9</u>	<u>4</u>
	4702	14	3

Source: HBCA [reel 1M590].

The debit entry, “inventory 1st June,” was the beginning inventory of trade goods and supplies. This count was done after the winter trapping and trading season at about the time the furs were being transported to York Factory or Montreal for shipment to London. Items for each category of trade goods and supplies were physically counted and then valued at cost plus a percentage markup for transportation and storage [HBCA, reel 1M567].

⁴Note: 12 pence were equal to 1 shilling, and 20 shillings were equal to 1 pound.

The 1832-1833 "Store Balance Book" was an example of the Northern Department's meticulous inventory records [HBCA, reel 1M846]. In brief, over 56 double pages, there was a complete reconciliation of beginning inventory, importation of trade goods and supplies (i.e., the current year outfit), distribution, and ending inventory. Furthermore, the store balance book reconciled the stock of supplies held in the districts and depots of the department with the distribution of supplies for each outfit.

The next debit item in Exhibit 2, "received from York Factory," was the district's cost of the trade goods and supplies received in the current outfit year from London via York Factory or Montreal. The HBC controlled the movement of trade goods and supplies with invoices. There were the "Invoice Books of Shipments" to record what was shipped from London. Each package was numbered and the contents recorded with the value [HBCA, reel 367]. Invoices were also employed with the subsequent shipment of trade goods and supplies from ports, such as York Factory, to districts and posts. These invoices were recorded in "Charges to Districts, Account of the Charges, Affixed to Outfit Invoices" [HBCA, reel 1M688]. Shipped items were listed with quantities, unit prices, and cost per item. Packing sheets were used as aids to ensure that all items were included [HBCA, reel 1M689]. "Bills of Lading" were also used for checking the contents of canoes and boats [HBCA, reel 1M690] as they recorded items of trade goods and supplies, their destination, and the person responsible for them. Check marks beside the listed items imply a verification system for ensuring the items were loaded. A standard (percentage) advance was added to the cost of each item to compensate for the actual transportation and storage costs [HBCA, reel 195].

Another debit in Exhibit 2 was the wages paid to employees or servants. This cost was supported by various supplementary documents. First, there was a contract between the employee and the HBC, which specified obligations for both parties. Second, cash payments to employees were recorded in a departmental journal called "Servants Bills," and additional headings "Cash Advances in Montreal" and "Cash Advances in London" were used to record advances when employees were at those locations [HBCA, reel 1M689]. A review of those documents found a system of check marks that implied a later transfer to other documents. There was also the use of debits and credits to transfer advances when the recipient was transferred to another district. Third, employee payments were reconciled with

the document, "York Employee Balances" [HBCA, reel 1M687]. The 1823 edition contained a list of employees, recorded charges (debits) and wages (credits), and a reconciliation. Fourth, to keep track of employees, there was also an "Engagement Register" [HBCA, reel 1M853] which sequentially numbered and listed employees in alphabetical order. It included the following employee specifics – name, age, parish, capacity, where engaged, date, term, years engaged for service, date contract expires, deserted, dead or home date, wages, and amount of extra services.

The last debit item in Exhibit 2 was the balance. This was the profit (if a debit) or loss (if a credit, which would be shown on the right side). It was a calculated number equal to the total of the credits less the debits. In effect, the balance equalled the estimated sales value of the furs less the cost of trade goods, supplies, and employees.

The credit item in Exhibit 2, "inventory in the district," was the ending inventory. For each district, it was the summation of the actual inventories at all posts. For the example in Exhibit 2, the "inventory at Skallop Creek" was shown separately, probably because of the large amount at that location. As an offset to wage payments, the credit entry for "servants' book debts" was equal to all sales to employees during the outfit year. Two documents were used to accumulate these debts. One was "Accounts of Sales to Servants, In the General Shope York Factory Summer" [HBCA, reel 1M688]. The 1822 edition was typical in recording the charges to employees from York Factory and other districts/posts. There were no totals, and the check marks implied that the charges were transferred to other accounts. The second was the "Register of York Factory and its Dependencies" [HBCA, reel 1M688]. It listed employees and spanned more than a single year. For each employee there was an itemization of goods received with notation of where, post or district, received [e.g., HBCA, reel 1M688].

Exhibit 2 also shows credit entries for "supplies to York Factory" and "advances to servants not residing in the district." These were the means of reflecting that the costs of inventories and employees were reduced because, respectively, of the part returned or the employees who were working elsewhere. The last credit item in Exhibit 2, "returns of furs," equalled the value of furs received by the district in exchange for trade goods. As revenue, it was also equal to the number of furs by type multiplied by the unit prices, which were based on the previously mentioned recent fur prices supplied by the Commit-

tee. The calculation of total revenue was supplemented by post documentation. Each post maintained a "Debt book" [e.g., HBCA, reel 1M689], which listed each aboriginal trapper, the goods he received, and furs supplied. The quantities, unit cost, and cost of items received of a trade good were also recorded. Amounts were subtracted for the value of furs that the aborigine provided the company. Subtotals were prepared for each page, carried forward, and totaled. Furthermore, the "Fur Returns" schedule kept track of furs by type by district. The schedule for the outfit year ending June 1, 1844 showed 40 categories of fur against 13 districts [HBCA, reel 1M813].

1670 to 1774: In this earlier subperiod, the HBC had a detailed system for post accounting which recorded entries to all ledger accounts in terms of a prime beaver pelt called a "made beaver." The values of trading goods, supplies, and furs were convertible into made beaver. In addition to ledger accounts and other documents for tracking the flow of trading goods and supplies, there was a made-beaver-denominated "balance sheet," which in effect was also a profit and loss statement similar to that in Exhibit 2. On one of the two sides of the balance sheet, there were beginning inventories of trade goods and supplies, trade goods and supplies received, cost of employees, and profit if one existed. On the other side, there were the ending inventories, value of sales, and the loss if one existed. The made-beaver approach to accounting, described by Ray and Freeman [1978], was in effect at least from 1692 [e.g., HBCA, reel 1M406]. It worked well in determining the relative profits of posts when a monetary system did not exist and when all posts had nearly the same transportation costs, as they were all located on the coast of the Bay. The financial crisis in the early 1800s forced the HBC to abandon its rigid made-beaver accounting system in favor of a system that incorporated variations in transportation costs caused by different distances from the Hudson Bay.

The 1810 reorganization placed more importance on accounting records. First, they were to be denominated in pounds sterling, rather than the more than the century-old made-beaver practice. Second, accountants were appointed with responsibilities that included preparing accurate accounts, correctly recording inventory of goods on hand at the end of the year at the factory and at each trading house within the limits of the factory, and correctly recording debts due by aborigines and employees.

1880 to 1914: The 1821-1860 approach to accounting was continued with the only significant change being the use of pre-printed forms, despite an influx of settlers which induced the HBC to expand into sales shops to serve the retail market. The 1887 balance sheets (i.e., operating statements) and related documents were being prepared for posts, districts, and departments on 31 pre-printed forms, many of which included more than one page [HBCA, reel 3M224]. Improved communications and transportation had led the HBC to demand some monthly reports from posts and sales shops.

Then, in 1889, the HBC's auditor made suggestions for improving financial reporting. This forward move was prompted by the increasing role played by cash in the purchase of furs from trappers and in the purchase of trade goods and supplies from North American suppliers. The auditor believed that the wide variety of items included in inventory led to inaccurate information; e.g., "[a] large increase of payments might indicate a new policy of purchasing supplies elsewhere than in England, or might mean that a greater portion of the furs shipped had been purchased for cash" [HBCA, reel 508]. His contention was supported by item 70 of the HBC's 1887 "Rules and Regulations," which listed the inventory subcategories to include such heterogeneous assets as trading goods, supplies, country-made articles, country articles, livestock, outstanding balances, buildings and land, and ships and steamers [HBCA, reel 3M224].

The auditor's recommendations led to the division of the inventory account into cash, goods held for barter, furs and country produce, livestock, ships and steamboats, and other assets. The purpose was to differentiate between the amount of assets and liabilities for current accounts, for barter, and for other purposes [HBCA, reel 508].

In 1891, Commissioner Chipman proposed that the Board of Directors change the accounting from outfits to fiscal years [HBCA, reel 508]. This suggestion was accepted and had a substantial impact on reporting [HBCA, reel 3M230]. With outfit years, the books were not being closed until after the sale of furs in London, which was one year or more after the calendar end of the outfit. This time lag also meant that the accounting reports for districts had to be completed at the London office, which, therefore, had to maintain and complete those financial records. The resulting accounting system was complicated, expensive, and late in providing information for effective decision making.

Using a fiscal year meant that the books could be closed in

Canada. There was no need to wait for the furs to be sold. Unsold furs were merely valued as inventory. When sold, the revenue would accrue to the respective post or district in the year they were actually sold. No district or post accounting reports needed to be prepared at the London office, which was then able to simplify its accounting processes by keeping only one continuous account with the fur trade. Winnipeg became the accounting office for all fur posts and sales shops. Exhibit 3 shows the pre-printed format for the 1910-1911 operating statement, now called the trading account instead of a balance sheet [HBCA, reel 3M280].

EXHIBIT 3
Trading Account

Trading Account _____ District Outfit 1910, Form No. 20	
To inventory of goods	
To goods from depot and mills	
To goods and country produce purchased	
To goods from other posts, etc.	
To freight on goods	
To interest on goods	_____
By supplies or expense accounts	
By supplies or servant accounts	
By supplies to other posts, etc.	
By inventory of goods	_____
Net cost of goods sold	
By cash sales	
By credit sales	
By bartered for furs, country produce	_____
Gross profit (Per cent. Of C.L.)	
Add Gain on: live stock, bad debts recovered, fur purchased, Indian debts recovered	_____
Less Expenses as per Form No. 14	
Repairs and improvements (annual depreciation)	
Loss on articles at fixed prices (goods depreciation)	
Loss on: bad, doubtful debts, Indian debts	_____
Apparent gain	=====
Furs purchased	
Cash	
Freight, insurance, packing, etc.	
Bartered for goods	
Credit Indian	
Credit Customer	_____
Cost	
Tariff valuation	_____
Gain exclusive of profit on goods bartered	=====

Source: HBCA [reel 3M348]

BUDGETS AND INVENTORY RECORDS

1821 to 1860: There was, as noted, a long time lag and many separate activities between the shipment of trade goods and supplies from London and the eventual sale of the furs. The coordination of the various activities or parts was necessary for profitability, and the HBC had a detailed budgeting system for coordination. The word “budget” was not used by the HBC, instead they had the “indent,” which was comparable to a budget. Simpson, HBC governor for the entire 1821 to 1860 subperiod, expressed his thoughts on indents during his first winter (1820-1821) in North America with the pre-merger HBC. He had been placed in charge of what was then called the Athabasca Department, consisting of five districts. Two of the districts were small and emerging (McKenzie River and New Caledonia), while the other three (Peace River, Athabasca Lake, and Great Slave Lake) were more developed with each consisting of four separate trading posts.

Simpson specified the trading goods, supplies, and complement of employees [Rich, 1938, pp. 141-169]. This indent contained nearly 500 different items that were tentatively requested in various quantities, allocated to the five districts, and further allocated within three of those districts to 12 posts. Trading goods were listed in alphabetical order from “augers” to “worm gun” and “worsted, assorted colours.” (Actually, the last entry was “plough shear” which seems to have been overlooked and then entered at the end.) He also specified 16 food items, from butter to tea, although the managers and employees were expected to obtain the majority of their food supplies themselves or through trade. Ten different supply items for canoes were specified, as were seven leather and fur items for posts to make their own clothing. The employee complement was specified at three levels — clerks, interpreters, and men.

The physical count of inventories was the starting point for an indent.⁵ From inventory records, the clerks prepared a “scheme distribution;” i.e., a planned distribution of trade goods and supplies to posts from existing inventories for the current year and the next to meet expected trade. When the outfit for the current year arrived, a “scheme indent” was developed specifying the expected post needs for the next two years.

⁵This discussion on the development of the various indents from the inventory records was summarized from May [1987, pp. 47-68].

Subsequently, the “master indent” was prepared as the basis for the importation of trade goods and supplies for the next two years. The master indent was specific in terms of items and size (small, large, etc.), quantities, supplier/vendor, and cost. For example, the 1825 York Factory (i.e., Northern Department) indent specified 600 three-point blankets at a cost of 15 shillings each for a total cost of £450 [HBCA, reel 374]. The post indents were compiled into district indents, which were accumulated into department indents.

The 1831-1832 “Scheme Distribution and Invoice Book” for York Factory was a vivid example of the care that went into inventory planning and distribution. Its purpose was to allocate trading goods and supplies to districts and shops. The total of that distributed equalled that available. The following categories were specifically placed along the horizontal of this document: beginning inventory, importation of trading goods and supplies, a list of the various districts, general shop (employees’ residence), officers shop, contingency, and total [HBCA, reel 1M835]. Along the vertical, trading goods and supplies were listed in alphabetical order, comparable to the “Store Balance Book.”

1670 to 1774: The first two indents were merely lists of articles based on the past experience of Groseilliers and Radisson in trading for furs with the aborigines in New France. For the 1672 outfit, the Committee again depended on Groseilliers and Radisson, along with the help of Gillam, the captain on an earlier voyage, and Bayly, an early bayside trader [Rich, 1960a, p. 70]. These indents recognized that careful consideration was important because what was shipped had to be appropriate as replacements and took at least a full year [Rich, 1960a, p. 153]. The Committee began early to prepare a “Sheame of what goods are necessary to buy against the next Shipping.” At their meeting in 1681, a subcommittee was appointed to determine the:

... quantity of the Several Species of Goods and other Provisions that are to be furnished for the next Expedition and accordingly to bespeake and agree for them and Mr. Stone is to present to them a paper of all things that were Sent the last Voyage for their guide and direction [transcribed by Rich, 1945, p. 109].

In this way, the Committee became capable of reconciling shipments with inventories and trade [Rich, 1960a, p. 156]. For

example, a 1684 letter to bayside trader Sergeant from the Committee demonstrates its increased sophistication with respect to trade and implies that indents were being prepared by bayside traders [transcribed by Rich, 1948, p. 122]. The Committee says, "(t)he Invoice of Goods you say is wanting in the Countrey we Judge is very Extravagant for your Advicer has done it without consideration as in some things we will touch upon to make you sensible of the rest." It goes on to say, with an example of short guns, that with existing inventory there will be enough guns for more than two and a half years of sales at the quantity sold in a year if the full amount of the request is shipped, and that two years of inventory is the maximum that will be tolerated. In addition, by 1703, the Committee was asking for two-year indents. There was resistance, as seen in the letter from John Fullartine at Albany to the Committee [transcribed by Davies, 1965, p. 7]. Nevertheless, indenting was done for two years and extended when operations were moved inland after 1774.

Similarly, from the earliest years, the HBC was concerned with tracking inventory. The Committee's minutes for 1671-1674 indicate that records were maintained of trade goods, supplies, and furs loaded on ships, unloaded, and transferred [transcribed by Rich, 1942, pp. 3-5]. The following was an example of those instructions:

That the Accountante & husbände (warehouseman) forthwith make out perfecte invoices & gett billes of Ladeing Signed by the two comanders for all goods & provisions that are Laden aboard the two shippes to bee delivered to the governour together with his instructions, copies of all which are to bee kept here, & to See that the Shippes bee forthwith cleared at the Customehouse here [transcribed by Rich, 1942, p. 115].

Nixon, who became a bayside trader in 1679, was urged by the Committee to handle trade goods systematically, to return defective or unattractive goods, and to see that his warehouse keeper sent home annual lists of the stock on hand at the end of each season [Rich, 1960a, p. 109]. Furthermore, in 1683, the Committee sent instructions to Sergeant that he send home yearly a list of all employees ("Serveants in the Bay and their severall Employments") and a list of all trade goods and supplies ("an exact Account . . . of what remaines of all sorts of provisions and Stores as well as of Goods & Merchandizes in every of our Factories") in order to better manage operations

("that we may the better know what to sende") [transcribed by Rich, 1948, p. 79]. By 1692, there was growing evidence of meticulous record keeping. For example, in a letter to trader Geyer at York, the Committee asked: "There is a Box of Indian paint mentioned in Capt. Edgcombes Journall, wch.we never Received. We desire to be informed of it" [transcribed by Rich, 1957, p. 138].

However, it was not until 1810 that there were significant changes to the recording of inventories. An additional list was required of the quantity of goods of every denomination at all locations, in physical and monetary terms. The records were to be accurate and not estimates. Inventory counts were to be done at the end of each season and valued at cost plus an advance to cover the expenses of storage and transportation of ten percent for the principal (bayside) posts of Churchill, York, Severn, Albany, Moose, and Eastmain, 20 percent for the trading houses within the districts of the aforementioned bayside posts, and 30 percent for those of the two new inland posts, Saskatchewan and Winnipeg. Note, these advances were changed in 1813 to 2, 5, and 7½ percent respectively; the Committee's justification was that:

We found the rates formerly proposed would be too high, only part of the men's time is employed in housing and transporting the Goods, the rest being occupied in distributing the Goods to the [aborigines] and collecting, packing the Furs to the bay-side all of which operations must of course be performed after the time of taking the remains. We have therefore considered about 1/6 of the men's wages as expended in this part of the business and calculated the percentage accordingly as we are satisfied that this is near enough to the truth to answer all the purposes of the Regulation (HBCA, reel 39).

1880 to 1914: The modernization of communications and transportation provided the HBC with significant advantages in the 1880s. Previously, it had to finance a two-year inventory compared to three months with the railway [den Otter, 1990, p. 10]. In 1885, when the CPR was completed, the HBC established semiannual rather than annual indents, thereby saving money as well as time [Ray, 1990, p. 73]. Later, the telegraph enabled trade goods and supplies to be ordered directly as required [Innis, 1956, p. 360]. The indents were primarily for ordering items from England, which was a decreasing part of the trade

goods and supplies since most ordering could be done easily from local or North American suppliers as needed. Communications and transportation innovations permitted more reliable and frequent shipments of trade goods and supplies at a lower cost per unit than the previous system [den Otter, 1990, p.11]. The improved turnover was greatest at posts along the railway lines [Ray, 1990, p. 89].

The Board was unwilling to forego the substantial control that accompanied the annual outfits, not even to be more responsive to customers through more frequent ordering. The need for both responsiveness and control was achieved by establishing a quota of capital employed⁶ for each post or sales shop. In this way, the ordering would be held in check by pre-approved limits according to a circular from the commissioner [HBCA, reel 3M230]. Apparently, control over ordering by using capital employed was successful. The HBC was able to expand into sales shops, maintain the same fur-trading business, and increase profits with basically the same capital employed. This success was expressed in a memorandum to the commissioner [HBCA, reel 3M230].

Inventory was still counted annually (June 1). However, as the 1880 to 1914 subperiod proceeded, and as a larger portion of trade goods and supplies could be ordered and obtained relatively quickly, a decreasing portion received the detailed tracking that was done between 1821 and 1860. Less importance was placed on its recording because inventory was maintained for a shorter period of time as replacements could be more easily ordered. Two and three years of careful inventory planning with a series of indents were no longer necessary.

STANDARDS

1821 to 1860: To be viable, the HBC had to trade for furs that were worth more than all costs incurred. Ensuring that revenues exceeded costs was complicated by the long time lags and the multitude of costs that had to be incurred before revenues were received from the sale of furs. The actual recording of costs was onerous but necessary if the exchange rates between trade goods and furs were to be sufficient to cover and exceed

⁶Capital employed was defined as starting inventory plus inventory received (including that from other districts), cash, and employee wages, less cash provided to the HBC, employee debts, and transfers of inventory to other districts.

all those costs. In this regard, Simpson wrote the following in 1823 to the Committee:

... according to the present classification of goods with the various percentages there on much time is lost, inconvenience experienced and numbers of errors committed in making up the accounts as very few of our clerks are competent to go into the necessary fractional calculations with accuracy, we are therefore of opinion that it would simplify and facilitate the business greatly if a general average percent of inventories and transfers for each district was adopted founded on the actual cost and expenses of transport and shall be glad to know if such would meet your approbation [HBCA, reel 195].

This request was not unexpected. In 1822, the Committee had requested a schedule of advances or markups for use in calculating the value of inventories at posts. Those advances were based on the "information & data within our reach, and is probably an approximation to the true cost" [transcribed by Fleming, 1940, p. 323]. The result was a "Schedule of Advance" on the landed cost of trade goods and supplies [also see HBCA, reel 508]. The markup percentage was dependent upon the distance from port (e.g., York Factory or Montreal) and to some extent on the characteristics of the product.

Moreover, standard costs were implicitly included in each post's "Standard of Trade," which related all other furs and all trade goods to a made beaver. Individual post standards were adjusted for local conditions, distance from York Factory or Montreal, and changes in European fur prices. These standards provided explicit instructions on the amount of furs to be obtained from the trade goods in an outfit. In Exhibit 4, Innis [1956, pp. 318-319] provided an example of how the standard of trade worked for an aboriginal trapper with furs to trade.

In addition, the HBC used nonfinancial standards. With the information on performance, Simpson, through agreement by the chief factors in council, set travel and transportation standards in physical terms. For example, he constantly experimented with routes, the design of boats, and load weights to reduce the cost per pound shipped. Innis [1956, p. 292] noted that careful planning increased the loads of York boats on the North Saskatchewan River from 50 packs or pieces in 1822, to 60 in 1825, and 80 in 1833. Simpson also saved the HBC thousands of pounds every year through abolishing the custom of officers (chief factors and chief traders) travelling ahead with

EXHIBIT 4
Trading Furs for Goods

<u>Furs, by Type and Quantity</u>		<u>Value of Furs</u>		
Beaver, whole or full grown,	30	=	30	whole beaver
" , half or cub,	11	=	5.5	" "
Otters, prime, large,	1	=	2	" "
" , " , small,	1	=	1	" "
Fox, black prime,	1	=	2	" "
" , red,	3	=	1.5	" "
" , white,	4	=	2	" "
Martens,	9	=	<u>3</u>	" "
			47	" "

The trader gives the aboriginal trapper credit for 47 whole beaver with 47 quills, signifying the value in trading goods. The trapper perhaps will choose the following selection of trade goods.

A gun	11	quills
3 yards of cloth	9	"
3 lbs. of powder	6	"
8 lbs. of shot	4	"
1 large blanket	8	"
1 hatchet	2	"
1 file	1	"
1 3-gallon kettle	<u>6</u>	"
	47	"

Source: Innis [1956, pp. 318-319].

their families in light canoes rather than staying with the rest of the brigade, which travelled at the speed of the heavily loaded freight canoes and boats. Simpson insisted that officers travel with the freight, thus ensuring more direct control over the movement of trade goods and supplies. This practice was specified in the 1828 standing rules and regulations for the Northern Department [transcribed by Fleming, 1940, pp. 220-221].

1670 to 1774: The standard of trade existed from the HBC's beginning [Rich, 1960a, p. 75]. As the pre-contact aborigines had no conception of the use of money, the HBC had to establish an institutional framework that permitted barter on an accountable basis. To accomplish that end, a rigid standard was established by the Committee with the assistance of Radisson and Groseilliers. This system also prevented competition among HBC posts and the extravagant offering of trade goods for furs. The standard of trade encouraged a pattern of aboriginal life in which fur hunting and the annual trade journey to the Bay

became essential parts; certainty of trade conditions was necessary [Rich, 1960a, p. 76].

Establishing the standard of trade was complex, and though the official standard was rigid, the Committee expected traders to be flexible. Variations were assumed as long as, in the end, the specified trade goods produced the required furs. This expectation was expressed in a 1688 letter from the Committee to bayside trader Geyer at Port Nelson:

We would have you keepe, to the Standard, that Mr. Radisson agreed to, but with all to give the [aborigines] all manner of Content and Satisfaction and in Some goods Under Sell the French that they may be encouraged to Come to our Factory's and to bring their Nations Downe [transcribed by Rich, 1957, pp. 14-15].

From 1670 to 1810, the standard of trade was basically unchanged despite many variations to the relative prices of goods and furs over time [Rich, 1939, p. xxi]. The official Committee-imposed standard of trade was abolished in 1810, in response to the move inland that had begun in 1774 [HBCA, reel 6]. The singular standard which had existed for 140 years was replaced with a unique standard of trade for each post. In effect, it was the standard of trade developed in 1810 that lasted for decades thereafter. It was just as demanding as the rigid Committee-imposed standard, but it became flexible or adjustable for costs which differed with distance from ports.

1880 to 1914: The standardized costs started to cause the prices of some products to be out of line with those offered by competitors. This problem was expressed in an 1871 letter from Cyril Graham to the head of Committee [HBCA, reel 733]. HBC's standard of trade was replaced and held in check by market prices. Products continued to be assigned costs by a technique called "cost-landed" which included invoice cost plus all freight and charges [HBCA, reel 3M230]. These costs were easy to ascertain as common carriers such as steamboats and, especially, railways were used.

