**4.2.2015**

**Accounting for capital: the evolution of an idea**

**Christopher Nobes\***

\*The author is grateful to the Institute of Chartered Accountants in England and Wales for suggesting this topic. He received helpful advice on previous drafts from Richard Barker, Jane Davison, Alisdair Dobie, J.R. Edwards, David Heald, Andrew Lennard, Richard Macve, Richard D. Morris, Christopher Napier, R.H. Parker, Brian Singleton-Green, Christian Stadler, Stephen Zeff and an anonymous reviewer of this journal. He is also grateful for advice on Italian words from Stefano Zambon; and for the provision of archival financial statements of Marks and Spencer by Paul Rolling and Alan Stewart.

**Accounting for capital: the evolution of an idea**

**Abstract**

The word ‘capital’ has many meanings, within and beyond business. In accounting, it was originally a *credit* concept but has many uses related to assets. In economics and tax, it has exclusively asset meanings. This paper investigates the development of the concept of capital, focussing on accounting and related disciplines, especially in the UK. Even as a *credit* term, ‘capital’ can be as narrow as original equity or wide enough to include debt. A *credit/debit* confusion can be seen in Pacioli’s treatise and through to recent documents by standard setters. At various dates, amounts called ‘capital’ have been shown on different sides of the balance sheet. Capital maintenance is central to the measurement of income for various purpose. It was thrown off course in 1889 by a legal case which seems to have been influenced by the double-account system, which also had echoes in economics. However, the conventional accountants’ view was re-established in 1980 because of an EU Directive. Maintenance of capital (both *credit* and *debit* forms) was much discussed in the 1970s in a period of high inflation. The concept of equity began to become clear with the separation of provisions and reserves (in the 1940s) and when liabilities were defined (from the 1960s). However, accounting practice departs from the definition and it measures liabilities in various ways, so that there is still no clear concept of equity capital. A number of policy implications are set out in the paper.

**Accounting for capital: the evolution of an idea**

1. **Introduction**

The signifier ‘capital’ derives from ‘*caput*’, the Latin for ‘head’. It has a bewildering variety of signifieds. In the late eighteenth century, Citizen Guillotin invented a more humane way to achieve capital punishment in the French capital. Soon after that, Corinthian capitals were being installed on the Capitol[[1]](#footnote-1) in the US capital. *Das Kapital*, being a German noun, has a capital letter.

In accounting, ‘capital’ was originally a *credit* concept; and ‘capital and liabilities’ is still the caption for that side of the balance sheet. However, the word now appears often: fixed capital intellectual capital, working capital. The common feature of those expressions is that they relate to *assets*, rather than to equity or other claims. There is also ‘capital expenditure’, which is distinguished from the splendidly oxymoronic ‘revenue expenditure’ because it is about buying assets. A German *Kapitalflussrechnung* reports on the flow of cash and other current assets.

In economics, also, ‘capital’ refers to assets, as will be shown. The same applies in taxation. Capital Transfer Tax, as operated in the UK from 1975 to 1986, assessed the transfer of *assets* in order to attempt a redistribution of wealth. Capital Gains Tax was introduced in the UK in 1965 as an attempt to tax a type of income by assessing the change in value of *assets* on realisation. A tax on the *stock* of assets is not generally labelled a capital tax but a wealth tax, as operated in several European countries (James and Nobes, 2013, p.226), but not yet in the UK. Piketty (2014, p.515) proposes a global tax on wealth but refers to it as a capital tax. A poll tax, such as led to riots in the UK in 1381 and 1990, is a capital tax, in the sense that a ‘poll’ is a head and ‘*per caput’* is by head.

Perhaps the prime reason why it is vital to be clear about capital is that the calculation of profit (for financial reporting, distribution and taxation) is intimately connected to it. However, Irving Fisher (1896), suggested that:

Of economic conceptions few are more fundamental and none more obscure than capital. (p.509)

Capital has been so variously defined, that it may be doubtful whether it have any generally received meaning. (p.510, referring to an earlier opinion, with which he concurred)

In the context of accounting and closely related disciplines, this paper traces the use of the signifier ‘capital’ across centuries, countries and disciplines. It also tries to identify what has been signified. Conclusions are reached about how confusion of terminology and lack of conceptual clarity have affected accounting. The word ‘capital’ is closely associated with company law, so it is necessary to specify a legal context. This paper is written largely in the context of British laws and related accounting, although that now includes the use of International Financial Reporting Standards (IFRS). A number of comparisons with other jurisdictions are also made, including starting with double-entry bookkeeping in Italy.

In order to keep the scope manageable, I restrict myself to for-profit activities. I also do not investigate whether double-entry was a key driver of capitalism (Sombart 1916, Weber 1927, Bryer 1993) or merely oiled its wheels (Yamey 1964, 2005, Edwards 1989, p.63). Except in passing, I do not discuss the capital adequacy or regulatory capital of financial institutions (see Schoenmaker (2015) in this issue).

The paper proceeds as follows. Section 2 examines the derivations and the gradual changes in usage and meaning of the words ‘capital’, ‘stock’, ‘liability’, ‘fund’ and ‘reserve’. It also looks at the changing position in balance sheets of *credit* items such as capital. Section 3 examines how the concept of capital, including the notion of distributable profit, developed during the nineteenth century among accountants, lawyers and economists. This leads to a discussion of the depreciation of capital assets, in Section 4. In Section 5, we return to the story of distributable profit, as dramatically affected by a change in law in 1980. Section 6 examines the capital maintenance concepts developed in the inflationary period of the 1970s and inherited by the conceptual frameworks of standard setters. In Section 7, the dividing line between equity capital and liabilities is investigated. This includes a discussion of provisions and reserves, and the ways in which accounting practice has departed from definitions. Section 8 contains a summary and policy recommendations. On the whole, the material within each section is organised chronologically. The same applies to the order of sections. Section 2 begins with early bookkeeping (although it follows its theme up to the present). Sections 3 and 4 start their topics in the early nineteenth century. Sections 5 and 6 are based in the 1970s and 1980s. Section 7 is mostly set in the present.

