Accounting Historians Journal

Volume 30
Issue 2 *December 2003*

Article 6

2003

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Recommended Citation
Williams, Sarah J. (2003) "Assets in accounting: Reality lost," *Accounting Historians Journal*: Vol. 30 : Iss. 2 , Article 6.
Available at: https://egrove.olemiss.edu/aah_journal/vol30/iss2/6

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Accounting Historians Journal
Vol. 30, No. 2
December 2003

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ASSETS IN ACCOUNTING: REALITY LOST

Abstract: While the contemporary view of assets in accounting is of 'future economic benefits', the appropriateness of this definition for financial reporting purposes continues to be questioned. Samuelson [1996, p. 156] argued that assets should be defined as 'property rights' while Schuetze [1993, p. 69] proposed that assets should be defined simply as cash, claims to cash and items that could be sold separately for cash. These notions are not new. Up until the latter part of the 19th century the emphasis in the accounting literature was on the recording of 'property' or 'effects', commonly understood to be things or rights which were exchangeable for cash. The aim of this paper is to trace changes in the definitional concept of assets in an attempt to discover why professional accounting bodies in the major English speaking countries have adopted the problematic abstract 'future benefit' notion, which is so far removed from the simple concept of assets as exchangeable things or rights. It is suggested that in the future financial reporting requirements for business entities include a statement of 'separably exchangeable property' and legal obligations at the reporting date.

INTRODUCTION

The starting point of any accounting, once the entity is defined, is the identification of assets. Such a fundamental element of accounting would be expected to be based on a straightforward definition. The following study shows that reality is quite removed from such simplicity as accounting has moved from commonly understood concepts of effects and property to the abstract notion of future economic benefits.

The term 'assets' was rarely used in the accounting literature of the major English speaking countries until the latter part of the 19th century. The words 'property' or 'effects' were most commonly used and understood to mean things owned—the wherewithal to meet financial obligations.

Acknowledgments: I would like to thank Dr. R.W. Gibson and the anonymous refereees for comments on this paper.

Submitted December 2001
Revised July 2003
Revised August 2003
Accepted August 2003

Toward the end of the 19th century the term assets, which was understood in commerce and law as meaning property available for the payment of debts, began to feature prominently in the accounting literature. Alongside the view that assets or property represented what was owned there appeared a contrary view of assets as representing deferred (unallocated) costs. Outlays which were argued not to relate solely to the current period were reported in the balance sheet as assets, without regard for whether such outlays represented assets in the commonly understood sense of rights of ownership or objects owned that could be exchanged for cash. Subsequently, the notion that assets were unallocated costs was popularized - especially by those who argued that the focus of accounting should be on the profit and loss statement. For example, Paton and Littleton [1940] emphasized the importance of the matching of efforts and accomplishments, as measured by costs and revenues [see also Littleton, 1953, pp. 22-23; Engleman, 1954, p. 385]. The emphasis was on the allocation of revenues and expenses to accounting periods to determine income. Solvency, or debt paying power, was considered of secondary importance.

The changed emphasis was an important factor in the subsequent adoption of the much broader concept of assets as representing 'service potential', and more recently, 'future economic benefits'. This popular view of assets is reflected in the definitions promulgated by professional accounting bodies in the United States [Financial Accounting Standards Board (FASB), 1980, para.19], United Kingdom [Accounting Standards Board (ASB), 1999] and Australia [Australian Accounting Research Foundation (AARF), 1992, para. 12].

This paper traces the change in underlying definitional concepts through the accounting literature of those English speaking countries where accounting concepts and standard setting followed a similar model. The aim is to gain insight into why the abstract notion of assets adopted in the concepts statements issued in these countries has moved so far away from, and is so out of step with, the legal and commonly understood notions of assets as property available for the payment of debts, or exchangeable things or rights. The implications of this change are discussed. On the basis of this historical analysis it is suggested that along with other relevant information about resources and liabilities, business entities should be required to produce a statement of 'separably exchangeable property' and legal obligations at the reporting date.

The study is based on an investigation of the discourse of

accountants in a randomly selected sample of English language accounting literature, principally of the 18th, 19th and 20th centuries.[1] The emphasis is on the literature published in the UK and the US and while differences in these environments are considered important in the context of this study it is generally assumed that this literature forms one whole.

ETYMOLOGY AND DEFINITION OF 'ASSET'

The *Oxford English Dictionary* [*OED*] provides illustrations of early English usage of the word asset dating back to 1531.[2] The origin of the English use of the word asset was the Anglo-French law phrase *aver assetz* meaning 'to have sufficient' to meet certain claims. *Assets* then passed as a technical term into the vernacular [*OED*, 1989, Vol. I, p. 710]. Used originally as a legal term meaning sufficient estate or effects to satisfy a testator's debts and legacies, by the early 1800s the word was used both in law and commerce in the sense of the effects of an insolvent debtor or bankrupt applicable to the payment of debts. The meaning was later extended to all the property of a person or company which could be made liable for his or their debts [*OED*, 1989, Vol. 1, p. 710], for example, in *The History of British India* James Mill [1817] wrote: "The assets or effects of the London Company in India fell short of the debts of that concern". It is significant that the word asset has retained its original meaning at law – "property available for the payments of debts" [*Mozley and Whiteley's Law Dictionary*, 1977, p. 28; *Jowitt's Dictionary of English Law*, 1977, p.144; *Osborn's Concise Law Dictionary*, 1993, p. 32].

ETYMOLOGY AND DEFINITION OF 'EFFECTS' AND 'PROPERTY'

The use of the words 'effects' and 'property' in the context of what is available to a person or organization to meet debts indicates that these terms were used to represent things that belonged to, or were owned by, a person or organization. Ownership underpins exchangeability and therefore debt paying power. These terms gained ascendancy in the literature at different times.

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[1] References are made to earlier works where relevant.

[2] The English word asset was adopted from the Anglo-French word *assets,* a later form of the Old french *asez* meaning 'enough'. *Asez* derived from the Latin *ad satis* - 'to sufficient' - meaning in sufficient quantity.

According to the *OED* [1989, Vol. V, p. 79] the word 'effects' was used in the sense of one's 'goods and chattels', and also more broadly as in the phrase 'to leave no effects'—to leave nothing to one's heirs. In the case of Hogan v. Jackson [1775 1 Cowp.299] Lord Mansfield stated that "real and personal effects are synonymous to substance, which includes everything that can be turned into money". Early French regulation [Code Savary, 1673], aimed at preventing fraudulent bankruptcies, required that merchants prepare regular statements of "effects and debts". In the case of bankruptcy these were used to determine the property available to creditors at the latest statement date.

The word 'property', in its original sense, meant the condition of being owned or belonging to some person or persons, or rights of ownership [*OED*, 1989, Vol. XII, p. 639]. Around the 17th century property also began to be used in the sense of: "That which one owns; a thing or things belonging to or owned by some person or persons; a possession (usually material), or possessions collectively; (one's) wealth or goods" [ibid.].[3] The French *Code de Commerce*, based on the earlier *Savary Bill*, required that an inventory of "property and debts" be made yearly [*Bulletin des Lois*, 1807 cited in Howard, 1932, pp. 95-96]. If these requirements were not met the merchant could be declared bankrupt [Littleton, 1953, p. 84]. As with the earlier bill the emphasis was on exchangeable things or rights.

Property is an interest recognized and protected by law; a right or rights that can be enforced against others:

> The right of property is best conceived not as a single right but as a bundle of distinct rights, some or even many of which may be relinquished temporarily without loss of ownership. The kinds of rights which a right of property confers over objects of that right vary according to the nature of the object, but they normally include the rights to possess, use, use up, abuse, lend, let on hire, grant as security, gift, sell and bequeath the object [*The Oxford Companion to Law*, 1980, p. 1007].[4]

An owner may surrender some of the rights attached to owner-

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[3] And in reference to a piece of land owned.

[4] For similar definitions of Property and Ownership *see Halsbury's Laws of England* [1981, para.301 & 1127]; *Jowitt's Dictionary of English Law* [1977, p. 1447]; *Stroud's Judicial Dictionary* [1986, p. 2057]; Austin [cited in *Osborn's Concise Law Dictionary*, 1983, p. 242] and *The Oxford Companion to Law* [1980, p. 1008].

ship, such as the right of possession, while retaining others: "Ownership may be held by different persons for different interests, for example when a freehold owner grants a lease" [*A Concise Dictionary of Law*, 1983, pp. 255-256].[5]

DEVELOPMENT OF THE 'PROPERTY' NOTION IN ACCOUNTING

A review of the accounting literature, principally of the 18th and 19th centuries, indicated that the word asset was rarely used until the latter part of the 19th century.

'Effects'[6] was the word most commonly used in the 18th century accounting literature. The role of accounts in recording an inventory of all effects and debts to allow the determination of the whole estate or financial state of affairs was emphasized [see North 1714/1986, p. 119; Gordon,1765/1986, pp. 13,21; Malcolm, 1731/1986, p. 2; Clark, 1732 cited in Foster, 1852/1976, p. 15; Thompson, 1777/1984, pp. 67-68, Rolt, 1761 in Sheldahl, 1989, p. 101; Cronhelm, 1818/1978, p. 3; Montgomerie, 1858, p. 24]. Littleton [1946, pp. 340-341] suggested references to statements of 'effects and debts' in early accounting manuals[7] may have been influenced by the early French regulation, and the handbook of mercantile practice written by French author Savary [1712] in which Savary expounded the regulation in appropriate sections. The emphasis in the early regulation was on solvency and this was clearly reflected in the accounting discourse of the 18th and 19th centuries. In this context effects, and later property, represented what was owned—legally enforceable interests or rights, which was transferable or exchangeable and therefore applicable to the payment of debts.[8]

North's description of the Personal Estate account emphasized this relationship between effects and debts: "The Personal

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[5] See *Eglinton v. Norman,* 46 L.J.Q.B. 559; see also *Chauntler v. Robinson,* 4 Ex. 163; *Lister v. Lobley,* 6L.J.K.B.200. and *Russell v. Shenton,* 3 Q.B.449.

[6] See for example, Dodson [1757/1984, p. iii]; Gordon [1765/1986, p.59]; Malcolm [1731/1986, p. 3]; North [1714/1986, p. 118]; Dilworth [1794, p. 10]; Clark [1732 cited in Foster, 1852/1976, p. 15]; Postlethwayt [1751, p. 313]; Mair [1786, p. 5] and Wicks [1797, p. 20]. See also the later works of Isler [1810 cited in Foster 1852/1976, p. 21]; Cory [1839, p. 6]; Bennett [1842/1976, p. 38] and Montgomerie [1858, p. 46].

[7] Books describing or explaining the bookkeeping process.

[8] See for example, North [1714/1986, pp. 118-119]; Malcolm [1731/1986, p. 20]; Dodson [1757/1984, p. iii]; Gordon [1765/1986, p. 59]; Mair [1786, p. 5]; Hamilton [1788/1982, pp. 266,268]; Thompson [1777/1984, pp. 5, 8]; Turner [1794, pp. 6,14]; Morrison [1834, p. 63] and Montgomerie [1858, p. 46].

Estate, this on the Cr. side will carry the inventory of all the present Effects, and Dependencies, that are properly the Accomptants own. . . . And the Dr. side . . . all that is owing, or outgoing, from the proprietor, which may lessen his Interests in Credit on the other side . . . so that here will at first be a perfect synopsis of the personal estate" [North, 1714/1986, pp. 118-119].[9]

Clarke [1732 quoted in Foster, 1852/1976, p. 15] wrote that "the balance account will contain the particulars of my effects and debts; the difference between the two sides, being my net capital or deficiency". Dodson was more explicit: *"[L]et the Account of Stock be made Debtor, for all Sums due from the Accountant; and let it be made Creditor, for the ready Money, Goods and Debts, that belong to him* ... Hence ... if the Debtor Side therof exceeds the Creditor; the Balance will Shew how much he is in *Debt*, more than his effects will pay" [Dodson, 1750/1984, p. iii, original emphasis].[10]

These manuals [see also Dodson, p. i] illustrate the emphasis placed on knowing what means are available to pay debts, what obligations exist, and whether one is in a better or worse position than before. Other authors who articulated this role of accounts include Jones [1796/1978, p. 21], Gordon [1765/1986, p. 21], Hamilton [1788/1982, p. 268] and Mair [1793/1978, p. 1].[11]

The term 'property', which was also used in some 17th and 18th century accounting works, became more common in the 19th century literature. Those who wrote of accounting for 'property' included Kelly [1801, p. 7], Cronhelm [1818/1978, p. 1], Montgomerie [1858, p. 46], and Dyer [1897, p. 22].[12] Many

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[9] For similar statements see also Malcolm [1731/1986, p. 20] and Montgomerie [1858, p. 24].