Without the standard of trade, and as barter was replaced with cash prices, the amounts to pay for furs became problematic. In a circular dated 1887, the Committee announced that the prices paid for furs (i.e., the fur-buying tariff) would be set at 20 percent less than the average price obtained at the last London sales [HBCA, reel 3M232]. The announcement went on to say that higher prices could be paid for higher quality furs,

but other prices would have to be lower in order for the average to be 20 percent less than the recent sales prices.

In summary, the standard of trade was no longer needed as market prices existed for furs and trade goods. Standards were used for the cash purchase of furs. Similarly, operational standards were not necessary for transportation costs as market prices existed where previously the HBC managed its own transportation network.

DISCUSSION

It was expected that the HBC would use management accounting more extensively when subject to more uncertainty and less extensively when there was less uncertainty. A number of steps were followed in assessing the evidence. First, the uncertainty facing the HBC for the 1670 to 1914 period was divided into three groups of parts or activities in the fur-trade operation – inland travel, trade conditions, and living off the land. The uncertainty inherent in these activities was dependent on the infrastructure and the strategy of the HBC. Infrastructure development varied from complete frontier without settlements and without a monetary system to railways and telegraph with pioneer settlements and a monetary system. Strategy also varied during this period. During its first century, the HBC pursued a sedentary strategy of waiting by the Bay for the aborigines to come to trade. With the move inland, the strategic focus was inland trading and, after the merger with the NWC, consolidation or cost cutting was added to that strategy for 1821 to 1860. Then, from 1880 to 1914, the strategy can be best expressed as modernization; the HBC used the developments in communications and transportation to improve operations.

Uncertainty was extensive from 1821 to 1860. Inland travel across half the continent in canoes and crude boats included substantial uncertainty, as did trade with aborigines when there was no monetary system and when the traders had to live off the land. There was more certainty during 1670 to 1774 before inland travel was necessary and before living off the land replaced the annual supply shipments from London. Similarly, uncertainty declined between 1880 and 1914. Inland travel was simplified with developments in communications and transportation. Trade conditions became more certain and less problematic with the introduction of a monetary system. Living off the land was no longer essential as settlement brought farmers,

manufacturers, and merchants to supply food and clothing.

Second, four important and dominant management accounting techniques were tracked over the entire 1670 to 1914 period – operating statements, budgets, inventory records, and standards. All were used during the entire study period to varying degrees, and all four were used extensively between 1821 and 1860. For the 1670 to 1774 subperiod, budgeting (i.e., indents and outfits) and inventory records were less important and less developed because there was not the logistical uncertainty associated with the inland strategic move. Operating statements called balance sheets were comprehensive and highly developed, but rigid, because of the made-beaver quantification. The use of standards was mixed. Standards were less developed for operational activities because there were no requirements associated with inland travel. However, the standard of trade was well developed and crucial.

Similarly, the 1880 to 1914 subperiod demonstrated less need for management accounting. The improvements in communications and transportation made possible the management of the dispersed HBC posts and sales shops with frequently prepared operating statements, which were called trading accounts. With the use of return on capital employed, the HBC was able to evaluate relative performance. And as there was a cash economy, there was less need for a standard of trade. There were markets which set per unit prices for revenue and cost items. The detailed indents and outfits were no longer necessary because trade goods and supplies could be ordered as needed. Also, with the ease of obtaining inventory, the detailed inventory records were not needed for keeping track.

In short, management accounting techniques were most developed during the subperiod of highest uncertainty, 1821 to 1860, and less developed for 1670-1774 and 1860-1914 when there was less uncertainty. This pattern is summarized in Exhibit 5.

CONCLUDING ACCOUNTS

With contrasting conditions of uncertainty because of various strategies and contexts, the HBC drew upon different strengths of the four management accounting techniques. Nevertheless, during each subperiod the HBC used all four techniques. The first subperiod, waiting by the Bay from 1670 to 1774, saw management accounting being used to *reconcile* all transactions. Trade goods and supplies were shipped, and the

EXHIBIT 5
Management Accounting Use Under Different
Uncertainty Conditions

	<u>Management Accounting Techniques</u>				
	Inventory		Operating		
<u>Uncertainty</u>	<u>Budgeting</u>	<u>Records</u>	<u>Statements</u>	<u>Standards</u>	
<u>1670 to 1774</u>					
Inland travel	Lower				
Trade conditions	High				
Living off the land	Lower				
Use of Technique	Lower	Lower	High	Lower	
<u>1821 to 1860</u>					
Inland travel	High				
Trade conditions	High				
Living off the land	High				
Use of Technique	High	High	High	High	
<u>1880 to 1914</u>					
Inland travel	Lower				
Trade conditions	Lower				
Living off the land	Lower				
Use of Technique	Lower	Lower	High	Lower	

Note: Uncertainty was rated as high or lower. Similarly, the use of each management accounting technique was rated as high or lower.

Committee knew if the furs returned were appropriate. It was in the second subperiod (1821 to 1860), after expanding inland and after the earlier system for reconciling was found to be inadequate in view of the extensive uncertainty being faced, that management accounting was used to *plan* carefully and profitably the multiyear shipment of trade goods and supplies. This subperiod was the most profitable and one of careful consolidation, which demonstrated that *managerial effort* and *dedication* were needed to make management accounting effective. The system was basically in place by 1810 or shortly after, but it did not work until the appointment of Simpson as governor of the Northern Department in 1821.

In the 1880 to 1914 subperiod, as the HBC pursued modernization, the operating statement, called the trading account, was primarily used for managing the posts and sales shops. This minimal accounting could be done as the uncertainty of

the earlier subperiod had been reduced. The business was relatively simple. There was a cash economy, prices and costs were known, and communication and transportation had never been better. In this context, the HBC truly pursued *management by numbers*.

The evidence was consistent with Johnson and Kaplan's [1987] contention that management accounting practices evolved positively with uncertainty. Management accounting practices of the HBC were most developed in the 1821 to 1860 subperiod, when uncertainty was the greatest, to assist managers through information to manage a multitude of uncertain activities or, in other words, a large number of different and unpredictable parts. Management accounting was less prevalent in the other two less uncertain subperiods (1670-1774 and 1880-1914), with fewer and more predictable parts, because managers had less need of it.

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MANAGEMENT ACCOUNTING PRACTICE AND PRICE CALCULATION AT BOULTON AND WATT'S SOHO FOUNDRY: A LATE 18TH CENTURY EXAMPLE

Abstract: When deciding upon the price to charge for one of their products, the managers of the Soho Foundry in Birmingham placed great reliance upon the data stored in their accounting system. By the last decade of the 18th century, the nature of the steam engine business was changing rapidly and reputation alone was insufficient to attract customers. Also, as more industrialists decided upon steam as a source of power and competition to supply their needs increased, more attention had to be paid to price structures. The increasing standardization of products meant that a price list could be determined. The partners showed some reluctance to come to terms with the pricing issue, insisting that the quality of their product was of more importance than its price. This paper addresses the processes undertaken at the Soho Foundry to establish price lists for engines and parts. It shows that prices were based on the cost of previous machines, this cost being calculated using predetermined rates as shown in the engine books. The paper concludes with the observation that continual reliance on historical data was one of the factors contributing to the firm's loss of its competitive edge.

INTRODUCTION

The 18th century in Britain was a time of transition in managerial practices. In the course of half a century, manufacturing in a number of industries moved from cottages and small workshops to great factories employing hundreds of people [Pollard, 1965]. Change came about as each manufacturing or-

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ganization responded to the challenges and the opportunities offered by new technologies and markets. The entrepreneurs of the time faced administrative as well as technical problems as their businesses evolved. Accounting often assumed new dimensions as it assisted entrepreneurs in coping with and adjusting to change.

In spite of, or perhaps because of, Pollard's [1965, p. 248] claim that cost accounting played an insignificant role in managerial decision making during the Industrial Revolution, there has developed a growing body of literature about the management accounting practices employed by the newly emerging businesses as each developed an accounting that suited its particular needs. Chatfield [1977, p. 101] tended to support Pollard's limited view of cost accounting when he asserted that a major use for cost data was to assist and moderate price estimates given by engineering firms. Certainly this was an important use of cost information, but it was by no means the only one. It is certainly a view not held by Robert Hamilton, the author of *An Introduction to Merchandize*, published in 1777 [see Mephram, 1988a,b for a discussion of this text]. According to Mephram, in addition to discussing practical costing techniques, Hamilton emphasized the use of cost to assist managerial efficiency [Mephram, 1988b, p. 55].

Since Pollard, there have been a number of studies which have lent support for a wider view of the involvement of accounting as a managerial tool during the Industrial Revolution in Britain. For example, McKendrick [1970] discussed Josiah Wedgwood's use of cost information by highlighting an incident where the calculation of costs by Wedgwood served as a check on the profits reported by the firm's bookkeeper. Wedgwood also used cost data to moderate prices during periods when trade was slack.

Edwards [1989] reviewed cost accounting developments in Britain to 1830 and concluded that a wide range of managerial decisions were supported by accounting data, a conclusion also reached by Fleischman and Parker [1990, 1991, 1992, 1997] in their investigations of the use of cost data for managerial purposes over a number of firms. Their 1991 article reported a survey of costing practices in 25 firms active during this period in which they found significant use of cost techniques as an aid to management. On the level of an individual firm, Fleischman et al. [1995] examined in some detail the cost investigations of James Watt jnr in the negotiation of a piece rate for the moulders at Boulton and Watt's (B&W hereafter) Soho Foundry

in 1802. This incident was also referred to by Williams [1994] in a discussion of the character of James Watt jnr.

Further evidence of the wider use of management accounting can be found in Walsh and Stewart's [1992] examination of the management accounting used by Robert Owen at his New Lanark (Scotland) cotton mill during the first part of the 19th century. They concluded that Owen had given accounting a role in the transformation of his workers from contractors to employees.

Other examples of this expanding literature are to be found in Edwards and Baber [1979] with their discussion of cost accounting at the Dowlais Iron Company, Stone's [1973] description of the Chorlton Mills of Manchester, Beckett's [1977] case study of a factory in the 1740s, and Jones' [1985] extensive discussion of the use of cost accounting in Wales in the 18th century. A number of other articles explored different facets of the active use of management accounting during this period, adding to the weight of evidence refuting Pollard's view [see, for example, Edwards and Newell, 1991; Edwards and Boyns, 1992; Fleischman and Tyson, 1993; Williams, 1997; Fleischman and Tyson, 1998].

This paper is concerned with the accounting activities of the B&W organization at Birmingham, a firm which is well known for its efficient operation [see, for example, Roll, 1930; Pollard, 1965; Fleischman and Parker, 1991; Fleischman, 1993; Williams, 1994, 1997; Fleischman et al., 1995]. This paper aims to add to the literature by exploring in depth one aspect of B&W's use of cost data, specifically its use of past costs in the development of a pricing policy for steam engines in the late 18th and early 19th centuries. It will also demonstrate the firm's reliance on this information in order to remain competitive in the face of an expanding market. The paper also adds to the work of Roll [1930] by providing detail of the material used by B&W in the development of its price list.

This paper adopts a microhistorical approach to the study of the development of B&W's prices because it is concerned with the actions and the thoughts of the individual actors. The term "microhistory" encompasses the study of an incident or individual in-depth rather than a group of people or an aggregation of events [for a further discussion of the term see Ginzburg, 1980, 1993]. It is not suggested that the process of price development used by B&W was typical of manufacturers in general. The study of the practice of accounting in a particular situation, however, does lead to a greater understanding of

accounting in its wider context. There is a danger when concentrating at a microlevel of obscuring the wider issues. A microhistory approach to the study of business practices in 18th century Britain, when there appeared to have been no standard management accounting practices, can do much to broaden our understanding, as each firm devised its own accounting information system in accordance with the precepts and views of its proprietor(s). Sharpe [1990, p. 35] points out how:

...once a grasp of the society in question has been established, the isolated social event or individual ... can be used to provide a pathway to a deeper understanding of that society.

Microhistory allows us to explore the reaction of individuals to the discipline imposed by the practice of accounting. The comprehensiveness of the cost data accumulated at the Soho Foundry has been mentioned by Roll [1930], Pollard [1965], and others as being well in advance of other firms. However, this assertion is based on existing, limited archival evidence. It may be that other firms may have used similar systems. Nevertheless, an understanding of the solutions B&W developed in response to its competitive environment provides an interesting study on its own. The series of documents described in the latter part of this paper illustrates a progression in corporate reasoning as the partners attempted to position their firm in an increasingly competitive market.¹

The manufacture of steam engines in the closing decades of the 18th century was a highly competitive business. B&W had to contend with other manufacturers who either pirated their design [Tann, 1980] or who made the older Newcomen engine which, although not as efficient as Watt's design, was feasible where coal was readily available [Hills, 1993]. Expanding cotton manufacture and its demand for power stimulated the market for steam engines. The impending expiration of Watt's patent in 1800 also stimulated interest in the market by potential manufacturers who were aware of the demand for these machines [see, for example, Briggs, 1982; Hills, 1993]. Even though the B&W organization tended to compete on quality

¹The Birmingham Central Library holds the exceptionally well preserved and very extensive Boulton and Watt archive. In all of the examples, original spelling and formatting have been maintained as far as possible.

and reputation² rather than price, it was concerned with the competition and did pay attention to costs when working up a price for a potential customer. It is the aim of this paper to examine the calculations undertaken in the process of price determination at B&W's Soho Foundry, a purpose-built, steam engine factory.

The first part of the paper provides a brief discussion of the B&W firm and the events that led to the establishment of the Soho Foundry. The second part of the paper describes the deliberations of the partners as they were confronted with the need to establish a standard price list. The discussion illustrates their use of cost information in this process.

THE STEAM ENGINE BUSINESS

The original partnership of B&W, formed in 1775, was established to act as consulting engineers in the erection of steam engines designed by James Watt [Roll, 1930; Dickinson, 1935; Tann, 1981; Law, 1990]. The steam engine developed by James Watt³ was more efficient and economical than the other engines then available [Roll, 1930; Dickinson, 1935; Law, 1990]. Initially the partnership supplied drawings of an engine and supervised its construction. Most of the parts of these custom-built engines were made by subcontractors who bore a large part of the risk. Matthew Boulton⁴ and James Watt selected appropriate specialists for particular pieces, more on the basis of the quality of their work than cost, because of a concern for the firm's reputation [Tann, 1981]. However, as time went by, in order to maintain the high quality of the product, more and more parts were made in Boulton's Soho Manufactory. By the early 1790s, over 50% of the value of the engines was made by the partners [Tann, 1981]. The nature of the business was

²In a letter to John Southern dated April 24, 1799, James Watt jnr wrote "... it is not our wish to vie with others in lowness of estimates, but in goodness of workmanship, being well convinced by long experience that the best Engines are the cheapest in the end" [B&W 33/5].

³James Watt (1736-1819) was born in Greenock, Scotland. He developed improvements to the steam engines then in use by using steam to exert a positive force on the piston and condensing the steam outside the cylinder. These improvements were patented in 1769, with the patent being extended in 1775. Watt formed the partnership with Boulton to exploit these ideas.

⁴Matthew Boulton (1728-1809) was an established manufacturer of buckles and other metal ornaments in Birmingham, England. His manufactory was established at Soho, just outside Birmingham.

changing as well, with customers being more interested in purchasing a complete engine rather than being bothered with the close involvement in its construction that had been necessary to this point [Dickinson, 1936]. Other incentives that inclined the partners towards manufacture in their own right included the attraction of a greater share of the profits, which hitherto had been taken by the external subcontractors. Even though these subcontractors were selected because of their ability, they were not solely concerned with the manufacture of steam engine parts which led to problems with quality control as well as a lack of standardization⁵ between subcontractors. This, together with the difficulties involved in coordinating the subcontractors, encouraged the partners' new direction [Tann, 1981].

By late 1794, B&W had come to the view that it would have to manufacture complete steam engines and not depend on subcontractors. In October a new partnership under the name of Boulton, Watt & Sons was formed to manufacture steam engines at a new foundry in Birmingham [Roll, 1930; Dickinson, 1935; Tann, 1981]. The partners were Matthew Boulton, and his son Matthew⁶, James Watt, and his sons James jnr⁷ and Gregory⁸.

SOHO FOUNDRY

The Soho Foundry was intended from the outset to be run as a separate business by Matthew Robinson Boulton, James Watt jnr, and Gregory Watt. Construction began in 1795 and was completed in the next year [Roll, 1930; Dickinson, 1935; Gale, 1962; Tann, 1981]. The Foundry was designed to manufacture complete engines and was unique in that, unlike other factories at the time which produced a varied number of products, its sole purpose was the manufacture of steam engines [Roll, 1930; Gale, 1962]. The new factory did not replace

⁵Most of the engine cylinders were made at the Wilkinsons' Bersham Ironworks, but an argument between the partners John and William Wilkinson and the resultant closure of the works ended this source of supply. Cylinders cast and bored by the Coalbrookdale Company were reasonably satisfactory, but this firm was unable to meet the demand. Cylinders produced elsewhere were unsatisfactory [Rolt, 1962].

⁶(1770-1842)

⁷(1769- 1848)

⁸Gregory Watt (1777-1804) was a half-brother to James jnr. Always suffering poor health, he died of consumption at the age of 27 [Rolt, 1962].

Boulton's Soho Manufactory which continued to assemble engines and make parts for a number of years.

In its first year of operation, the Soho Foundry accepted orders for 31 engines and by 1800 had produced 169 [Tann, 1981]. Matthew Robinson Boulton seems to have been very much involved in the initial planning for the Foundry, while James Watt jnr, judging from the amount of calculations and costings in his handwriting, seems to have been more concerned with managing daily operations [Dickinson, 1936].

The Soho Foundry had three main operating departments. The Foundry Department cast engine parts, the Smithy Department manufactured parts from wrought iron, and the Fitting Department machined the parts and fitted the engine together. Each of these departments was treated as a profit center. The products of both the Foundry and the Manufactory were sold by one organization, but the records distinguish between the products of each. The Soho Foundry was operated as an independent entity and was expected to make a profit, as were each of its operating departments.

PRICES

Originally, the older Watt and Boulton charged a yearly premium for their engines rather than a straightforward price because they supplied the knowledge to build the engine rather than the individual parts [Tann, 1981; Hills, 1993]. When first introduced, the premium was equal to one-third of the savings in coal usage which resulted from the more efficient B&W engine compared to the older atmospheric steam engine [Tann, 1981]. This was an ingenious and profitable procedure as the partners tended to sell the majority of their engines to the mines in Cornwall where coal was very expensive and the savings due to the Watt engine considerable. As the organization supplied more and more engine parts, it charged for those parts supplied. The yearly premium or royalty was based on the actual number of strokes made by the engine as measured by a counter designed by Watt⁹ [Rolt, 1962; Tann, 1981]. Eventually

⁹Watt snr carried out a number of experiments to determine the relative efficiency of various sizes of engines and developed a calculation to enable him to determine the premium payable on any one engine. To decide the actual premium in any one year, it was necessary to determine the amount of work done, so he invented a device to count the strokes of the engine [Dickenson, 1935; Rolt, 1962]. Eventually, the premium was calculated by using a formula based on horsepower [Fleischman and Parker, 1992].

the royalty became fixed at £5 per horsepower per year for rotative¹⁰ engines used outside London and £6 for engines used in London [Jones, 1973; Tann, 1981; Fleischman and Parker, 1992].

By the 1790s, engine purchasers were given the opportunity to commute the premium by discounting it to a lump sum. According to Tann [1981], the majority of new purchasers accepted this offer. A letter to Watt jnr from John Southern [B&W 19/6] shows an example of the calculation for the commutation of a premium. By the time the organization was supplying the whole engine and steam engines had become a commodity, it was obvious that the pricing system was inadequate. Roll [1930, p. 312] quoted a table titled "Prices for Rotative Engines" which he believed relates to August 1795. This table shows a comparison of the amount the firm could expect from a number of different-sized engines based on parts supplied plus the premium over five years compared to a fixed price based on the cost of the engine plus a markup of 50%. The amounts calculated by the two methods were very similar, so a change to a set price would not reduce profitability and would reduce the work required to collect the premium.

Need for Change: Determining the price to charge seems to have been a continual problem to Watt jnr and Matthew Robinson Boulton. Increasing competition, from manufacturers such as Matthew Murray and Richard Trevithick [Hills, 1993], coupled with the fact that the annual premium was never popular with the customers, meant the partners had to pay strict attention to pricing. It was no longer sufficient to trade on quality alone. The change from charging a premium based on usage to a set price required a change in methods of calculation. To this end, engine cost became the basis for price calculation.

There was a common pricing structure for the engines built by B&W, whether they were built at Soho Foundry or assembled at the Soho Manufactory. The prices charged did not include transport, which was paid by the purchaser. After testing, the engines were disassembled for transportation and usually shipped by canal barge.

¹⁰Originally steam engines had a reciprocating motion, but by using a sun and planet gear this was transferred into a rotational force. Referred to as "rotative" engines, this was an important innovation since it meant that steam engines could be coupled directly to other machinery.

The considerable correspondence and price calculations still existing are an indication of the partners' concern for prices. The first word came from the elder James Watt in a letter to Matthew Robinson Boulton:

Soho June 1st 1796

M^r M. R. Boulton

Dear Sir

As your father & myself considering the general subject of premiums it appeared to us that they might with propriety be charged as follows taking M^r Southern's¹¹ estimate of 12 horse engine for an example

neat cost materials		£308
manufacturing profit 20 p ^r %		68
Premium 50 pr Ct on neat cost		154
Boiler		60
10 p ^r % on	Do	6
		<hr/>
		£596
		<hr/>

or if you think that is too little

materials & 20 p ^r %		376
premium 50 p ^r %		188
Boiler + 10 p ^r cent		66
		<hr/>
		£630

We think that we have no title to 50 p^r % on boilers not being made by ourselves, there is little besides the risk of bad debts - however we wish to leave the whole open till we are all at home, & I think it cannot be satisfactorily settled till there is a view of this years transactions & profit, at present it is better to ask something too much than too little.

Small engines should pay a greater percentage than larger ones, otherwise will be attended with loss, as requiring so much trouble, we should look now to the conclusion of the patent & when all settle prices settle also what we can probably work for when that is required.

¹¹John Southern (1758-1815) joined B&W as an assistant draughtsman in 1782 and remained with the firm until his death in 1815. He was a trusted and valued friend and employee and he was admitted as a partner in 1810. Southern is reputed to have invented a device for measuring changing cylinder pressures in 1796 [Roll, 1930; Dickinson, 1935; Rolt, 1962].

I have no news since my last & remain

Dear Sir

Yours affectly

James Watt

[B&W D/1]

While having an appreciation of the direct cost of manufacture, the letter indicates that Watt was unsure about indirect costs with the markups of 50% on cost as well as an allowance for manufacturing profit. The “neat cost materials” referred to the cost of the various engine parts which included material plus direct labor [as detailed in the Engine Books B&W 231]. The alternative calculations provide an interesting comparison by allowing a markup on the profit already added to the cost.

Each of the operating departments at the Soho Foundry was expected to make a profit. The transfer price from each department included a markup to which the organization added another allowance for profit to the accumulated cost. Pollard [1963] suggested that this practice had its origins in the traditional practice of subcontracting with each department treated as if it were an independent unit. This relationship was illustrated in the discussions leading to the fixing of piece rates for the moulders described in Fleischman et al. [1995] and Williams [1994]. Whatever its origin, this practice was an efficient way of managing the operation with responsibility for profitable operation being given to the managers. Documents from MPB 285/28 [quoted in Williams, 1997, p. 177] show a comparative profit and loss account for the Smithy, Foundry and Fitting Departments for the Soho Foundry for 1798. The Smithy made a loss while the other two departments made gains.

The steam engine business was very profitable for the firm, and prices it charged were considered by some higher than perhaps they should have been. The young partners were obviously sensitive to this public opinion as the following extract in a letter from Watt jnr to M. R. Boulton (July 10, 1798) shows [B&W E7]:

... opposition we experienced from Murray¹² at Leeds, that attempted by Hawkes here & the report generally

¹²Matthew Murray manufactured engines in Leeds. Boulton and Watt had suspicions that Murray had infringed the patent but took no action against him until after 1800 when they opposed his patent application [Tann, 1980].

prevalent & generally accredited of the *enormity of our profits upon Rotative Engines* [emphasis added], make me think seriously that we ought at an early period, perhaps at the close of our books in Sep^r to adopt a new Tarif of Prices. If the present premium on Rotatives were reduced to 30 per %, we might keep it at that rate for a few months & then reduce it farther if judged eligible. It should also be an object of consideration, whether the Londoners should not be put upon the same footing with their neighbours in the Country. Perhaps 25 per % might be advisable for Colliery Engines, in order still to keep up some distinction between them & others as arising from the very great difference of the value of savings. It will be prudent in us whilst we yet may, to secure the trade in our own hands, by removing in part the incitement to rivalry & bringing matters to that state, in which we can still carry on the business with a reasonable profit after the expiration of the patent.

The move to lower the prices was caused by a desire to reduce potential competition. This is reinforced by Watt's comment about colliery engines. Collieries had the advantage of cheap coal which made the less efficient but cheaper atmospheric engines more cost effective and a viable alternative to the B&W product. The letter implies a reluctance by Watt jnr to let go of the "enormity of our profits on Rotative Engines," with an almost fatalistic acceptance that the good times were drawing to a close, requiring the firm to bow to the inevitable lowering of prices and profits.