**2. Capital, stock, liabilities, funds and reserves**

***2.1 Capital, stock and liabilities***

The derivation of the English word ‘capital’, as used in a general business context, can be traced to Latin: the ‘*capitalis pars debiti*’ was the principal (or head) part of a loan (Fisher 1896, p.517, Cannan 1921, p.470). The use of the word specifically in accounting also comes to us from Italy, more recently but from the same root. In *capitolo* 12 of *tractatus* 11 of *distinctio* 9, Pacioli (1494) says that a new business starts its accounting by recording the initial cash on hand as: *debit* ‘*cassa’;* *credit* ‘*cavedal’*.[[2]](#footnote-2) Richards (1926) and Hatfield (1926) trace the first use of ‘capital’ in English back to books on double entry, based on Italian originals, by Ympyn (1547)[[3]](#footnote-3) and Mellis (1588). Richards did not know about the former book, and Hatfield (1934, p.162) thought that it was lost, except in a transcription from which he produces a quotation:[[4]](#footnote-4)

The other worde, the Italians call the Capitale, that is to say the Stocke or principall that the Marchant began withall….And it is at your pleasure whether ye will vse this worde Stocke in Englishe, or Capitale.

This implies that ‘Capitale’ was still a foreign word in 1547. However, 40 years later, Mellis instructs the novice bookkeeper to record the introduction of resources by the owner as: *debit* various asset accounts; *credit* ‘stocke’ or ‘capitall’. Richards (1926, p.331) notes that an earlier English term for the difference between the inventory and the owings was ‘substance’. Edwards (2014) shows that the word ‘estate’ was used in 1738.

Parker (1994, p.77) suggests that the meaning of ‘stock’ in this context relates to the signifieds ‘stem’ or ‘root’, and derives from the half of the tally stick which was retained by a person as proof of a payment to the Exchequer. The holder of the stock has provided money; he[[5]](#footnote-5) therefore has a claim against the firm; his stock (his asset) is the firm’s capital stock. When, in order to get larger, a firm has several contributors of capital, it becomes a joint stock company. The East India Company (EIC), founded by charter in 1600, started by raising stock voyage-by-voyage. However, in 1613, it raised stock for four voyages together, and then merged them, thereby becoming a joint stock company with a continuing life.[[6]](#footnote-6) In 1614, the EIC first used the word ‘capital’ instead of ‘stock’, perhaps because ‘stock’ also meant the commodities into which the stock had been turned, and because the link was now more complicated because of joint stock (Bryer 2000, p. 347). It has also been pointed out that the EIC in the seventeenth century used ‘capital’ for shareholders’ claims, and ‘stock’ for the wider set of claims including debt (Scott 1912, pp.157-8, cited by Parker 1994).

By the Companies Act 1856, the label for the full set of *credit* balances had become ‘capital and liabilities’, as illustrated in Figure 1. As a *debit* term, ‘stock’ was used either to refer to all assets or merely to inventory. Figure 2 shows a balance sheet of 1900, with ‘Stocks’ on both sides, with different meanings. Thus, in 1856 and 1900, ‘capital’ in accounting meant a *credit* balance, specifically an equity one, and specifically the principal amount. The matter of which side the capital is on is discussed in Section 2.2.

[Insert Figures 1 and 2 near here.]

The use of the term ‘capital and liabilities’ in the 1856 Act might appear to imply the modern distinction between equity and liabilities. However, as Figure 1 shows, the word ‘liabilities’ was used both to mean all the *credits* and to mean part of the non-equity *credits*. The modern meaning had not arrived by then in the UK or anywhere else. The U.S. Steel company is renowned for being the world’s first company[[7]](#footnote-7) to present a consolidated balance sheet (in 1902).[[8]](#footnote-8) Until 1943, the heading on the *credit* side of its balance sheet was ‘Liabilities’, although the heading then became ‘Liabilities, capital, and surplus’ (Claire 1945). Similarly, the *credit* side of the 1934 balance sheet of Marks and Spencer was still headed ‘Liabilities’, as shown in Figure 3. Not surprisingly, this lack of clarity spread to translations into English from other languages, and it lasted longer.[[9]](#footnote-9) Figure 4 shows the *credit* side of the 1985 balance sheet of Total Oil, a very large French company which was listed on Paris and London. This is the English translation which the company published, [[10]](#footnote-10) and it shows the wide use of ‘Liabilities’. Figure 5 shows the usage continuing in the 2004 balance sheet of Campari, an Italian listed company.[[11]](#footnote-11)

[Insert Figures 3 to 5 near here.]

By the time the UK joined ‘The Common Market’ in 1973, the British had generally restricted the scope of the term ‘liability’, but received their confusion back again via Brussels. Figure 6 shows the two-sided balance sheet format in the regulations attached to the UK’s Companies Act 2006, which faithfully preserve the wide use of ‘Liabilities’ put into the English language version of Article 9 of the Fourth Directive (of 1978) when the EU’s jurists and linguists group translated it from the original French. The translators were presumably influenced by the continental practice mentioned in the previous paragraph when attempting to translate ‘*passif*’ . The ‘*passif*’ items (Italian ‘*passivo*’, German *‘passiv’*) are the claims, [[12]](#footnote-12) as opposed to the ‘*actif*’ which are the resources. In French (unlike German), there was no specific word for ‘liability’,[[13]](#footnote-13) but when international standards were translated into French, ‘*passif*’ was used to mean ‘liability’. So, the French accounting meaning of ‘*passif*’ is narrower than the legal meaning. The erroneously wide use of ‘Liabilities’ in the English version of the original 1978 Directive was not corrected until the 2013 revision of the Directive, Annex III of which refers to “Capital, reserves and liabilities”.

[Insert Figure 6 near here.]

Returning to English, the term ‘capital and liabilities’ still involves confusion even among accountants, because capital can include retained earnings as well as the principal. Further, capital can include liabilities: (i) loan ‘capital’ is a liability, (ii) IAS 1’s discussion of disclosures about the management of capital suggests that capital can be deemed to include some debt and exclude some equity (para.s 134-136), (iii) a ‘weighted average cost of capital’ relates to equity and debt, and (iv) ‘regulatory capital’, which is a *credit* concept, includes some liabilities in its Tier 2. Thus, to accountants, ‘capital’ can now mean the original/principal equity capital, or the sum of all (or most of) the equity balances, or the sum of the equity and (some or all) long-term liabilities, or the sum of all the *credit* balances. In the proprietary view of a company, the capital is equity only. In the entity view, the capital is equity and liabilities (Paton 1922). Van Mourik (2010) reviews the literature on these two concepts, noting that the proprietary view prevails in practice, though not exclusively in IFRS or any other GAAP. There was discussion of these concepts in the IASB/FASB proposals to reform the conceptual framework (IASB 2008, paras OB5 and BC1.11-1.16), but it was omitted from the revised framework (IASB 2010). However, we will return to the concepts in Section 7.