[10] Dodson [1750/1984, p. ii] described stock as "the Aggregate or Total of the Accountant's Estate or Effects, whatever be the nature, or kind of the Particulars".

[11] This focus is consistent with the practice of closing the books of account annually. In 1741 Mair wrote that "Merchants commonly once a year balance or close their ledger, and raise from it the Materials of an Inventory to a new Set of Books, for the ensuing Year". Yamey [1940, p. 21] found that practice was not uniform, however, of the six records of double entry that he examined covering periods 1731 onwards five closed accounts and raised new balances annually. The sixth balanced six times in nine years.

[12] See also Monteage [1675 cited in Foster 1852/1976, p. 13]; Gordon [1765/1986, p. 59]; Hamilton [1788/1982, p. 285]; Jones [1796/1978, p. 21]; Wicks [1797, p. 15]; Isler [1810 cited in Foster 1852/1976, p. 21]; Morrison [1834, p. 43]; Mayhew [1884, p. 8]; and Thornton [1895].

authors classified property or effects accounts as 'real' and 'personal', suggesting a legal influence: "Real accounts include all accounts of effects or things which a person possesses" [Mayhew, 1884, p. 176]; "Property accounts are by some termed 'Real', from the Latin word *res* meaning a thing" [Inglis, 1881, p. 5].[13] Property, like effects, was used in the sense of things which were exchangeable for money: "The Dr. side [of the Stock account] shows the debts due by you at the opening of the books; the Cr. side your gross stock, or what you have in property and debts due you. The difference between the two sides, if the Cr. be the greater, is your nett stock, but if the Dr. be the greater of the two, the balance is what you owe over what you have property to meet" [Bennett, 1842/1976, p. 67].[14]

Cronhelm [1818/1978, p. 3] wrote of bookkeeping as a record of all property, described as "Money, Goods convertible to Money, and Personal Debts".

The word asset was not used in the accounting literature examined for this study until the middle of the 19th century. A factor influencing the use of the word 'asset' in the accounting literature may have been its use in the British Companies Acts of 1856 and 1862. The model balance sheet contained the heading 'Assets and Property'. As with bankruptcy law legislators were concerned with the availability of property or assets for the payment of debts. Littleton [1946, p. 344] wrote that banks were the first to use 'assets' regularly in statement headings, the Bank of England using 'Liabilities and Assets' in 1839. This would be consistent with an emphasis on solvency. In the 19th century accounting literature 'asset' was used synonymously with 'property'. For example, Dyer [1897, p. 11] wrote "Capital is the excess of Assets over Liabilities, the excess of what I have and have owing to me over what I owe. . . . My assets are my property - what I already have, and what is owing *to* me". Foster [1849, p. 3] wrote of "property or assets". Other writers also described assets in terms of 'property', or 'property and money owing' [de Morgan, 1853/1982, p. 17; Crittenden, 1860, p. 120; Nelson, 1871, p. 10; Inglis, 1881, p. 103; Norton, 1894/1976, p. 11; Thornton, 1895, p. 3; Sprague, 1880, p. 51].

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[13] See also Hamilton [1788/1982, p. 267]; Kelly [1801, p. 6]; Bennett [1842/1976, p. 17] and Thornton [1895]. At law a distinction was made between 'real' and 'personal' property.

[14] Similar descriptions are given by Gordon [1765/1986, pp. 7,57]; Dilworth [1794, p. 10] and Dyer [1897, p. 22].

With regard to the notion of assets as exchangeable property, assets were described as "available means" [Crittenden, 1860, p. 120]; and "all the property and rights belonging to a business that have a money value" [Lisle, 1900/1976, p. 67]. Cayley [1894, p. 20] wrote of "real assets", or assets "capable of realisation", as opposed to items such as preliminary expenses not written off which were "not real assets". Carter [1890, p. 81] wrote that the difference between a trader's assets and liabilities "is his CAPITAL, or, as may be the case, his uncovered debt". Dyer [1897, p. 16] explained: "I am solvent when my Assets at least equal my Liabilities; insolvent when assets are less than liabilities". Cronhelm [1818/1978, p. 5], de Morgan [1853/1982, p. 17] and Lisle [1900, p. 70] also described the deficit of assets of a trading concern over liabilities as a measure of insolvency.

COSTS CARRIED FORWARD

Continued support for the simple notion of assets as exchangeable things or property can be found in the 20th century accounting literature.[15] However, during the latter part of the 19th century the emphasis moved away from property rights, to cost and cost allocation. A new school of thought emerged which challenged the conventional notion of assets and the function of the balance sheet. A number of factors appear to have contributed to this.

The accounting literature examined revealed the use of, and strong support for, market values over several centuries.[16] However, conventional accounting is firmly rooted in the historical cost based record, despite its widely acknowledged inconsistencies. The origins of recording assets at cost may be found in the rules associated with double entry, and the personification of

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[15] Pixley [1906, p. 512 cited in Chambers, 1995, p. 420]; Sprague [1907/1972, p. 44]; Cole [1908/1976, p. 50]; Paton, [1922/1973, p. 30]; Kester [1922, p. 14]; Cropper [1927, p. 661]; Rorem [1928/1982, p. 20]; Fieldhouse *et al*. [1930, p. 28]; Saliers [1935, p. 12]; Sanders et al. [1938/1968, p. 58]; AIA [1931, p. 10]; Chambers [1966, p. 103]; Goldberg and Hill [1968, p. 17]; Dixon et al. [1966, p. 7]; Edwards et al. [1979, p. 68]; Sterling [1979, pp. 161,162]; Schuetze [1993] and Samuelson [1996, p. 156]

[16] For example see Hayes [1741, p. 79]; Hamilton [1788/1982, p. 285, p. 28]; Kelly [1801, p. 120]; Foster [1837, p. 57]; Cory [1839, p. 28]; Bennett [1842/1976, pp. 69,78]; Harris [1842, from Littleton, 1933, p. 151]; de Morgan [1853/1982, p. 9]; Montgomerie [1858, pp. 14, 44]; Fulton and Eastman [1872, pp. 133, 195]; Cayley [1894, p. 11]; Mason [1933, pp. 209-215]; Vance [1933, p. 224]; Ramsay [1956, p. 198]; Chambers and Wolnizer [1991, p. 208]; Chambers [1994].

accounts. It was not uncommon for early accounting teachers and writers to present double entry accounting as a series of rules.[17] The personification of accounts was the basis for such rules. For example Donn [1765, p. 5 cited in Jackson, 1956, p. 297] wrote: "As I may expect to make of my goods as much as they cost me, they are in Effect the same to me as if their Value was due to me from some person; and as, in such Case, that Person would be Debtor, so I may make the Goods in my Possession Debtor for their first cost". Other writers to link account personification to cost include Stevin [1604 cited in Littleton, 1933, pp. 49-50], King [1717, cited in Littleton, 1933, pp. 49-50], Clark [1732 cited in Foster 1852/1976, p. 14], Malcolm [1731/1986, p. 13], de Morgan [1853/1982, p. 13] and Sprague [1901, XII/1984]. It could be surmised, in the absence of evidence to the contrary, that initial costs recorded were carried forward on the closing of the books or into periodic summaries as part of the 'rules' of double entry. It should also be noted that some writers supported cost on the basis that it avoided the recognition of unrealized gains [see for example, Malcolm, 1731/1986, p. 89].

A factor which promoted the use of cost, and thereby contributed to the changing notion of assets, was the industrial revolution. This encouraged companies with large capital investment, and led to uncertainty as to how to account for such long-lived investment. Accounting for the effects of fluctuations in values of long-lived assets on profit was considered by some to be impractical [Garcke and Fells, 1887, p. 102; Matheson, 1893, p. 15], and it was not uncommon for large limited liability companies to carry long-lived assets, often not easily exchangeable, in the accounts at cost indefinitely. However, in the UK during the 1840's large amounts of invested capital were lost to owners as a result of railway companies paying dividends out of capital. It was subsequently argued that a regular charge, a percentage of cost, should be made out of profit for wear and tear on assets 'occasioned by use'. The 'depreciation' charge was regarded as a recoupment of capital outlay. Prior to the 19th century, depreciation in accounting was commonly regarded as an adjustment of value [Brief, 1966, p.15]. While some railroad companies in the USA—as early as 1839—and the UK, adopted a form of cost-based depreciation it was abandoned in most cases when such

[17] For a discussion of this see Donn [1765 cited in Jackson, 1956, p. 5]; North [1714, p. 10]; Foster [1863: p. 4]; and Littleton [1933, p. 49].

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provisions were found inadequate to replace fixed assets [Pollins, 1956, p. 349].

Toward the end of the 19th century discussion of depreciation as cost recovery (to allow for the physical deterioration of assets), extended beyond the railway context to encompass factories. Matheson [1893] outlined a variety of methods for systematically recognizing depreciation in factories [see also Guthrie, 1883]. While systematic depreciation does not appear to have been an accepted method in the UK or the USA at the time[18] the idea began to appear in the literature [Editorial, *Accountant*, 1880, p. 5; Turner, 1894/1976, p. 547; Lewis, 1896, p. 389]. Depreciation was regarded as a measure of wear and tear. With respect to properties not for sale but for business use, Pilsen [1877, cited in Littleton, 1933, p. 226] proposed that an entity "take off a percentage rate of total cost for wear and tear". Inglis [1881, p. 18] recommended a yearly deduction of 5 to 10 percent.[19] While there were no legal requirements in the UK or the USA to provide for depreciation the 1878 British tax law permitted a deduction for "diminished value by wear and tear" [see Lamb, 2002].

The Going Concern Notion: The cost allocation view of depreciation was consistent with the emerging going concern notion. In 1883 Guthrie [1883, p. 7] argued that the 'going concern' nature of business justified ignoring fluctuations in the cost of plant and other property; "matter and things fixed in a permanent working position must not be treated in account as following the fluctuations of the market" [Guthrie, 1883, p. 7]. This point was made earlier by Lardner in his book *Railway Economics* [1850]. Dicksee [1892/1976] adopted a similar view with regard to certain parliamentary companies constituted for the purpose of undertaking definite public works. He wrote that in order for the capital expenditure account to show that the capital raised had been spent only on the authorized works, it was necessary that the actual amount expended on the works alone be debited to the account, regardless of any fluctuations in value that might

[18] See Garcke and Fells [1887, p. 101]; Hatfield [1909, p. 124]; Leake [1912, pp. 3-4]; Hatfield [1927, p. 140] and Chatfield [1974, p. 233].

[19] See also Murray [1885, p. 13]; Bogle [1889, p. 692]; Lewis [1896, p. 389] and Matheson [1893/1976, pp. 24,55]. Later references to depreciation as a measure of wear and tear, and/or obsolesence, include Spicer and Pegler [1910, p. 33]; Montgomery [1912/1976, p. 119]; Carter [1923, p. 600] and Hatfield [1927/1971, p. 76].

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afterwards occur. He argued that as it was contemplated that these companies should 'permanently' carry on business, such fluctuations could not in any way practically affect the company and therefore consideration of such fluctuations was superfluous [Dicksee, 1892/1976, p. 118]. Dicksee [1903/1976, p. 5] later used this argument to justify ignoring fluctuations in the value of the 'fixed' assets of non-public entities:

> . . . these assets have been acquired, and are being permanently retained, not with a view to their being eventually realised at a profit in the ordinary course of business, but with a view to their being *used* for the purpose of enabling trading profits to be made in other ways. . . . For practical purposes, therefore, these fluctuations may fairly be said to be of no account (original emphasis).

The distinction between 'fixed' and 'floating' assets was commonly made by economists, and in some legal cases where the payment of dividends was at issue.[20] The continuing, or 'going concern', nature of business was frequently volunteered as the rationale for recording 'fixed assets' at cost.[21] Changes in market values were ignored on the basis that 'realization was not contemplated; such assets were bought to be used, not to be sold at a profit' [Chatfield, 1974, p. 234].[22] This was an important factor in the change in emphasis from exchangeable things to cost and cost allocation.

Consistent with the focus on 'value in use' writers began to describe depreciation as the allocation of the cost of an asset over the period of its use. Pixley [1881, p. 118] noted that the amount written off as depreciation was normally based on cost "the object being to charge the Revenue Account of the period with a proper sum for the use of the plant". Ladelle [1890, p. 659] described the cost of an asset as "joint to the periods during which it is in use" [see also Guthrie, 1883, p. 6]. Unrecovered costs were to be carried forward and reported in balance sheets

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[20] See for example Verner vs The General and Commercial Investment Trust 63 LJ Ch 246 [1894].