Development of a Price List: By 1798, 14 engine sizes were offered to the market [Roll, 1930]. Each was customized to the requirements of the customer but was assembled from standard components, allowing a standard price to be set. Whether to charge a different price to customers in London was a question the firm struggled to answer and one that was unresolved for some time.

James Watt jnr proposed a differential price structure in a letter to Boulton jnr several months later [MBP 353/61]:

Horses	Country	London	Add'l Boiler
4	£350	£366	£32
6	379	398	38
8	473	497	45
10	523	548	60

12	560	588	68
16	727	763	90
20	800	840	110
24	1040	1092	132
30	1120	1176	160
32	1156	1214	172

M R Boulton
Scarborough

Soho 11 Sep^r 1798

Above you have a synopsis of the new Estimates. They may reckoned to take place in all Engines sent from hence after the end of the present Month.

In framing these, the old estimates have been left quite out of the question & we have proceeded upon *what appeared to be the real costs by Foreman's books* [emphasis added¹³]. These we have determined by taking out all those of a size that have been made since the prices were raised & the steam cases added; we have then deduced an average cost and added about 5 per % to cover deficiencies & to provide for trifling additions either in the way of improvements or extraordinary size of Rotative Shaft & c. The Boilers have been taken as they stand charged in Foreman's books (where a profit of 16 per % is already laid on by the Manufactory, which considering the little trouble we have with them is enough on that score) and their average amount has been added to the sum obtained as above for metal materials. This has been assumed as the full cost & to it has been added 33 per % for the country prices & 40 per % for London.

An example will make this more clear.

The Average Cost of the MM of a 4 Horse Eng.	£220
5 per % about	£ 10
Foreman's charge for Boiler	32
	<hr/>
Total manufacturing cost	£262
Country premium 33 per %	88
	<hr/>
New Country Price	£350
	<hr/> <hr/>

If the boiler is not to be furnished by us you deduct its cost as stated in the fourth column & we remain in

¹³Foreman was the accountant/bookkeeper for the Engine Manufactory; he did have an oversight over the accounting records for the manufacture of engines whether made at the Foundry or Manufactory.

proportion of the percentage charged for Premium. This appeared the simplest mode of proceeding - The London prices have been calculated at 40 per cent. It was thought advisable not to bring them down at once to the country prices, but to lessen the disparity gradually; the one is therefore reduced 17 & the other 23 per % -

Perhaps upon comparing these with the old prices, you may not think we have taken off enough; neither do I. But it may be well to go to work gradually, to try these for half a year & then perhaps to come down to 25 per % on the Country & 33 on the [London]

I have also to add, that Southern otherwise engaged, these estimates have been taken somewhat grossly and will admit of revisions and corrections when we are all together. For the present, they are on the safe side.

[Signed] J Watt junr.

These prices were based on costs in the Manufactory, but applied to those engines produced by the Foundry as well. The term MM refers to metal materials; i.e., the cost of the various parts and the assembly of the engine. Watt's calculations show some inaccuracies, which is rather surprising for one who was usually very meticulous.

The partners showed further concern with public opinion as well as the effects of increasing competition. Boulton & Watt engines enjoyed a considerable reputation for quality, but they were expensive. There were other manufacturers in the market, who, the partners felt, did not offer products comparable in quality, but whose engines nevertheless met most of the customers' needs at a lower price.¹⁴ The cotton manufacturers, a major group of potential buyers, were interested in value for money and were prepared to seek alternative solutions to their power problems. Consequently, the firm had to contend with water power as well as other engine makers.

Matthew Robinson Boulton reiterated the concern with public opinion when he wrote to James Watt jnr, who was in London (December 18, 1798), that he would:

¹⁴Von Tunzelman [1978, p. 54] presented a comparison of steam engine prices which indicated that B&W were considerably more expensive for larger size engines; e.g., in 1804 they charged £1,083 for a 20-hp. engine whereas Fenton, Murray & Wood charged £600 and Goodrich £750. For engines up to 10 hp., B&W appear to have been competitive.

... if possible get an estimate [of brass air pumps] & forwarded by this evening's coach & shall accompany it with a new list of prices of Engines - we find that considerable embarrassment will ensue unless the reduction of our estimates is made very gradually the whole reduction proposed to take place before March 21st 1799 viz from 45 p^r% to 33 on London & f^m 33 to 25 p^r% on country we think should be effected by monthly deductions - without this precaution we shall have much difficulty in steering clear of Disputes upon this subject & certainly not succeed in accomplishing the alteration with exciting public attention. . .

[B&W 38/4]

A second letter to Watt, written later that day, lists the proposed prices with the further proviso that the premium be reduced on a monthly basis and stresses the need for gradual reductions, perhaps hoping that no one would notice. He wrote:

I send you herewith the prices referred to in my letter of this morning & we propose them for the ensuing month to be stated at one p^r % less or at 34 & 28 p^r % upon metal Mater^s & similar reductions to take place monthly till we arrive at the permanent standard - Perhaps it may be judged expedient to make a larger deduction from the London prices in order to bring them sooner to the same standard as the country. From your recent transactions with the Londoners you will be enabled to judge whether this distinction has or is likely to create any dissatisfaction & of course to decide upon the propriety of extinguishing it more rapidly . . .

[B&W 38/4]

Watt jnr's reply came from London a few days later when he expressed some disquiet over the price reductions. He responded that he could not:

... help thinking that the proposed monthly reduction will be troublesome & create some confusion with respect to orders transmitted by Lawson, or any other itinerant agent. The further reduction to be made at 4 p^r % in one instance & 10 in the other is so small, that I do not fear its having the effect you apprehend, more especially as the last very considerable reduction was not attended with such consequences & appears indeed to have escaped observation. I should either propose to continue the estimates you now give, for six months, & then take 4 p^r % from the Country & 5 p^r % from the

London price. The remaining 5 might remain upon the London Engines until this time twelvemonths. I presume you have not yet made new Estimates, nor do I think you can, until several Engines have been made with the proposed alterations, which I hope you are now carrying into effect. They will add to the price considerably, unless deductions can be effected in other matters . . .

[B&W E/7]

The problem seems to have been to find a way to make the inevitable price reductions unobtrusively. Watt's last comment sounded a note of caution by suggesting that cost cutting might become an issue as new changes were made to the engines they had on offer.

Four months later, on the eve of the expiration of the engine patent, the issues of the firm's image, its prices, and its competitive environment were highlighted by Watt jnr in a letter to John Southern (April 24, 1799) when he wrote:

I think the estimates you propose sending to Mr Tewsbury very proper, and I also think it very right that the topics you state should be urged at some length, particularly that our prices now, comprehended nothing but a manufacturing profit & will not be effected by the expiration of our exclusive privilege. That it is not our wish to vie with others in lowness of estimates, but in goodness of workmanship, being well convinced by long experience that the best Engines are the cheapest in the end. . . .

[B&W 33/5]

Even though the generally held view was that B&W engines were the best available, Watt jnr was well aware that many potential customers were prepared to compromise quality if substantial cost savings were to be made. Watt held a very short-term view because engines using high pressure steam would soon become available and offer greater output for lower overall cost [Hills, 1993]. The B&W engines, while strongly built, did not change with advancing technology.

Use of Cost Information: In attempts to set a price for the different sizes of engines, Watt continually referred to the cost of engines already built as they were listed in the engine book rather than base cost on a "standard" engine for each capacity. The engine books are large books consisting of a printed list of

all the parts required by a particular engine under the headings "Cast Iron," "Wrought Iron," "Brass," "Miscellaneous," and "Fitting." The list is very detailed and as there were slight differences between engines, the detailed list of parts for a particular customer could be specified. When working up a cost for a particular engine, standard rates were used for the different parts. These standard rates seem to have been determined as a result of negotiations with employees and did not result from an imposed standard [see Williams, 1994; Fleischman et al., 1995 for a discussion of this process in relation to the Foundry Department]. The standard rates appear to have been constant for a number of years. Comparisons between the "standard" cost of an engine and actual costs were made elsewhere; yet, the engine book data were used for price development. There appears to have been no attempt to use actual cost, even though actual cost was available, nor is there any explanation for this procedure.

The costs used in the following calculations come from the engine books. These two examples are taken from a document entitled "Calculations for new Estimates 4th June 1801" and illustrate the calculation of price based on past cost. The document, in Watt jnr's handwriting, includes calculations for eight different size engines:

Example 1:

4 Horse

18 Nov ^r 1800		
Bryson & son		267
add Cisterns for feed App ^s }	}	
& hot water }	}	2
Additional price of Boiler }	}	
2/- p ^r Cwt on 13 Cwt }	}	1 ,, 6
		270 ,, 6
	25 p ^r %	67,, 11
		£ 337,, 17

But as a greater proportional profit should be laid on these small Engines to Compensate for the trouble of drawings &c it may stand in the Provisional Est^s at £ 350.

[B&W 7/VI/14]

At this time 4-horse engines were not very common, and it was felt that a small engine might create extra cost in its design and assembly. Indeed, the elder Watt had made this very point in his letter of 1796, quoted above:

Example 2:

		<u>14 Horse</u>		
1800				
20 Aug	Rigby & Chadwick		500. 4. 4	
	Deduct for Crank Fly Wheels }			
		£30 }		
	do Extra size of B ^r	10 }	40	
		—	—	£460. 4
10 Dec ^r	Huddart & Co		489. 16	
	Deduct for Crank & fly wheels			
		30		
	Do for stop pipe	5. 5	35. 5	
		—	—	£454.11
1801				
21 Jan ^y	Hibbert & Smethurst		486. 4	
	deduct for Dbl Crank Motion 21			
	Stop pipe & bonnet	5. 4	25. 4	
		—	—	461
				—
				3 1375. 15
				458.11
	Add for Cisterns			2
	Add ^l for Boiler 33 ^{cwt} at 2/-			3. 6
				—
				463. 17
	25 p ^r %			114. 19
				—
				£578. 16

Call it £600 as before

[B&W 7/VI/14]

The second example shows the calculation of a base cost for these three engines by removing from the calculation the cost of unique parts by taking an average, adding the cost of additional items, and then adding a markup. The standard costs for each individual engine manufactured were recorded in the

Engine Books. As an example of the origin of the costs used in the price calculations, the Engine Book for February 1800 - February 1802 [B&W 232] lists the costs (summary) for the Rigby & Chadwick engine mentioned above as:

	Cwt	Qrs	Lbs	£	S	D
Cast Iron	192	2	5	210	17	1½
Wrought Iron	16	1	11	73	7	11
Copper Brass &c	4	2	4	53	2	1
Boiler	35	25	73	19	4½	
Stores				5	8	6
Patterns				19	7	
Carriage				4	17	
Fitting				59	5	4
				<hr/>		
				500	4	4

The price calculations, and there are many still in existence, all show the same attention to detail with succeeding price calculations being based on the average engine book cost of previous engines of the same size.

As time went by, the products the firm offered became more standardized; yet, reference to past cost was continually made in the calculation of the price of engines. The markup eventually declined to 25%, and then to 20%, with no extra premium for London.

Monitoring Price: As successful businessmen, the partners were obviously concerned to make sure that costs were covered and a profit made. Watt jnr monitored costs and prices to ensure that this continued to be the case. For example, a document entitled "List of Engine Materials and Premiums from 30th Sep^r 1798 to Do 1799" [B&W MII/7/2] compares the price with the actual cost of all the engines built by both the Foundry and the Manufactory during that period. Differences between the actual profit and the computed profit based on a percentage applied to engine book or "standard" cost were calculated and the differences noted. In all cases a reasonable profit was made; however, overall actual profit was lower than the expected profit. This particular document makes no attempt to explain the reason for the differences. However, the document reflects a sophisticated awareness of the use of accounting data as a control tool. Perhaps complete correspondence between estimates and actuals was an unreachable ideal because of the problems

of estimating overhead. Nevertheless, management spent a considerable effort in refining its attempts.

Price of Engine Parts: Price calculations were not limited to the price of whole engines because a comprehensive list of prices for individual spare parts was built up. Generally these prices were based on the standard or engine book rates for making that part plus a markup of 20 - 25% [B&W 7/IV]. In order to calculate new prices, reference was continually made to the cost of parts made previously. The comprehensiveness of this process is illustrated in a document relating to the calculation of the cost of a cast-iron beam rather than a wooden beam for a 40-horse engine in 1802. There appears to have been an inquiry as to the extra cost, a cast-iron beam having technical advantages over a wooden one:

<u>Beam</u>	<u>Extra Materials</u>	<u>A & G Murray</u>	<u>March 1802</u>
Cast Iron Beam	56.	1.16	20/- 56. 7.10
Turning & fitting Do			9.12
Part expence of pattern			6.12. 6
2 Wrot Iron Cutters for Caps	1.	4. 2½	
16 Steel wedges		<u>11. 1</u>	1.15. 3½
Blacking & weighing			<u>1</u>
			£ <u>75. 7. 7½</u>

=====
 Calculation of the difference between a Cast Iron Beam & a Wooden Beam for a 40 Horse

Materials of Cast Iron Beam as above		75. 7. 7½
Main Gudgeon	5. 1. 21	
Outer end Do	1. 3. 22	
Inner end Do	1. 3. 24	cwt
Caps for Do	1. 2. 16 say 11 at 20/-	11
Boring & Turning Gudgeons & Caps		6. 6
Do Main Gudgeon		17. 6
Part Expence of patterns		<u>1. 3. 6</u>
		£ 94. 14. 7½

The following are from Mess^{rs} Wormauld & C^{os}

Wooden Beam - charged at the present prices - 1802

Main Gudgeon	cwt	4. 0. 10
--------------	-----	----------

Saddle plate & Glands for int ^r extd	1. 3.		
Gland for Centre of Beam	3. 0. 1		
Sad & Plate & Glands for outer end	1. 1. 6		
	<u>10. 0. 17</u>	@ 20/-	10. 3. 0
7 Pins & Nuts inner and back end			
saddle plates	151 at 7 ^d		4. 8. 1
2 Beam Straps Nuts &c	205 at 7 ^d		5. 19. 7
Wrought Iron Gland for			
back end of motion	22 at 7		. 12.10
end of beam	176 at 7 ^d		5. 2. 8
Turned pin for outer end saddle plate	47		2. 7. 0
Turning Centre Gudgeon			12. 6
Patterns			1. 1
Weighing blacking &			10.
			<u>30. 16. 8</u>
Difference of Cost		£	63. 17. 11½
			<u>15. 3.</u>
			79. 10.

[B&W 7/IV/60]

Note that the difference in cost includes the markup of 25% rounded down to achieve an even value, a common practice. This customer would then have been asked to pay an extra £79 to have a cast-iron beam fitted instead of a wooden one. It should be noted that there was no allowance for timber in the calculation of the price of the wooden beam because it was usual for the customer to supply the beam and the firm to supply the appropriate fittings.

The document continues with the calculation of other parts based on “extracts from the printed Daybook. . . .” The standard costs of past work were used in many calculations and estimates relating to future work. The record of past costs formed an important database to be used in the calculation of all prices.

CONCLUSION

The Soho Foundry was a new venture, designed from its inception to build steam engines. Consequently, the factory was built to ensure smooth and efficient working. The factory that was built and staffed with dedicated, highly skilled, and innovative people operated for many years. The Soho Foundry was designed to operate in the same way as its products. As a steam engine was designed to produce power, so too was the factory

designed to produce steam engines smoothly and efficiently. As steam engines were designed to be self-governing, so too the factory, with accounting providing an essential part of this governance.

The accounting system was set up to reflect the organization of production. It was designed around profit centers and recorded the flow of materials and work from one department to another. Product was transferred using predetermined transfer prices. Because the Soho Foundry was a pioneering venture, it is important not to judge workable solutions found to the problems that arose in the light of present knowledge and practice because of the differing contexts. The accounting processes extant at the Soho Foundry in its early years continued for many years, so it is reasonable to assume that they supplied the perceived needs of that time. Certainly the existing number of documents showing calculations still indicates that the accounting system provided a database that was used by Watt in the managerial process. Yet, it does not appear to have been used to produce budgets or other forecasts.

In price calculations no reference was made to the prices charged by the competition. All calculations were based on previous engine-book cost. B&W engines were in a unique situation, having been the first to use a condenser, leading to greater efficiency and cost saving. Because of this uniqueness, the firm traded on its reputation for quality but pursued with equal vigor those firms that pirated their designs and tried to undercut their prices [Roll, 1930; Tann, 1980]. However, the impending ending of their patent in 1800 and the subsequent expected expansion in competition forced its attention to the pricing structure. The letters of the partners show their concern with public opinion, yet imply a reluctance to engage their competitors. Their celebration of their reputation for quality and continual reliance on historical data failed to encourage risk taking, and the firm soon lost its innovative edge. Compound and high-pressure steam engines gradually captured a greater share of the market [Law, 1990; Hills, 1993].

Cost accumulation was an important activity and was a basis for further activity. Costs were used as a basis for prices and as a check on profitability. As the above examples show, prior costs were referenced when preparing quotations for the supply of engines and the development of a standard price list. They were also referred to when working out prices for non-standard engines or parts. Accounting information was crucial in establishing a base line for these calculations. The accumu-

lated facts of the past then became a basis for the actions of the future.

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THE EVOLUTION OF THE CONCEPTUAL FRAMEWORK FOR BUSINESS ENTERPRISES IN THE UNITED STATES

Abstract: Institutional efforts in the U.S. to develop a conceptual framework for business enterprises can be traced to the Paton and Littleton monograph in 1940 and later to the two Accounting Research Studies by Moonitz and Sprouse in 1962-1963. A committee of the American Accounting Association issued an influential report in which it advocated a “decision usefulness” approach in 1966, which was carried forward in 1973 by the report of the American Institute of CPAs’ Trueblood Committee. All of this laid the groundwork for the conceptual framework project of the Financial Accounting Standards Board (FASB), which published six concepts statements between 1978 and 1985. A seventh concepts statement is likely to be published in 2000. It is still not clear how the FASB’s conceptual framework has influenced the setting of accounting standards, and some academic commentators are skeptical of the usefulness of all normative conceptual framework projects.

THE BEGINNINGS¹

The earliest attempts to develop a “conceptual framework” in the U.S. accounting literature were by William A. Paton and John B. Canning. In his *Accounting Theory* [1922], Paton presented “a restatement of the theory of accounting consistent with the conditions and needs of the business enterprise *par excellence*, the large corporation” [pp. iii-iv], and in the final

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¹For a review of the early efforts by the American Accounting Association and the American Institute of (Certified Public) Accountants, see Storey [1964] and Zeff [1972, pp. 129-178; 1984].

chapter he discussed a series of basic assumptions, or “postulates,” that underpin the structure of modern accounting. In *The Economics of Accountancy* [1929], Canning was the first to develop and present a conceptual framework for asset valuation and measurement founded explicitly on future expectations. Paton’s book was an expansion of his doctoral dissertation done at the University of Michigan, and Canning’s was his doctoral dissertation accepted by the University of Chicago. Through these works, Paton and Canning influenced many other writers over the years [for Canning, see Zeff, 2000].

Probably the first institutional attempt to lay the foundations of a conceptual framework was the “Tentative Statement of Accounting Principles Affecting Corporate Reports,” issued in 1936 by the executive committee of the American Accounting Association (AAA) and published in *The Accounting Review*.² The main reason for preparing the “Tentative Statement,” a paean to historical cost accounting, was to provide authoritative guidance to the recently established Securities and Exchange Commission (SEC). In fact, the SEC’s accounting staff frequently cited the “Tentative Statement” with favor, as well as the revisions thereof issued in 1941 and 1948 and the eight supplementary statements issued between 1950 and 1954. The final revision of the Statement, issued in 1957, proved to be too venturesome beyond established practice for easy acceptance by the SEC.

An outgrowth of the AAA’s 1936 “Tentative Statement” was perhaps the most influential monograph in the U.S. accounting literature, *An Introduction to Corporate Accounting Standards*, written by Paton and A. C. Littleton, two of the foremost accounting academics of their day, and published in 1940 by the AAA. Above all, it was an elegant explication and rationalization of the historical cost accounting model that was already widely accepted in the U.S. It met with general acclaim and was used for many years in accounting courses throughout the country. The Paton and Littleton monograph, as it came to be known, probably did as much as any single publication to perpetuate

²The most comprehensive review and analysis of the evolution of the efforts to formulate a conceptual framework in the U.S. is Storey and Storey’s *The Framework of Financial Accounting Concepts and Standards* [1998], which should be consulted by any serious student of the subject. Reed K. Storey, the senior author of this study, was a long-time member of the FASB’s research staff and was a major contributor to the board’s conceptual framework project. For a skeptic’s view of conceptual framework projects, see Macve [1997].

the use of historical cost accounting in the U.S. Their monograph also popularized the use of “matching” costs and revenues, widely known as the matching convention. Reed K. Storey [1981, p. 90], who devoted most of his professional career to guiding the research for the Accounting Principles Board and the Financial Accounting Standards Board, wrote:

The [Paton and Littleton] monograph was a startling exception to the general proposition that academic writing has had little effect on accounting practice. . . . Generations of accountants learned to use it as scripture. . . .

During the 40 years since the Paton and Littleton monograph, accounting practice has developed substantially along the lines specified in the monograph, and rationalization and theory consistent with the monograph have been widely used and have been common in authoritative pronouncements.

Two years before the Paton and Littleton monograph appeared, the American Institute of Accountants (AIA) published *A Statement of Accounting Principles*, by Thomas H. Sanders, Henry Rand Hatfield, and Underhill Moore — two accounting academics and a law academic — which was, in large measure, a defense of accepted practice. The monograph had been commissioned in 1935 by the Haskins & Sells Foundation in order that the fledgling SEC, which had declared an interest in prescribing the form and content of financial statements in registration statements, might be provided with some authoritative guidance on best accounting practice. In 1938-1939, the AIA became even more active in providing guidance to the SEC when it authorized its Committee on Accounting Procedure (CAP) to issue Accounting Research Bulletins. In one of its first decisions, the committee rejected the option of developing a comprehensive statement of accounting principles — a kind of “conceptual framework” — because the project would take perhaps five years to complete, during which time the SEC might lose patience with the committee and instead begin to make its own accounting rules [Zeff, 1972, p. 137]. Several times in the 1940s and 1950s during the tenure of the CAP, proposals to develop a set of basic accounting concepts were expressed, and in the 1940s the Institute’s research department actually issued an eight-page review of basic accounting principles [AIA, 1945]. However, none of these initiatives was taken up by the committee as part of its program of work [Zeff, 1972, pp. 141-143].

Also during the 1940s and 1950s, both within the Institute's committee and between the committee and the SEC's accounting staff, an accumulated frustration arose from disagreements on a number of controversial accounting issues, including deferred tax accounting, historical cost v. current value, the propriety of general price-level adjustments, and the treatment of unusual items in the profit and loss statement. Representatives on the committee from the major public accounting firms differed philosophically on the pervasive issue of whether to impose a greater degree of uniformity or to permit flexibility in the choice of accounting methods [see Zeff, 1984, pp. 458-459]. This continuing discord reflected unfavorably on the work of the committee. Believing that a stronger research component was needed to support the committee's deliberations, the Institute's incoming president, Alvin R. Jennings [1958, p. 32], proposed establishment of a research foundation that would "carry on continuous examination and re-examination of basic accounting assumptions and to develop authoritative statements for the guidance of both industry and our profession." At the same time, Leonard Spacek [1957, p. 21], the pugnacious managing partner of Arthur Andersen & Co., was publicly criticizing the accounting profession for not establishing the premises and principles of accounting. Pressure began to build for a better approach to establishing "generally accepted accounting principles" (GAAP) than was being done on a case-by-case basis by the CAP. It was hoped that a program of fundamental research could enable the committee to resolve some of its deep disagreements and also to persuade the SEC of the merit of new approaches. Jennings thereupon set up a Special Committee on Research Program to study and make recommendations on the Institute's role in establishing accounting principles, including especially the research component.

ERA OF THE ACCOUNTING PRINCIPLES BOARD

The Institute's Special Committee on Research Program was composed of leading figures from the ranks of auditors, preparers, and academics, and also included the SEC chief accountant. In its path-breaking report published in 1958, the committee proposed the establishment of both an Accounting Principles Board (APB) to replace the CAP and an accounting research division to support the APB. The committee identified four broad levels at which financial accounting should be addressed: postulates, principles, rules or other guides for the

application of principles to specific situations, and research [Report to Council of the Special Committee on Research Program, 1958, p. 63]. The term “postulates” had been little used in the accounting literature. The committee asserted that postulates “are few in number and are the basic assumptions on which principles rest. They necessarily are derived from the economic and political environment and from the modes of thought and customs of all segments of the business community” [p. 63]. It added that “a fairly broad set of co-ordinated accounting principles should be formulated on the basis of the postulates” [p. 63]. The first priority of the research division was to commission studies on the accounting postulates and broad accounting principles. The committee said that “the results of these [studies], as adopted by the [Accounting Principles] Board, should serve as the foundation for the entire body of future pronouncements by the Institute on accounting matters, to which each new release should be related” [p. 67]. Thus was born the first institutional program to establish a conceptual framework — with principles predicated on postulates — although the term “conceptual framework” itself did not come into vogue until the 1970s.