It was shown above that ‘stock’ started with a *credit* meaning but developed several *debit* meanings. The same transition occurred with ‘capital’. Indeed, as noted in the Introduction, current accounting expressions involving the word ‘capital’ mostly refer to assets. Pacioli provides the earliest evidence of a continuing confusion. When giving more detail on the transaction mentioned at the start of this section, he says[[14]](#footnote-14) that the entry comprises: *debit* cash (which ‘means your cash on hand’) and *credit* capital (which ‘means the total of your present possessions’). So, both parts of the double entry appear to record a stock of assets, which should therefore both be *debits*.

Similarly, ‘to capitalise’ was originally a *credit* concept, meaning ‘to add to capital’. For example, the Companies Act 1948 allows that: ‘The company in general meeting may … resolve that it is desirable to capitalise any part of the amount for the time being standing to the credit of any of the company’s reserve accounts or to the credit of the profit and loss account’ (para. 128 of Schedule 1). However, later, ‘to capitalise’ tended to mean adding to the *debit* side. In IFRS, the word ‘recognise’ is now generally used instead, for both assets and liabilities. Nevertheless, IAS 23 still refers to the capitalisation of borrowing costs into an already recognised asset.

In the minds of people not used to double-entry, the word ‘capital’ nearly always has a *debit* meaning. Adam Smith (1776, chapter 9) divided stock (i.e. assets) into ‘fixed capital’ and ‘circulating capital’. For later economists (see Section 3.2), ‘capital’ remains purely a *debit* concept. Given the ambidextrous nature of terms such as capital and stock, and their tendency to migrate from *credit* to *debit* meanings, a supply of new terms is needed for the *credit* meaning, particularly as restricted to the claims of owners. At present, ‘equity’ is the preferred term (e.g. IASB 2013). In a balance sheet, like any equation, both sides are equal. Equity is equal to the balance of assets over liabilities. There is, thus, a risk that the word will eventually be understood as the net assets rather than as a claim on them. Evans (2010, p.446) discusses the tendency of accounting and economics to take old words and give them new meanings, in contrast to sciences which create neologisms.

***2.2 Left, right, left***

Not only can various things called capital and stock be seen on both sides of the balance sheet but the same is also true, at various dates, even for a particular meaning of capital or stock. That is, for over a century in the UK (until 1981), the *credit* side of a company balance sheet was the left.

Early Italian records (e.g. Lee 1973, Nobes 1982) have *credits* (including capital) on the side of the right, with *debits* left gauchely on the sinister side,[[15]](#footnote-15) perhaps because debtors are bad (they have not paid us yet) whereas creditors are good (they trust us to pay later). However, the reverse approach (i.e. capital on the left of balance sheets) can also be found early on; for example, in the Low Countries, according to the writings[[16]](#footnote-16) of Simon Stevin in the early seventeenth century. The explanation for this might be that, when a ledger is closed (without carrying down any balances), the balancing entry for a capital or liability account is a *debit*. So, the list of such balancing entries on capital and liability accounts is a list of *debits*, and therefore shown on the left of a sheet of balances. Edwards (1989, p.66) suggests various other possible explanations.

British merchants had once generally followed Italian practice, showing capital on the right and assets on the left (e.g. in sixteenth century Bristol; Vanes 1967). However, in the optional format in the UK Companies Act 1856 (which is part of the model Articles of Association), the capital is on the left, as illustrated in Figure 1. In the 1868 Act relating to railways, the capital in the general balance sheet[[17]](#footnote-17) was compulsorily on the left. There is no conclusion about why the law showed capital on the left (Yamey 1970, Edwards 1989, p.66). Although the law eventually ceased to have a format,[[18]](#footnote-18) the practice of showing capital on the left continued. The Imperial Continental Gas Association had presented a balance sheet with capital (‘Stock’) on the right when it was a partnership in 1826 but, as Figure 2 shows, with capital on the left as a company in 1900 (Hill, 1955, Appendices A and B). Figure 3 shows the left-sided approach by Marks and Spencer in 1934. It was only when the UK implemented the EU Fourth Directive (based on German law), as the Companies Act 1981, that capital returned to the right.

A brief note on the word ‘assets’ is warranted, given the caption ‘Property and Assets’ in the balance sheet of the Companies Act 1856 (see Figure 1). Parker (1994, p.80) explains that ‘assets’ derives from the Norman legal French ‘*avoir assetz*’, meaning to have enough[[19]](#footnote-19) to meet a claim. The adverb ‘*assetz*’ became a singular noun in English. Then, by the mid-eighteenth century, presumably because of the accident that it sounded like a plural, it became one, initially without a singular. The term ‘Property and Assets’ implies that the ‘assets’ were still then restricted to the monetary items, i.e. the resources that could be used to settle claims. An alternative word in use in the eighteenth century for all the *debits* was ‘effects’ (Edwards 2014, p.235).

***2.3 Funds and reserves***

Another word which has ambiguous *debit/credit* meanings is ‘funds’. Its *credit* forms include ‘shareholders’ funds’, ‘capital redemption reserve fund’ (e.g. as required for various purposes in UK Companies Acts) and ‘sinking fund’. Its *debit* forms include a ‘pension fund’ (i.e. a pile of assets) and a ‘statement of source and application of funds’ (e.g. under SSAP 10 in the UK from 1975 to 1991). This potential confusion also arises in the original language of accounting: Italian, in which both a claim on the entity (e.g. a pension provision: a liability of uncertain timing or amount) is a ‘*fondo*’ and a resource (e.g. the pension fund assets) is a ‘*fondo*’. Figure 5 shows the headings on the *credit* side of the balance sheet of a listed Italian company, revealing the use of ‘fund’ to mean the pension provision/liability rather than the pension assets.