[21] See Lisle, 1900/1976, p. 53]; Montgomery [1912/1976, p. 119]; Esquerre [1927, p. 173]; Leake [1929, p. 12]; Hatfield [1927, p. 76]; Kester [1930, pp. 542-543]; Rowland and Magee [1934, p. 283]; Dohr [1941, p. 214]; May [1943, p. 86] and Goldberg [1948, p. 45].

[22] See also Montgomery [1912/1976, p. 119]; Esquerre [1927, p. 173]; Hatfield [1927]; Kester [1930, pp. 542-543]; Dohr [1941, p. 214] and Goldberg [1948, p. 45].

as assets. While it appears that "few accountants in 1900 saw depreciation as an allocation problem" [Chatfield, 1974, p. 233] the idea of depreciation as cost allocation gradually gained support. Hatfield [1927/1971, p. 131] wrote: "The cost of more permanent assets, serving for productive use during a period of years, should be spread as an expense during the period of use". Other writers made similar statements.[23] Hatfield [1927/1971, pp. 140, 279] suggested that income-tax law stimulated the adoption of systematic depreciation by companies in the US.

In common parlance to depreciate means to "diminish in value" [*OED*, 1989, Vol. IV, p. 486]. While a diminution in value is a result of real events and conditions, the allocation of the cost of an asset over its useful life is an arbitrary process based on estimates of the asset's useful life, its residual value and the pattern of benefits. The following references highlight the ambiguity of mixing systematic cost allocation with concepts of market value. Spicer and Pegler [1910, p. 43] defined depreciation as the "shrinking in value of an asset from any cause during a period". However, they went on to describe depreciation as a process whereby the original cost of the asset is written off each year [p. 43]. Leake [1912, p. 77] wrote: "It has been shown that depreciation is the fall in exchangeable value of industrial plant computed on the basis of cost expired during the period of its use in seeking profits, and that this fall is due to natural decay, wear and tear and obsolescence".[24] Smails [1927, p. 105] highlighted this confusion, by accountants, of cost and value: "Do we not too often speak of depreciation as 'shrinkage in value due to wear and tear, obsolescence, etc.,' leaving the layman (who inevitably associates the word 'value' with exchange value) to solve the paradox of an asset bought in 1941 for $1000 shrinking in value steadily at the rate of five per cent per annum and yet possessing today a value of, say, $1050?"

In addition to the practical problems resulting from accounting's departure from reality, the resulting information only served to confuse those it was designed to inform.

Assets as Deferred Costs: The idea that the cost of long-lived assets should be spread over periods from which benefits are derived transposed to other costs. The authorization of the car-

[23] See Montgomery [1912/1976, p. 119]; Leake [1912, p. 79]; Smails [1927, p. 105] and Hatfield [1927/1971, p. 76].

[24] See also Fieldhouse and Fieldhouse [1930, p. 76]; Saliers [1935, pp. 204-205] and Dickinson [1913/1987, p. 153].

rying forward of costs, "which may in Fairness be distributed over several Years", by the [UK] Companies Act, 1862 [sec.80] may have contributed to this practice in the United Kingdom. As Edwards and Webb [1982, p. 259] commented it is likely that directors of early joint stock companies, in their search for guidance on accounting matters, gave some attention to the prevailing legal situation. Some public utility companies in the late 19th century began carrying forward a variety of costs such as those of securing private Acts of Parliament, and fixed asset construction costs. 'Preliminary expenses' and 'goodwill' began to appear in balance sheets notwithstanding the disagreement amongst accountants and in the courts as to whether 'goodwill' constituted property.[25]

Lord Eldon described goodwill as "nothing more than the probability that the old customers would resort to the old place".[26] However, during the 19th century courts began to recognize that certain rights attached to the carrying on of a business or professional activity, and that these rights should be protected.[27] In some cases around the turn of the century judges drew on accounting practice in determining whether goodwill constituted property.[28] In *Re Leas Hotel Co*[29] it was held: "If as regards a partnership the words 'partnership assets' or 'effects' cover goodwill, it would seem that the word 'property' must also cover 'goodwill'". Such decisions were made in the context of determining the rights of particular parties, such as the rights of a deceased partner in relation to partnership assets, or the right to use a business name. It was ascertained that accounting goodwill represented expected financial benefits, not enforceable rights. It was held in *Wilmot v Alton*[30] that 'property' did not comprise future receipts in a person's business: "There must be a definite interest; a mere expectancy as distinguished from a conditional interest is not a subject of property" [*Jowitt's Dictionary of English Law*, 1977, p. 1447]. On the occasions when the

[25] Chatfield and Vangermeersch [1996, p. 282] suggests that goodwill was first discussed in the accounting literature in the mid-1880s. Writers were concerned with the valuation of goodwill on the retirement or death of a partner or proprietor.

[26] *Crutwell v. Lye* [1803] per Lord Eldon.

[27] Such as the right to represent that you are carrying on a business which has been carried on previously, and hence the right to prevent another person from holding out that they are carrying on the business.

[28] *Public Trustee v Schultz* [1964] 111 CLR 482.

[29] [1902] 1 Ch. 332, per Kekewich, J., at pp. 333, 334.

[30] Exp. Nichols, [1897] 1 Q.B. 17.

courts held that goodwill in the accounts of a business was property it must be assumed that this 'goodwill' was an enforceable right, or rights, attaching to the business, and not a 'mere expectancy'. However, these interpretations by the court may have been seen as condoning the recording and subsequent reporting of amounts representing 'goodwill' as assets, despite the different contexts.

Some accounting writers expressed concern at the recording, or retaining, of 'goodwill' in the accounts of a business [More, 1891, p. 286; Dicksee, 1897, p. 46]. Harris [1883, p. 10] supported the recording of goodwill as an asset on the basis that "it is worth money and could be converted into that commodity whenever the owner liked to sell". However, goodwill was deemed inseparable from a business and only exchangeable as part of the whole. Where goodwill had been paid for it was assumed that the goodwill was of value and therefore had a rightful place on the balance sheet [Roth, 1929, p. 103; Dicksee, 1910]. Dicksee [1892/1976, p. 27] described the amount recorded in the accounts as goodwill as "absolutely meaningless".[31] However, he was not critical of the carrying forward of such amounts as assets. By 1900 balance sheets included many items that were "not strictly assets (such as expenditure being spread over a period)" and items that were "not really liabilities" [Dawson, 1900, p. 131. See also Pixley, 1906, p. 512 cited in Chambers, 1995, p. 411; Dicksee, 1910, pp. 218-219]. A move away from the view of assets as property and the growing emphasis on costs enabled costs per se to be considered as assets. The idea was introduced that an asset was something of value for the reason that it would provide a benefit in the future.

Definitions of assets in terms of costs and unexpired costs began to appear in the literature during the early 20th century. The commonly understood notion of assets as exchangeable property was ignored: "[T]he organisation expense of a corporation . . . is not property owned nor legal rights to property, nor does it strictly represent a prepaid service . . . Nevertheless, it is accepted by accountants as a proper asset if other treatment would result in a violation of any accounting principle" [Couchman, 1924/1982, p. 28]. Mason stated that "the asset account may well be thought of as a deferred charge to operations" [1937, p. 13]. According to Gilman "That portion of an

[31] Thornton [1895, p. 158] made the same comment in relation to preliminary expenses.

expenditure the beneficial effect of which is expected to be experienced measurably in future fiscal periods is commonly called an 'asset'" [1939, p. 292]. Some writers suggested that the term 'assets' be dropped and a more descriptive term such as deferred charges, unallocated costs, or debit balances be adopted [Editorial, *Australian Accountant*, 1936, p. 75; Fitzgerald, 1938, p. 86; Whitney, 1941, p. 430].

The deferred cost concept was considered deficient in a number of respects. Vatter [1947, p. 15] argued: "The definition of an asset in terms of unamortised cost is weak in that it does not include all the things that are commonly regarded as assets; further, it does not specify the underlying thread of relationships- the basic uniformity of substance with which assets and related terms are concerned".

Such definitions exclude from assets all items which are not represented by 'costs' and which are not subject to amortization. Financial claims cannot be fitted into the pattern of amortization which is suggested by such a definition of assets. Cash, bank deposits, and receivables are indisputably assets but they are not 'costs'; they do not represent charges awaiting future revenue. Definitions of assets as deferred charges or unamortized costs do not take into account how they are to be applied as there is no defined basis for determining what portion of the cost should be recorded as an asset and what portion of the cost should be treated as an expense. Deferred costs are not representative of actual conditions or events. It is easy to note the criticism: "Obviously, accountants cannot determine what part of the original cost of depreciating assets ought to be written off" [Whitney, 1941, p. 430. See also Kelley, 1941, p. 511].

Shift in Emphasis to the Profit and Loss Statement: This emphasis on cost based accounting was consistent with a reduced focus on the information value of the balance sheet. There is evidence of the shift in attention away from the balance sheet to the profit and loss statement throughout the accounting literature.[32] Canning [1929b, p. 8] was an early advocate of income as the central concept of accounting [see also Carter, 1910, p. 562]. The failure of the balance sheet to present a current assessment of the present value of the proprietors' worth was one explana-

[32] May [1943, p. 5] and Gilman [1939, p. 28] comment on the shift in emphasis. See also Sprouse [1970, p. 92]; Hylton [1965, p. 824]; Sprouse and Moonitz, [1962, p. 4]; American Institute of Certified Public Accountants [1953a, p. 7] and Most [1977, p. 214].

tion offered for the shift [Editorial, *Accountant*, 1946, pp. 293-294]. It was the perceived decision making needs of investors for information relating to the entity's future cash flows or earning power that was emphasized in the accounting literature [American Institute of Accountants (AIA), 1934, p. 5; Nelson, 1947, p. 348; May, 1943/1972, p. 5; Backer, 1966, p. 441]. Previts and Merino [1998, p. 278] concluded that "by the end of the 1930's the NYSE, the SEC and CPAs had come to the view that investors were primarily interested in 'future income' and the income statement must be the focal point of accounting". The Special Committee on Cooperation with Stock Exchanges of the AIA [1934, p. 10] asserted that "earning capacity is the fact of crucial importance in the valuation of an industrial enterprise, and that therefore the income statement is usually far more important than the balance sheet".

The focus on income was particularly evident in the work of Paton and Littleton [1940] who emphasized the importance of the matching of efforts and accomplishments, or costs and revenues—a principle endorsed by the American Accounting Association [AAA, 1941, p. 55]. The matching of effort and accomplishment was elevated to an imperative of income determination: "[I]f a given procedure can be asserted to conform to the matching concept, nothing else need be said; the matter is settled and the procedure is justified" [Hylton, 1965, p. 824]. The matching process resulted in balance sheets that were "simply the connecting links of a series of income statements" [Dohr, 1941, p. 218]. The headings 'assets' and 'liabilities' were considered totally misleading. Items so described were merely items left over from the calculation of profit.[33] The Committee on Cooperation with Stock Exchanges [AIA, 1934] declared that to speak of the balance sheet as reflecting the values of assets and liabilities on a particular date seems "to involve a misconception of the nature of the balance sheet". Kollaritsch [1960, p. 488, original emphasis] wrote: "[the purpose of] the general balance sheet ... is <u>not</u> to reveal the financial position, but rather it is to show the <u>deferred charges</u> and the <u>unconsumed</u> or <u>unapportioned</u> <u>values</u> for future operations and their financing".[34]

[33] See Cropper [1927, p. 127]; Parkinson [1931, p. 546]; Smith [1931] and Tovey [1946, p. 2].

[34] According to Bottrill [1973, p. 143] this was also the view taken by the Company Law Revision Committee of England [1945]. See also Sanders, Hatfield and Moore [1938/1968, p. 59]; AIA [1940, p. 2]; Paton and Littleton [1940/1970, p. 67]; Baxter and Davidson [1962, p. viii]; Anthony [1983, p. 269].