The Institute accepted the committee’s recommendations, and in 1959 the APB succeeded the CAP. An accounting professor at the University of California at Berkeley, Maurice Moonitz, was appointed the full-time director of accounting research, and he proceeded to commission the research studies on postulates and broad principles. Moonitz assigned to himself the project on postulates, and he collaborated with his Berkeley colleague, Robert T. Sprouse, on the research study dealing with broad principles.

Moonitz’s *The Basic Postulates of Accounting*, Accounting Research Study No. 1, was published in 1961, and it consisted of an exposition and explanation of three tiers of accounting postulates, treating the environment, the field of accounting, and the imperatives (such as going concern, objectivity, consistency, the monetary unit, materiality and conservatism, and disclosure). It was not clear from Moonitz’s study whether he favored historical cost accounting or a version of current value accounting; thus, many readers found his study to be too abstract and general to engage their interest and critical thought. The follow-up study by Sprouse and Moonitz, *A Tentative Set of Broad Accounting Principles for Business Enterprises*, Accounting Research Study No. 3, which was published in 1962, evinced no such neutrality. Drawing on Moonitz’s postulates,

the authors argued that less reliance should be placed on the realization concept “as an essential feature of accounting” [p. 15] and that the use of current values should be expanded, which, in view of the SEC’s long-standing antipathy to departures from historical cost accounting, immediately became controversial if not objectionable. Sprouse and Moonitz advocated the use of current replacement costs for merchandise inventories and for plant and equipment, as well as the use of discounted present values for receivables and payables to be settled in cash. In the early 1960s, the use of present values of expected future cash receipts was virtually unknown in U.S. financial reporting, and current values (except in “lower of cost or market”) were hardly to be found. Sprouse and Moonitz also recommended that the holding gain or loss from revaluing inventories should be taken to profit [p. 30]. Nine of the 12 members of the project advisory committees for the postulates and principles studies commented on Sprouse and Moonitz’s recommendations in a section appended to their study, and the reactions of eight of the nine ranged from tepid to dismissive. Three of the sternest critics were the SEC chief accountant and two previous SEC chief accountants. The APB itself, which was charged with deciding whether to adopt the two research studies or not, issued a famous statement in which it discarded the two studies as “too radically different from present generally accepted accounting principles for acceptance at this time” [APB, 1962].

Moonitz and Sprouse had thought their assignment was to develop a rational argument for a sound approach to financial reporting. Most members of the APB and other leaders of the accounting profession, by contrast, looked upon basic research as an instrument for rationalizing the *status quo* (in the tradition of the Paton and Littleton monograph), rather than as a normative argument for fundamental change in accounting. Above all, the SEC was at that time a conservative regulator, which regarded departures from the “objectivity” of historical cost accounting as possessing the potential to deceive the readers of financial statements. In the 1960s, the SEC saw its mission chiefly as one of guarding against misleading financial statements rather than of improving the information content of the statements. As a result of the APB’s rejection of the postulates and principles studies, the cause of basic accounting research as a foundation stone for pronouncements on specific subjects suffered a severe setback, and the board instead began to deal with specific issues, much as had the CAP before it,

without a body of underlying concepts on which to draw.

One of the project advisory committee members, Paul Grady, a retired partner of Price Waterhouse & Co. who was a protégé of the former *doyen* of the accounting profession, George O. May, argued that a summary of GAAP would be timely. He believed, much as did his academic mentor, A. C. Littleton, that theoretical explanations should be derived inductively from practice. The APB commissioned Grady to undertake such a study, and in 1965 the Institute published his *Inventory of Generally Accepted Accounting Principles for Business Enterprises* (Accounting Research Study No. 5), which, he hoped, would be kept up to date by periodic supplements. The study was in great demand overseas, for it was seen as an authoritative compilation of accepted U.S. practice. Although Grady's study undertook to identify basic concepts, objectives, and principles implicit in current pronouncements, it offered little to portend an improvement in practice. At the least, his study purported to show that accounting rested on basic concepts, objectives, and principles, contrary to the view held by skeptics.

In the mid-1960s, the APB responded to the recommendation of a special committee that the board "enumerate and describe the basic concepts to which accounting principles *should be oriented*" and "state the accounting principles to which practices and procedures *should conform*" [emphasis supplied; Zeff, 1972, p. 196]. This was, at last, a charge that the board should adopt a normative stance toward the development of basic concepts, and not just synthesize accepted practice. It was intended that the final product would be an Opinion of the board, carrying status as a mandatory pronouncement. The board and one of its committees labored for five years, during which its members had great difficulty reaching agreement on the normative propositions. In the end, it was easiest to achieve agreement on a mostly descriptive statement, which was published as Statement No. 4 in 1970 under the title, *Basic Concepts and Accounting Principles Underlying Financial Statements of Business Enterprises*. As a Statement, instead of an Opinion, the document was not mandatory and its contents could be ignored. The issuance of a mostly descriptive statement greatly disappointed those who had hoped that the board finally would provide a blueprint for principled improvement in financial reporting. A member of the APB, George R. Catlett of Arthur Andersen & Co., dissented to the Statement "because in his view it fails to provide what purports to be 'a basis for guiding the future

development of financial accounting” [APB, 1970, p. 105]. Nonetheless, even as a descriptive statement, the document was comprehensive, perceptive, and deeply analytical, and its contents have frequently been cited when insights into existing practice were being discussed.

AAA'S A STATEMENT OF BASIC ACCOUNTING THEORY

While the CAP and the APB, which were composed mostly of accounting practitioners, were unable or unwilling to develop a normative set of underlying concepts and basic principles, committees of accounting academics had no such reluctance. In 1966, a committee of the American Accounting Association published a pioneering monograph, entitled *A Statement of Basic Accounting Theory (ASOBAT)*, which redirected attention away from the inherent virtues of asset valuation models and toward the “decision usefulness” of financial statements.³ It defined accounting as “the process of identifying, measuring, and communicating economic information to permit informed judgments and decisions by users of the information” [AAA, 1966, p. 1]. While that definition would hardly be exceptional today, in the 1960s, when theorists were actively debating the superiority of alternative asset valuation models [see, for example, Nelson, 1973; Henderson and Peirson, 1983, chs. 8 and 9; Lee, 1996], an explicit orientation toward the users of information was a breath of fresh air. The committee [AAA, 1966, pp. 23-24] also placed emphasis on futurity:

The committee suggests that accounting information for external users should reflect their needs by reporting measurements and formulations thought to be relevant in the making of forecasts without implying that the information supplied is wholly adequate for such prediction.

Almost all external users of financial information reported by a profit-oriented firm are involved in efforts to predict the earnings of the firm for some future period. Such predictions are most crucial in the case of present and prospective equity investors and their representatives — considered by many to be the most important of the user groups. . . . The past earnings of the

³For a discussion of the “decision usefulness” approach, see the AAA’s *Statement on Accounting Theory and Theory Acceptance* [AAA, 1977, pp. 10-21]; much fuller coverage appears in Staubus [forthcoming].

firm are considered to be the most important single item of information relevant to the prediction of future earnings. It follows from this that past earnings should be measured and disclosed in such a manner as to give a user as much aid as practicable in efforts to make this prediction with a minimum of uncertainty [pp. 23-24].⁴

The committee identified and elaborated upon “four basic standards for accounting information . . . that provide criteria to be used in evaluating potential accounting information”: relevance, verifiability, freedom from bias, and quantifiability [p. 8]. It then judged a number of accounting problem areas against those standards [pp. 27-36]. In one of its more important judgments, on historical cost v. current value, the committee [pp. 30-31] concluded, after weighing verifiability against relevance, that financial reporting should display information drawn from both models (which was a radical recommendation at the time):

The presentation of historical [transaction-based] information alone excludes the full impact of the environment on the firm; presentation of current cost information alone obscures the record of consummated market transactions. The committee recommends that both kinds of information be presented in a multi-valued report, in which the two kinds of information appear in adjacent columns.

In a little-noticed section of the report, the committee [p. 29] suggested that “accountants usually have required too narrow a view of compliance with the standard of quantifiability” and that, in the light of the uncertainty surrounding accounting measurements, “there is no compelling reason why the accountant should not report in terms of interval estimates or probability distributions.”

Robert R. Sterling [1967a, pp. 99-100], an important accounting theorist of the day, assessed *ASOBAT* as follows:

The committee has invited us to view accounting as a measurement-information system. This new view precludes some questions but poses others. In their refer-

⁴In 1969, another AAA committee issued a major report on the extent to which current financial reporting practices satisfy the needs of investors and creditors in the light of *ASOBAT*'s suggested standards for accounting information [AAA, 1969].

ence frame, it is no longer appropriate to argue about which convention or assumption comes closest to the 'actual' cost or income; it is not appropriate to assume that if we carefully describe (fully disclose) the methods used, then the figures will be meaningful, or that only invested costs or transaction data are the subject matter of accounting or that by its very name accounting reflects costs. Under the new view, measurements in accounting are a function of some end.

This is a change in 'world-view' and is the stuff that revolutions are made of [footnote omitted].

A BIG EIGHT FIRM ANNOUNCES ITS OWN STATEMENT OF OBJECTIVES

In 1972, the Big Eight firm of Arthur Andersen & Co. (AA) issued a 130-page booklet entitled *Objectives of Financial Statements for Business Enterprises*. The development of this unique publication grew out of the firm's frustration with the failure of the APB to agree on a normative statement of concepts and principles in its Statement No. 4 in 1970 [Wyatt, 1999, p. 161]. The firm focused on "objectives" because the Institute's Trueblood Committee was then engaged in a major study of the objectives of financial statements (see the next section). AA's booklet was critical of existing accounting practice, especially its emphasis on conservatism and historical cost as a goal instead of as a method toward a goal [pp. 34-38]. It emphasized instead that "financial statements must be fair to all users and should provide the basis for resolving [their] conflicting interests..." [p. 8], a view that the firm's former managing partner and chairman, Leonard Spacek, had been advocating in speeches since the 1950s [see *A Search for Fairness...*, 1969]. The firm [p. 116] concluded that the overall purpose of financial statements:

... is to communicate information concerning the nature and value of the economic resources of a business enterprise, the interests of creditors and the equity of owners in the economic resources, and the changes in the nature and value of those resources from period to period.

One implication of this objective was that assets should be measured at current value, and the firm recommended that unrealized holding gains and losses be disclosed in the income statement [chs. 7 and 8].

AA's proposal was a bold one, and it was the only accounting firm to issue such an elaborate statement of its views.

**THE TRUEBLOOD REPORT:
OBJECTIVES OF FINANCIAL STATEMENTS**

The decision usefulness approach that found acceptance in *ASOBAT* was carried forward into a major report issued in 1973 by a special committee of the American Institute of Certified Public Accountants (AICPA)⁵ on the objectives of financial statements. The committee was formed in 1971, after three of the Big Eight firms (including AA) had made known their concerns over the ineffectiveness of the APB, including its inability to resist pressures from special interests, especially preparers [see Zeff, 1984, pp. 463-464]. The AICPA formed two special committees in this crisis setting. The first, known as the Study Group on the Establishment of Accounting Principles, or the Wheat Committee, met to recommend improvements in the process of establishing those principles. In its report [*Establishing Financial Accounting Standards*, 1972], the committee proposed a full-time, independent body known as the Financial Accounting Standards Board (FASB) under the wing of a new Financial Accounting Foundation. The AICPA promptly approved the Wheat Committee's report and created the FASB to succeed the APB in July 1973. The second special committee, the Study Group on the Objectives of Financial Statements, or the Trueblood Committee, was composed of leading practitioners, academics, and users of accounting information, and was charged with proposing the fundamental objectives of financial statements to guide the improvement of financial reporting. It was to produce a normative statement, not an inference drawn from practice. Importantly, the research director of the Trueblood Committee, George H. Sorter, an accounting professor at the University of Chicago, had been one of the most influential members of the AAA committee that had developed *ASOBAT*.⁶ Sorter also played a major role in the drafting of the Trueblood Committee's report.⁷

⁵In 1957, the American Institute of Accountants changed its name to the American Institute of Certified Public Accountants.

⁶Telephone interview with Charles T. Zlatkovich, chairman of the *ASOBAT* Committee, April 3, 1999.

⁷Telephone interview with Oscar S. Gellein, a member of the Trueblood Committee, March 19, 1999. See Sorter [1973] for a discussion of the main points in the Trueblood report and of the approach used by the committee.

The Trueblood Committee's report, *Objectives of Financial Statements*, which was issued in October 1973, embraced ASOBAT's decision usefulness approach and focused even more specifically on future cash flows [p. 20]:

An objective of financial statements is to provide information useful to investors and creditors for predicting, comparing, and evaluating potential cash flows to them in terms of amount, timing, and related uncertainty.

The committee said that financial statements should "serve primarily those users who have limited authority, ability, or resources to obtain information and who rely on financial statements as their principal source of information about an enterprise's economic activities" [p. 17]. While the committee devoted primary attention to investors and creditors, it also regarded managers and employees as coming within the set of financial statement users, and it concluded, "While users may differ, their economic decisions are similar. Each user measures sacrifices and benefits in terms of the actual or prospective disbursement or receipt of cash" [p. 18].

Following in the steps of ASOBAT, the committee thought it desirable to enumerate several "qualitative characteristics of reporting": relevance and materiality, form and substance, reliability, freedom from bias, comparability, consistency, and understandability [ch. 10]. The committee concluded, much as had the AAA committee that had prepared ASOBAT, that "the objectives of financial statements cannot be best served by the exclusive use of a single valuation basis" [p. 41]. The Trueblood Committee considered an even broader array of valuation bases than did the AAA committee: historical cost, exit values, current replacement cost, and discounted cash flows, and it counseled that "the specific combination of valuation bases to be used is an implementation issue" [p. 42]. The committee helpfully suggested how each of the valuation bases could be fitted to the information requirements they most likely would fulfill.

In two sections of the Trueblood report that are often overlooked, the committee commented on the fallibility of single numbers in financial statements as well as on the use of financial statements to help achieve social goals. As to the former, the committee followed ASOBAT by observing that "measurements in terms of single numbers that do not indicate possible ranges and dispersions pose problems in describing events subject to uncertainty" [p. 39]. This is a point that has

seldom been raised explicitly in policy-making circles. The committee concluded by suggesting [p. 40]:

To satisfy the individual preferences of users for predicting and controlling the impact of current events on enterprise earning power, some apparently simple quantifications should be supplemented to represent their actual complexities by disclosing ranges of precision, reliability, and uncertainty.

In a broader societal context, the Trueblood Committee stated that the social goals of enterprise are no less important than the economic goals. Citing pollution as an example, the committee drew attention to “those enterprise activities which require sacrifices from those who do not benefit” [p. 54]. It concluded that [p. 55]:

An objective of financial statements is to report on those activities of the enterprise affecting society which can be determined and described or measured and which are important to the role of the enterprise in its social environment.

The Trueblood report was remarkable for the freshness of its approach. It did much to refocus discussions in the accounting policy arena from stewardship reporting to providing information useful for decision makers. The report became a kind of blueprint for the conceptual framework project that the newly established FASB was just beginning.⁸

ERA OF THE FASB: EARLY DEVELOPMENTS

The Wheat Committee, in its report which recommended the establishment of the FASB, did not envision that the board would undertake to develop a conceptual framework. In its report, the committee [1972, pp. 19, 78] wrote as follows:

The need for a fundamental conceptual foundation has been much debated in accounting circles for many years. We believe this debate may have produced more heat than light. Financial accounting and reporting are

⁸The transcript of proceedings from the Trueblood Committee's public hearing held in May 1972 was published in a two-volume typescript. In addition, significant research, reference, and resource materials that were considered by the Trueblood Committee during the development of its report were reproduced in *Objectives of Financial Statements: Selected Papers* [1974]. For a discussion of the Trueblood report, see “Studies on Financial Accounting Objectives: 1974” [1974].

not grounded in natural laws as are the physical sciences, but must rest on a set of conventions or standards designed to achieve what are perceived to be the desired objectives of financial accounting and reporting. We understand the primary work of the [Trueblood Committee] to be the development of such objectives and some guidelines for their achievement.

The work of the ongoing standard-setting body should be to develop standards for preparing financial accounting information that will be consistent with these objectives.

and

We do not believe that the [FASB's] staff should be expected to conduct a broad, fundamental research program dealing with basic concepts on an ongoing basis, since we believe that this type of research is best left to those in the academic field.

Nonetheless, in November 1973, five months into its first year of operation as successor to the APB, the FASB ["Board Meets with Trueblood Study Group," 1973] reported that it would be tackling "the entire hierarchy of financial accounting theory," beginning with the Trueblood report:

Once objectives are agreed upon, the Board intends to address itself to the entire hierarchy of financial accounting theory, including qualitative characteristics, the types of information needed by users of financial statements, and basic accounting concepts.

A month later, in December 1973, the board announced that its project on "Broad Qualitative Standards for Financial Reporting," which had been set the previous April, was being enlarged under a new and more impressive title, "Conceptual Framework for Accounting and Reporting: Objectives, Qualitative Characteristics and Information" ["Task Force Appointed," 1973, p. 1]. There was thus no doubt that the board intended to develop a full-fledged conceptual framework, and the board's term, "conceptual framework," came to be widely used for such an undertaking.⁹

⁹Gore [1992] has provided a critical analysis of the development of the board's conceptual framework project. See Agrawal [1987] for an analysis of the logical structure of the conceptual framework. For insights into the dynamic within the board and the politics affecting its decisions on the conceptual framework, see Miller et al. [1998, ch. 4].

Robert T. Sprouse, an original member of the board who served as its vice chairman from 1975 to 1985, has said that two factors drove the board to embark on a conceptual framework. First, the board felt obliged to carry on the work of the Trueblood Committee [Sprouse, 1988, p. 124]. Second, the board required a framework of concepts to help it address the six technical projects on its initial agenda: research and development, contingencies, leases, foreign currency translation, business segments, and materiality. Sprouse [1984/85, p. 25]¹⁰ has written:

Almost immediately the board recognized the need to develop certain fundamental concepts that it could look to for rational and consistent guidance in analyzing and resolving issues. The absence of an established concept of something as basic as an asset was a handicap in addressing accounting for research and development costs; the absence of an established concept of something equally as basic as a liability made resolving the issues in accounting for contingencies more difficult. Those first experiences strengthened the new board's recognition of the importance of establishing a conceptual framework for analyzing issues and relating its decisions to that framework.

The following year, in June 1974, the board issued its first discussion memorandum in the "Conceptual Framework for Accounting and Reporting" project, dealing with the objectives and qualitative characteristics recommended by the Trueblood Committee [FASB, 1974]. Discussion memoranda are objective analyses of issues facing the board, without any indication of the board's views or preferences. The board held a public hearing on the discussion memorandum in September 1974.

In December 1976, the board issued two important documents relating to the conceptual framework project. One was *Tentative Conclusions on Objectives of Financial Statements of Business Enterprises* [FASB, 1976], based on an analysis of the written comments received and oral testimony at the public hearing held on the June 1974 discussion memorandum. The other document was a 360-page discussion memorandum subtitled *Elements of Financial Statements and Their Measurement*. The discussion memorandum on elements also included an extensive treatment of both the qualitative characteristics of

¹⁰See also Kirk [1989, pp. 89-90].

financial information and the measurement of the elements. Both the board's tentative conclusions on objectives and the contents of its lengthy discussion memorandum on the rest of the conceptual framework were the subject of a public hearing set for June 1977.

The board's tentative conclusions on objectives were noteworthy for the inclusion of an appendix on modern capital market theory, which represented the first acknowledgment by a U.S. standard setter of this important stream of research in the finance literature. The December 1976 discussion memorandum devoted an important section to the choice to be made between the "asset and liability view" and the more traditional "revenue and expense view" (associated with the Paton and Littleton monograph) for defining earnings [paras. 32-70 and ch. 5]. Under the "asset and liability view," which the board eventually came to favor, the definition of earnings depends on the definitions of assets and liabilities, so that a balance sheet test must be invoked to validate the existence of earnings, revenues, and expenses.¹¹ The discussion memorandum also contained a chapter on the important distinction between "financial capital maintenance" and "physical capital maintenance" [ch. 6], which had not received much explicit attention in the U.S. accounting literature. It also presented an extensive discussion of the "attributes of assets": historical cost, current cost, exit value, and present value [ch. 8].

Between 1974 and 1985, the FASB issued 30 publications (eight discussion memoranda, seven research reports, eight exposure drafts, one invitation to comment, and six concepts statements) in its massive conceptual framework project, totaling over 3,000 pages.¹² In addition, the board received more

¹¹Storey and Storey [1998] have written that the board's adoption of the primacy of the asset and liability view "still is undoubtedly the most controversial, and the most misunderstood and misrepresented, concept in the entire conceptual framework" [p. 76], chiefly because the asset and liability view was seen by many as a device to "impose some kind of current value accounting on an unwilling world" [p. 83]. They discussed the controversy at some length [pp. 47-66, 76-85].

Robert T. Sprouse believed that the asset and liability view would rid balance sheets of "what-you-may-call-its," which were the unintelligible residues produced by the matching convention [Sprouse, 1966]. Also see Sprouse [1977, pp. 12-13; 1988, pp. 126-127].

¹²For a complete list of the publications, see Gore [1992, Appendix 2]. One discussion memorandum, two research reports, two exposure drafts, and two concepts statements (4 and 6) constituted the adaptation of the conceptual framework to nonbusiness entities, which is not discussed in this paper. Two

than 1,000 letters of comment in response to its discussion memoranda and exposure drafts, and it held eight public hearings covering 20 days of oral testimony, which was transcribed and placed on the public record. The written record and the amount of board member and staff time dedicated to the project were immense. It was estimated that, in the early 1980s, the conceptual framework project accounted for as much as 40 percent of the board's technical staff time [Van Riper, 1994, p. 81].

ERA OF THE FASB: THE CONCEPTS STATEMENTS¹³

The FASB issued six Statements of Financial Accounting Concepts, known as concepts statements, of which two (Nos. 4 and 6) represented adaptations to nonbusiness entities. The FASB [Concepts Statement 2, pp. i-ii] stated the purpose of the concepts statements as follows:

Statements in the series are intended to set forth objectives and fundamentals that will be the basis for development of financial accounting and reporting standards. . . .

The conceptual framework is a coherent system of interrelated objectives and fundamentals that is expected to lead to consistent standards and that prescribes the nature, function, and limits of financial accounting and reporting. It is expected to serve the public interest by providing structure and direction to financial accounting and reporting to facilitate the provision of evenhanded financial and related information that is useful in assisting capital and other markets to function efficiently in allocating scarce resources in the economy. . . .

discussion memoranda and the invitation to comment, which dealt with matters of the display of accounting information, treated subjects that were included in the exposure draft entitled *Reporting Income, Cash Flows, and Financial Position of Business Enterprises* [FASB, 1981] but which did not eventually mature into a concepts statement. Included in the above enumeration of FASB documents is the discussion memorandum on *Criteria for Determining Materiality*, issued on March 21, 1975, which was not formally part of the conceptual framework project. Nonetheless, the conceptual aspects of the materiality project were incorporated into the qualitative characteristics project in 1978.

¹³For more extensive discussion of the board's concepts statements, see Davies et al. [1997, pp. 46-63], Pacter [1983], Solomons [1986], Wolk et al. [1992, ch. 6], and Miller et al. [1998, pp. 105-115].

Statements of Financial Accounting Concepts do not establish standards prescribing accounting procedures or disclosure practices for particular items or events, which are issued by the Board as Statements of Financial Accounting Standards. Rather, Statements in this series describe concepts and relations that will underlie future financial accounting standards and practices and in due course serve as a basis for evaluating existing standards and practices.

Objectives: The comments received on the discussion memorandum on objectives proved to be an education for board members. In 1975, the board conducted a survey of opinion on the Trueblood recommendations. Marshall S. Armstrong [1977, p. 77], the board chairman, reported one finding that disturbed him:

In our first discussion memorandum on the conceptual framework of accounting, the most important project on our agenda, we sought an expression of opinion from respondents on the following as a basic objective of financial statements; it is taken directly from the Trueblood report:

'The basic objective of financial statements is to provide information useful for making economic decisions.'

Could there be disagreement with a statement such as this? I am sure you will be astounded to learn that only 37 percent of our respondents were able to recommend the adoption of this objective. Twenty-two percent recommended that it be rejected out of hand; and 10 percent insisted that it needed further study. It is difficult to believe that only 37 percent can agree that the basic objective of financial statements is to provide information useful for making economic decisions. I think this suggests the problem quite clearly.

Those who disagreed took the position that the basic function of financial statements was to report on management's stewardship of corporate assets and that the informational needs of readers was of secondary importance. It follows from this line of thinking that management can best determine the principles to be employed in reporting on their firms, and that standards — standards almost of any sort — can only impede management in its effort to fulfill this responsibility.