There are similar problems with ‘reserve’, which now means an undistributed gain to UK accountants or in IFRS, although it used to be a wider term (see Section 7); but means either a provision (e.g. ‘pension reserve’) or an impairment (e.g. ‘loan loss reserve’) to American accountants; and might imply a pile of money to non-accountants. Figure 5 shows the Italian company using ‘reserve’ to mean provision. Figure 7 shows the *credit* side of a later balance sheet of the same French company featured in Figure 4. The company has realised the problem with the heading ‘Liabilities’ of Figure 4, but now gets confused about ‘reserve’, using it in a UK/IFRS sense (a part of equity) in the top third, but in a US sense (a type of liability) in the middle third.

[Insert Figure 7 near here.]

***2.4 Continuously contemporary confusion***

To bring this survey up to the present, I now refer to two current ‘Frameworks’. According to the IASB’s Framework (IASC 1989; and rather similarly in the Discussion Paper of 2013), ‘expenses’ are:

decreases in … assets or incurrences of liabilities that result in decreases in equity …

However, decreases in assets are *credits,* whereas expenses are supposed to be *debits.* That is, the definition is the wrong way round: the expenses are not the decreases in assets but the related decreases in equity (which are *debits*).[[20]](#footnote-20) Further, the Discussion Paper (para.5.7 (a)) defines equity as ‘a present claim on the equity of an entity’, which appears somewhat circular.

The Framework of the International Integrated Reporting Council (IIRC 2013) identifies six ‘capitals’: financial, manufactured, intellectual, human, social/relationship and natural. This is somewhat reminiscent of Bourdieu’s (1986) list of capitals: economic, cultural, social and symbolic. Whereas Bourdieu’s four capitals are all sets of assets, the *debit/credit* confusion permeates the IIRC’s discussion. Tangible and intangible assets are included in the manufactured and intellectual capitals, respectively, which are therefore *debit* concepts. Three further capitals (human, social and natural) are also *debit* concepts, although they go beyond what accountants recognise as assets (e.g. they include staff and the atmosphere). However, financial capital is ‘the pool of funds that is … available to an organisation … obtained through financing, such as debt, equity or grants’ (p.11). So, financial capital includes liabilities; and it cannot just mean (or be equivalent to) financial assets because much of the pool of funds will have been spent on other asset capitals. We are also told that an entity’s financial capital ‘is increased as it makes a profit’ (p.11). Therefore, it is clear that the IIRC’s financial capital is a *credit* concept.

This creates several problems. First, financial capital does not then meet the document’s definition of capitals as ‘stocks of value’ (p.33). Secondly, the Framework suggests that an entity should report on ‘how it uses and affects various capitals’ (p.8), but an entity with piles of money, receivables and investments would apparently have no reporting requirements concerning these specific assets (as opposed to the entity in general) because financial assets are not included in any of the five *debit* capitals. Thirdly, the document’s example of flows *between* capitals is training costs (p.11), which are said to improve human capital but reduce financial capital. Is this double entry: *debit* human assets, *debit* expense (and therefore reduce equity capital which is part of financial capital)? We could not *credit* cash because, again, none of the *debit* capitals includes cash. More generally, the implied IIRC balance sheet does not add up because the financial assets are missing from the *debit* side, and the ‘financing’ for such things as the atmosphere are missing from the *credit* side. The solution might be to abandon the word ‘capital’ because the discussion of it seems to imply some form of accounting. It might be better to discuss six types of ‘resources’ or ‘capacities’; the financial one corresponding to financial assets rather than to a *credit* concept of financing.

**3**. **Capital and income in the nineteenth century**

***3.1 Accountants and lawyers***

As noted earlier, one of the reasons why clarity about capital is needed is because income is bound up with it. The idea that income is calculated in the context of the maintenance of capital was well-established among merchants by the time of the invention of double-entry bookkeeping (DEB) in the late thirteenth century (Lee 1977). Lee (1973, p. 59) discusses how capital was recorded even before DEB. As noted earlier, the merchant’s original contribution of assets was balanced, under DEB, by a record of capital. Any increase on that capital was profit, although Yamey (1949) suggests that, even for merchants using DEB, profit was seldom calculated on an annual basis, but rather when a ledger was full or when partnerships were dissolved. This general understanding about the relationship between capital and profit was inherited by partnerships and then, in the UK, by ‘Companies Act’ companies, i.e. those formed by registration from 1844 onwards, as opposed to one-off ‘parliamentary companies’ such as those formed to build and run canals or railways (see below).

Companies Acts suggested[[21]](#footnote-21) that ‘The company shall not make any dividend

whereby their capital stock will be in any way reduced’ and ‘No Dividend shall be payable except out of the Profits arising from the Business of the Company’. McCartney and Arnold (2012, pp. 1298-1300) examine the evolution of these rules from the seventeenth century. Requirements for capital maintenance were particularly needed in order to protect creditors in the context of limited liability (French 1977, p.306). Statute law was later supported by a series of cases concerning dividends (Yamey 1941, pp. 274-5, French 1977). For example, in Flitcroft’s case[[22]](#footnote-22) of 1882 it was held that bad debts had to be accounted for before calculating dividends (Edwards 1989, p.177). Flitcroft’s case also established that: ‘it is clearly against the intention of the legislature that any portion of the capital should be returned to the shareholders without the statutory conditions being complied with’ (Davies and Worthington 2012, p.273). Nevertheless, the circumstances in which capital could be returned became steadily wider: the 1867 Act allowed the reduction of capital by permitting surplus cash to be distributed; the 1877 Act allowed reduction of capital when it was no longer represented by assets; the 1947 Act allowed the issue of a type of share capital which could be returned (redeemable preference shares); and the 1981 Act allowed the purchase of own shares. However, these changes did not generally affect the calculation of income.

Reid (1987) summarises the legal position up to 1889, concluding that there was no clear concept of income (p. 256). Nevertheless, for the generality of companies, the concept that capital should remain intact prevailed. Then, a decision on appeal in *Lee v. Neuchatel Asphalte Company[[23]](#footnote-23)* was that the defendant (an extractive company) could omit depreciation on its mineral lease when calculating distributable profit.