Perceptions of accounting as essentially an allocation process were manifested in the Tentative Statement issued by the AAA in 1936 [AAA, 1936, p. 61]. This was the first of a series of statements issued between 1936 and 1948 that developed the historic cost allocation model [Paton and Littleton, 1940; AAA, 1948; AIA, 1941]. In Accounting Research Bulletin No. 9 [AIA, 1941, p. 70] it was stated that any expenditure which is properly applicable to the future is presumptive grounds for carrying the balance forward [See also AAA, 1948, p. 14]. However, there was no accompanying explanation as to what expenditure would be "properly applicable to the future". Neither was an explanation forthcoming in Accounting Terminology Bulletin No.1 in which assets were defined as: "Something represented by a debit balance that is or would be properly carried forward upon a closing of books of accounting ... on the basis that it represents either a property right or value acquired, or an expenditure made which has created a property right, or is properly applicable to the future" [American Institute of Certified Public Accountants (AICPA), 1953a, para. 26].[35]

The failure of the American accounting profession to address the problems associated with the cost allocation doctrine is evident from their second formal attempt to define assets [Accounting Principles Board (APB), 1970, para. 132] which was entirely dependent upon arbitrary accounting practice.[36] Descriptions of assets in terms of 'unexpired costs' or 'deferred charges' continued. For example: "A cost residue is the unexpired portion of a cost outlay; it may properly appear on the asset side of the balance sheet" [Finney and Miller, 1963, p. 242]. Littleton [1953, pp. 87-89] described assets as productive factors or invested costs.[37]

The change in emphasis from the balance sheet and solvency, to cost allocation and income, lead to the next stage in this definitional saga.

ASSETS AS SERVICE POTENTIAL

The shift in emphasis away from the balance sheet and debt paying ability, to the profit and loss statement and future earning power, provides some explanation for the development of

[35] This definition was a slightly modified version of the definition developed by the Committee on Terminology in 1941 [AIA, 1941, p. 70].

[36] The balance sheet as a list of leftovers, is also manifested in *APB Statement No.4* [Accounting Principles Board, 1970].

[37] See also [Fitzgerald, 1963, p. 130]; Paton & Paton [1971, p. 7]

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the notion of assets as service potential or future economic benefits. As cost allocations (such as depreciation), based on expectations of future earnings and asset usage came to dominate practice, the accounting profession struggled to provide a theoretically defensible definition of the unallocated costs reported in the balance sheet. A criterion of service potential or future economic benefit provided a rationale for most items appearing under the asset heading in the balance sheet; not only items with an 'exchange' value or a value to the entity as a 'going concern' but also deferred charges. This notion was consistent with the practice of carrying forward costs on the basis that they related to future periods.

Influence of Economists: An explanation for the introduction and subsequent adoption of the service potential definition may be found through an examination of the influence of economists on accounting thought. That accounting has much in common with economics may be demonstrated by reference to two of the most highly regarded economic thinkers. According to Marshall "Economics ... examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisite of well being" [1947, p. 1]. Mill stated "[T]he economic activity of man looks to a provision of the material means to satisfy his wants and those of his household" [1909/1976, p. 4]. Both accounting and economics are concerned with the transactions and events by which wants are satisfied.

It is apparent from the literature examined that the introduction, and subsequent general acceptance by the accounting fraternity, of the definition of assets as 'future service potential' or economic benefit was influenced by accountants having drawn, directly and indirectly, on the writings of economists, in particular Fisher and Canning. Fisher and Canning's influence may also have extended through their teaching. Previts and Merino [1998, p.51] suggested that a 'California School' of accounting theorists informed by the work of Fisher and Canning could be identified.

Fisher [1906] was concerned to clarify the distinction between concepts of wealth and property. He described wealth as "existing means toward *future* services", and property as "constituting an interest in the *present* means" [pp. 33-34, original emphasis]. Other economists also defined wealth in terms of property rights—rights or objects that are exchangeable for money [Smith, 1893, p. 23; Seligman, 1907, p. 19; Mill, 1909/1976, pp.

6, 9; Keynes, 1917, p. 95]. Fisher described *services* as the benefits of wealth: "The services of an instrument of wealth are the desirable changes effected (or the undesirable changes prevented) by means of that instrument. For instance, the services of a loom consist in changing yarn into cloth, or what is called weaving. Similarly, a plow performs the service of changing the soil in a particular manner" [p.19].[38]

There is similarity between Fisher's concepts of wealth and property, and the notion of assets that emphasizes legal substance—rights of ownership or objects owned. In promoting the concept of capital as a "stock of wealth at an instant in time" Fisher discussed the meaning of capital among businessmen, referring to Sprague [1904] and others. Considering the capital accounts employed in business, Fisher defined the assets or resources of the owner as "all his property-rights" [p. 68]. "The assets include both the property which makes good the liabilities, and the property, if any, in excess of the liabilities" [p. 68]. He also wrote: "A wise merchant . . . will not only keep his assets in excess of his liabilities by a safe margin, but will also see his assets invested in the right form so as to enable him to cancel each claim at the time and in the manner agreed upon" [p. 82].

Fisher emphasized the uncertainty associated with the benefits of wealth, which "are always and necessarily future services". He stressed that services are a possible consequence of wealth but the services are not wealth, "swift horses are wealth, but not their swiftness" [Fisher, 1906, p. 39]. However, it was Fisher's [1906, p. 324] emphasis on the services to be derived from wealth that is reputed to have influenced accounting writers.

In 1907 Sprague wrote that assets could be considered in "one of seven ways". He suggested that in one respect assets are a "storage of services to be received" [p. 46]. Fisher's influence is clearly evident when Sprague wrote: "a disservice (*to use Professor Fisher's word*) may have occurred through various causes, so that the services once anticipated appear impossible of entire realization" [p. 46, emphasis added]. He also commented on the view, put forward by Fisher [1906], that all assets are capital. Given Sprague's references to Fisher [1906], who based his framework of ideas on the notion of income as a "stream of services through time", and defined the value of any capital

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[38] This idea can be found in the works of other economists, for example Bohm-Bawerk [1891] and Seligman [1907, p. 16].

good as "the discounted value of that income" [p. 223], we can infer that with regard to his discussion of assets as a store of services Sprague was influenced by Fisher's writing. This inference is supported by the apparent lack of any reference in his earlier writings to the 'services' aspect of assets.[39] It was suggested in Chatfield and Vangermeersch [1996, p. 549] that Sprague's book had a large impact upon the practice of accounting; that prior to this most of the books on bookkeeping were practice manuals, whereas Sprague "attempted to explain the 'why' rather than just the 'how' of accounting. This was a departure from the traditional American or English approach, resembling instead the approach used in Germany". As Sprague had spent some time in Germany he may also have been influenced by German practice and ideas. Weigmann [1932] discussed legal and economic concepts of the balance sheet in Germany. He made reference to the dynamic view of the purpose of the balance sheet discussed in an article by Schmalenbach in 1920. According to this view "property and debts were regarded as expenses and services which are already, or are still to be, accounted for (as income-producing factors)" [Weigmann, 1932, p. 105].

Sprague [1907/1972] is cited frequently in the accounting literature as 'authority' for the notion of assets as 'stores of services'. Paton and Stevenson [1916/1976] may have been influenced by the writings of Sprague to which they refer. They included in property or assets, services which represent a future benefit [p. 21].[40] Gilman [1939, p. 291] alleged Sprague referred to assets as "a storage of services to be received". Nelson [1935, p. 314] wrote: "Sprague *declares* that assets are a storage of services to be received" (emphasis added). Kelley [1935, p. 51], revealing the influence of Sprague, described every asset of a business as "in essence a storage of service", and in a later work defined an asset as "a storage of service, or anything that renders or is capable of rendering a service to the enterprise" [Kelley, 1941, p. 511]. Sprague's influence is also evident in Paton's later work with Littleton: "Behind accounting's array of

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[39] This idea is not referred to in 'The Algebra of Accounts' printed in *The Book-keeper* in which assets were described as resources, or property and debtors [Sprague, 1880, p. 51], nor the lecture series 'The General Principles of the Science of Accounts' in which assets were described as "property and debts due us" [Sprague, 1901, III].

[40] Paton [1922/1973, p. 107]; Couchman [1924/1982, p. 30] and Rorem [1928/1982, p. 287] also wrote of the services to be derived from assets.

figures, which laymen may think represent values or money, or, at best, price, lie the tangible and intangible embodiments of services" [Paton and Littleton, 1940/1970, p. 13]. They described 'service' as the "significant element behind the accounts" [p.13]. Expenses are described as "services received" [p. 26], the implication being that 'assets' are services yet to be received, or expected future services. Sprouse and Moonitz [1962, p. 19] referred to Sprague's description of assets as "store of services". Moonitz and Jordan [1963, p. 162] professed that Sprague asserted that assets are a storage of services to be received. Kam [1990, p. 102] wrote that Sprague saw an asset as a storage of services to be received.

Staubus [1961, p. 29] also described assets as "stores of services" and in a later work he listed the seven ways in which Sprague proposed that assets could be considered. He described the breadth of the listing as indicating a potential for confusion, "and Sprague did not emphasize any one view enough to dispel it" [1977, p. 122]. Miller and Islam [1988] presented the same list. They wrote that "Sprague expressed some significant ideas such as 'all our 'things' may be looked upon as merely rights of dominion" [p. 44] and assets "are a storage of services to be received" [p. 46], and concluded: "But these ideas were given no more stress than many other blurring notions" [p. 11]. These conclusions would indicate that neither Staubus, nor Miller and Islam, read Sprague closely. In his discussion of the balance sheet Sprague emphasized the notion of property or assets as something owned and/or rights of ownership, and its representation of debt paying ability. He wrote that the balance sheet must comprise: "The values of assets, consisting of property and claims, to which the person, or collection of persons, has title" [1907, p. 30].[41] He also wrote that the values on the asset side of the balance sheet are composed of two classes: "Things and rights", or "Things belonging to us and debts owing to us", or again: "Possessions and Expectations". "We shall see that these classes imperceptibly blend into each other and that every asset may be looked upon either as a 'thing' or as a 'right'" [p. 44]. That exchangeability was considered an important characteristic of assets is evident in the following quotation: "The personality of the proprietor, his skill, his experience, though important elements of his capital, can never be brought into his balance

[41] In previous writings Sprague described assets in terms of "property and debts due" [Sprague, 1901/1984, lecture III, 1904/1984, p. 6].

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sheets. They cannot be bought nor sold and they only make themselves manifest through the services which he does sell" [Sprague, 1907, p. 36].[42] Sprague stressed that "the aspect of assets as the present worth of future services is entirely based upon opinion" [1907, pp. 46-47].

More authoritative in developing this trend was the work of Canning. As he acknowledged in the preface to his book *The Economics of Accountancy* [1929a], Canning was strongly influenced by the writings of fellow economist Fisher. Notwithstanding, Canning sought to base his work on accounting practice. Fisher's influence is clearly evident throughout Canning's book, in which he attempted to clear away some of the confusion that surrounded economists' understanding of accounting concepts. Fisher's influence is clearly evident in Canning's asset definition, described as the professional accountant's implied definition: "An asset is any future service in money or any future service convertible into money (except those services arising from contracts the two sides of which are proportionately unperformed) the beneficial interest in which is legally or equitably secured to some person or set of persons. Such a service is an asset only to that person or set of persons to whom it runs" [1929a, p. 22].

From his observation of accounting practice Canning concluded that ownership, and therefore transferability, were not essential to the existence of an asset. Canning stressed that the essential idea of an asset is that it stands for a separable series of future services. He linked the concept of a series of services (Fisher's income notion) with the concept of assets: "For income in essence is services - the desired element in economic events. Change the sign and you have the undesired element in economic events, disservices, or expense. Consider the sources of service and you think of tangible assets" [1929b, p. 8]. Under Canning's definition, an asset is not a resource, a right or an object but a future service. In Canning's words: "It is the anticipated service, the payment of money at some future time, that is valued and that is fundamental to the existence of the asset" [p. 15]. He argued that one could have an enforceable right to the services of a thing and have no asset: "The service must either be itself a money income or it must have a money income consequence" [p. 20].

As is clear from the previous discussion 'future services' was not the accepted view of assets in accounting during the 1920s

[42] See also Sprague [1907/1972, pp. 49-50].

and 30s.[43] Canning's influence can be found throughout the accounting literature. Nelson [1935] relied heavily on Fisher and Canning, citing them throughout his discussion. He argued: "Wealth and property are evidence of an expectation, but they are not assets . . . Assets are future enterprise services" [1935, p. 313]. Gilman [1939] referred extensively to Canning throughout his book which was directed primarily to "the accountant in search of accounting 'principles' articulating with present day practice". When discussing assets, Gilman quoted both Canning and Sprague. He also quoted Perry Mason [1937, p. 13] who described an investment in an asset as the price paid for a series of future services.

Notwithstanding the above evidence, some authors have attributed the introduction of the idea of assets as future services to Vatter.[44] Vatter [1947] described assets as "embodiments of future want satisfaction in the form of service potentials that may be transformed, exchanged, or stored against future events . . . assets are service potentials, not physical things, legal rights, or money claims" [p. 53]. Vatter was not the originator of this notion as there is a clear link to the sources discussed above. Vatter [p. 52] quoted Canning [1929a, p. 188] who had described the essence of enterprise assets as constituting "the assured, separable service-series" and Paton and Littleton's reference to "service" and "service potentialities". Vatter [p. 54] suggested that "there may be different aspects of service potentials that ought to be considered". However, he did not discuss these different aspects. Vatter was a member of the AAA which subsequently adopted the service potential notion.