Two accounting academics observed that the respondents to the FASB survey probably thought of furthering their own personal interests rather than promoting the interests of readers generally. Reflecting on Armstrong's expression of concern, Dopuch and Sunder [1980, p. 13]¹⁴ wrote:

Why should we believe all groups of interested parties would adopt the provision of information useful for making economic decisions as their motivation for being involved in the financial reporting process? For example, we should not be surprised if auditors, like everyone else, seek to maximize their own wealth through participation in the accounting process. If the provision of economically useful information implies greater exposure to the risk of being sued without corresponding benefits of higher compensation, they will not see the provision of economically useful information (however defined) as *their* objective of the financial accounting process.

One might have added that most auditors had probably been educated to believe that accounting serves primarily a stewardship function, and that they would find it somewhat threatening to contemplate that accounting should have a more activist function in economic society. Such preconceptions and predispositions made it difficult for the board to impose a decision usefulness objective on a profession that had been accustomed to view accounting as basically a passive record-keeping activity.

Concepts Statement 1, *Objectives of Financial Reporting by Business Enterprises*, issued in November 1978, closely followed Trueblood's emphasis on futurity, as indicated by the following key passage [para. 37]:

Financial reporting should provide information to help present and potential investors and creditors and other users in assessing the amounts, timing, and uncertainty of prospective cash receipts from dividends or interest and the proceeds from the sale, redemption, or maturity of securities or loans.

In Statement 1, the board preferred the broader term, financial reporting, over the narrower term, financial statements,

¹⁴For further discussion of the "politics" of developing a conceptual framework, see Rappaport [1977], Horngren [1981], Miller [1990], and Van Riper [1994, pp. 20-22, 75-82].

used in the Trueblood report. Donald J. Kirk [1988, p. 13], the FASB chairman when all of the concepts statements were approved, later explained how this decision “blunted” some of the opposition to the evolving conceptual framework, which seemed to many to raise the specter of current value accounting:

It was thought by this broadening that, as under the securities laws, the needs of users could be satisfied through disclosures, possibly even separate from the financial statements, and, therefore, not require the type of income measurement changes that opponents feared [that is, current value accounting].

David Solomons, an accounting professor at the University of Pennsylvania and the principal draftsman of the Wheat report, wrote a critique of the board’s Concepts Statements 1-4 in which he gave the statement on objectives a grade of C, because, he said, “the purposes that the board has defined for financial reporting are excessively narrow” [Solomons, 1986, p. 118]. He wrote [p. 118]:

... while the Trueblood report recognized, however briefly, that business enterprises had a responsibility to society and not just to their stockholders, the board’s statement on objectives substantially confines its attention to the needs of investors and creditors, barely recognizes the needs of managers, and ignores altogether the interests of other groups with an interest in enterprise productivity, such as labor and the tax authorities.

To this writer, Solomons’ overall evaluation of the statement seems to be more critical than necessary.

Qualitative Characteristics: Concepts Statement 2, Qualitative Characteristics of Accounting Information, was issued in May 1980.¹⁵ Donald Kirk [1988, p.13] has written that “defining the characteristics of useful financial information was the least controversial of the conceptual framework projects, in part because readers did not see implications that portended current value accounting.”

Statement 2 followed in the tradition of *ASOBAT* and the Trueblood report and, in the decision usefulness mode,

¹⁵For an analysis of Statement 2, see Storey and Storey [1998, pp. 98-119].

enumerated and explained a hierarchy of qualities of accounting information. David Solomons, who drafted the statement at the invitation of the board, rectified the overemphasis on investors and creditors in Statement 1 [see para. 26 of Statement 2], which he was later to criticize. “Relevance” and “reliability” were the two pillars, and at several places the inevitable tradeoffs between the two were discussed. “Reliability” was supported by “representational faithfulness” (a term coined by Solomons) and “verifiability.” Representational faithfulness, which was defined as “correspondence or agreement between a measure or description and the phenomenon it purports to represent” [para. 63], was a more elegant and comprehensive concept than “freedom from bias” in *ASOBAT* and the Trueblood report. In the discussion of verifiability, the term “objectivity” was nowhere to be found, probably to allow for the admissibility of departures from historical cost accounting. “Objectivity” was similarly absent in *ASOBAT* and the Trueblood report. “Verifiability,” it was stated, “implies consensus. Verifiability can be measured by looking at the dispersion of a number of independent measurements of some particular phenomenon” [para. 84].

In contrast to *ASOBAT* and the Trueblood report, the board envisioned a role for “conservatism,” albeit constrained: “There is a place for a convention such as conservatism — meaning prudence — in financial accounting and reporting, because business and economic activities are surrounded by uncertainty, but it needs to be applied with care” [para. 92]. But the board made clear that “conservatism in financial reporting should no longer connote deliberate, consistent understatement of net assets and profits” [para. 93].¹⁶ The board carefully limited the use of conservatism as follows [para. 95]:

Conservatism is a prudent reaction to uncertainty to try to ensure that uncertainties and risks inherent in business situations are adequately considered. Thus, if two estimates of amounts to be received or paid in the future are about equally likely, conservatism dictates using the less optimistic estimate; however, if two amounts are not equally likely, conservatism does not necessarily dictate using the more pessimistic amount rather than the more likely one.

¹⁶Sterling [1967b] has reported finding considerable support for the hypothesis that conservatism is the fundamental principle of valuation in traditional accounting.

The board's discussion of "neutrality" very much followed from Solomons [1978] and alerted readers to the proper posture of the standard setter in a politicized world [see Kirk, 1988, pp. 13-14]. The essential position set forth in the statement was [para. 106]:

While rejecting the view that financial accounting standards should be slanted for political reasons or to favor one economic interest or another, the Board recognizes that a standard-setting authority must be alert to the economic impact of the standards that it promulgates.

Finally, "comparability" was introduced as a *desideratum* [paras. 111-122], and it was stated that accounting decisions must satisfy a materiality screen or threshold [paras. 123-132]. Invoking a variant on a passage that has been used since the 1960s to characterize "comparability," the board asserted that greater comparability "is not to be attained by making unlike things look alike any more than by making like things look different" [para. 119].

Statement 2 is perhaps the most admired and most emulated of the board's concepts statements. The analysis is logically and sensibly ordered, it is well explained (reflecting Solomons' penchant for metaphors), and the terms are carefully defined. Miller et al. [1998, p. 110] have written that Statement 2 "provides a set of definitions that the Board and its constituents can and do use to communicate with each other. The definitions bring more rigor to the due process, and possibly to the thought processes of the participants." Former chairman Kirk [1988, p. 13] has written that Statement 2 "has contributed greatly to the understanding of the need for and purpose of standards." Davies et al. [1997, p. 63], three partners in the U.K. firm of Ernst & Young who have studied the FASB's conceptual framework in depth, praised Statement 2 as "outstanding work."

An empirical study of the views of 26 former members of the APB and of the FASB, however, yielded an opposite finding. The subjects were tested for their views on whether the 11 qualitative characteristics were operational, comprehensive, and parsimonious (i.e., free of significant redundancies in meaning). The researchers [Joyce et al., 1982, p. 670] concluded as follows:

Many of the results reported here are not favorable to the *Statement*. Nine of the 11 qualitative characteris-

tics clearly fail the tests of operationality. Not only is there considerable disagreement among experienced policy makers on what the qualitative characteristics mean in the context of particular accounting policy issues, there is also considerable disagreement on their relative importance. While the qualitative characteristics appear to comprise a comprehensive set for choosing among accounting alternatives, the set is not a parsimonious one. Thus the *Statement* fails to meet two out of its three desired criteria.

This casts doubt on the ability of the qualitative characteristics defined in the *Statement* to facilitate accounting policy making.

Elements: Concepts Statement 3, Elements of Financial Statements for Business Enterprises, was issued in December 1980, seven months after *Statement 2*. It sets forth the definitions of assets, liabilities, equity, investments by and distributions to owners, and comprehensive income and its components (revenues, expenses, gains, and losses) that are collectively the “elements” of financial statements. As motivation, former board chairman Kirk [1988, p. 15] wrote that the need for workable definitions of assets and liabilities on such projects as research and development costs and accounting for contingencies, both of which were on the board’s initial agenda, “served as a catalyst” for the elements project.

This is the statement in which the board made known its preference for the “asset and liability view” over the “revenue and expense view” for defining earnings. While the board did not actually discuss the two views in the statement, one notices that revenues, expenses, and gains and losses were defined in terms of assets and liabilities. Hence, revenues were defined as “inflows or other enhancements of *assets* of an entity or settlements of its *liabilities* (or a combination of both) during a period from delivering or producing goods, rendering services, or other activities that constitute the entity’s ongoing major or central operations” [emphasis supplied, footnote omitted; para. 63]. By contrast, the definition of revenues propounded 25 years earlier in the Institute’s Accounting Terminology Bulletin No. 2 reflected the traditional “revenue and expense view,” without a reference to assets or liabilities. It was: “*Revenue* results from the sale of goods and the rendering of services and is measured by the charge made to customers, clients, or tenants for goods and services furnished to them” [*Proceeds*,

Revenue, Income, Profit, and Earnings, 1955, p. 34].

It was in this statement (presaged in the exposure draft of December 28, 1979) that the board unveiled its new terminology, “comprehensive income,” to describe “the change in equity (net assets) of an entity during a period from transactions and other events and circumstances from nonowner sources” [para. 56]. In the context of the choice between financial capital maintenance and physical capital maintenance, on which the board deferred a decision until a later statement, comprehensive income was viewed as “a return *on* financial capital” [para. 58].¹⁷ Comprehensive income would thus include unrealized holding gains and losses, if they were adjudged to be recognizable accruals.

Two facets of Statement 3 caused trepidation, especially among practitioners and financial executives — that the board’s adoption of the “asset and liability view,” together with its comprehensive income proposal, would inevitably lead to some form of current value accounting [see, e.g., Way, 1977, pp. 40-41; Schuetze, 1983, p. 260; Beresford, 1983, p. 67; Pacter, 1983, p. 84; Gore, 1992, pp. 94-95; Van Riper, 1994, p. 75].¹⁸ Expressions emanating from the board and elsewhere that this implication was unfounded may not have allayed many fears. And a forthright statement by Reed K. Storey [1981, pp. 94-96], a senior member of the FASB’s research staff, may have added to the anxiety:

I think the handwriting is already on the wall for the present model (which is often mislabeled ‘historical cost accounting’) because, among other things, it can’t cope with everyday complications, such as changing prices and fluctuating foreign exchange rates. . . .

Those who feel threatened by the conceptual framework or hope that it will maintain the status quo will be disappointed. Change is coming, even if the concep-

¹⁷For an extensive treatment of financial v. physical capital maintenance, see Sterling and Lemke [1982].

¹⁸In fact, as early as 1977, one of the Big Eight accounting firms, Ernst & Ernst, was alarmed that the “asset and liability view” would lead inevitably to current value accounting, which it opposed. Its concern that the board had not clearly explained the implications of its thinking led the firm “to mount a campaign to educate financial executives about the conceptual framework and the potential dangers it presented” [Beresford, 1983, p. 66]. By July of that year, the firm had presented more than 50 conceptual framework seminars around the country to over 5,000 people [Ernst & Ernst, 1977, p. 1].

tual framework is never adopted, because of weaknesses in the existing accounting model.

Solomons, in his critique of the concepts statements, gave Statement 3 a B-. Although he regarded the board's definitions as "a distinct improvement on the earlier definitions in APB Statement no. 4" [1986, p. 120], he nonetheless believed that the definitions were not sufficiently robust to deal with the most difficult accounting problems. He illustrated this point by attempting to apply the definition of liabilities to pensions, and he found it wanting. Yet Solomons, who was an advocate of the "asset and liability view," noted with satisfaction that "the definitions have been formulated in such a way as to leave no room for reasonable doubt about the primacy of assets and liabilities and the dependency of the other elements on these two" [pp. 120-121].

It is of interest that Dennis R. Beresford, who would become FASB chairman in 1987, wrote in 1981, while he was still a partner in Ernst & Whinney (and chairman of the Institute's Accounting Standards Executive Committee), that he found Statements 1, 2, and 3 (and 4) to be "broad, abstract statements or proposals which in my opinion have provided little, if any, help in deciding the accounting issues of the day" [Beresford, 1981, p. 66]. He described himself as a pragmatist, and he was, from the start, a skeptic of the conceptual framework project [see Beresford, 1983].

Recognition and Measurement: In December 1984, a full four years after the issuance of the statement on elements,¹⁹ the board issued Concepts Statement 5 on *Recognition and Measurement in Financial Statements of Business Enterprises*.²⁰ This was the long-awaited statement that would announce the board's position on the most controversial issues in the conceptual framework project, including its view on which measurement attribute(s) were to be central to the framework. On this statement, the board equivocated badly, which led Solomons [1986, p. 124] to give it a grade of F and "require the board to take the course over again — that is, to scrap the statement and start afresh." It was also the first concepts statement in which a board member dissented.

¹⁹Miller [1990] and Gore [1992, pp. 105-109] have explained the delay: the board was divided both on how to proceed and on what to conclude.

²⁰For an analysis of Statement 5, see Storey and Storey [1988, pp. 145-160].

Early in the statement, the board gave notice that it would not be advancing the literature in a way so as to alter practice [para. 2]:

The recognition criteria and guidance in this Statement are generally consistent with current practice and do not imply radical change. Nor do they foreclose the possibility of future changes in practice. The Board intends future change to occur in the gradual, evolutionary way that has characterized past change.

The major disappointment to many readers was the board's disinclination in Statement 5 to make a decision on the preferred measurement attribute. The board enumerated the attributes that are "used in present practice": historical cost, current cost, current market value, net realizable value, and present value of future cash flows [para. 67], but could only conclude the following [para 70]:

Rather than attempt to select a single attribute and force changes in practice so that all classes of assets and liabilities use that attribute, this concepts Statement suggests that use of different attributes will continue, and discusses how the Board may select the appropriate attribute in particular cases [footnote omitted].

The Trueblood report at least undertook to suggest how different measurement attributes might be more or less helpful in fulfilling certain information requirements [*Objectives of Financial Statements*, 1973, ch. 6]. But the board, after ten years of unrelenting work on the conceptual framework project, could not achieve as much on measurement attributes as the part-time Trueblood Committee had done in 30 months.

On recognition, the board was clearly reluctant to innovate. It did not, for example, undertake to discuss whether to accord recognition to the "firm" commitments under wholly executory contracts, that is, those on which no party has yet performed any of its promises [para. 107]. Yuji Ijiri [1980] argued the case eloquently in a research report written at the invitation of the board, and the subject was again treated in another research report by L. Todd Johnson and Reed K. Storey [1982, ch. 11].

In the section on recognition, Statement 5 did contain a carefully worded proposition that "information based on current prices should be recognized if it is sufficiently relevant and reliable to justify the costs involved and more relevant than alternative information" [para. 90], which Storey and Storey

[1998, p. 159] criticized as “extremely weak guidance.” Miller et al. [1998, p. 115] complained that the criteria of “relevant” and “reliable” in this proposition “are too broad to provide helpful guidance either to standards setters or to individual accountants who are attempting to resolve a new issue.” David Mosso [1998, p. 7], a member of the board from 1978 to 1987 who continued as a member of the board’s senior staff until 1996, has said that this proposition “may sound like a weak endorsement but at the time it was extremely contentious and a major concession to the Board members who favored more market value accounting.” He added that “it is the concept that underlies the progress that has been made in marking financial instruments to market.” As Kirk has pointed out, the board’s assent even to this proposition, hedged as it was, was contingent on how the unrealized holding gains and losses were to be reported. Preparers felt strongly that any unrealized holding gains and losses should not affect earnings. In the end, the board settled on a compromise presentation by which both conventional net income (retitled “earnings” in Statement 5) and comprehensive income, which would essentially consist of earnings plus or minus unrealized holding gains and losses, should be reported. As the choice of measurement attribute could not be disengaged from the income-reporting implications of unrealized holding gains and losses, this compromise was necessary for Statement 5 to survive [Kirk, 1989, pp. 100-103].

As will be seen, one advance that did have future ramifications was the board’s focus on comprehensive income. In Statement 5, the board proposed the preparation of both a statement of earnings and a statement of comprehensive income, and it said that the “full set of articulated financial statements discussed in this Statement is based on the concept of financial capital maintenance” [para. 45]. In this somewhat indirect way, it signified that financial capital maintenance had won its favor.²¹ The dissenter to Statement 5, John W. March, who was a former partner of Arthur Andersen, objected to comprehensive income “as a concept of income because it includes all recognized changes (including price changes) in assets and liabilities . . .” [p. 32]. March was a partisan of the physical capital maintenance concept [pp. 32-33].

²¹Robert T. Sprouse [1988, p. 126], the board’s vice chairman, later wrote that Concepts Statement 5 “comes down solidly on the side of financial capital maintenance.”

Although the board was not prepared in the 1980s to issue a standard requiring that comprehensive income should be reported in the basic financial statements, it returned to the issue vigorously in the mid-1990s. It was then that the board built on the definition of comprehensive income in Statement 3 and on paragraphs 13 and 39-44 of Statement 5 to issue an exposure draft proposing a requirement that net income and comprehensive income be accorded equal prominence in either one or two statements of financial performance [FASB, 1996]. But strong resistance from preparers forced the board to accept a compromise, permitting a third option — to display comprehensive income in the statement of changes in equity [FASB, 1997]. Thus, the board enabled preparers to exclude such items as unrealized gains and losses from a statement of financial performance.²²

At several places in Statement 5, including two quoted above, the board left change to a process of evolution [also see para. 35]. Solomons [1986, p. 122], in his critique, skewered this approach:

These appeals to evolution should be seen as what they are — a cop-out. If all that is needed to improve our accounting model is reliance on evolution and the natural selection that results from the development of standards, why was an expensive and protracted conceptual framework project necessary in the first place? It goes without saying that concepts and practices should evolve as conditions change. But if the conceptual framework can do no more than point that out, who needs it? And, for that matter, if progress is simply a matter of waiting for evolution, who needs the FASB?

Solomons [p. 193] complained that the board's non-committal listing of measurement attributes in Statement 5 showed that it had not progressed beyond its December 2, 1976 discussion memorandum, which had done the same.

Oscar S. Gellein [1986, p. 14], who had served on the board from 1975 to 1978, also was critical of the board's failure to provide conceptual guidance, without which, he said, "there is the risk of reversion to ad hoc rules in determining accounting methods." Wolk et al. [1992, p. 177] wrote that Statement 5

²²For further discussion of comprehensive income, see Johnson and Reither [1995].

“must be considered a distinct letdown, if not an outright failure.”

Storey and Storey [1998, p. 159], who have been staunch supporters of the conceptual framework approach, criticized the board for abdicating its responsibility in Statement 5:

Whereas a neutral exposition of alternatives was appropriate for a Discussion Memorandum, a litany of present measurement practices with neither conceptual analysis or evaluation nor guidance for making choices was not proper for a Concepts Statement.

In merely describing current practice, Concepts Statement 5 is a throwback to statements of accounting principles produced by the ‘distillation of experience’ school of thought [e.g., Paul Grady’s approach in the APB’s Accounting Research Study No. 5] — an essentially practical, not a conceptual, effort. Its prescriptions for improving practice are reminiscent of those of the Committee on Accounting Procedure or the Accounting Principles Board; measurement problems will be resolved on a case-by-case basis. Unfortunately, that approach worked only marginally well for those now-defunct bodies.

One close observer of the board has written that the board’s decision not to disturb the *status quo* on recognition and measurement “was led by representatives of the preparer constituency, particularly members of the Financial Executives Institute, and was supported by three Board members [including March]” [Miller, 1990, p. 28].

Role of Statement 33: No reference has previously been made to the board’s Statement of Financial Accounting Standards 33, *Financial Reporting and Changing Prices*, issued in September 1979, which required more than 1,300 large corporations to disclose in an unaudited supplementary note certain general price-level information and current cost accounting information.²³ Yet it is impossible to discuss the board’s recognition

²³The current cost accounting portion of Statement 33 reflected the influence of the report of the Sandilands Committee [1975, ch. 12] in the U.K., which gave prominence to the “value to the business” (or “deprival value”) approach to current value accounting. For a review of this and other intellectual influences on the board’s thinking, including the interaction between Statement 33 and the board’s conceptual framework project, see Tweedie and Whittington [1984, ch. 7 and entries in their subject index under FAS33].

and measurement project without taking into account the impact on the board of preparers' and users' reactions to Statement 33. As former board chairman Kirk [1988, p. 16], who previously was an audit partner in Price Waterhouse, has written:

While not formally a part of the conceptual framework project on recognition and measurement, Statement 33 was the laboratory for the conceptual project. It was the testing ground for the application of the current cost system to the most difficult of valuation problems — fixed assets — and the testing ground for the validity and utility of the concept of physical, rather than financial, capital.

... the experience with Statement 33 by the time we were debating Concepts Statement No. 5 told me that use of the current cost information was very limited, and that there were serious questions about its reliability. I could find little reason to endorse on a conceptual level a current value or current cost measurement system for future standards when it appeared that the utility of such a system in Statement 33 was going to be seriously challenged.

In August 1984, just as the board was completing work on Statement 5, it was disclosed in the board's *Status Report* that:

... research studies and responses to the Invitation to Comment [entitled *Supplementary Disclosures about the Effects of Changing Prices* (FASB, 1983)] indicate that Statement 33 information has not been widely used. Both the number of users and extent of use have been limited. A large number of responses to the Invitation to Comment indicate that the costs of preparing the disclosures have outweighed the benefits to date ["Financial Reporting and Changing Prices," 1984].

In November 1984, the board issued Statement of Financial Accounting Standards No. 82, in which it eliminated the requirement for supplementary disclosure of the inflation accounting information, and two years later, in December 1986, it issued Statement of Financial Accounting Standards No. 89, in which it eliminated altogether the requirement for the supplementary disclosure on changing prices.

Present Value: In the late 1980s, the board, aware of the increasing importance of present value as a decision-making tool and sensitive to the widely differing approaches adopted over the

years by the FASB and other U.S. standard setters for implementing present value-based measurements, began to develop a common framework for using present value and estimates of future cash flows in accounting measurement.²⁴ It issued a discussion memorandum in 1990 [*Present Value-Based Measurements in Accounting*], held a public hearing in 1991, published a special report [Upton, 1996], and issued an exposure draft for a proposed standards statement [1997]. In the end, the board concluded that the subject should form part of the conceptual framework project, and it proceeded to issue an exposure draft of a proposed concepts statement [1999]. The proposed statement will not deal with the larger question of recognition but will instead provide “a framework for using future cash flows as the basis for an accounting measurement” [FASB exposure draft, 1999, para. 10]. Publication of the concepts statement is planned for early in the year 2000.

An Assessment: The many disappointments expressed about the concepts statement on recognition and measurement meant that the board’s conceptual framework project ended on a “down” note. The hope, perhaps naïve, that the framework might point a clear path toward improvement in financial reporting was not fulfilled.

Richard Macve, a British accounting academic who has been a close student of the FASB’s conceptual framework, has been skeptical of such claims. Macve [1997, p. xxii] wrote:

Given the inherent conceptual limitations of ‘income’ and ‘value’ measurement, it remains unrealistic to expect official attempts to develop ‘conceptual frameworks’ for financial accounting and reporting to be able to provide a coherent basis for the resolution of accounting problems. . . . Moreover, standard setters’ major problems are more often political. A framework, however technically correct, cannot solve the political problems of different interests and needs at the level of individual standards [footnote omitted].

Commentators have generally rendered a negative assessment of the board’s conceptual framework. Solomons [1986, p. 122], who was a fervent supporter of the board’s project, regret-

²⁴Miller and Bahnson [1996, pp. 94, 96, 98] have cited defects in the application of present value in seven previous pronouncements.

fully concluded that “my judgment of the project as a whole must be that it has failed.” In particular, he regarded Statement 5 as a “dismal failure” [p. 118]. Miller et al. [1998, p. 105], however, saw a silver lining in the dark clouds:

Although it is probably an overstatement to call the project a complete failure, it is certainly a disappointment. On the other hand, it makes a significant contribution to the accounting literature by establishing that service to user needs is the primary objective of financial accounting. It has also contributed to the efficiency of the due process procedures by defining a number of key terms that are indeed used by the Board and its constituents. These accomplishments may bring more rigor and efficiency to the Board’s deliberations, but that conclusion can be safely reached only in the long run.

In regard to user needs, one could argue that the literature had already been enriched by the Trueblood report.

Kenneth Most [1993, pp. 107, 109] saw the project as “seriously flawed,” and he registered his “great surprise . . . that the FASB’s conceptual framework has been imitated in other countries.” Davies et al. [1997, p. 63] opined that the weakness of the board’s conceptual framework project was probably most attributable to the “Board’s failure to deal with the fundamental issues of recognition and measurement.” Archer [1993, p. 113] has written that “the FASB’s attempt involved massive effort; but, in terms of conveying an increased degree of either intellectual or institutional authority upon the standard-setting process, the mountains evidently brought forth a mouse.”