In order to interpret this decision, it is useful to understand that there was another, quite different, accounting tradition found in monasteries (Noke 1981) and then aristocratic estates (Napier 1997). A great landed estate was held in trust in perpetuity. Its temporary ‘owners’ were expected to hand the estate on to the next generation. Accounting focussed[[24]](#footnote-24) on receipts and disbursements, using charge/discharge accounting.

This tradition was continued by some canal companies in the eighteenth century (Edwards 1989, p. 164). The canal company was like a monastery or an estate in the sense that it was designed to last in perpetuity and could be seen as involving two entirely different activities: capital and revenue. The company used long-term money from capital providers in order to create long-term assets. Quite separately, it operated the canal. It was therefore appropriate to use a double-account system, which separated the ‘capital account’ (receipts from financing, and expenditures on fixed assets) from the ‘general balance sheet’ (trading assets and liabilities). On completion of the canal, the capital account could be closed,[[25]](#footnote-25) although the canal operations continued.

When railway companies were set up in the nineteenth century, they needed to raise vast amounts of money for land, viaducts, bridges, tunnels and rails. This was of a different order of magnitude from the money needed for merchanting or even for canals. The double-account system was required for railway companies and utilities from the Railway Companies Act 1868 (Kitchen 1974, Glynn 1984, Edwards 1985). The capital account contained, on two sides: (i) shares and debentures, and (ii) the long-term/fixed/permanent/capital assets. Unlike for canals, it was not possible to close the capital account because the railway companies had to acquire increasing amounts of rolling stock.

Under the double-account system, as used by canals and railways, dividends were paid out of revenue, without any reference to preserving capital. The 1868 Railway Act contained no instructions about capital maintenance, but did require that:

No Dividend shall be declared by the Company until the Auditors have certified that … the Dividend proposed to be declared on any Shares is *bona fide* due thereon after charging the Revenue of the Half Year with all Expenses which ought to be paid thereon … (Section 30).

The decision in the *Lee* case, that depreciation was not necessary, can be seen in this double-account context (Napier 1997). Morris (1986) reverses the logic about companies being long-lived, and suggests that the purpose of a quarry is to be depleted, and so we should rather see the *Lee* case in the context of a company with a limited life. However, soon afterwards, there was a similar decision relating to a non-mining company (*Verner v. The General and Commercial Investment Trust*, 1894)[[26]](#footnote-26) and then a similar opinion even for an ordinary manufacturing company (*In re Kingston Cotton Mills Co.*, 1896).[[27]](#footnote-27) In these cases, it was concluded that dividends could be paid out of the excess of current receipts over current payments even though ‘fixed capital’ had been lost. As noted earlier, Adam Smith had similarly divided capital (i.e. assets) into fixed and circulating. The capital losses in these law cases did not relate to wear and tear on fixed assets; that kind of depreciation is discussed below.

Brief (1966, p.12) reminds us that what the judges were doing in the above cases was looking to see if a company’s articles of association were specific about capital maintenance and, if not, leaving businessmen to run their businesses. This included allowing dividends to be paid out of current receipts, unless that jeopardised solvency. So, the judges had interpreted ‘capital’ as ‘circulating capital’ (i.e. part of the *assets*) instead of paid up share capital (French 1977, p. 319). These legal cases appeared to overturn the previous understanding of accountants, who argued that the decisions ‘are impractical in working, and encourage unsound accounting’ (Cooper 1894, p.1034). *The Accountant* referred to the *Lee* decision as ‘the most mischievous which has ever been given’ and ‘pernicious’ (*Accountant* 1889a, p.149), though a variety of views was expressed in a debate (*Accountant* 1889b). Soon afterwards, in the standard work on auditing, Dicksee (1892, p.126) opined that ‘whatever deference or obedience is owing to the Courts they cannot be regarded as indisputable authorities on matters of account

A summary of the discussion in this sub-section is presented as Figure 8. Time moves to the right. In the top half are examples of the idea that income is the increase in capital; in the bottom half are examples of the idea that income and capital are separate forms of wealth. Incidentally, ‘income’ as used here is a net concept applying to a whole entity rather than being the current technical accounting term which is largely a gross[[28]](#footnote-28) concept applying event-by-event in an entity.

[Insert Figure 8 near here.]

Accountants were further shocked by cases in the twentieth century. In *Ammonia Soda Co Ltd v Chamberlain* (1918),[[29]](#footnote-29) it was held that past losses did not have to be made up before paying dividends out of current profits. Even in the early 1940s, Yamey (1941, p. 289) was still referring to the ‘present uncertain state of the law’ on dividends and capital maintenance. In 1961, in *Dimbula Valley (Ceylon) Tea Co. Ltd v Laurie*,[[30]](#footnote-30) it was held that dividends could be paid out of unrealised capital profits. Yamey (1962, p.442) continued to conclude that ‘the issues have not been considered systematically by the courts’. The position for 1980 onwards, up to and including the adoption of IFRS, is discussed in Section 5.

***3.2 Economists***

Compared to accountants and lawyers, the dismal scientists are parvenus. When they did arrive, they were initially unable to assist in clarifying the meaning of capital or its relationship to income. Adam Smith (1776, Book II, ch. I, second paragraph) concluded that:

[a man’s] whole stock, therefore, is distinguished into two parts. That part which, he expects, to afford him this revenue, is called his capital. The other is that which supplies his immediate consumption; ...

Similarly, Ricardo (1821, §5.9):

Capital is that part of the wealth of a country which is employed in production, and consists of food, clothing, tools, raw materials, machinery, &c. necessary to give effect to labour.

Mill (1848, § 1):

... a stock, previously accumulated, of the products of labour...is termed Capital... The distinction, then, between Capital and Not-capital, does not lie in the kind of commodities, but in the mind of the capitalist – in his will to employ them for one purpose rather than another; and all property, however ill adapted in itself for the use of labourers, is a part of capital, so soon as it, or the value to be received from it, is set apart for productive reinvestment.

Jevons (1888, VII.3, emphases in the original):

Capital, as I regard it, consists merely in the *aggregate of those commodities which are required for sustaining labourers of any kind or class engaged in work*. A stock of food is the main element of capital; but supplies of clothes, furniture, and all the other articles in common daily use are also necessary parts of capital.