During the 1960s and 1970s the notion of assets as future services, or stores of services, was taken up with enthusiasm. Finney and Miller [1963] and Paton and Paton [1971] were among those to make the point that the notion of assets as future benefits was becoming generally accepted.[45] Staubus [1961/1971, p. 29] noted that the 'service' aspect of assets had been emphasized by other writers. He made specific reference to Vatter [1947] and Paton and Littleton [1940/1970]. In a later work Staubus [1977, p. 122] quoted Canning. Sprouse and

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[43] Canning [1929a, pp. 12-13] noted that asset definitions in accounting texts were "confusingly diverse".

[44] See Kenley and Staubus [1972, p. 93] and Staubus [1977, p. 123].

[45] See Sprouse [1970, p. 100]; Staubus [1977, p. 123]; Kenley and Staubus [1972, p. 93]; Sorter and Horngren [1962, from Davidson et al, p. 194] and Lall [1968, p. 133].

Moonitz [1962, pp. 19-20] referred to Sprague's 'description' of assets as 'store of services'; to Paton and Littleton's statement that service is the significant element behind the accounts; to Vatter's description of assets as 'service potentials'; to the definition promulgated by the Committee on Terminology [AICPA, 1953a], in which assets were defined in terms of generally accepted accounting practice; and to the Committee on Concepts and Standards of the AAA [1957, p. 538] which stated that assets are "aggregates of service-potentials". Sprouse and Moonitz [p. 20] adopted the majority view.

Moonitz and Jordan [1963, pp. 162-163] quoted Sprague: assets were "a storage of services to be received"; Canning – "any future service in money"; Vatter, "embodiments of future want satisfaction"; and the AICPA [1953a]. They concluded that despite some differences the definitions agreed on certain essentials. They defined an asset as a "right, residing in the owner, to prospective benefits" [p. 163]. The existence of some future service or benefit is also the cornerstone of the definition proposed by Kenley and Staubus [1972, p. 94].[46]

Professional Pronouncements: The economic benefits notion reflected a move away from an emphasis on legal form to economic substance or rights. The subject of accounting for leases demonstrated this. Concern for the economic substance of lease transactions led to the issue of *Bulletin No. 38* by the AICPA Committee on Accounting Procedure in 1949. For a year or two prior to the issue of the Bulletin a number of journal articles had called attention to the growing importance of leases, some writers advocating that leased assets and the related liability be placed upon the balance sheet. A major argument was that the accountant should look through the form of the transaction to its substance [Myers, 1962, p. 2]. Myers [1962, p. 40] used Canning's asset definition to support the recording of leased property as an asset. The recommendation of the Committee was that the 'leased' property should be recorded as an asset where it was clearly evident that the transaction involved was "in substance a purchase". This recommendation was restated in

[46] Future benefits are also emphasised by Sorter and Horngren [1962, from Davidson et al, 1964, p. 194]; Dixon, Hepworth and Paton [1966, p. 6]; Lall [1968, p. 133]; Sprouse [1970, p. 100]; Sorter and Ingberman [1987, pp. 100-101] and in a document published by Arthur Andersen and Co in 1984 [p. 24]. The latter was in contrast to the definition proposed ten years earlier which specified exchangeability as an essential asset characteristic [Arthur Andersen, 1974].

Accounting Research Bulletin No.43 [AICPA, 1953b], and reinforced in *APB Opinion No. 5* [APB, 1964, p. 30], in which it was argued that the substance of the arrangement, rather than its legal form, should determine the accounting treatment. It may be noted that subsequently *Substance over Form* was included as one of the basic features of financial accounting in *APB Statement No 4* [APB, 1970]. It was argued that such an emphasis resulted in information that "better reflects the economic activities represented" [APB, 1970, para.127].[47]

The adoption of the abstract future benefit concept of assets in the pronouncements of accounting bodies is testament to the extent of its general (but not universal) acceptance. In 1957 the Committee on Concepts and Standards of the AAA, of which Vatter was a member, abandoned the definition of assets as 'rights in property' [AAA, 1948, p. 14] in favor of an economic notion of assets as "aggregates of service potential" [AAA, 1957, p. 538]. What constituted service-potentials was not explained. Prospective cash inflows, or future services, service potentials or future economic benefits, were described as essential characteristics of an asset in the FASB discussion memo *Elements of Financial Statements and Their Measurement* [FASB, 1976]. The definitions proposed by Canning [1929a], Vatter [1947], the AAA [1957], Sprouse and Moonitz [1962], Mautz [1970], and in *A Statement of Basic Accounting Postulates and Principles* [Study Group at the University of Illinois, 1964, p. 60] were quoted. The FASB codified this popular view of assets in *Statement of Financial Accounting Concepts* (*SFAC) No.6* [1985].[48] Assets are defined in that document as "probable future economic benefits obtained or controlled by a particular entity as a result of past transactions or events".[49]

These professional pronouncements were supported in later academic writing and Canning's definition continues to be cited as an authority for the definition of assets as service potential or future economic benefits. Hendrikson [1977, p. 257] quoted Canning and concluded that the emphasis on economic resources representing service potentials or rights to prospective benefits provides for an all-inclusive definition. Henderson and Peirson [1984] discussed Canning's asset definition at length.

[47] See also AARF [1990c].

[48] This followed a discussion memorandum in which service potential was argued to be an essential characteristic of an asset [FASB, 1976, p. 60].

[49] *SFAC No. 6* replaces the earlier *SFAC No. 3* [FASB, 1980] which contained the same definition of assets.

They concluded, without critique: "There is no reason to believe that the characteristics of an asset identified in 1929 are not the same as the characteristics of an asset in contemporary accounting" [p. 30]. They proceeded to define an asset "as that term is understood in contemporary accounting" in the same terms as Canning.[50]

Similar professional pronouncements followed in other parts of the world. The professional accounting bodies in Australia [AARF, 1992, para. 12] adopted a similar definition to that promulgated in *SFAC No.6*.[51] The UK Accounting Standards Board [1999] also adopted the notion of assets as future benefits.[52]

Measurement of Future Economic Benefits: While the service aspect of assets cannot be disputed, critical examination of this notion of assets in the context of financial reporting reveals considerable difficulty in rationalizing the concept.

The broader notion of assets as future economic benefits was argued to be more consistent with the needs of users for future oriented information as a basis for prediction [Canning, 1929a; Nelson, 1935; Kenley and Staubus, 1972, p. 93; Staubus, 1977, p. 119; Most, 1977, p. 217]. Kenley and Staubus [1972, p. 93] argued: "If a balance sheet is to be thought of as a useful statement of financial position it should give a future-oriented report of the current stocks of the wealth-related items it covers". This is assumed to result in information that is indicative of future cash flows and therefore useful in assessing short-term debt paying ability, solvency, and the capacity to take advantage of opportunities that may arise. However, the untenable consequence of this emphasis on the future is that users are deprived of reliable information about "current stocks of the wealth-related items".

Supporters of the future benefits notion argue that the value of any asset is the present value of its service potentials. "Con-

[50] See also Kam [1990, pp. 102-104] who quotes Sprague [1907]; Canning [1929a]; Paton and Littleton [1940]; Vatter [1947] and the AAA [1957].

[51] The definition was recommended in a monograph prepared by Miller and Islam [1988]. The definition of an asset adopted by the Australian Accounting Standards Review Board, in Release 100, also focuses on future benefits [1985, para. 38].

[52] The definition proposed in ED 42 [ASC, 1988, para. 14] was almost identical to that in the American *SFAC No.6* [FASB, 1985]. Solomons [1988, p. 20] and the IASC [1988, para. 49] proposed similar definitions. These are quoted with approval in ED 47 [ASC, 1990, Appendix, para.9].

ceptually, this is the sum of the future market prices of all streams of service to be derived, discounted by probability and interest factors to their present worth" [AAA, 1957, p. 4].[53] That assets may have different kinds of service potential was recognized in *SFAC No.3* [FASB, 1980]. "Money . . . is valuable for what it can buy", money's "command over resources" - its purchasing power - is the basis of its value and future economic benefits [FASB, 1980, para. 23]. "Assets other than cash benefit a business enterprise by being exchanged for cash or other goods or services, by being used to produce or otherwise increase the value of other assets, or by being used to settle liabilities" [FASB, 1980, para. 24]. Chambers suggested that a nonmonetary right or object may simultaneously have four kinds of service potential: "It may be able to produce a certain quantity of a class of products . . . It may serve as a liquidity reserve; it may be sold if any circumstance, such as a liquidity crisis or a change in output composition, justifies its sale. It may serve as part of a borrowing base . . . And it may serve as a hedge against inflation, to the extent that its resale price rises as the general level of prices rises" [Chambers, 1975, p. 100].

If an asset can simultaneously have four kinds of service potential no amount can be assigned which will represent the sum of those service potentials. The service to be derived from an asset in the future can only be imagined, it cannot be measured. Further, the benefits provided by a particular asset such as the shelter provided by a building, or the lifting power of a crane or hoist, cannot be disentangled from the benefits provided by a complex combination of assets that contribute to the production of a product or service. An asset may be made to yield quite different benefits depending on the way it is combined with other assets. This is the essence of the following quotations:

> The economic theorist . . . will tell us that a capital instrument, for example, a lathe in a machine shop, derives its value from the value of the lathe's future services and disservices - that the true valuation of the machine is determined by capitalizing its future money - valued service and disservice series. But unless the service of the lathe consists of bringing in a sale price either for the lathe itself or for a separately sold sched-

[53] For further examples of this view see Rorem [1928/1982, p. 287] and Staubus [1977, p. 140].

> ule of its technical services no series of future services independently valued in money can exist outside the imagination [Canning, 1929b, p. 5].
>
> Even if the selling price of the product is 'assured,' the portion of that selling price attributable to the particular input under examination - a raw material, an item of supplies, a machine, - cannot be determined in any objective way. This 'allocation problem', . . . is . . . a weakness in the reliability of the discounted future cash flow method' [Staubus, 1977, p. 168].[54]

Given the uncertainties and subjectivity associated with estimating and valuing future services, accountants made the convenient assumption that "the value of the asset is equal to its money cost, less a deduction to provide for that proportion of its power to render service which has been used up" [Kelley, 1935, p. 51]. "Assuming a free market, acquisition cost expressed in the bargained price of an asset is presumed to be a satisfactory quantification of future service expectations at the time of acquisition" [AAA, 1957, p. 4].[55] The AAA accepted the use of cost as a surrogate measure without critical comment:

> The value of an asset is the money equivalent of its service potentials. Conceptually this is the sum of the future market prices of all streams of service to be derived, discounted . . . to their present worths. However, this conception of value is an abstraction which yields but limited practical basis for quantification. Consequently, the measurement of assets is commonly made by other more feasible means . . . Non-monetary assets . . . are typically stated at acquisition cost or some derivative therof [AAA, 1957, p. 4].[56]

The notion of assets as future economic benefits is completely at odds with the recording of assets at historical cost. There is no evidence to suggest that cost represents or is equivalent to any expected physical or financial benefit. As Schuetze [1993, p. 69] argued, "the probable future economic benefit of a successful, direct-response advertising campaign may be many multiples of the cost. The future benefit of a discovery of mineral deposits

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[54] See also Moonitz and Jordan [1963, p. 166] and Bottrill [1973, p. 146].

[55] See also Dicksee [1903/1976, p. 26]; Paton [1922/1973, pp. 26, 345]; Rorem [1928/1982, p. 313]; Saliers [1935, p. 390]; Paton [1948, p. 288]; Anton [1956, p. 119]; Sprouse and Moonitz [1962, p. 26] and Arthur Andersen [1974, p. 41].

[56] See also Edwards [1938, p. 81]; Sprouse and Moonitz [1962, p. 25]; Sorter and Horngren [1962]; Staubus [1977, p. 118].

generally bears no relationship whatsoever to the costs of finding the deposits. The future benefits of successful research and development also bear little or no relationship to the costs incurred". The probability that a past cost, or an unallocated (residual) cost will represent the expected future benefit is extremely remote. Decisions as to whether expenditures will result in a future benefit rely on individual judgment. Estimates of the extent of future benefits or services are personal, subjective and changeable over time. So too, the determination of the extent to which the cost or value of services have, or have not, been consumed is necessarily ad hoc and dependent on individual judgment.