A favorable review was given by Kevin Stevenson [1987, p. 49], director of the Australian Accounting Research Foundation, who said, “I must say I regard the work of the FASB on their conceptual framework as extremely valuable.” His disappointment with Statement 5 was that “it did not provide a full analysis of the issues” [p. 51].

In late 1984, Arthur Andersen, once it had seen the board’s exposure draft [1983] on recognition and measurement, issued a second edition of its *Objectives of Financial Statements for Business Enterprises*, in which it restated the importance it attributed to value. The firm pointedly differentiated the reference to “economic resources” in its overall objective (see above) from the board’s, arguing that there is a “vast difference . . . since we specifically call for the ‘nature and value’ of economic resources, while the FASB merely asks for information about

them" [1984, p. 8n]. The firm reiterated its support for financial capital maintenance, and it expanded its recommended coverage of current value accounting to include liabilities. As a contribution to the dialogue, the firm's revised booklet constituted an implied criticism of the board's noncommittal position on measurement.

Reaction to the board's conceptual framework necessarily depended on one's expectations. At one extreme, Sterling [1982, p. 106] argued as follows:

In my view the next essential step [after Concepts Statements 1-3] is to display replicable logical connections between the concepts and the conclusions about specific practices. Provision of such connections is likely to require honing the concepts to make them logically fertile. . . . if the concepts aren't honed to the point where the logical connections are at least plausible, preferably replicable, the framework is likely to be at best useless and at worst used to rationalize preconceived positions that are likely to be contradictory.

At the other extreme, Peasnell [1982, p. 255] suggested that the conceptual framework:

. . . could be intended to do no more than provide very broad general objectives for financial reporting to which no one could take serious objection; the aim would be to 'raise the moral tone' of the profession.

Perhaps closure on specific accounting standards was too much to expect from a conceptual framework.

In 1977, an AAA committee composed of nine academics pessimistically concluded, after three years of study, that "theory closure cannot be dictated" and that "all theory approaches are flawed when viewed from the perspective of some alternative approach" [AAA, 1977, pp. 49, 50]. Each conceptual framework, it added, "implicitly incorporates individual beliefs and premises that cannot be proved or disproved in a logical sense" [p. 48]; hence, the committee concluded that it cannot be demonstrated that one framework is superior to all others.²⁵

Dopuch and Sunder [1980] were similarly pessimistic of any attempt to impose a normative conceptual framework on

²⁵Lawrence Revsine was chairman of the committee. For his views on the implication of the report for the development of a conceptual framework, see Revsine [1977, pp. 35-39].

society, for the groups and individuals who are concerned with financial reporting possess their own private motives and objectives. In the end, they argued, standards will inevitably be compromises to appease these conflicting interests.

Storey and Storey [1998, p. 161], on the final page of their comprehensive study, preferred to accentuate the achievements of the board's conceptual framework:

The FASB has used the completed parts of the framework with considerable success. The Board's constituents also have learned to use the framework, partly at least because they have discovered that they are more likely to influence the Board if they do. Both the Board and the constituents have also found that at times the concepts appear to work better than at other times, and undoubtedly they sometimes could have been more soundly applied. . . . some parts of the conceptual framework are still controversial, partly at least because long-held views die hard. The framework remains unfinished, although the Board gives no sign of completing it in the near future.

Despite the fact that the Board has left it incomplete, the FASB's conceptual framework

- Is the first reasonably successful effort by a standards-setting body to formulate and use an integrated set of financial accounting concepts
- Has fundamentally changed the way financial accounting standards are set in the United States
- Has provided a model for the International Accounting Standards Committee and several national standards-setting bodies in other English-speaking countries, which not only have set out their own concepts but also clearly have been influenced by the FASB's Concepts Statements, sometimes to the point of adopting the same or virtually the same set of concepts.

This writer would interpose three reactions to the views expressed by Storey and Storey. (1) Without question, the board has shown that it can bring an immense project of this kind to completion, but whether the effort has been "reasonably successful" is still an open question. (2) One doubts that the board's approach to setting standards has been "fundamentally changed" by the conceptual framework — changed, yes, but not fundamentally. (3) It is true that the board's conceptual frame-

work has been imitated in other countries and by the International Accounting Standards Committee (IASC). But the IASC's framework is no more helpful on measurement than is the FASB's Statement 5. The U.K. Accounting Standards Board (ASB), in the 1999 redraft of its Statement of Principles, also declined to choose between historical cost and current value as the measurement basis [para. 6.4]. And the ASB, unlike the FASB, is not constrained by a conservative securities commission or by an entrenched tradition of historical cost accounting. The Australian Accounting Research Foundation, which began the research for its conceptual framework in the 1970s, has yet to issue even an exposure draft for a concepts statement on recognition and measurement. So, the exportation of the board's conceptual framework has not led to marked success overseas.

When judging the overall product of the FASB's conceptual framework, one can justifiably fault the board for not having chosen, as a matter of principle, the relevant measurement attribute or attributes that should govern the preparation of financial statements. That was, after all, the *raison d'être* for the entire exercise — everything pointed toward that end. What reasons serve to explain the board's indecisiveness? Resistance to change — from preparers, practitioners, and the SEC, as well as within the board — coupled with an indifference, at best, by users constituted a high barrier for the board to surmount. The SEC's well-known antipathy toward departures from historical cost accounting in the financial statements might have been seen by some members of the board as an obstacle to a principled choice. Memories were still fresh of the condemnation by the APB (and by the SEC's chief accountant) of Sprouse and Moonitz's advocacy of current value accounting in their accounting research study published in 1962, resulting in the APB's decision to consign both the postulates and principles studies to oblivion. Some FASB members may not have wanted to risk having the board's conceptual framework similarly marginalized as "too radically different." Furthermore, departures from historical cost accounting represented a potential threat not only to the preparer community but also to accounting practitioners [see Revsine, 1991]. To preparers, the use of current value raised the specter of including potentially volatile unrealized holding gains and losses in the income statement. As regards practitioners, few would have possessed any knowledge of measurement attributes other than modified historical cost accounting because of the monopoly that the latter had so long

enjoyed in the U.S. Practitioners may have feared that their expertise would become obsolete by the imposition of an unfamiliar system of accounting. Macve [1997, p. xxii] has characterized these sources of resistance as “the political problems of different interests and needs.” Even within the board, the members differed intellectually and emotionally on the choice of measurement attribute — reflecting what Horngren [1981, p. 90] has called their “individual conceptual frameworks.” This built-in resistance to change on so many sides must have been a brooding omnipresence in the board’s deliberations.

What has been the practical effect of the board’s conceptual framework? Unless one is on the inside and listens to the board deliberations — or, as a researcher, interviews the principals and examines the board’s minutes and files — it is difficult to know whether the evolving conceptual framework actually changed minds or was cited in subsequent standards statements to buttress a preconceived view. To be sure, Arthur R. Wyatt [1987, p. 46], who joined the board just after the issuance of Statement 5, has said that “the current FASB members and staff refer to the framework constantly,” especially the qualitative characteristics and the definitions of elements. Further, he said that “constituents particularly refer to the conceptual framework when they do not agree with a tentative conclusion that we have reached on a practical issue and argue that it is inappropriate because it does not follow logically from the conceptual framework.” But it would be useful to have the findings from an empirical research study.

Former board member Mosso [1998, p. 7] has said that “Concepts Statement 5 laid the groundwork” for the board’s decision in 1987 (Statement 95) to replace the funds statement with the statement of cash flows “by further developing Concept Statement 1’s emphasis on cash flows as a tool of investment decision making.”

To demonstrate impact, Miller [1990, p. 27] has claimed that three subsequent standards statements incorporate the board’s preference for the “asset and liability view”: Statement 76, on in-substance defeasance [1983]; Statement 87, on pensions [1985]; and Statement 96, on deferred tax [1987]. He noted as well that three of the board’s early standards statements, issued between 1974 and 1976, also embraced the “asset and liability view” [Miller, 1990, p. 27]. Evidently, the board did not require a concepts statement in order to adopt this premise in its standards.

As part of his major study of the conceptual framework

project, Gore sought to discern the impact of the completed conceptual framework on three standards statements: Statement 87, on pensions [1985]; Statement 95, on cash flow statements [1987]; and Statement 96, on deferred tax [1987]. Gore [1992, p. 124] concluded that the board's conceptual framework "can claim little effect on the various outcomes."

Yet Daley and Tranter [1990, p. 15] have contended that it is pointless to attempt to judge specific accounting standards in terms of a conceptual framework that includes neutrality as a desired characteristic of reliability. They argued that "the significant role that economic and political pressures play in the development of accounting standards" must be factored in to the conceptual framework and therefore into any such analysis of the conformity of standards to a framework.

To what extent have members who joined the board after the conceptual framework was completed in 1985 "signed on" to the conceptual framework? At the end of 1986, only 12 months after Statement 6 was issued, Chairman Kirk [1986, p. 8] wrote, "I have already noticed that board members who were not involved in the lengthy debates preceding [the six] Concepts Statements, especially No. 5 on recognition and measurement, have less attachment or proprietary interest in them." By 1993, all of the members who voted on Statement 5 had left the board. In a standard-setting body with rotating membership, how long will an approved conceptual framework retain its authoritativeness within the body? To its credit, the board has taken steps to keep the conceptual framework on the table. At some of the board's professional development sessions that are held for the benefit of members and the research staff, issues relating to the conceptual framework are periodically scheduled for discussion. Also, a number of recent agenda projects, especially the current one on present value, has led the board to revisit the earlier concepts statements. Finally, the annual performance review of board members can point up a lack of knowledge of the concepts statements. But the question remains, to what extent do the current board members subscribe to the conceptual framework?

These are interesting questions on which, it is hoped, empirical research will be conducted. Until then, we live with opinions.

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LABOR'S CHANGING RESPONSES TO MANAGEMENT RHETORICS: A STUDY OF ACCOUNTING-BASED INCENTIVE PLANS DURING THE FIRST HALF OF THE 20TH CENTURY

Abstract: This study compares organized labor's reactions to changing management rhetorics as these rhetorics surrounded accounting-based incentive plans, including profit sharing. Results suggest that labor's perceptions of profit sharing changed dramatically from the 1900-1930 period to post-World War II. The shift, in turn, prompts an exploration of two research questions: (1) how and why did the national labor discourse around the management rhetoric and its emphasis on accounting information change, and (2) how did this change render unions more governable in their support for accounting-based incentive plans?

INTRODUCTION

Enthusiasm for profit sharing and other accounting-based incentive plans made a resurgence in the U.S. during the 1990s [Labate, 1993]. Management promoted profit sharing and other accounting-based incentive plans as solutions to cyclical macroeconomic problems [Weitzman, 1984; Florkowski, 1991; Krase, 1993] and as techniques to facilitate union concessions [Perry and Kegley, 1990]. This resurgence represented only the latest wave of interest in accounting-based incentive plans in the U.S. Studies show that interest in and enthusiasm for profit sharing

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have ebbed and flowed throughout the 20th century despite the long-lived nature of some individual plans. The cyclical nature of these accounting-based incentive plans, however, has been ignored in some studies that have treated each profit-sharing episode as unique and unrelated [Kubly, 1958; Jehring, 1960], while other research treated episodes of profit sharing as if they were basically the same [Cheadle, 1989; Aktoul, 1992]. We argue that despite striking similarities between waves of profit sharing, the contextual details surrounding each episode differ dramatically. Further, we suggest that the management rhetorics used in advancing profit sharing and, in turn, labor unions' responses to these management techniques and related rhetorics [Abrahamson, 1997] illustrate that accounting-based incentive plans are contextual, fluid phenomena, not unchanging and instrumental management technologies.

Miller and O'Leary [1989], expressing this same concern as to the interrelationship between management rhetoric and management techniques in labor relations, emphasized the role of language, rationales, and ideology in shaping social relations among organizational and societal constituents. They argued that it is necessary to examine the role of knowledge and expertise in order to understand the transformation of social relations among organizational actors, as well as the struggles that attend these transformations. Their historical analysis suggested that society came to accept the hierarchies and managerial authority that influenced everyday life because both had been rendered visible and knowable to external constituents. Our paper seeks to extend Miller and O'Leary's [1989] micro-analysis concerning the constitution of the worker and the organization as visible, knowable, and, hence, governable entities.

Specifically, we examine the transformation of organized labor's resistance to, and then support of, profit sharing as a component of workers' compensation. Our study compares two waves of profit sharing. In the first period, circa 1900-1925, labor often resisted a management rhetoric that emphasized accounting information as an objective, passive measure of profit in accounting-based incentive plans. By contrast, in the period following World War II, several large unions actively supported accounting-based incentive plans, not only accepting but promoting a management rhetoric of value-neutral accounting as unions demanded increased access to accounting reports and relied increasingly on accounting information within their own decision processes. This dramatic shift in labor's views pertaining to the management rhetoric of ac-

counting-based incentive plans, and the resultant shift in views related to the acceptance of accounting-based incentives, suggests that it was not just the individual worker or organization that was rendered governable [Miller and O'Leary, 1989]. Unions also became increasingly governable as they eventually acquiesced to and took for granted the application of calculative regimes of accounting profit calculations.

THE MANAGEMENT RHETORIC OF PROFIT SHARING

Stryker [1990] argued that in arenas of frequent, inherent conflict historical analysis can identify and elaborate upon the selective institutional mechanisms that systematically contribute to the production, resistance to or acceptance of, and the reproduction of organizational innovations such as accounting-based incentive plans. Such a perspective is also necessary to understand the diffusion of these institutional patterns, particularly the manner in which social order is produced and reproduced in labor-management relations [Kolko, 1963; Stryker, 1990]. Stryker [1990] further suggested that because both functional and dysfunctional outcomes are achieved through conflict and because selective mechanisms include political-institutional dynamics, future research must provide comparative historical perspectives on how, why, and in what context political-institutional mechanisms systematically combine to produce outcomes.

Consistent with this theme, Miller and O'Leary [1989] have examined the process by which the existence of bureaucratic hierarchies was reconciled with the American ideal of individual initiative. Their historical analysis suggested that individuals came to accept hierarchies and managerial authority that influence everyday life as society became increasingly visible and knowable to external constituents. It is this quality of knowability that became taken for granted or a fact of life in contemporary society. Miller and O'Leary reasoned that the interlinking of the corporation with the political culture was essential to this process, such that the political culture provided ideals favoring economy, efficiency, and science that were converted into "facts" concerning what are appropriate corporate structures and professional managerial behavior. This "fact"-based status had in turn been achieved by codifying related structures and behaviors into an analyzed body of knowledge. As Miller and O'Leary argued, the large-scale, multi-unit corporation was not uncritically welcomed into North American soci-

ety and neither was the authority of those who managed this new economic form. They argued that new corporate managerial structures were not derived from arbitrary decrees of a managerial elite nor did managerial authority come from privileged social positions. Instead, both managerial structures and authority were both propagated by objective facts and techniques. Accounting became a significant forum for expressing facts as it too became taken for granted as creating a visibility of each organization's and individual member's performance. Miller and O'Leary [1989, pp. 262-263] concluded that:

The principal implication of this paper is the proposition that critical studies of the modern corporation can benefit from a more microanalytic concern with the conditions of possibility of hierarchies. This entails an analysis of the elementary components — intellectual, cultural, institutional and technical practices [such as accounting techniques] — out of which that complex entity called the modern corporation has been constructed. . . . This is, in effect, a call for critical studies of the corporation to work upwards from specific processes and their interrelations, rather than downwards from an assumption that the outworkings of power can be detected and made intelligible by reference to a broad historical postulate such as that of capitalist domination.

More specifically concerning management rhetoric and labor relations, Abrahamson [1997] argued that students of techniques for managing employees are generally unable to explain the prevalence of different types of management rhetoric. Abrahamson emphasized the importance of understanding the role of rhetoric because the emergence of a particular form of rhetoric may influence long-term macroeconomic trends, rather than being merely a consequence of those trends. Rhetoric is constitutive. Furthermore, he argued that since employee management rhetoric may greatly influence what managers do, an understanding of forces influencing its role is an important objective for research. For Abrahamson, understanding these forces meant seeking a more complex and holistic picture that included examining the role of government intervention in the evolution of managerial rhetorics. Finally, Abrahamson conceded that his work represented a broad analysis of the role of rhetoric over five periods in this century and urged a disaggregation of these periods be undertaken in order to gain a more "fine grain" understanding of evolving managerial rhetoric.

Consistent with Abrahamson's call, our study compares two waves of profit sharing — an early episode that occurred in the first decades of this century and a second wave following World War II. Specifically, we examine labor unions' reactions to, and impact upon, the management rhetoric surrounding profit sharing and related accounting-based incentive plans during these two time periods. Particularly important to our analysis is Abrahamson's [1997] distinction between two classes of management rhetorics — "rational rhetoric" and "normative rhetoric." The key assumption underlying normative rhetoric is that employers can render employees more productive by shaping their thoughts and capitalizing on their emotions. The key assumption underlying rational rhetoric is that work processes can be formalized and rationalized to optimize productivity, as can the reward systems that guarantee recalcitrant employees' adherence to these formal processes. Extending the work of Jacoby [1985], Abrahamson identified the mid-1920s as the culmination of a normative rhetoric period that promoted company welfare practices, including financial incentives such as profit sharing and employee-stock-ownership programs, that were intended to align the objectives of employees with their organization. Abrahamson argued that normative management rhetoric involving such discourses as profit sharing tend to predominate because they promised to forestall the discontent that causes employees to join labor unions and strike. Therefore, he argued, the prevalence of normative rhetoric will be directly related to the rise and vigor of labor union activity.

While Abrahamson and Jacoby placed profit sharing in the mid-1920s as one form of normative rhetoric, our study suggests that these plans provide early glimpses of a shift to rational managerial rhetoric as accounting is a central part of rational management rhetoric. This focus places profit sharing in a more complex light, evolving from the rational rhetoric of the scientific management period prior to the mid-1920s. Further, labor's response to profit-sharing plans was a reaction to both profit-sharing plans as normative techniques and management's appeal to accounting as a rational technique.

The critical point is that tools which have been interpreted as either normative rhetoric or rational rhetoric are instead evolving in their very nature. On this point, Baron et al.'s [1986] study of the diffusion of scientific management indicated that techniques associated with scientific management actually fueled, rather than forestalled, unionization in many industries. This argument is also consistent with the work of Barley and

Kunda [1992], who concluded that the prevalence of rational rhetoric managerial techniques was unsuccessful in early scientific management because the normative promise of labor peace was clearly discredited over most of this period. In short, our closer examination of profit sharing and allied management rhetoric in the early decades of the century goes beyond classifying it as a normative rhetoric of the 1920s, but sees it as evolving to this status from an earlier status as a form of rational rhetoric.

The emergence of accounting as a rational managerial technique toward the end of the early decades of U.S. labor unrest was a preamble to labor's responses in the second period we study. The second period we examine is a period of pervasive profit sharing that emerged following World War II. In both periods, management rhetoric advocated profit sharing and other accounting-based incentive plans as a solution to labor unrest. Furthermore, these plans were developed and adopted in periods of "perceived" economic changes and crises. Both periods are also marked by attempts to reconstitute workers as "cooperative participants" in production. However, whereas in the first decades of the century labor often resisted a management rhetoric advocating accounting-based incentive plans on normative terms, in the period following World War II many large unions actively embraced and pursued them. Thus, in this latter period, many unions not only accepted the management rhetoric surrounding profit-sharing plans but began also to accept and promote accounting as part of that management rhetoric. In this latter period, unions began to demand increased access to accounting reports and relied increasingly on accounting information for union decisions.

Indeed, our findings of a period of resistance followed by a period of acceptance is consistent with Abrahamson's recognition that rhetorics sometimes persist and even resurge in later periods. Abrahamson also argued that historical events such as wars and government intervention are also important for understanding the influence and changes in management rhetorics [Jacoby, 1985; Shenhav, 1995] — the focus of our analysis.

In summary, our study is prompted by two major research questions: (1) how and why did the national labor discourse around the management rhetorics of profit sharing with its emphasis on accounting information change, and (2) how did this change affect union support for, or opposition to, accounting-based incentive plans?

To answer these research questions, we examined accounting-based incentive plans from each of the two major periods. Our study relies on both primary and secondary sources, including archival records, collective-bargaining agreements, letters from unions to company officials, and minutes from national and local union meetings [Cook and Reichardt, 1979]. We also examined the labor press from 1900 to 1970 extensively, reading selected labor papers in their entirety. The national labor press included journals and papers from the American Federation of Labor (AFL), the Congress of Industrial Organizations (CIO), the AFL-CIO in later years, and two national unions — the United Steel Workers of America (USWA) and the United Rubber Workers (URW). In addition, we examined many newspapers published by the labor press of state or union locals. We also documented what we did not find, for example, where accounting was not mentioned [for a discussion of examining newspaper coverage in organizational analysis, see Allison, 1971; Herman and Chomsky, 1988; Zelizer, 1992].

PROFIT SHARING IN THE EARLY PERIOD

According to Abrahamson [1997], the key assumption underlying normative rhetoric is that employers can render employees more productive by shaping their thoughts and capitalizing on their emotions. He characterized early normative employee management rhetoric in the U.S. as evolving from forms of industrial betterment, or welfare work, which was designed to shape employees' values, intellectual skills, and work ethics. By the mid-1920s, a normative rhetoric emerged which promoted the use of welfare work techniques that incorporated financial incentives such as profit sharing and related accounting-based incentive plans as part of the management techniques intended to align the objectives of employees with the organization. The emphasis on cooperation in this period is illustrated by the Spencer Wire Company plan of 1915:

The success or failure of the plan, therefore, is in your hands. Our objective is several fold: The Company desires to interest you in its financial result, and is willing to share its profits. It hopes in return that the profits will be increased by employees taking a personal interest in the continued success of the business, leading them to exercise the greatest possible care to prevent bad work and waste of time and material. Also to encourage increased production and suggestions of im-

provement of any nature [employment contract in Burritt et al., 1918, p. 271].

This excerpt illustrates that cooperation was not seen as a desired outcome for its own sake, but because it was expected to increase productivity. Managers and owners of firms generally cited four reasons for implementing accounting-based incentive plans: 1) to make workers more concerned about costs and careful about their work, 2) to increase efficiency, 3) to stabilize the work force, and 4) to improve relations between management and employees [Engen, 1967]. Burritt et al.'s [1918, p. 18] study was more specific. It listed "industrial unrest and agitation" as the major reason for growing interest in profit sharing, stating: "Insurance against strikes is sought by limiting participation in profits to those who have been in continuous service for a specified period, usually one year."

During this early period, profit-sharing plans had other common features, including the "continuous employment" clauses. Plans were offered unilaterally by employers and could be withdrawn at will or at the end of the fiscal year. Plans often contained no language which specified how accounting profit was to be computed (for example, how depreciation might be handled). Most offered workers no recourse if they questioned some aspect of the plan. Few gave employees the right to have an outside auditor examine the profit figures. Furthermore, these plans were often implemented as part of larger schemes of "welfare capitalism," as part of employers' efforts to engineer both the working and private lives of their workers [Jacoby, 1985]. Burritt et al. [1918] described over 50 profit-sharing plans from that period. However, two of the most well-documented plans (Ford and McCormick) illustrate the role these plans played in labor relations during the period.

For example, Henry Ford implemented his famous "Five Dollar a Day" profit-sharing plan as part of a comprehensive system of welfare capitalism introduced to reduce high levels of absenteeism and turnover, to increase the pace of work, and to counter threats of unionization. There were reasons to be concerned. In 1913, the company experienced an average of 10% absenteeism. Turnover was 380% annually, which meant that Ford had to hire 52,000 workers per year to keep 13,000 positions filled [Meyer, 1981]. Both Ford and his management cadre believed workers needed to change their way of working. Norval A. Hawkins, a manager at Ford, created a list of bad habits that he felt welfare capitalism might improve. Workers

who needed improvement included “chronic strollers and time killers,” “sulkers, grunters, backtalkers, mumblers,” “[those with] antagonism to improved methods,” and “[those] doctoring records to suit the boss” [cited in Meyer, 1981, p. 741]. Henry Ford himself stated: “More than half the trouble in the world today is the ‘soldiering’ and dilution and inefficiency for which people are paying good money” [cited in Meyer, 1981, p. 88).

Ford’s plan increased wages for all workers by 15% and reduced the work day from nine hours to eight. Further, a portion of some workers’ compensation was based on the company’s reported profits. After including profit sharing, the maximum pay for some skilled workers could be as high as \$5 per day (thus, the name of the plan). Only workers who performed well at work and who lived well at home could be recommended for participation in the plan. Floor supervisors would decide who worked well, and inspectors from the firm’s Sociology Department determined who lived well at home [Benyon, 1973; Meyer, 1981].