To economists, then, capital was some part of the assets. The concept appears to have been in the bottom half of Figure 8 (capital and income as separate concepts). Hicks (1974, p. 309) suggests that most classical economists (before 1870), saw capital as a sum of values rather than as the physical goods, though it is hard to see that in the above quotations.

Perhaps the most confusing of all the nineteenth century writings was that in the book whose title translates as *Capital*. Marx (1887) tells us that capital does not include landed property, but appears ‘in the shape of money that by a definite process has to be turned into capital’ (p.145). In the transformation of commodities into money and back again (‘selling in order to buy’), the money is not capital; but in the transformation of money into commodities and back again (‘buying in order to sell’), money becomes capital (p.146).

Fetter (1937) gives a lively account of the confusion among economists. However,

he does not mention Fisher, from whom a clear concept of income and capital had eventually emerged. Fisher (1896) saw capital as all wealth, and income as the *change* in capital (p.514). He introduced the idea of stocks and flows: capital and income are antithetical; present wealth equals prospective services; the performance of a company is the rate of flow relative to the stock of wealth. Bryer (2013) provides an extended critique of Fisher’s ideas on capital, and shows how Fisher was confused about accounting, thinking that bilateral cash accounts were DEB (pp. 597-603).

Hicks (1946) elaborated on the idea of stocks and flows. He has perhaps had the greatest influence of any economist on accounting regulators, as mentioned below in Section 7. Piketty (2014) in *Capital in the Twenty-first Century* alsofollows Fisher. He defines capital as ‘the sum total of nonhuman assets that can be owned or exchanged on some market’ (p.46); he specifically includes all types of land and rejects restricting capital to that used in production (p.48), and he specifically accepts the stocks and flows distinction (p.50). Piketty’s ‘financial capital’ is financial assets. The reference to ‘nonhuman’ is vital because Piketty (like Marx) is interested in distinguishing returns to capital from returns to labour. The definitions of the early economists do not deal with liabilities and probably could not do so because it would presumably be necessary to allocate only some of them against the assets which comprise capital, and even Fisher does not discuss whether his capital is net of liabilities. Piketty’s definition (above) appears to be gross, but later we find that it is ‘less the total of financial liabilities’ (pp.48 and 123). So, for economists,[[31]](#footnote-31) the capital *is* the assets (or the net assets) rather than being the interest in them, but the quantum of a modern economist’s ‘capital’ might be similar to an accountant’s ‘equity capital’.

Given that this paper’s central concern is accounting rather than economics, there is no space to deal with many other interesting issues, such as ‘capital and growth’ (e.g. Kaldor 1961) and ‘the Cambridge controversies in capital theory’ (e.g. Cohen and Harcourt 2003).

**4.** **Depreciation of capital assets**

In the nineteenth century, a further major question was linked to the maintenance of capital and the calculation of income: should fixed assets be depreciated? The Peninsular and Oriental Steam Navigation Company (P&O) was incorporated by royal charter in 1840, just before simple incorporation by registration became possible under the Companies Act 1844. Napier (1990) reports that, until 1855, P&O recorded ships at cost, showing depreciation in a reserve called a ‘depreciation fund’. After that, ships were shown at depreciated cost. Shipping companies, like those in most industries, soon took advantage of incorporation by registration. For such ‘Companies Act companies’, depreciation was common by the 1880s (Brief 1966, p.8).

Again, it is useful to distinguish between Companies Act companies and parliamentary companies (railways and utilities). For the latter, which used a double-account system, it was normal not to charge depreciation but to charge replacements to revenue as they occurred. The capital account was a stewardship document which explained what the directors had done with the capital, so depreciation would cause confusion (Edwards 1989, p.170). One could argue that a more sophisticated version of stewardship would require the directors to take account of the wasting of assets. Further, in the early years of a company, before replacements were needed, the lack of depreciation could mean that high dividends were paid, leading to liquidity problems later (Brief 1966, p.4). To counter this, some railways had charged depreciation in the 1840s (with the *credit* to a ‘fund’ on the *credit* side of the general balance sheet) but this had soon largely fallen out of fashion (Pollins 1956). Edwards (1986, p.257) suggests that depreciation became unpopular because it hampered the declaration of dividends.

One aspect of the *Lee* decision of 1889 about which accountants were worried was its possible effect on depreciation. However, the decision seems not to have been as ‘pernicious’ as expected. By investigating a large number of UK companies in the period, Morris (1986) found that the practice of depreciation *increased* after the *Lee* decision for non-mining companies and remained the same for mining companies. The decision might, then, have slowed the adoption of depreciation for mining companies but it did not halt the spread of depreciation more generally. Carlon and Morris (2003), using a sample of 926 annual reports of the late 19th century, show that the amount of depreciation charged was significantly related to the size of profits.

Arnold and Collier (2007, p.95) report that, in the 1930s and 1940s, UK companies generally did not reveal the cost of assets or the accumulated depreciation. That is, they had completely moved away from explaining how capital had been spent. However, some balance sheets still presented the assets at cost, with the depreciation shown as a *credit* balance reserve, as in Figure 3 for Marks and Spencer in 1934. Edwards (1981, pp. 21-25) shows mixed practice among iron and steel companies in the first 40 years of the twentieth century. Some wrote assets off immediately. Most charged depreciation, but it is difficult to tell whether the *debit* was treated as an expense or as an appropriation of profits. There is also evidence that the amount of depreciation continued to vary with profit.

In 1945, the Institute of Chartered Accountants in England and Wales (ICAEW) issued a ‘Recommendation’ on depreciation, generally endorsing the straight-line method (ICAEW 1945). The first foray of the Accounting Standards Committee (ASC) into accounting for fixed assets was SSAP 12 of 1977, in which the ASC deemed it necessary specifically to require that buildings should be depreciated because that had never been universal practice. However, in 1981, the ASC introduced a dramatic requirement for investment property buildings: compulsory annual current valuation, with no depreciation. Much later (in 2000), this formed the basis of the preferred[[32]](#footnote-32) treatment of investment properties in IAS 40. This implies a new version of capital maintenance (see Section 6).