While the emphasis on cost remains, an examination of practice confirms that cost has not been accepted as a universal surrogate for future economic benefits and highlights the ongoing difficulty of rationalizing the measurement of 'future benefits'. With the shift in ideas away from assets as real means for paying real debts to abstract notions of future benefits the valuations appearing under the asset heading in periodic statements became a diverse mixture of costs, unallocated costs, net realizable values and money equivalents. While valuation at cost was advocated for 'fixed assets', valuation at lower of cost or market became the generally accepted practice in the case of inventories.[57] There is evidence that deficiencies in these valuation criteria were acknowledged early in the move towards adopting the future benefits definition. Dickinson [1913/1975, p. 117] accepted this practice for both inventories and investments despite his contention that a balance sheet is required to show the true financial position as a going concern, and that the inventory at actual cost may represent more or less than the market value, and, therefore, overstate or understate the assets [p. 94]. Montgomery [1912/1976, p. 104] argued that placing "a higher value on an inventory item than the price at which the same thing can be duplicated in the open market . . . deceives the banker, creditor, and stockholder who have a right to believe that the values stated are real values as at the date of the balance sheet". However, he advocated that "when purchases have been made in a rising market and where the goods cannot be duplicated, except

[57] The inconsistency of the lower of cost and market rule has attracted strong criticism. See for example Paton and Stevenson [1916/1976, p. 104]; Paton [1922/1973, p. 453]; Hatfield [1927/1971, p. 251] and MacNeal [1939/1970, p. 43].

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at a higher price . . . the conservative course is to carry the items at cost and thus do away with the objectionable practice of anticipating a profit" [p. 104].

Revaluation of non-current assets is permitted in some countries, such as the UK and Australia. The revaluation by companies of certain non-current assets, for example land and buildings, is common practice in Australia.[58] While *AAS 10 Accounting for the Revaluation of Non-Current Assets* [AARF, 1981] prescribes methods of accounting for the revaluation of non-current assets it does not prescribe how or when assets should be revalued except to require that non-current assets are to be revalued downwards when their carrying amount is greater than recoverable amount. There have, however, been moves by the Australian accounting profession towards the reporting of market prices for certain assets. In *AAS 25 Financial Reporting by Superannuation Plans* [AARF, 1990a, para. 39] it is argued that in the case of "defined benefit plans"[59] measuring assets at net market value as at the reporting date "provides more relevant information to users about the resources available to pay benefits than does the cost basis of measurement". *AAS 26 Financial Reporting of General Insurance Activities* [AARF, 1990b, para. 78] requires that "Investments that are integral to the reporting entity's general insurance activities shall be measured at net market values as at the reporting date". It is commented that in many cases the net market values of assets are far removed from their costs. "This can be of major concern in relation to assets held as investments which are integral to the reporting entity's general insurance activities because increments in the net market values of such assets may be relied upon by insurers to meet their liabilities for outstanding claims" [para. 88]. A wider current issue is the valuation of financial instruments at fair value. A Joint Working Group of national standard setters has proposed that virtually all financial instruments be measured at fair value; the UK ASB has issued a discussion paper on the subject; and the FASB in the USA has issued a draft standard on the valuation of derivatives. Thus the confusion in attempting to link future benefits and balance sheet valuation continues.

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[58] See for example, Chambers [1957]; Standish [1972]; Gibson [1976]; Ryan et al [1980] and Ryan et al [1993].

[59] Defined in AAS 25 [para. 10] as "a superannuation plan where the amounts to be paid to one or more members . . . are specified, or are determined, at least in part, by reference to a formula based on their years of membership and/or salary levels".

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CONCLUSIONS

The accounting notion of assets has undergone considerable change. Until the late 19th century, the words 'property' and 'assets' were used in the accounting literature in the sense of real things, existing things or rights, which were exchangeable for cash. In the latter part of the 19th century various 'costs' began to appear under the asset heading in balance sheets. Definitions of assets in terms of costs and unexpired costs began to appear in the literature, and in professional pronouncements. The idea that assets were a source of services appeared in the literature in the early 20th century. The economic notion of assets as service potential provided a rationale for all manner of items in the balance sheet which were not assets in the commonly understood sense, but which resulted from the carrying forward of costs to future periods.

The broader notion of assets as future economic benefits was argued to be more consistent with the needs of users for information about the future. Relevance and reliability are cited frequently as essential characteristics of accounting information if it is to be useful for decision-making. However, with the broadening of the notion of what constitutes an asset the boundary around what is or is not an asset has become hazy and ambiguous. Schuetze [1993, p. 67], former Chief Accountant of the Securities and Exchange Commission, described the FASB's definition as:

> . . . so complex, so open-ended, so all inclusive, and so vague that we cannot use it to solve problems. It does not require exchangeability, and therefore it allows all expenditures to be considered for inclusion as assets. The definition does not discriminate and help us to decide whether something or anything is an asset. That definition describes an empty box. A large empty box. A large empty box with sideboards. Almost everything or anything can be fit into it.

It is stated in SAC3 [AARF, 1990c] that reliability will be determined by the correspondence between what the information conveys to users and the underlying transactions and events that have occurred [para.16]. Future events are not representative of existing conditions; they are not representative of "transactions and events that have occurred". The benefits expected to be derived from assets are generally a result of combining those assets with other assets to produce a particular output. The future

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benefits attached to a particular input cannot be determined in an objective way.

If a definition is to have real world application it must be defined in real world terms. Expected future benefits do not have real world significance. As Schuetze [1993, pp. 69-70] argued:

> Abstract future benefits cannot be sold, pledged, or given away . . . I think that ordinary people who are not accountants think that when they see an asset in a balance sheet that the asset is something real, and that it represents value, that is, if it is not cash or a claim to cash, that it can be sold separately for cash. Accounting should result in financial statements that ordinary people will understand and therefore be able to use to make investment and credit decisions.

An accounting that is divorced from reality can only serve to confuse. This examination of the historical development of what constitutes an asset demonstrates that the ordinary person will have misplaced their trust if they retain simple everyday notions of what constitutes an asset.

The accounting profession continues to face significant challenges in providing relevant information to a wider range of users. In the past accountants have, for the most part, attempted to address and take account of wide-ranging changes in business' activity within conventional financial statements. The balance sheet was traditionally a representation of a present state of affairs. The balance sheet of today, due partly to the abandonment of the property notion of assets, is a complex mixture of the past, present and future. It does not have a clearly defined purpose and might be argued to have outlived its usefulness.

All parties who have an interest in a commercial enterprise are concerned about the ability of the entity to remain solvent. For this reason it is argued that companies should present a statement of 'separably exchangeable property' and legal obligations, at the reporting date. Consistent with this notion, 'property' should be stated at current market values where these exist. Where appropriate a range of values should be reported. This clearly indicates to the users of financial statements that the numbers in the accounting reports are not certain. Where an active market for property does not exist that property should be listed separately and clearly identified as valued at 'estimated' exchange value. Separate schedules could provide details of shareholders equity, contingent liabilities, and additional rel-

evant information about items such as leases, specialized equipment, goodwill and other intangibles, which may add value to a firm in the future.

"While financial statements should be presented in a manner that will assist as much as possible in assessing the future and its risks, the role of accounting and the resulting financial statements is not to predict or to interpret the future" [Arthur Andersen, 1974, p. 15]. The current emphasis on users' needs for information about future benefits, results in users' needs for reliable information about present means being ignored. Accounting must focus on providing interested parties with information which will "assist as much as possible in assessing the future and its risks".

REFERENCES

Accounting Principles Board (1964), *APB Opinion No. 5: Reporting of Leases in Financial Statements of Lessee* (New York: AICPA).

Accounting Principles Board (1970), *APB Statement No. 4: Basic Concepts and Accounting Principles Underlying Financial Statements of Business Enterprises* (New York: AICPA).

Accounting Standards Board (1999), *Statement of Principles for Financial Reporting* (London: Institute of Chartered Accountants in England and Wales).

Accounting Standards Committee (1988), *Exposure Draft 42: Accounting for Special Purpose Transactions, Current Cost Accounting* (London: ASC).

Accounting Standards Committee (1990), *Exposure Draft 47: Accounting for Goodwill* (London: ASC).

Accounting Standards Review Board (1985), *Release 100: Criteria for the Evaluation of Standards* (Melbourne: ASRB).

American Accounting Association (1936), "Tentative Statement of Accounting Principles Affecting Corporate Reports," *Accounting Review*, Vol. 11, No. 2: 187-191.

American Accounting Association (1941), *Accounting Principles Underlying Corporate Financial Statements* (Columbus, Ohio: AAA).

American Accounting Association (1948), *Accounting Concepts and Standards Underlying Corporate Financial Statements 1948 Revision* (Columbus, Ohio: AAA).

American Accounting Association (1957), "Accounting and Reporting Standards for Corporate Financial Statements - 1957 Revision," *Accounting Review*, Vol. 32, No. 4: 536-546.

American Institute of Accountants (1931), *Committee on Terminology, Accounting Terminology* (New York: AIA).

American Institute of Accountants (1934), *Audits of Corporate Accounts - Correspondence between the Special Committee on Cooperation with Stock Exchanges and the Committee on Stock List of the New York Stock Exchange* (1932-1934) (New York: AIA).

American Institute of Accountants (1940), *Accounting Research Bulletin No. 7, Report of the Committee on Terminology* (New York: AIA).

American Institute of Accountants (1941), *Accounting Research Bulletin No. 9, Report of the Committee on Terminology* (New York: AIA).

Accounting Historians Journal, Vol. 30 [2003], Iss. 2, Art. 6

American Institute of Certified Public Accountants (1949), *Committee on Accounting Procedure, Bulletin No. 38* (New York: AICPA).

American Institute of Certified Public Accountants (1953a), *Committee on Terminology, Review and Resume, Accounting Terminology Bulletin No. 1* (New York: AICPA).

American Institute of Certified Public Accountants (1953b), *Committee on Terminology, Review and Resume, Accounting Research Bulletin No. 43* (New York: AICPA).

Anthony, R.N. (1983), *Tell it Like it Was: A Conceptual Framework for Financial Reporting* (Homewood, Illinois: Richard. D.Irwin).

Anton, H.R. (1956), "Depreciation, Cost Allocation and Investment Decisions". Reprinted in Brief, R. (ed.) (1984), *Depreciation and Capital Maintenance* (New York and London: Garland Publishing, Inc.): 31-48

Arthur Andersen & Co. (1974), *Accounting Standards for Business Enterprises Throughout the World* (Chicago: Arthur Andersen & Co).

Arthur Andersen & Co. (1984), *Objectives of Financial Statements for Business Enterprises* (Chicago: Arthur Andersen & Co).

Australian Accounting Research Foundation (1981), *Statement of Accounting Standards AAS 10 Accounting for the Revaluation of Non-Current Assets* (Melbourne: AARF).

Australian Accounting Research Foundation (1990a), *Statement of Accounting Standards AAS 25 Financial Reporting by Superannuation Plans* (Melbourne: AARF).

Australian Accounting Research Foundation (1990b), *Statement of Accounting Standards AAS 26 Financial Reporting of General Insurance Activities* (Melbourne: AARF).

Australian Accounting Research Foundation (1990c), *Statement of Accounting Concepts SAC3 Qualitative Characteristics of Financial Information* (Melbourne: AARF).

Australian Accounting Research Foundation (1992), *Statements of Accounting Concepts SAC4 Definition and Recognition of Assets* (Melbourne: AARF).

Backer, M. (1966), *Handbook of Modern Accounting Theory* (Englewood Cliffs, New Jersey: Prentice Hall, Inc).

Baxter, W. and Davidson, S. (1962), *Studies in Accounting Theory* (London: Sweet and Maxwell Ltd).

Bennett, J. (1842), The *American System of Practical Book-Keeping* (New York: Arno Press), 1976, reprint.

Bogle, J.D.S. (1889), "The Writing off of Depreciation on the Wasting Assets of a Joint Stock Co." Reprinted in Brief, R.P. (1976), *The Late Nineteenth Century Debate over Depreciation, Capital and Income* (New York: Arno Press): 691-696.

Bohm-Bawerk, E.V. (1891), *The Positive Theory of Capital* (London and New York: MacMillan and Co.).

Bottrill, G.W. (1973), "Accounting for Changing Values," *The Australian Accountant*, April: 142-148.

Brief, R.P. (1966), "The Origin and Evolution of Nineteenth Century Asset Accounting." Reprinted in Brief, R.P. (ed.) (1993), *The Continuing Debate over Depreciation, Capital and Income* (New York and London: Garland): 57-79.

Bulletin des Lois, September 10 - September 25 (1807) from Howard, S.E (1932), "Public Rules for Private Accounting in France, 1673 and 1807," *Accounting Review*, Vol. 7, No. 2: 91-102.