Although the turnover and absenteeism decreased after the introduction of welfare capitalism in 1913 and 1914, it does not appear that profit sharing solved Ford’s labor problems or prevented unionization. In April 1919, the Auto Workers Union struck Wadsworth Manufacturing who supplied Ford with auto bodies. During the strike, over 700 Ford workers per day joined the union. By 1920, 6,000 workers had quit working at Ford Motor Company within a 90-day period [*New York Times*, November 25, 1920, p. 16]. In the same year, Ford distributed bonuses to 94,000 workers which ranged from \$50 to \$270 [*New York Times*, December 31, 1920, p. 1]. In 1921, Ford canceled the plan entirely, stating that he was going to increase wages instead, and that increased wages would make up for the bonuses that workers were not going to receive [*New York Times*, May 7, 1921, May 23, 1921]. Reverend Marquis, who headed the welfare projects at Ford Motor Company, resigned. His explanation demonstrates the normative rhetoric underlying these plans:

I resigned from the Ford Motor Company in 1921. The old group of executives, who at times set justice and humanity above profits and production, were gone. With them, it seemed to me, had gone an era of cooperation and goodwill in the company. There came to the front those whose theory was that men are more profitable to an industry when driven than led, that

fear is a greater incentive to work than loyalty [quoted in Benyon, 1973, p. 39].

Similar to Ford Motor, difficult labor-management relations also preceded profit sharing at the McCormick Company [Ozanne, 1967]. In 1903, McCormick introduced the company's first accounting-based incentive plan following a strike that occurred at a major division, the Chicago Deering Works. The company tailored that plan so that workers needed one year of "faithful employee" status to participate. The plan resulted in stock distributions of around \$300 to 700 production workers; in some cases, the \$300 bonus equaled the employee's annual wages. Ozanne [1967] argued that the profit-sharing plan slowed unionizing activity, especially after 20 union activists, largely the organizers of the Chicago Deering Works strike, were disqualified from the plan because they did not satisfy McCormick's "faithful employee" requirements. Cyrus McCormick, Jr. stated that he believed that these types of plans were a "very practical step toward removing any possible danger of Bolshevism" [Paper Series 4C, Box 6, State Historical Society of Wisconsin]. However, as in the Ford Motor plan, the stock distribution did not end labor-management problems at McCormick. Union organizing continued at the plants. As the wage agreement of 1903 approached expiration in 1904, McCormick decided to lock the workers out rather than increase wages. Following a strike in 1913, a revised incentive plan was implemented. This time, 63% of employees signed up, but the plan did not solve McCormick's labor problems. Workers went out on strike for 30 days in May 1916. The company further revised this plan in 1920, but in the following year, the company made so little profit that nothing was paid out. Eventually, all of the plans were destroyed by the low profits of the 1920s and, in particular, by the Great Depression, when McCormick's stock price dropped from \$75 to below \$16 [Ozanne, 1967, pp. 86-94].

Management Rhetoric and Union Resistance: Many union leaders opposed accounting-based incentive plans during this early period [Kubley, 1958; Cheadle, 1989]. Throughout the labor press, we found arguments against profit sharing that contended that profit sharing was introduced to prevent unionization. For example, the *Detroit Labor News* [August 29, 1919, p. 16] described profit-sharing plans as setting worker against worker:

Shops that have unions do not have profit-sharing plans. Most profit-sharing concerns pay lower wages than prevailing union rates for the same work, and profit sharing is adopted in most cases to prevent an organization in the shop and to discourage agitation for better conditions and lower hours.

The *Wisconsin Labor Bulletin* [May 26, 1916, p. 2] noted that the McCormick Company had introduced its profit-sharing plan two days before Christmas, reflecting a “paternalistic, benevolent despotism” that lay behind the plan. The paper stated, “profit sharing schemes are a deception. They do not benefit the great bulk of workers.” Similarly, the *Cleveland Citizen* [January 10, 1914, p. 1] said that the Ford Motor Company’s profit-sharing plan “vindicates the most radical union demands.” The article added:

While Ford’s scheme will be denounced as utopian, socialistic, etc. by other great capitalists and their newspapers, the general public will nevertheless be taught a valuable lesson respecting the unequal distribution of wealth now flowing into the coffers of the great corporations.

The Illinois State Federation of Labor [1918, p. 283] condemned profit sharing during its annual meeting, stating:

Many are the agencies that keep labor divided; politics and religion, prejudice and selfishness, preferment and flattery, are all ready weapons in their inexorable grasp. But capital uses no more vicious agency against the workers than the bonus system when used to prevent [union] organization.

As these quotations suggest, organized labor viewed accounting-based incentive plans as divisive measures used to weaken union organizing activities. Throughout this early period, labor leaders also articulated multiple concerns about the accounting basis of these plans. Three major themes emerged: 1) that accounting was not an objective, neutral activity and was therefore not trustworthy; 2) that accounting was not relevant; and 3) that the assumptions underlying accounting were debatable. In short, the critical point of resistance seemed to hinge upon labor’s belief that accounting numbers could not be trusted because these numbers were produced by companies that could not be trusted. The *Detroit Labor News* [April 29, 1921, p. 2] observed:

Dividing profits has a brotherly sound, but it means nothing to those who know that the trust retains the power to decide what constitutes profits, and the skilled accountants can pile up the 'debit' side of the ledger to any height desired.. Workers who accept the trust's bonus system play with loaded dice, because corporation profits is a matter of figure jugglery in which they have no part.

Articles explicitly cautioned workers not to believe the "figures" provided by owners and managers. The *Detroit Labor News* [February 14, 1930, p. 6] stated:

When a corporation figures profits this does not mean the total amount received, as with wages. Often skilled accountants exhaust their ingenuity in disposing of income. There is only one way to secure a higher wage. To win that, objective workers must organize and do their own thinking. They would not accept the views of the so-called economists who strive to maintain the status quo. If these profits go unchallenged, a greater concentration of wealth and pauperization of additional workers is inevitable.

The labor press criticized the way accounting profits were calculated. For example, the *Reading Labor Advocate* complained about recording depletion as an expense. Instead, the paper argued that both depletion and depreciation should be deducted directly from the stockholders' equity account. Further, the paper [March 6, 1926, p. 5] complained that companies used stock splits to hide profit. The *Cleveland Citizen* [December 29, 1923, p. 4] stated that it was impossible to police the coal industry because there were so many changes in ownership that really represented only "bookkeeping transactions which in many cases involve no physical possession." The *Detroit Labor News* [August 17, 1923, p. 2] pointed out that the big profits shown by the U. S. Steel Corporation were "after all charges have been met and money set aside for improvement." This paper also noted that profits were "after fancy salaries and the storing away of vast sums" [September 7, 1923, p. 2] and that:

The fully sophisticated corporation ordinarily hides the nature of this double charge [depreciation] by the bookkeeping methods of capitalizing the surplus. Commercial methods of accounting are not capable of detecting the idleness of machinery. Bookkeepers, whether dignified with resonant titles or not, are no

more than money clerks for men of money. They have the dollar bias. They cannot think back from the dollar to the man-machine combination [*Detroit Labor News*, August 19, 1918, p. 4].

A second argument prominent in the press was that accounting reports and measures were not relevant to the important issues of the day. They argued that accounting numbers could play no significant role in social debates that involved issues of fairness, morality, and ethics. Some segments of labor viewed the use of accounting calculations as incompatible with, or at least inadequate for, dealing with (normative) issues of fairness. For example, the *Cleveland Citizen* [May 8, 1920, p. 3] questioned the extensive use of such metrics as accounting numbers in the debates over railroad strikes. "The whole question of work and wages has a political as well as an economic aspect, and it is quite likely that this fact will become fully understood by American Labor." Other segments of labor argued that workers deserved a "living wage" not a wage based on a company's profits. For example, the *Detroit Labor News* [September 7, 1923, p. 2] commented that a "just and reasonable wage" should not be based purely on profit:

On the basis of a living wage workers have something to figure from. The cost of supporting an average family in average comfort can be determined with a fair degree of accuracy. But a just and reasonable wage, what is it? From past action of the [coal] board, we would be justified in assuming that it is one that is entirely satisfactory to the railroad owners.

The arguments of the labor press often stressed the moral and ethical issues that organized labor felt were more important than the measure of accounting profit. The United Automobile, Aircraft, and Vehicle Workers of America asked in an article entitled "What is a Fair Wage?":

A decision always proves to be a truce, a compromise. In fact, no final and permanent decision can be reached because there is no finality in the worker's ethical standard. And there is no finality to the opposition to concessions made by the capitalist. For this reason, these struggles will always be camouflaged with an ethical appeal. The capitalist cannot resort to the ethical argument unless he is on the average of bankruptcy, and can thus resort to the feelings of his advisors. As a rule, he seldom has this argument and is forced by the very nature of things to discuss book-

keeping, profits, interest, loans, new equipment and dividends. He thus appears heartless and callous, immune from higher appeal. The fact is that he would resort to the ethical appeal if he could and he does so when the conditions of business are such that he can do so without detection. The ethics of this whole matter can never be square with economic conditions until society becomes organized on a basis of equitable production [*Auto Worker*, October 19, 1919, p. 9].

In this period of struggle and conflict, the mutable nature of accounting information appears to have been clear to some segments of organized labor, who challenged both the basic assumptions underlying the use of accounting measurements and the accounting measurements themselves. Importantly, the economic information which provides the foundation for accounting-based incentive plans was not being viewed as an acceptable form of discourse; thus, its power to transform social values was limited [Edelman, 1977; Clegg, 1987]. In a particularly vehement example of this, the Federation of Labor Press of Detroit argued that labor should never accept the rules and arguments of capital:

When the purchased chattel of capital strangles his honest conviction to become defenders of the rules and terms established by employers to enslave labor and to raise barriers against the worker entrenching himself behind breast-works of the labor movement, he dips his prostituted pen into the repulsive slime of calumny [*Detroit Labor News*, January 9, 1918, p. 4].

Finally, some of labor's resistance centered on the assumptions underlying "accounting" as it had been conceptualized and practiced. These critiques focused on the use of exchange value rather than labor production values as the only acceptable representation of value. *New Solidarity*, the paper of the International Workers of the World (IWW), often made this point, but the issue was also discussed in the papers of the Detroit Federation of Labor [*Detroit Labor News*, August 17, 1923, p. 2, January 21, 1921, p. 21; *Labor Compendium of St. Louis*, February, 1905, p. 2].

The strongest challenge to the accounting assumptions came from the most radical newspapers. The IWW often encouraged workers to gather their own information about productive processes so that they would be ready to run the economy after capitalism had been destroyed. When they accomplished this, it was argued, the existing accounting system

would also be destroyed. In its place, buying and selling would be on the basis of labor involved. Each worker would receive a "labor" passbook. In this way, the IWW believed that no "capitalist robbery based on wage labor would be possible [*One Big Union Monthly*, June 1919, p. 25].

In addition, the IWW seemed to recognize how deeply certain structures of business interest were embedded within existing accounting practices (e.g., the use of market-based exchange values). The union argued that it was dangerous to account for things in a way inconsistent with the social structures they were trying to build. During the early 1920s, the union tried to implement an accounting system that would not "give a false nature" to the organizational structure that would be in place and working when the IWW succeeded in overthrowing capitalism. In addition, the IWW believed that accounting should be done by everyone, and not be an exercise of knowledge of just a few. "Therefore, the union recommended that thousands of workers be trained to do accounting in a new way; that is, based on labor values [*New Solidarity*, April 19, 1920, p. 1].

More Moderate Union Reaction: While accounting-based incentive plans were frequently rejected by labor groups during the early 1900s, there were other more reformist union groups which were competing with the more radical federations of labor [Galenson, 1960; see also Michael and Nelson, 1998]. This more reformist discussion of capitalism and labor-management relations began to focus on the Progressive movement discourse of expertise, rationalization, and quantitative measurement [Kolko, 1963; Larson, 1977; Stryker, 1990; Covalleski and Dirsmith, 1995]. For example, the *American Federationist*, the monthly journal of the AFL, reflected the more moderate views of labor-management relations of Samuel Gompers, William Green, and the editors of the journal. Because the major goal of the AFL was to obtain a "fair day's wage for a fair day's work," the AFL's struggles became focused on defining a "fair day's work." Gompers stated in an interview that organized labor "demanded no special favors, no old-age pensions, no socialistic legislation. They only want justice" [*American Federationist*, December 1908, p. 1057], and this "justice" now meant fair wages instead of a living wage. Furthermore, the AFL used the language of the Progressive movement, stressing education, both industrial and physical, and cooperation between labor and management as social solutions to industrial problems. For ex-

ample, William Green restated the AFL's support for cooperation in an editorial entitled "Team Play" which noted that the United States Chamber of Commerce's annual conference stressed industrial peace:

The newer idea is that profits are due to superior management and that cooperation of all concerned in a producing establishment is necessary to make better management effective. The former president of the Chamber of Commerce, Lewis Pierson, made a most powerful appeal for 'Team Play' for 'Prosperity,' looking to a not distant day when organized business, organized labor and a comprehending government shall unite for the intelligent team work that alone can solve our newer problems [*American Federationist*, July 1928, p. 32].

In short, the AFL argued for industrial cooperation based on effective and efficient participation of citizens who were well educated and in good health. Expertise and science would play a role, as would a progressive government. In this context, the battle over efficiency was often reduced to a discussion of measurement. An explicit discussion of this came in 1925 in an editorial entitled "The Industrial Measuring Rod." The editorial stated:

How difficult it was to convince, even in industry that is in advance of many in keeping records as steel, of the superior efficiency of the shorter workday indicates how few standards for measuring the result of personal policies have thus been developed. By promoting a stable personnel organization, not only are the turnover costs eliminated, but the economies of more efficient production become a very considerable factor. It is difficult for a business management to visualize such results and for the trade unions to supply factual data. But it is important that such data and measuring rods be available to not only the industry but the public to evaluate policies. To develop such standards is primarily the function of management and engineers. Workers can and would be glad to help under proper provisions [*Cleveland Citizen*, August 19, 1925, p. 1].

The labor press in the 1920s illustrated the tensions emerging between those who sought to fundamentally change or eliminate capitalism and those primarily interested in securing a share of the growing industrial wealth by invoking expertise, science, and the search for efficiency which characterized the

Progressive movement [Hays, 1959; Haber, 1964; Miller and O'Leary, 1989]. The *Detroit Labor News*, one of the presses most critical of accounting and profit sharing a few years earlier, provided an excellent example of this tension. In 1929, the paper ran several front-page articles promoting industrial peace through cooperation and advocating the use of expertise, calculation, and science. Yet, on this same page an article entitled "Trade Unionism Fits into American Ideal" [December 20, 1929, p. 1] warned:

This historic opposition to trade unionism takes a new form as old methods are exposed. This opposition can be expected because trade unionism rejects man's control of man. The crude opposition of by-gone-days — Pinkerton detectives, militia and regimented armies of strikebreakers — has been replaced by cunning and stealth. Our present day opponents have discovered that the most effective way to control workers is to control the mind.

In summary, in this period of labor unrest, labor viewed accounting as neither immutable nor neutral. While many businesses and some levels of government turned to arguments couched in accounting and other administrative language, labor challenged both the morality of underlying institutions of capitalism and the representations of these institutions provided by management or its accounting vassals (specifically, their representations of profit). As demonstrated in the above excerpts, the early decades of the century were a time of pronounced struggle over accounting as discourse, as well as over wages and working conditions. Accounting was described as the province of owners and managers who could not be trusted. Further, the labor press described the accounting reports as representing the perspectives and interest of owners and managers.

PROFIT SHARING FOLLOWING WORLD WAR II

The second wave of accounting-based incentive plans began before World War II, increasing dramatically after the war. Studies usually list two legislative and one managerial reasons for the increased usage of these incentive systems. First, tax laws were changed, creating a more hospitable climate for profit sharing. Second, most profit-sharing and gain-sharing plans were exempted from the U.S. government's wage stabilization policies following World War II [Thompson, 1949;

American Federationist, July 1950; Knowlton, 1954a,b] Third, studies have suggested that management wanted to create incentives to tie workers' interests to the firm, sometimes phrased as "making our people capitalists" [Council on Profit Sharing Industries, 1954; Knowlton, 1954a,b; Jehring, 1960]. As with the earlier wave, managers sometimes described accounting-based incentive plans as means of improving the flaws and shortcomings of workers. For example, a manager from the Quality Casting Company, which introduced profit sharing in 1945, stated:

One example of getting people to assume responsibility is one of which we are very proud. We have a lot of colored boys [sic] working for us. Several years ago we were able to encourage a couple of them to take the money that they had received from profit sharing and start building or providing a home for themselves. Of course, it changed their outlook on many things, and particularly at work, it made them far more responsible. That was what we wanted to do. [Council on Profit Sharing Industries, 1954, p. 106].

Worker loyalty and responsibility was valued because managers thought these incentives would create workers who were attentive to costs, efficient, and willing to accept new technology [Thompson, 1949; Knowlton, 1954a,b; Jehring, 1960]. In particular, accounting-based incentive plans were often implemented to decrease labor conflict over engineering-based piece rates and work rules [Oakes and Covalleski, 1994] as evidenced in such places as a gain-sharing plan at Kaiser Steel's Fontana, California plant [*Monthly Labor Review*, April 1964; *Steel Labor*, July 1964]; at Quality Castings Company [Jehring, 1960]; at LaPointe Machine Tool Company [Schultz and Crisara, 1948]; at Parker Pen ["Parker Pen Memoranda," 1954]; and at American Motors Corporation [*Kenosha Labor*, August 3, 1961, October 6, 1961, October 12, 1961].

These post-World War II profit-sharing and gain-sharing plans differed from their counterparts in the early decades of the century. Many plans were implemented as part of collective bargaining rather than being unilaterally implemented by management as in the prior era. Further, most allowed at least some redress over accounting issues. Most gain-sharing plans and many profit-sharing plans instituted specific means for union/management cooperation. These mechanisms often took the form of committees (e.g., the Progress Sharing Committees at Kaiser and the Scanlon Committee at Parker Pen). Further,

these plans often used the rhetoric of “teamwork” to advocate their agendas [Thompson, 1949; Knowlton, 1954a,b; Jehring, 1960].

The second wave of profit sharing received union support which was widely accomplished by favorable commentary in the labor press [*American Federationist*, July 1950; Zalusky, 1991]. In addition, the labor press of the post-World War II period reflected a change in labor’s views of accounting. These changes are illustrated both directly and indirectly. For example, organized labor no longer resisted the use of measurement, regulation, and formalistic solutions to labor/management disputes. In fact, union discussions of “productivity” and labor’s “fair share of its fruits” promoted the use of formula-based bargaining [c.f., *American Federationist*, November 1949, p. 16; *Voice of Local 212*, January 1951, p. 4]. The AFL press continued to argue that it was important to end antagonistic relationships between labor and management and to bargain cooperatively. The *American Federationist* [July 1950, p. 18], for example, stated: “The practical use of union-management cooperation is, we think, indispensable to best results.” The monthly journal of the USWA also editorialized favorably about cooperation, noting:

Something new in the field of labor-management relations is taking place in steel communities around the country. The president of the nation’s largest union and the chairman of the biggest steel producer in the world are digging into labor problems at the plant level [*Steel Labor*, December 1959, p. 18].

Other labor leaders also began to express similar views; for example, the URW executive committee called for “careful cooperation” with the Big Four rubber companies [*URW Convention Proceedings*, February 1948, p. 29].

The labor press also began to discuss accounting earnings more frequently to advocate for labor. Local and national labor newspapers began reporting accounting-based profit figures routinely. These reports included sales figures in dollars, and annual and quarterly earnings statements taken directly from the business press. Many reports were taken verbatim from the *Wall Street Journal*. Union leaders appealed to these earnings figures to justify wage demands. For example, Philip Murray of the CIO stated:

Demands of this union for a wage increase and other improvements in our basic steel contracts are economi-

cally right, economically feasible and entirely justifiable. No propagandist appeals by the steel companies to the public can hide the fact that the present profit margin of the steel industry is so great it could easily grant the union's demands without raising prices at all [*Steel Labor*, February 1952, p. 1].

In another example, Walter P. Reuther of the United Auto Workers of America (UAW) sent a letter to Chrysler following a 99-day strike in 1950 that said:

Despite the 1949 record profits of \$213 million, the Chrysler Corporation was unwilling to grant its workers the same reasonable demands which other companies granted.

Chrysler lacked the simple, common decency to share the profits with workers [*Voice of Local 212*, May 1950, p. 3].

During this period unions often called for more accounting information. This increased use of accounting came from both labor's demands to see the books and from management's insistence that labor take financial arguments seriously. For example, during the 113-day strike at General Motors during 1955-1956, one of the UAW's central demands was for the company to "open the books" to determine if a raise was feasible. When General Motors refused, President Harry Truman set up a "fact-finding committee" which found that a wage increase was reasonable. General Motors still refused to grant a raise, and the strike went on two months after the committee's report was issued. Workers on the picket line carried signs that called on General Motors to let the public "see the facts." [UAW, 1985, p. 50]. This call for accounting information was echoed by union leaders in the May 1949 edition of the *Journal of Accountancy*.

The most prominent union figure calling for profit sharing was Walter P. Reuther, head of the UAW. In early 1958, the Executive Board of the UAW added profit sharing to its list of bargaining demands. The UAW membership was divided and ultimately dropped this demand at its 1958 convention, deciding to focus on decreasing the work week in order to solve mounting unemployment [*Voice of Local 212*, February 1958, December 1958]. However, Reuther continued to push for profit sharing as a "way to solve serious and growing economic problems." In an interview on the CBS [March 23, 1958] program, "Face the Nation," Reuther stated that:

The prime economic motivation behind our profit sharing plan is our desire to find a way by which wage earners at the bargaining table can achieve their equity, their measure of economic and social justice, on a basis that will be absolutely, positively non-inflationary in character.

When asked how serious the UAW was in its demand for profit sharing, Reuther answered, "We are dead serious." Additionally, Reuther called for profit sharing again in 1963 when he stated: "Profit sharing is rational because it shares a pie that's already baked." He called on industry to get "emotionally adjusted" to the idea. Reuther's argument that profit-sharing plans are a reasonable way to divide up the fruits of labor reflects his acceptance of accounting as a measure of productivity and as a basis for determining labor's "fair share" [*Solidarity*, February 1963, p. 3].

In some sense, what was not said in the labor press reflects organized labor's views as much as what was said. There were few examples of labor's earlier criticisms of accounting in terms of its being untrustworthy, irrelevant, or political. Gone was the critique of accounting numbers based on market-based exchange values rather than labor theory values to represent economic reality. Further, the labor press contained no discussions of the morality of using numbers to discuss social issues.

With few exceptions, the labor press did not question the manner in which financial reports were prepared. We found only two explicit complaints about accounting, both in the *Voice of Local 212*. In the first example, the union complained that the annual financial statements of Briggs Manufacturing did not give the union credit for the improved working conditions [November 1949, p. 2]. In the second example, the paper [May 1951, p. 2] stated: "Companies try to make profit look smaller by sometimes talking about net profit and other times about gross profits. This confuses people." When asked to speak to accountants, labor leaders did complain about some accounting practices [Gomberg, 1947], but these concerns were no longer part of labor's own press.

On the other hand, both profit-sharing and gain-sharing plans involved increasingly complicated formulas and calculations. For example, the profit-sharing plan at American Motors involved problematic financial reporting issues including, at one point, removing extraordinary gains and losses and deducting earnings from foreign investments and licenses [*New York Times*, October 13, 1964, p. 23]. The plan at Kaiser Steel

required that “actual costs” be compared to a baseline measure of costs established in 1961. The difference between the two would be multiplied by the tons of steel finished that month, and then any new equipment that “improved productivity” was subtracted at a rate of 1/6 of the cost per month. At Parker Pen, the Scanlon plan allowed the bonus ratio to be adjusted for changes in product mix, subcontracting, or technology — all items which created significant measurement problems [“Parker Pen Memorandum,” 1954]. In other words, plans often involved particular accounting issues that could be points of conflict, even if unions accepted the basic premises underlying the accounting system.

In summary, this second period reveals the extent to which debates had shifted from moral issues (including the appropriate definition and boundaries of labor conflict) to debates of fact (how do we measure productivity, what are true profits). This shift reflects, in large part, the way that the rhetoric of organized labor was subsumed by the rhetoric of rationality [Zucker, 1977; Gordon et al., 1982; Jacoby, 1985]. It also reflects the widespread trend toward specialization of expertise and knowledge in which unions came to depend on the accounting measures and the expertise of nonunion sources like the *Wall Street Journal*, in which union leaders spoke about accounting issues with accountants but not with the rank and file. The structural changes in the relationship between labor and management, reflected in both the labor press and in organized labor’s discussion of cooperation, were rapidly consolidated in the post-war period. Gordon et al. [1982, p. 188] remarked on the rate of this transformation in this way:

In retrospect, the speed and comprehensiveness of unions’ postwar accommodation with management in the new system of labor management appear quite remarkable. By the early 1950’s, large corporations had succeeded in shaping and applying an essentially new structure of labor management.

DISCUSSION

The two waves of accounting-based incentive plans examined in this study shared a number of important features. In both periods, employers instituted these plans to deal with labor problems. Plans in both periods were couched in terms of “cooperation” and in terms of creating responsible, efficient, loyal employees. They were intended to relocate or recreate the

employee into a governable working subject [Townley, 1994]. Significant differences existed, however, including organized labor's changing views of the plans. As accounting measurement is an integral part of these plans, labor's changing views of accounting are reflected in their altered stance toward profit sharing and other incentive plans.