1. **Distributable profit from 1980, and taxable income**

The maintenance of capital depends, *inter alia*, on limiting distributions; and depreciation can affect the quantum of distributable profit. However, it was noted above (Section 3.1) that there was no legal certainty concerning distributable profit for most of the twentieth century.Some clarification came in the Companies Act 1980 which implemented in the UK the EU’s Second Directive on company law, which had drawn on a German precedent (Nobes 1983, p.140). The Act requires[[33]](#footnote-33) that distribution shall not exceed a company’s ‘accumulated, realised profits … less its accumulated, realised losses’. This reversed several aspects of the earlier case law (as in Section 3.1): depreciation must now be charged (overturning the *Lee* and *Verner* cases), dividends may not be paid out of unrealised capital profits (overturning *Dimbula Valley*), and profit and loss is cumulative (overturning *Ammonia Soda*).

In Germany at the time, the above rule that limited distribution was unambiguous because distributable profit *was* accounting profit after taxation, and taxable profit *was* accounting profit (Haller 1992). That is, the same accounting numbers were used for the three purposes: an *Einheitsbilanz*. However, in the UK there were complications with the new rule. Suppose that a company revalued a building upwards (not allowed in Germany), would the increase in depreciation, which can[[34]](#footnote-34) be charged in the profit and loss account, reduce distributable profit? If development costs were capitalised (not then allowed in Germany) would that increase distributable profit? The (negative) answers to those questions were set out in the Companies Act 1981. Nevertheless, many other questions arose and are addressed by the following splendid definition, introduced by the Act:[[35]](#footnote-35)

References to ‘realised profits’ and ‘realised losses’, in relation to a company’s

accounts, are to such profits or losses of the company as fall to be treated as realised in accordance with principles generally accepted at the time when the accounts are prepared, with respect to the determination for accounting purposes of realised profits or losses. (now CA 2006, §853 (4))

So, Dicksee’s dictum of 1892 concerning the proper limits of lawyers (see Section 3.1 above) was given statutory backing. This leaves it to accountants to determine, for example, whether realised/distributable profit is reduced by an actuarial loss charged to other comprehensive income (OCI) or by an impairment loss on a previously revalued financial asset. Morris (1991) traces how the profession attempted to define distributable profit in the 1980s, using accounting standards and other guidance. Accountants and lawyers now consult a 168-page document (ICAEW 2010) which explains in exquisite detail the ways in which accounting profit is not necessarily distributable profit.

In line with the notion of distributable gains in company law, ‘capital gains’ are only assessed for tax when assets are *sold*. In the measurement of *trading* profit for taxation,[[36]](#footnote-36) the revenue/capital borderline is key. Long-standing tax procedure is that profit is ‘computed in accordance with generally accepted accounting practice’ (e.g. Finance Act 1998, S.42) except for certain specific tax rules. As ‘generally accepted accounting practice’ has become more and more precise, so the skirmishes on this battleground between taxpayer and tax authorities have subsided (Freedman 1993). Nevertheless, old law cases can still be relevant.[[37]](#footnote-37)

1. **Accounting regulators’ attitudes to capital maintenance**

Sections 3 to 5 have discussed aspects of capital maintenance and the measurement of income. Hundreds of academic papers and dozens of books have been written on the issue. Some of those of the nineteenth century were examined in Section 3. In the twentieth century, there was still little agreement among or between accountants and economists. For a summary and re-printing of some of this output, see Parker, Harcourt, and Whittington (1986). The apparent disagreements can be somewhat reduced by noting that the purpose of measuring income is relevant, e.g. is it expected to identify taxable income, distributable income or business performance? In this section, I will concentrate on the measurement of business performance, especially in the context of the conceptual frameworks of standard setters from the 1980s onwards.

As noted earlier, income is defined in the conceptual frameworks as a change in equity or net assets,[[38]](#footnote-38) after eliminating transactions with equity holders. This reflects a capital maintenance concept. However, in the context of changing prices, is it *debit* or *credit* capital which needs to be maintained: the stock of net assets or the value of the equity? That is, should there be physical or financial capital maintenance? This question led to a substantial sub-branch of the capital/income literature (e.g. including early accounting papers by Sweeney 1930 and 1933). One theoretical answer is ‘both’: the assets should be adjusted for specific price changes, and then the equity should be adjusted for general price changes (Whittington 1983). In practical terms, in the UK in the 1970s and 1980s, current purchasing power accounting (as set out in Provisional SSAP 7) focussed on financial capital, whereas current cost accounting (as required in the early 1980s by SSAP 16 for supplementary reporting) focussed on physical capital. A similar debate had occurred in the previous inflationary period of the 1950s (Mumford 1979).

The IASB’s conceptual framework, which was being written when the above debates were still fresh, briefly discusses the two versions of capital maintenance (now paras. 4.57 to 4.65). It does not make the *debit/credit* distinction, and it comes to no conclusion about how the concept should affect Standards. The framework appears to offer each entity a choice (para. 4.58). However, the framework is not an accounting standard and is thus, fortunately, in no position to offer choices to entities on this fundamental issue. By contrast, the equivalent FASB document (Concepts Statement 5 of 1984) makes clear that US accounting standards were based on financial capital maintenance (pars. 45-48), which fitted an accounting system which did[[39]](#footnote-39) not allow any assets to be measured above cost (Zeff 2007).

The IASB’s Discussion Paper of 2013 states that ‘concepts of capital maintenance are important’ (para. 9.45) but then proposes to adjourn consideration of them *sine die*, until ‘a possible project on accounting for high inflation’ (para. 9.49). In the meantime, it proposes to retain the original discussion ‘largely unchanged’ (para. 9.50), which appears to imply preserving the apparent choice of concepts for entities.

In individual Standards, capital maintenance is reflected in various ways. The requirements for depreciation and impairment of tangible and intangible assets (in IASs 16 and 38) are related to capital maintenance. Depreciation/impairment reduces both *debit* and *credit* capitals. The latter is caused by the reduction in profit which therefore restricts dividends, thereby maintaining original nominal financial capital. However, physical capital maintenance is implied[[40]](#footnote-40) by the re-measurement model of IASs 16 and 38, in which upward revaluation of assets has the following effects: (i) the gain related to the increase in the asset is not recorded in profit or loss, either on re-measurement or on realisation, and (ii) depreciation rises and will cumulatively exceed the original depreciable cost, so the *debit* and *credit* capitals are reduced as the current value of physical capacity is worn out. Of course, in current IFRS practice, the gain *is* now presented as ‘other comprehensive *income*’ but IASs 16 and 38 were originally written before that concept existed. As successive versions of IAS 1 gradually assimilate OCI into clean surplus, this obscures the capital maintenance signals.