Canning, J.B. (1929a), *The Economics of Accountancy: A Critical Analysis of Accounting Theory* (New York: Ronald Press).

Canning, J.B. (1929b), "Some Divergences of Accounting Theory from Economic Theory," *Accounting Review*, Vol. 4, No.1: 1-8.

Carter, F.W. (1890), *Practical Book-keeping* (London: Bell & Bradfute).

Carter, E.M. (1910), "What is an Annual Balance Sheet?," *The Accountant*, 22 October: 560-566.

Carter, R.N. (1923), *Advanced Accounts* (London: Pitman).

Cayley, A. (1894), "The Principles of Book-keeping by Double Entry". Reprinted in Brief, R. (ed.) (1982), *Four Classics on the Theory of Double-Entry Book-keeping* (New York and London: Garland Publishing Inc).

Chambers, R.J. (1957), "The Implications of Asset Revaluations and Bonus Share Issues," *The Australian Accountant*, November: 507-531.

Chambers, R.J. (1966) *Accounting, Evaluation and Economic Behavior* (Englewood Cliffs, NJ: Prentice-Hall Inc.).

Chambers, R.J. (1975), "Profit Measurement, Capital Maintenance and Service Potential: A Review Article," *Abacus*, June: 97-104.

Chambers, R.J. (1994), "Historical Cost - Tale of a False Creed," *Accounting Horizons*, Vol. 8, No.1: 76-89.

Chambers, R.J. (1995), *An Accounting Thesaurus: 500 years of Accounting* (Tarrytown, New York: Pergamon).

Chambers, R.J., and Wolnizer, P.W. (1991) "A True and Fair View of Position and Results: The Historical Background," *Accounting, Business and Financial History*, Vol.1, No.2: 197-213.

Chatfield, M. (1974), *A History of Accounting Thought* (Hinsdale, Illinois: The Dryden Press).

Chatfield, M. and Vangermeersch, R. (eds.) (1996), *The History of Accounting: an International Encyclopedia* (New York: Garland).

Cole, W.M. (1908), *Accounts: Their Construction and Interpretation* (New York: Arno Press), 1976, reprint.

Concise Dictionary of Law (1983) (New York: Oxford University Press)

Cory, I. (1839), *A Practical Treatise on Accounts* (London: William Pickering).

Couchman, C.B. (1924), *The Balance Sheet: Its Preparation, Content and Interpretation* (New York & London: Garland Publishing, Inc), 1982, reprint.

Crittenden, S.W. (1860), *An Inductive and Practical Treatise on Bookkeeping* (Philadelphia: E.C. & J. Biddle & Co).

Cronhelm, F.W. (1818), *Double Entry by Single* (New York: Arno Press), 1978, reprint.

Cropper, L.C. (1927), *Book-keeping and Accounts* (London: MacDonald Evans).

Dawson, S.S. (1900), "Balance Sheets," *The Accountant*, 3 February: 131-138.

de Morgan, A. (1853), "On the Main Principle of Book-Keeping, The Elements of Arithmetic". Reprinted in Brief, R. (ed) (1982), *Four Classics on the Theory of Double-Entry Bookkeeping* (New York and London: Garland Publishing Inc).

Dickinson, A. L. (1913), *Accounting Practice and Procedure* (Houston, Texas: Scholars Book Co.), 1975, reprint.

Dicksee, L.R. (1892), *Auditing: A Practical Manual for Auditors* (New York: Arno Press), 1976, reprint.

Dicksee, L.R. (1897), "Goodwill and its Treatment in Accounts," *The Accountant*, January 9: 40-48.

Dicksee, L.R. (1903), *Advanced Accounting* (New York: Arno Press), 1976, reprint.

Dicksee, L.R. (1910), *Auditing: A Practical Manual for Auditors* (London: Gee and Co. Ltd).

Dilworth, T. (1794), *The Young Book-keeper's Assistant: shewing him in the most plain and easy manner, the Italian was of Stating Debtor and Creditor*. Reprinted in Sheldahl, T.K. (1989) *Accounting Literature in the United States before Mitchell and Jones* (1796) (New York and London: Garland Publishing, Inc): 293-460.

Dixon, R.L., Hepworth, S.R., and Paton, W.A. Jnr. (1966), *Essentials of Accounting* (New York: The Macmillan Co).

Dodson, J. (1750), *The Accountant, or, the Method of Bookkeeping, Deduced from Clear Principles* (New York and London: Garland Publishing, Inc), 1984, reprint.

Dohr, J.L. (1941), "What is an Asset?," *Journal of Accountancy*, Vol. 71, No. 3: 213-218.

Dyer, S. (1897), *A Common Sense Method of Double Entry Bookkeeping* (London: G. Philip & Son).

Editorial (1880), *The Accountant*, 10 April: 5.

Editorial (1936) "Is the Balance Sheet an Anachronism?," *The Australian Accountant*, Vol. 1, No.2, 25 March: 74-77.

Editorial (1946), "The Status of the Balance Sheet," *The Accountant*, 7 December: 293-294.

Edwards, R.S. (1938), "The Nature and Measurement of Income – II," *The Accountant*, 9 July: 45-47.

Edwards, E.O., Bell, P.W. and Johnson, L.T. (1979), *Accounting for Economic Events* (Houston, Texas: Scholars Book Co.).

Edwards, J.R and Webb, K.M. (1982), "The Influence of Company Law on Corporate Reporting Procedures, 1865-1929: An Exemplification," *Business History*, Vol. 24, No. 3: 259-79.

Engleman, K. (1954), "In Search of an Accounting Philosophy," *Accounting Review*, Vol. 29, No. 3: 383-390.

Esquerre, P.J. (1927), *Accounting* (New York: Ronald Press Co).

Fieldhouse, A. and Fieldhouse, E.E. (1930), *The Students' Elementary Commercial Book-keeping* (London: Simpkin Marshall, Ltd).

Financial Accounting Standards Board (1976), *Scope and Implications of the Conceptual Framework Project, Discussion Memorandum Conceptual Framework for Financial Accounting and Reporting: Elements of Financial Statements and Their Measurement* (Connecticut: FASB).

Financial Accounting Standards Board (1980), *Statement of Financial Accounting Concepts No. 3: Elements of Financial Statements of Business Enterprises* (Connecticut: FASB).

Financial Accounting Standards Board (1985), *Statement of Financial Accounting Concepts No. 6: Elements of Financial Statements* (Connecticut: FASB).

Finney, H.A. and Miller, H.E. (1963), *Principles of Accounting* (New Jersey, Englewood Cliffs: Prentice Hall).

Fisher, I. (1906), *The Nature of Capital and Income* (New York: Augustus M. Kelley), 1965, reprint.

Fitzgerald, A.A. (1938), "Balance Sheet Problems," *The Australian Accountant*, 25 September: 81-87.

Fitzgerald, A.A. (ed.) (1963), *Fitzgerald's Accounting* (Sydney: Butterworth & Co.(Australia) Ltd).

Foster, B.F. (1837), *A Concise Treatise on Commercial Book-keeping* (Boston: Perkins.

Foster, B.F. (1849), *Double Entry Elucidated* (London: C.H. Law).

Foster, B.F. (1852), *The Origin and Progress of Book-keeping* (New York: Arno Press), 1976, reprint.

Foster, B.F. (1863), *Double Entry Elucidated* (London: C. H. Law).
Fulton, L.S. and Eastman, G.W. (1872), *A Practical System of Book-keeping by Single and Double Entry Containing Forms of Books and Practical Exercises, Adapted to the use of the Farmer* (Toronto: James Campbell & Son).
Garcke, E. and Fells, J.M. (1887), *Factory Accounts: Their Principles and Practice: A Handbook for Accountants and Manufacturers* (New York: Arno Press), 1976, reprint.
Gibson, R.W. (1976), The Uniformity Problem and the State of Australian Company Financial Reporting, unpublished PhD thesis (University of Cincinnati).
Gilman, S. (1939), *Accounting Concepts of Profit* (New York: Ronald Press Co).
Goldberg, L. (1948), *A Philosophy of Accounting* (Melbourne: Accountants Publishing Company Ltd).
Goldberg, L. and Hill, V.R. (1968), *The Elements of Accounting* (London & New York: Melbourne University Press).
Gordon, W. (1765), *The Universal Accountant and Complete Merchant, Volume II* (New York and London: Garland Publishing, Inc.), 1986, reprint.
Guthrie, E. (1883), "Depreciation and Sinking Funds," *The Accountant*, 21 April: 6-10.
Halsbury's Laws of England (1981) (London: Butterworths).
Hamilton, R. (1788), *An Introduction to Merchandise Parts IV and V*. (New York: Garland Publishing, Inc.), 1982, reprint.
Harris, W. (1883), "Depreciation and Sinking Funds," *The Accountant*, 1 September, No. 456: 9-10.
Hatfield, H. R. (1909), *Accounting: Its Principles and Some of Its Problems* (New York and London: D. Appleton).
Hatfield, H. R. (1927), *Accounting, its Principles and Problems* (Lawrence, Kansas: Scholars Book Co), 1971, reprint.
Hayes, R. (1741), *The Gentleman's Complete Bookkeeper* (London).
Henderson, S. and Peirson, G. (1984), *Issues in Financial Accounting* (Melbourne: Longman Cheshire).
Hendrikson, E.S. (1977), *Accounting Theory* (Homewood, Illinois: Richard D. Irwin, Inc.).
Hylton, D. (1965), "On Matching Revenue and Expense," *Accounting Review*, Vol. 40, No. 4: 824-828.
Inglis, W. (1881), *Book-keeping by Single and Double Entry* (London: W. & R. Chambers).
International Accounting Standards Committee (1988), *Proposed Statement: Framework for the Preparation and Presentation of Financial Statements* (London: IASC).
Jackson, J.G.C. (1956), "The History and Methods of Exposition of Double Entry Book-keeping in England," in Littleton, A.C., and Yamey, B.S. (eds) *Studies in the History of Accounting* (London: Sweet and Maxwell): 288-312.
Jones, E.T. (1796), *Jones's English System of Book-Keeping, by Single or Double Entry* (New York: Arno Press), 1978, reprint.
Jowitt's Dictionary of English Law (1977) (London: Sweet and Maxwell Ltd).
Kam, V. (1990), *Accounting Theory* (New York: John Wiley & Sons).
Kelley, A.C. (1935), "Value as an Accounting Concept," *Journal of Accountancy*, Vol. 59, No. 7: 50-52.
Kelley, A.C. (1941), "Terminology of the Balance Sheet," *Journal of Accountancy*, Vol. 72, No. 6: 510-513.
Kelly, P. (1801), *Elements of Book-keeping* (London: J. Whiting).

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Kenley, W.J., and Staubus, G.J. (1972), *Objectives and Concepts of Financial Statements, Accounting Research Study No. 3* (Melbourne: Australian Accounting Research Foundation).

Kester, R.B. (1922), *Accounting Theory and Practice, Vol. 1* (New York: Ronald Press Co).

Kester, R.B. (1930), *Accounting Theory and Practice, Vol. 1* (New York: Ronald Press Co).

Keynes, J.M. (1917), *The Scope and Method of Political Economy* (London: MacMillan and Co., Ltd.).

Kollaritsch, F.P. (1960), "Can the Balance Sheet Reveal Financial Position?," *Accounting Review*, Vol. 35, No. 3: 482-489.

Ladelle, O.G. (1890), "The Calculation of Depreciation," *The Accountant*, 29 November: 659-660.

Lall, R.M. (1968), "An Enquiry Into the Nature of Assets". Reprinted in C.J. Gibson, G.G. Meredith and R. Peterson (eds) (1972), *Accounting Concepts: Readings* (Australia: Cassel): 241-245.

Lamb, M. (2002), "Defining 'Profits' for British Income Tax Purposes: A Contextual Study of the Depreciation Cases, 1875-1897," *Accounting Historians Journal*, Vol. 29, No. 1: 105-172.

Leake, D. (1912), *Depreciation and Wasting Assets* (New York: Arno Press), 1976, reprint.

Leake, D. (1929), *Balance Sheet Values* (London: Gee & Co.).

Lewis, J.S. (1896), *The Commercial Organisation of Factories* (London: E & F.N. Spon).

Lisle, G. (1900), *Accounting in Theory and Practice* (New York: Arno Press), 1976, reprint.

Littleton, A.C. (1933), *Accounting Evolution to 1900* (New York: American Institute Publishing Co).

Littleton, A.C. (1946), "The Accounting Exchange," *Accounting Review*, Vol. 21, No. 3: 337-44.