The labor press of the first era examined offers many examples where labor writers and leaders felt confident in critically commenting on the nature and practice of accounting. Labor papers also discussed relatively complex business transactions (e.g., stock splits) with little hesitancy. Further, these conversations occurred within the labor press itself, suggesting that union organizers and leaders expected this critique to be understandable and important to union members. Often accounting was described in terms of the biased reports of owners whose interests opposed the interests of workers. In addition, the more radical presses argued that union members must learn to do accounting themselves. Following World War II, however, the labor press seldom commented on accounting as a practice. Further, when it reported accounting profits, the press frequently attributed its information to the *Wall Street Journal* and other sources from the business press that were ostensibly independent of employers. Accounting information began to fall outside the focus and core competencies of unions and the labor press.

Impact of Government Intervention and the Triumph of Rationality: As noted earlier, the seeds of transition from normative management rhetorics to rhetorics of rationality were planted early in the 20th century. The change did not come to fruition, however, until organized labor's normative resistance to management technologies was overcome. This happened, in large part, because of the New Deal legislation of the 1930s. This legislation instituted a broad federal bureaucracy that affected labor relations in a number of ways. Authors, including Stryker [1990], Jacoby [1985], and Gordon et al. [1982], have discussed the role of the Wagner Act and the National Labor Relations Board at length. For this study, federal labor legislation was important for several reasons. The legislation institutionalized and legislated the right to bargain collectively. As a result, it diminished one of labor's primary reasons for opposing profit sharing; namely, that these plans prevented organizing. Perhaps more importantly, this legislation rationalized the arena of bargaining, giving rise to several important implications. This

legislation normalized and bureaucratized the employee and employer relationship. The relationship of worker and boss was no longer seen as fraught with the “moral” and “ethical” conflicts featured so prominently in the earlier labor press [Jacoby, 1985]. Following the New Deal, this relationship was legislated into one relationship to be accepted, managed, and negotiated, but not overthrown. In other words, the relationship became technical. Labor debates moved from issues of substantive rationality (the proper goals to pursue) to issues of instrumental rationality (how to obtain higher wages and better working conditions). As such, the moral discourse underlying labor opposition to both profit sharing and accounting was preempted.

In addition, the New Deal legislation may have influenced labor’s views of accounting by standardizing and formalizing accounting and other issues of corporate government through the Securities Acts of 1933 and 1934. The formation of the Securities and Exchange Commission (SEC) formalized accounting in such a way that the rules for accounting were relocated outside of the firm, seemingly away from the manipulation of owners or managers. Furthermore, “professionalization” meant that accounting increasingly became the bailiwick of “experts” who were located outside the corporation and who appeared to be independent. The effects of both events were reflected in the labor press’ reports of accounting in the 1940s and 1950s, when unions actively gathered accounting information and reported that information, implying that this information was uncontested. As we noted previously, the labor press in the early period often described accounting as representing the vested interests of owners, rather than being the disinterested, value-neutral reports of professionals. For example, accounting professionals were described by the press as “the money clerks for men of money” [*Detroit Labor News*, August 19, 1918]. The legislation of corporate financial reporting practices, along with the growing professionalization of accounting, created an image of impartiality for accountants [Larson, 1977; Miranti, 1990]. Just as the New Deal labor legislation changed the relationship between employees and employers, the professionalization of accounting relocated labor in terms of accounting. Increasingly, the labor press did not describe accounting as the biased reports of an enemy, nor even the prerogative of labor, but as “authorless” information.

We are not, however, arguing that organized labor believed every accounting report presented to them in this later period. As Stryker [1990] pointed out, bureaucratic information can be

used to manage conflict even if there is disagreement about the information and even if the information is seen as politicized. In order to reduce conflict, the administrative use of information expertise need only be seen as not systematically and universally biased. For Stryker, this meant that information may not illuminate class conflict; it cannot appear to be class-dominated or inherently interest-based. In our study, this means that labor must not see accounting information as inherently biased in favor of management or, ironically, biased in favor of unions. In other words, many people including labor came to believe that while accounting reports could be wrong (that is, reports could be manipulated if management did not follow the rules), accounting reports, prepared by rules established by the SEC and the profession, could also be trustworthy or, more importantly, useful.

It is difficult to differentiate the growth of accounting and auditing regulation and professionalization from a similar trend that occurred in the regulation and bureaucratization of labor unions. These two trends happened in tandem and, we argue, are part of the same push for rationalization that was embraced by managers and unions. It is equally important to note that neither trend began in the 1930s with the New Deal legislation. As noted earlier in this paper, management rhetorics of rationalization and labor's acceptance of these rhetorics appear and disappear in the first decades of the 20th century. However, these rhetorics did not predominate. In the same sense, although accounting was growing in importance (Hawkins, 1986; Vangermeersch, 1986), accounting was not viewed by labor as a body of expertise that should be automatically rejected.

In many ways, this accommodation reflects organized labor's acquiescence to the tenets of the Progressive movement, tenets that large segments of labor had rejected in the early decades of the century. During the period of rejection, labor argued that the labor/management relationship was an issue of moral, and not technological debate. As such, accounting measures neither reduced conflict nor created the stability and predictability that Kolko [1963] and others argued lay at the heart of the Progressive movement [Hays, 1959; Haber, 1964]. Nor did the use of accounting measurement shift political and moral conflicts into arguments about fact, a goal central to the Progressives of the period and to the New Deal legislative solutions that were to follow. In other words, the use of administrative techniques like accounting-based incentive plans in the

early period did not reduce or change the nature of labor conflict [Stryker, 1990].

Following the New Deal, however, the opposite was true. Legislative solutions provided a political culture and context that viewed accounting-based incentive plans as objective and immutable, thus appearing more legitimate. Within this context, profit sharing came to be supported and perpetuated by organized labor itself, thus establishing shared meanings of organizational behavior and changing the structure of labor-management conflict. With this complicity of organized labor, unions themselves were rendered governable as were labor-management relations as the calculative regime of accounting was increasingly accepted and applied.

Closing Comments: It is difficult to determine the effects of organized labor's call for and participation in profit sharing even after almost half a century. Some labor historians suggest that the decisions made by organized labor during this period profoundly affected the future of industrial unions as a force in the U.S. For example, Kessler-Harris and Silverman [1992, p. 62] stated:

Continuing to seek a middle-class lifestyle for their members, unions tried to achieve the appearance of upward economic mobility within a job context that was still circumscribed. In the skilled craft unions the result was a job protectionism that subjected them to attack by a growing civil rights movement and reduced the credibility of the labor movement as a moral voice for less privileged workers.

Although those promoting the 1990's wave of accounting-based incentive plans often couched these plans in terms of cooperation, participation, and team work, the plans also appeared in plants facing imminent closure [Perry and Kegley, 1990]. In the uncertain and complex environment in which these plans were implemented, it seemed increasingly important that unions be able to question the accounting reports of falling profits that often underlie calls for organizational restructuring. However, the ability of unions to confront increasingly complex and difficult accounting and other technical issues has been called into question. For example, Craypo and Nissen [1993, p. 234] contended that unions have sometimes been unable to anticipate or understand corporate strategies for reorganization. They noted: "It is revealing that the first person

other than a manager or investment specialist to know that White Consolidated planned to divest the Balw-Knox foundry was neither a local nor an international union official but a Calumet Project researcher who had read about the plan in the business press.”

Some labor leaders agreed that unions often lack information about corporate plans or alternative solutions to economic problems. They note that the labor press has been weakened, and that the general media provides little coverage of union issues [Pizzigati and Soloway, 1992]. In the end, organized labor’s acceptance of financial accounting and other rationalized management practices may have limited the ability of workers to respond imaginatively and critically to the normative challenges of global economic restructuring.

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BOOK REVIEWS

C.J. McNair and Richard Vangermeersch, *Total Capacity Management: Optimizing at the Operational, Tactical, and Strategic Levels* (Boca Raton: IMA Foundation for Applied Research, St. Lucie Press, 1998, 324 pp., \$50)

Reviewed by
Gloria L. Vollmers
University of Maine

McNair and Vangermeersch combine forces and expand on their prior work for the Society of Management Accountants of Canada and the Institute of Management Accountants (*Measuring the Cost of Capacity: Management Accounting Guideline #42*) as well as on their individual efforts in both the area of capacity management and cost accounting history. The book takes advantage of McNair's extensive work as a consultant and Vangermeersch's encyclopedic historical knowledge of cost accounting in an unusual presentation of the issues surrounding capacity, "the value creating ability of an organization" [p. 1], which defies attempts to measure it. The crux of the story is, that because of continually increasing global competition, effective usage and management of capacity is key to profitability, and effectiveness requires that capacity be measured despite difficulties doing so. The firm unable to make increasingly better use of its capacity is likely to be swallowed by its considerable cost.

The authors divide the book into three parts. The first part contains six chapters that introduce capacity terminology and discuss capacity management in the short term (operational), in the intermediate term (tactical), and in the long term (strategic). The second part, with five chapters, examines the capacity literature in the U.S. during five periods (1900-1919, 1920-1932, 1933-1952, 1953-1978, and 1979-present). The final part is an annotated bibliography of literature emerging from those periods. Some of the literature is used extensively in the second part of the book. Though these divisions are structural, there is a considerable integration of history and current capacity information throughout. It is worth noting that the literature used is not confined to accounting sources.

The definitions or categories of capacity use are eye-

opening. Total capacity assumes 24 hours, seven days a week of production. Productive capacity is the only use of that capacity that creates value. The rest is waste. Excess capacity is capacity idle because there is no current market for potential output. Planned idle capacity arises from a temporary lack of demand, routine maintenance, etc. Unplanned idle capacity occurs because of a lack of materials, breakdowns, rework, etc. [pp. 30-31]. What the authors claim is that firms use less than 30% of their total capacity [p. 78]. They also argue that theoretical capacity is the only justifiable baseline from which managers should think about capacity because only by understanding the extent of its potential and assigning it a cost, can they begin to manage it effectively. What is not measured is not seen.

The chapter on operational perspectives reviews models of capacity measurement currently used by firms. These include various materials requirements planning (MRP) models, as well as just-in-time or cellular manufacturing and the theory of constraints. These models emphasize throughput while minimizing other costs. The short-term perspective, assuming a market for goods, says that since capacity costs are largely fixed, and direct costs fixed per unit, the profitability of the firm lies completely in its ability to produce to cover capacity costs. To compete on price in a free market, production must be maximized.

The intermediate term, or tactical perspective, recognizes that while capacity costs cannot be reduced, they can be managed over multiple time periods by looking at how work is done (effectiveness) and what type of work is done. The models for this level of management vary greatly in their complexity, including normalized costing, activity-based costing, capacity variance analysis, the resource effectiveness model, the cost containment model, and elementary analysis within the CAM-I and CUBES approaches. The keys here appear to be the willingness and effort to identify and measure the sources of nonproductive time (waste) and to translate these measurements into dollars. A cost seen is a cost that may be controlled through process or other design changes.

On the strategic, long-term level, all costs are controllable. The models available at this level are CUBES, CAM-I, and resource effectiveness. The variety of decisions made at this level include: make or buy, buy or lease, expansion of capacity, reduction of capacity, outsourcing, joint ventures, alliances with suppliers (and others), and major product-mix change decisions. Here planning must be done carefully because the decisions made at this level can lock the firm into cost structures

for long periods of time. The authors warn that it is far easier to expand a plant and add costs than to reduce it and eliminate costs. For example, assets made redundant by outsourcing may take a long time to sell.

Although the authors integrate history throughout the book, the historical chapters provide for a considerable review of the major capacity discussions that occurred during the century and the economic and political influences on the discussions. They seek to explain when and why capacity was a major topic, how authors recommended handling it, why it disappeared from the literature, and why it has reappeared in the last decade or so. For example, early in the century, substantial investments in machinery led engineers and accountants to recommend tracking the idle time of machines and expensing it as a line item on the income statement as a management tool.

Probably the most controversial part of the book is the conclusion that the New Deal's National Industrial Recovery Act (NIRA), with its emphasis on full cost recovery as a basis for setting prices, doomed thoughtful and useful capacity management for decades to come. While intriguing, there are multiple alternative and/or correlated explanations of why this occurred. One cannot conclude that the NIRA was the primary reason. McNair and Vangermeersch do not ignore the other reasons (e.g., financial accounting's growing prominence and its reliance on full absorption costing and the matching principle) but place primary responsibility on the NIRA. Nevertheless, their arguments deserve discussion.

Global competition, demanding continual cost reductions, has driven the reemergence of interest in capacity and capacity reporting in the 1980s and 90s. The rush to lean production (just-in-time/cellular manufacturing) led to a focus on quality and the reduction of waste as well as the rebirth of activity-based costing and the theory of constraints. All are interrelated in that understanding one's costs and sources of waste should lead to control and greater profitability. The authors would like modern management to know that these issues are not new and that much can be learned from the writers of the past. Perhaps their solutions can be applied to the present.

This book is enjoyable and potentially an excellent source for educators who want to discuss capacity and who welcome an opportunity to integrate historical perspectives. The annotated bibliography can easily be used for class assignments — comparing an article from the 1910s to one written today. Some examples casually put forward may prompt argument,

such as the Lucent Technologies and Babson College partnership to provide an educational program Lucent wants. Is it possible that such linkages might damage the academic credibility of the college? The insistence that theoretical capacity be the basis for measurement, and likely the denominator volume for certain overhead costs, will prompt lively discussions about its impact on performance and performance measurement as well as theoretical arguments about what to do with the massive underabsorbed overhead. This enjoyable and unique book could be the capstone of a cost accounting course because of its integration of ABC, TOC, overhead allocation, waste, quality, and many others topics that have entered the curriculum. The many examples of real companies enrich the book and fill the practical needs frequently expressed by students.

T. E. Cooke and C.W. Nobes (eds.), *The Development of Accounting in an International Context: A Festschrift in Honour of R.H. Parker* (London: Routledge, 1997, 261 pp., \$85)

Reviewed by

Bob R. C. J. Van den Brand

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The Development of Accounting in an International Context, a tribute to R.H. Parker and the second book in the Routledge International Studies in Business History, contains a collection of interesting papers including a foreword by Sir Bryan Carsberg, an introductory chapter detailing the book's contents by editors Cooke and Nobes, and ten chapters of international accounting history. A biographical sketch of Robert Henry Parker and a discussion of his books and articles are also included in the introductory chapter.

Chapter two contains Basil Yamey's notable contribution on the diversity of bookkeeping practices. Yamey begins by discussing "bookkeeping without written records." Later, in the 1490s, some attempts were made to regulate bookkeeping. The first, ordered in 1491 by Ferdinand and Isabella, made little sense because it did not stipulate which books were to be kept. Conversely, the best known attempt to legislate business accounts was the French Code of Commerce of 1673, a project associated with the names of Colbert and Savary. The Code of 1673 served as a basis for the Code de Napoleon (1807) from which many 19th century European commercial codes

originated. Yamey attributes the causes of diversity in book-keeping practices to training of the young abroad, pressures of their other work, shortages of support staff, and incompetence.

In chapter three, Tom Lee points out the influence of the individual on professionalization by presenting the case of Richard Brown and the Society of Accountants in Edinburgh. This paper demonstrates the validity of the professionalization proposition.

In chapter four, Edwards, Carnegie, and Cauberg discuss the backgrounds of the founders of the Incorporated Institute of Accountants in Victoria, Australia. Detailed information such as the founders' occupation, as well as those of their fathers and fathers-in-law, and their religious affiliations is provided.

Chapter five offers practitioner perspectives on the personal conduct of accountants. Lee D. Parker points out the conventional expectations of the accountant's behavior during the first half of the 20th century — honesty, integrity, independence, leadership, efficiency, and swank.

In chapter six, Richard D. Morris discusses the origins of the no-liability company, an organizational form unique to Australia and New Zealand. The no-liability company in the Colony Victoria evolved from the British Cost Book Mining Company (BCBMC) located in Devon and Cornwall, U.K. This paper tests Parker's theory on 19th century accounting regulation in the U.K., a practice associated with issues of monopolistic powers, state-granted privileges, and financial safety. Morris concludes that Parker's concerns, coupled with Crouch's idea of establishing and enforcing the law, explain the existence of BCBMC. Although Parker's explanation is not complete, neither agency theory, investor theory, nor capture theory provides an explanation for the popularity of the no-liability company in Victoria and New South Wales during the gold rush (1850-1870).

Chapter seven offers another view of the deprival value approach to depreciation. Philip W. Bell and Ken Peasnell have four goals: to draw a new generation's attention to the deprival value depreciation model, to clarify certain difficult issues, to highlight interesting facts of deprival value, and to explain why the deprival value approach is relevant to financial reporting.

In chapter eight, David Tweedie and Geoffrey Whittington examine the evolution and decline of the current cost accounting revolution in the U.K., U.S., Australasia, Canada, The Netherlands, and Latin America. They distinguish between constant purchasing power and current cost accounting, as well as

provide information on accounting from perspectives other than historical cost.

In chapter nine, Stephen A. Zeff deals with the U.S. lobby on employee stock options. In the nineties, the media drew attention to long-term incentive schemes and stock option plans offered to key executives. Zeff describes how one U.S. senator organized a hearing and pressed the FASB and the SEC for regulations concerning employee stock options. Zeff describes the complete process of lobbying as well as Senate and House of Representatives pressure on the FASB.

Chapter ten authors Sidney Gray and Clare B. Roberts discuss foreign company listings on the London Stock Exchange, focusing primarily on listing patterns and influential factors. They give an overview of worldwide company listings at the end of 1994 and analyze the foreign listings on the London Stock Exchange by country. Listing patterns are split into temporal, geographical, and industrial patterns. The appendix provides an overview of foreign nonfinancial company listings on the London Stock Exchange between 1937 and 1994.

In the final chapter, R.S. Olusegun Wallace describes the development of accounting research in the U.K. In this chapter, subtitled "The Need to put 'Accounting' back into Accounting Research," the author interprets the research shift away from the core content of accounting and gives his ideas on good, published accounting research.

I found this book interesting, exciting, and very readable. The most charming aspect was the variety of topics in international accounting history, and I accord the book my highest recommendation. It is worth remembering Parker's words [1971] that modern accounting is not the invention of any one country.

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Kees Camfferman, *Voluntary Annual Report Disclosure by Listed Dutch Companies 1945-1983* (New York: Garland Publishing, Inc., 1997, 392 pp., \$68)

Reviewed by
Peter J. Clarke
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During the decades following World War II, the information content of company annual reports increased significantly in many developed countries, resulting mainly from the need to provide information for investors and other interested parties. For teaching and research purposes, this information can be classified as either mandatory or voluntary, and several country-specific studies detail how financial reporting practices evolved over time.

This book is concerned with voluntary, or nonmandatory, disclosure in annual reports of companies in The Netherlands. The book, originally a Ph.D. thesis, is based on a sample of about 30% of the companies (excluding financial and colonial companies) listed on the Amsterdam Stock Exchange over the period 1945 to 1983. For logical reasons, nonquoted companies were not investigated. In 1984, the adoption of the Fourth Directive on Company Law within the European Community ended the period during which Dutch financial reporting regulation was free to develop under the influence of national factors. This longitudinal study is concerned with a total of 13 disclosure *items*; namely, sales (or turnover), comparative figures, tax costs, tax liabilities, labor cost data, number of employees, consolidated financial statements, funds statements, current cost income, current cost balance sheets, earnings per share, industry sales/income, and geographical sales/income. In turn, these 13 disclosure items are grouped into nine disclosure *areas*.

Chapter two considers the theoretical views on voluntary disclosure, particularly in relation to economics-based models of disclosure behavior. The next chapter considers voluntary financial reporting in The Netherlands specifically and documents the rise and the fall of financial reporting in terms of the "Dutch systems" of financial reporting and regulation. Developments are traced from the French *Code de Commerce* of 1807 to the present. This chapter establishes that there was a widespread perception in The Netherlands of the importance of voluntary improvements in disclosure. Chapter four provides a

literature review of the main approaches to empirical disclosure research and discusses the disclosure items selected and companies studied.

Chapters five and six are concerned with analysis of the data gathered. At a most elementary level, it was found that there was, in fact, a rather substantial extent of voluntary disclosure in the Dutch annual reports studied, and that the 1970 Act on Annual Financial Statements had a significant influence on increasing those disclosures. The 1970 Act codified a number of practices, including consolidations, and spurred further voluntary disclosures such as employee numbers, earnings per share, and geographical segmentation of operating income. In terms of association between firm-specific factors and the extent of disclosure, size was found to be the most important explanatory variable. This result was established using multiple regression.

Despite the limitations recognized by the author; e.g., a focus on listed companies and the selection of disclosure items, this Ph.D. thesis contributes significantly to our understanding of both voluntary and mandatory financial disclosure practice in The Netherlands. It is unlikely that the book will become a recommended text, but it is an invaluable source of reference for those investigating corporate disclosure practices. Over 400 references are cited. It also contains important material for those with an interest in accounting history since some reference is made to development both in the U.K. and the U.S. Also, the book highlights that certain aspects of financial reporting are of relatively recent origin. For example, before World War II the practice of disclosing comparative figures in the profit and loss account and balance sheet was rare, while the inclusion of funds flow statements did not appear in the Netherlands until the late 1950s.

Hiroshi Okano, *Japanese Management Accounting: A Historical and Institutional Perspective* (Tokyo: Chuokeizaisha, 1995, 183 pp., \$25, 2,800 yen)

Reviewed by
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Nihon University

This book is unique in that it contains abundant quotations from Foucault's philosophy. Accordingly, it may be classified as

belonging to the critical school of accounting as found most prominently in the U.K. The reader, however, may find this approach to understanding Japanese management accounting a bitter pill to swallow. Okano, honored by the Japanese Institute of Certified Public Accountants in 1996, first aims to identify the fundamental characteristics of the Japanese management system; e.g., TQC (Total Quality Control), JIT (Just-In-Time) and CIM (Computer-Integrated Manufacturing). Second, he intends to construct that management accounting system in light of global standards and social theory. He has divided the study into two parts: an historical approach to management accounting (chapters 1-4) and a structural analysis of Japanese management accounting (chapters 5-7).

In his introduction, Okano develops his fundamental idea that the gap between theory and practice should be overcome by building "management accounting as a social theory" (MAST). Chapter 1 outlines his basic premise that a strict chronology of accounting history is not desirable. Instead, accounting should be examined against the social, economic, and cultural backgrounds prevailing at the time. As well, the relation of theory and practice in management accounting history is continuous, and change should be sought after synthetically (chapter 2). Chapter 3 covers Foucault's theory as a background for subsequent discussion. In chapter 4 Okano maintains that Emerson's standard costing theory needs to be reexamined as analyses of it have been not adequate from the standpoint of MAST.

In the second part of the book, Okano discusses whether Japanese management accounting can exist irrespective of such superficial management techniques as TQC, "kaizen," etc. In chapters 6 and 7, he reviews the development of target costing (TC) at Toyota Motors. Born from value-added and value-engineering philosophy, TC became the overall management technique there. An emphasis is laid on the integrated target costing method through absorption of cost information from suppliers' records, especially in the automobile industry. We know that almost 70% of manufacturing costs are the value of goods delivered from suppliers and to check their prices is vital in the automobile industry. The final chapter concludes, in only four pages, that the study of management accounting needs ongoing dialogue between theory and practice.

In short, we wish to congratulate the author on the birth of this epoch-making study on Japanese management accounting. Despite his passionate efforts to build a theoretical structure in

this field, we regret to say that the integration of Foucault's philosophy and Okano's accounting theory seems unattainable. For example, how can the author explain the essential character of target costing from his own viewpoint? We expect Okano will expand and clarify his understanding of MAST in the future. C.A. Sprague published his *Philosophy of Accounts* in 1907, and H. Okano made public his philosophy of management accounting in Japan 88 years later.

NEW *AHJ* EDITORIAL APPOINTMENTS

AHJ is pleased to announce that Professor Stephen Walker of the University of Edinburgh has accepted the invitation of the Academy of Accounting Historians to serve as the journal's next editor for a three-year term running from 2001-2004. New manuscripts should be sent to Professor Walker at the Department of Accounting and Business Method, University of Edinburgh, 50 George Square, Edinburgh E48 9J4, United Kingdom after July 1, 2000.

Professor Walker and the current editor are pleased to announce that Professor Cheryl McWatters of McGill University will assume the position of *AHJ* book review editor, effective with the June 2000 issue.

Professor McWatters will be replacing Professor Victoria Beard of the University of North Dakota who has performed admirably in that position since 1994. Many thanks to Victoria for her many years of devoted service.

ACCOUNTING HISTORIANS JOURNAL

The Academy of Accounting Historians is pleased to announce the institution of annual prizes for the best manuscripts published in the *Accounting Historians Journal* as determined by its editorial board, commencing with Volume 26 (1999). The prize for best manuscript will be in the amount of \$500, with two additional awards for excellence of \$200 each.

Submissions may be sent to Professor Richard Fleischman, John Carroll University, University Heights, OH 44118.

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