Littleton, A.C. (1953), *Structure of Accounting Theory* [Urbana, Illinois] (American Accounting Association).

MacNeal, K. (1939), *Truth in Accounting* (Lawrence, Kansas: Scholars Book Co.), 1970, reprint.

Mair, J. (1741), *Book-keeping Moderniz'd* (Edinburgh).

Mair, J. (1786), *Book-keeping Moderniz'd* (Edinburgh: Bell and Bradfute).

Mair, J.(1793), *Book-keeping Moderniz'd* (New York: Arno Press), 1978, reprint.

Malcolm, A. (1731), *A Treatise of Bookkeeping, or Merchants Accounts; in the Italian Method of Debtor and Creditor*. . . . (New York: Garland Publishing, Inc.), 1986, reprint.

Marshall, A. (1947), *Principles of Economics* (London: MacMillan & Co.).

Mason, P. (1933) "Illustrations of Early Treatment of Depreciation". Reprinted (1978) in Garner, S. and Hughes, M. (eds) *Readings on Accounting Development* (New York: Arno Press): 209-218.

Mason, P. (1937), *Principles of Public Utility Depreciation* (Chicago: American Accounting Association).

Matheson, E. (1893), *The Depreciation of Factories, Mines and Industrial Undertakings* (New York: Arno Press), 1976, reprint.

Mautz, R.K. (1970), *Basic Concepts of Accounting,* in Davidson S. (ed) *Handbook of Modern Accounting* (New York: McGraw-Hill Book Co.): 1-44.

May, G.O. (1943), *Financial Accounting: A Distillation of Experience* (Kansas: Scholars Book Co.), 1972, reprint.

Mayhew, I. (1884), *The Eclectic Complete Book-keeping* (New York: American Book Company).
Mill, J.S. (1909), *Principles of Political Economy* (New Jersey: Augustus M Kelley), 1976, reprint.
Miller, M.C. and Islam, M.A. (1988), *The Definition and Recognition of Assets* (Melbourne: Australian Accounting Research Foundation).
Montgomerie, A. (1858), *Book-keeping for Every Business: A Manual on the Principles of Book-keeping by Single and Double Entry* (Glasgow: George Watson).
Montgomery, R.H. (1912), *Auditing Theory and Practice* (New York: Arno Press), 1976, reprint.
Moonitz, M. and Jordan, L.H. (1963), *Accounting, An Analysis of its Problems, Vol. 1* (New York: Rinehart & Winston).
More, F. (1891), "Goodwill," *The Accountant*, 11 April: 282-287.
Morrison, C. (1834), *A Complete System of Practical Book-keeping* (Edinburgh: Stirling and Kenney, London: G B Whittaker and Thomas Tegg).
Most, K. (1977), *Accounting Theory* (Columbus, Ohio: Grid Inc).
Mozley & Whiteley's Law Dictionary (1977) (London: Butterworths).
Murray, A. (1885), "Erroneous and Objectional Entries in Balance Sheets," *The Accountant*, 7 March: 12-14.
Myers, J.H. (1962), *Accounting Research Study No. 4: Reporting of Leases in Financial* Statements (New York: AICPA).
Nelson, J. (1871), *Book-keeping by Double Entry* (Edinburgh and Glasgow: John Menzies & Co).
Nelson, E.G. (1935), "That Balance-sheet Approach," *Accounting Review*, Vol. 10, No. 4: 313-317.
Nelson, E.G. (1947), "A Brief Study of Balance Sheets," *Accounting Review*, Vol. 22, No. 4: 341-352.
North, R. (1714), *The Gentleman Accomptant* (New York and London: Garland Publishing, Inc.), 1986, reprint.
Norton, G. (1894), *Textile Manufacturers' Book-keeping* (New York: Arno Press), 1976, reprint.
Osborn's Concise Law Dictionary (1983) (London: Sweet & Maxwell, Ltd.).
Osborn's Concise Law Dictionary (1993) (London: Sweet & Maxwell, Ltd.).
Oxford Companion to Law (1980) (Oxford: Clarendon Press).
Oxford English Dictionary (1989) (Oxford: Clarendon Press).
Parkinson, O.W. (1931), "The Analysis of a Balance Sheet," *The Accountant in Australia*, November: 545-549.
Paton, W.A. (1922), *Accounting Theory* (Lawrence, Kansas: Scholars Book Co), 1973, reprint.
Paton, W.A. (1948), "Accounting Procedures and Private Enterprise," *Journal of Accountancy*, April: Vol. 85, No, 4:278-291.
Paton, W.A and Littleton, A.C. (1940), *An Introduction to Corporate Accounting Standards* [Columbus, Ohio] (American Accounting Association), 1970, reprint.
Paton, W.A., and Paton, W.A. Jnr. (1971), *Assets: Accounting and Administration* (Warren, Michigan: Roberts and Roche Inc.).
Paton, W.A., and Stevenson, R.A. (1916), *Principles of Accounting* (New York: Arno Press), 1976, reprint.
Pixley, F.W. (1881), *Auditors: Their Duties and Responsibilities* (London: Effingham Wilson).

Pollins, H. (1956), "Aspects of Railway Accounting before 1868," in Littleton A.C. and Yamey B.S. (eds) *Studies in the History of Accounting* (London: Sweet and Maxwell Ltd.): 332-355.

Postlethwayt, M. Esq. (1751), *The Universal Dictionary of Trade and Commerce translated from the French of the Celebrated Monsieur Savary*. Reprinted in Sheldahl, T.K. (1996) *Eighteenth-Century Book-keeping: Twelve Encyclopedia Articles* (New York and London: Garland Publishing, Inc): 68-96.

Previts, G.J. and Merino, B.D. (1998), *A History of Accountancy in the United States* (Columbus, Ohio: Ohio State University Press).

Ramsay, P. (1956), "Some Tudor Merchants' Accounts," in Littleton, A. C., and Yamey, B.S. (eds) *Studies in the History of Accounting* (London: Sweet and Maxwell Ltd): 185-201.

Rolt, R. (1761), *A New Dictionary of Trade and Commerce*. Reprinted in Sheldahl, T.K. (1989) *Accounting Literature in the United States before Mitchell and Jones* (1796) (New York and London: Garland Publishing, Inc.): 100-104.

Rorem, C. R. (1928), *Accounting Method* (New York and London: Garland Publishing, Inc.), 1982, reprint.

Roth, L. (1929), "Accounting for Goodwill," *Journal of Accountancy*, Vol. 48, No.2: 102-104.

Rowland, S.W. and Magee, B. (1934), *Accounting* (London: Gee and Co. Ltd).

Ryan, J.B., Heazlewood, C.T., and Andrew, B.H. (1980), *Australian Company Financial Reporting: 1980* (Melbourne: Australian Accounting Research Foundation).

Ryan, J.B., Heazlewood, C.T., and Andrew, B.H. (1993), *Australian Company Financial Reporting: 1993* (Melbourne: Australian Accounting Research Foundation).

Saliers, E.A. (1935), *Fundamentals of Accounting* (Chicago: Business Publications Inc.).

Samuelson, R.A. (1996), "The Concept of Assets in Accounting Theory," *Accounting Horizons*, Vol. 10, No. 3: 147-157.

Sanders, T.H., Hatfield, H.R. and Moore, U. (1938), *A Statement of Accounting Principles*. Reprinted (1968) (New York: American Accounting Association).

Schuetze, W.P. (1993), "What is an Asset?," *Accounting Horizons*, Vol. 7, No.3: 66-70.

Seligman, E.R. (1907), *Principles of Economics* (New York: Longmans, Green & Co.).

Smails, R.G.H. (1927), "Some Aspects of Depreciation," *Accounting Review*, Vol. 2, No. 2: 101-110.

Smith, A. (1893), *The Wealth of Nations* (Manchester & New York: George Routledge & Sons Ltd.).

Smith, S.A. (1931), "Valuation of the Assets of Public Companies," *The Accountant*, 17 October: 517-525.

Solomons, D. (1988), *Guidelines for Financial Reporting Standards* (London: Institute of Chartered Accountants in England and Wales).

Sorter, G.H. and Ingberman, M.J. (1987), "The Implicit Criteria for the Recognition Quantification and Reporting of Accounting Events," *Journal of Accounting, Auditing and Finance*, Vol. 2, No. 2: 99-114.

Sorter, G.H, and Horngren, C.T. (1962), "Asset Recognition and Economic Attributes - The Relevant Costing Approach". Reprinted in Davidson, S., Green, D., Horngren, C.T., and Sorter, G.H. (1964), *An Income Approach to Accounting Theory: Readings and Questions* (Englewood Cliffs, New Jersey: Prentice Hall, Inc.): 193-205.

Spicer, E. and Pegler, E. (1910), *Book-keeping and Accounts* (London: H. Foulks Lynch & Co.).

Sprague, C.E. (1880), "The Algebra of Accounts". Reprinted in Brief, R.P. (ed.) (1989), *The Book-keeper and the American Counting Room* (New York: Garland Publishing, Inc.).

Sprague, C.E. (1901), *The General Principles of the Science of Accounts*. Reprinted (1984) (New York and London: Garland Publishing, Inc.).

Sprague, C.E. (1904), *The Accountancy of Investment*. Reprinted (1984) (New York and London: Garland Publishing, Inc.).

Sprague, C.E. (1907), *The Philosophy of Accounts*. Reissued (1972) (Lawrence, Kansas: Scholars Book Co.).

Sprouse, R.T. (1970), "The Balance Sheet- Embodiment of the Most Fundamental Elements of Accounting Theory," in Stone, W. (1971), *Foundations of Accounting Theory* (Gainesville: University of Florida Press): 90-104.

Sprouse, R.T. and Moonitz, M. (1962), *A Tentative Set of Broad Accounting Principles for Business Enterprises, Accounting Research Study No. 3* (New York: American Institute of Certified Public Accountants).

Standish, E.M. (1972), *Australian Financial Reporting, Accounting Research Study No. 2* (Melbourne: Accountancy Research Foundation).

Staubus, G.J. (1961), *A Theory of Accounting to Investors*. Reissued (1971) (Houston, Texas: Scholars Book Co).

Staubus, G.J. (1977), *Making Accounting Decisions* (Houston, Texas: Scholars Book Co.).

Sterling, R.R. (1979), *Toward a Science of Accounting* (Houston, Texas: Scholars Book Co.).

Stroud's Judicial Dictionary of Words and Phrases (1986) (London: Sweet and Maxwell).

Study Group at the University of Illinois (1964), *A Statement of Basic Accounting Postulates and Principles* (Urbana: Center for International Education and Research in Accounting).

Thompson, W. (1777), *The Accomptant's Oracle: or, Key to Science. Being a Complete Practical System of Bookkeeping , Volume II*. (New York: Garland), 1984, reprint.

Thornton, J. (1895), *A Manual of Book-keeping* (London and New York: MacMillan & Co.).

Tovey, P. (1946), *Balance Sheets: How to Read and Understand Them* (London: Sir Isaac Pitman & Sons, Ltd.).

Turner, E.H. (1894), "The Depreciation of Machinery and Plant". Reprinted in Brief, R. (1976), *The Late Nineteenth Century Debate over Depreciation, Capital and Income* (New York: Arno Press): 546-552.

Turner, Rev. R. (1794), *A New Introduction to Bookkeeping after the Italian Method*. Reprinted in Sheldahl, T.K. (1989), *Accounting Literature in the United States before Mitchell and Jones (1796)* (New York and London: Garland Publishing, Inc.): 461-510.

Vance, L.L. (1933) "The Authority of History in Inventory Valuation". Reprinted (1978) in Garner, S. and Hughes, M. (eds.) *Readings on Accounting Development* (New York: Arno Press): 219-227.

Vatter, W.J. (1947), "The Fund Theory of Accounting and its Implications for Financial Reports". Reprinted in Davidson, S., Green, D. Jr., Horngren, C.T. and Sorter, G.H. (1964), *An Income Approach to Accounting Theory: Readings and Questions* (Englewood Cliffs, New Jersey: Prentice Hall, Inc.): 6-20.

Weigmann, W. (1932), "Legal and Economic Concepts of the Balance Sheet in Germany," *Accounting Review*, Vol. 7, No. 2: 103-105.

Whitney, W.H. (1941), "Interpreting the Results Thereof," *Journal of Accountancy*, Vol. 72, No. 5: 426-436.

Wicks, J.H. (1797), *Book-keeping Reformed; or the Method by Double Entry so Simplified, Elucidated and Improved, as to Render the Practice Easy, Expeditious and Accurate* (London: G.Boult).

Yamey, B.S. (1940), "The Functional Development of Double Entry Bookkeeping," *The Accountant*, 2 November: 333-342.