The maintenance of original nominal financial capital apparently lies behind ‘fair value through profit or loss’, as in IASs 39, 40 and 41. Any depreciation/impairment is subsumed into the fair value measurement, and there is the important new twist that as-yet unsettled gains are recorded.[[41]](#footnote-41) *Debit* capital rises, but the extra *credit* is treated as a surplus.

Since each entity can have only one *credit* ‘capital’, the application of different capital maintenance concepts to different assets creates a problem: the capital and therefore the period’s change in it are incoherent. However, the IASB (2013, para. 6.35) has made a good case for continuing to use a mixed-measurement system. The framework should therefore examine the implications of this for the measurement of profit. For example, when a rise in the value of an asset is recognised, any part of the related *credit* which is not to be regarded as a surplus should perhaps be shown as OCI.

One of the specific tax rules which depart from accounting practice concerns depreciation and impairment, which are not tax deductible in the UK, except for certain intangible assets. Instead, there is a system of ‘capital allowances’ which are triggered by the purchase of assets. In some ways, these allowances do better than historical cost accounting at adjusting for capital maintenance during periods of changing prices because: (i) commercial buildings (e.g. office blocks), which might be expected to rise in value, receive no capital allowances, and (ii) during rapid inflation, the allowances on many other assets were close to 100% in the first year, so that there was no time for price rises to devalue them (e.g. for plant and machinery, first-year allowances were 60% in 1970/71, 80% in 1971/72 and 100% from 1972/73 to 1983/84).

Stock (i.e. inventory) also had a sort of capital maintenance adjustment in the tax system: from 1974 to 1984, ‘stock appreciation relief’ was designed partly to take out of taxable income that part of profit which was caused by unrealised gains on stocks (James and Nobes 2013, p.285).

These major tax adjustments indirectly affected accounting. They removed any tax advantage that management might have hoped to get from the reduction in profit that would be caused by using replacement costs to calculate depreciation and cost of sales. This removed the most obvious incentive for management to argue for current cost accounting, which might have prolonged its life.[[42]](#footnote-42)

1. **Capital, equity and liabilities revisited**

***7.1 Outline of section***

Figure 1 showed an old UK balance sheet format, in which the ‘capital’ is just the

principal, the original contribution of the owners. No total for ‘equity’ is displayed because the liabilities appear between the capital and the reserves. Further, no provisions are shown, which reveals that there was no clear dividing line between provisions and reserves, which was another barrier to calculating the modern concept of equity. This section explores these issues, starting with the lack of legal clarity, going on to the attempts by standard setters to identify equity capital (by defining and measuring liabilities), and ending with the related issue of measuring revenue.

***7.2 Lack of legal clarity***

The balance sheet equation implied in Figure 1 is the ‘entity’ version: ASSETS = EQUITY + LIABILITIES; or even Paton’s (1922) ‘enterprise’ model: PROPERTIES = EQUITIES. However, in order to calculate a gearing ratio or the return on equity, it is necessary to establish a dividing line between equity capital and liabilities, which can be presented as the ‘proprietary’ model: ASSETS – LIABILITIES = EQUITY. This last version has recently been traced back to a book by John Clark of 1738, in which EFFECTS – DEBTS = ESTATE (Edwards 2014).

The problem relating to provisions and reserves was spectacularly illustrated in ‘The Royal Mail Case’[[43]](#footnote-43) of 1931. By 1927, The Royal Mail Steam Packet Company was the most titanic shipping group in the world, having taken over both the White Star Line and Harland and Wolff. It had made large profits in the First World War, but had hidden them by creating secret reserves, i.e. in today’s terms, excessive provisions. Trading was difficult after the war, and an Inspector later concluded that no trading profits were made after 1925. However, by reversing secret reserves and taking account of tax refunds relating to earlier years,[[44]](#footnote-44) profits were shown every year, and dividends were paid (Green 1982, Edwards 1989, p.151). For example, in 1926, after a reserve transfer of £750,000, a profit of £439,000 was declared. In 1928, a prospectus was published, seeking more capital. In 1931, the Court of Appeal upheld a conviction of the company chairman (Lord Kylsant) for issuing a false prospectus. Arnold (1996, p.54) suggests that even greater use of secret reserves was made by P&O (see, also, Napier 1990).

The 1933 accounts of the Dunlop Rubber Company were ‘a joy to its own shareholders and the envy of all others’ (Kitchen and Parker 1980, p. 98, quoting *The Daily Telegraph*), partly because they specified all the reserves and provisions. However, the terminology was confusing: there were ‘Reserves for contingencies’ under ‘Surplus and reserves’ and a ‘Taxation reserve’ under ‘Contingent liabilities and provisions’. Partly in response to the Royal Mail case, the ICAEW (1943) issued a Recommendation proposing better disclosures about reserves and provisions. Then, the Companies Act 1947 distinguished between undistributable reserves, distributable reserves and provisions, and required disclosure of movements on all of them (Arnold and Collier 2007). This moved the balance sheet towards a position in which equity could be calculated. Until the Companies Act 1981, the terms ‘capital reserve’ and ‘revenue reserve’ were used to refer to undistributable and distributable reserves, respectively.[[45]](#footnote-45) Of course, these terms are redundant in consolidated statements, because only individual legal entities can make distributions. The balance sheet formats of the Companies Acts from 1981 onwards (see Figure 5) have a section called ‘Capital and Reserves’, although exactly what should go into the various equity headings and into the liability headings is not clear in law.

***7.3 Defining equity in opposition to liabilities***

In contrast to the law, the standard-setters’ conceptual frameworks do establish equity, at least in principle: it is the residual interest in the balance of defined asset and liability concepts. The IASB’s current[[46]](#footnote-46) definition of a liability is (IASB 2010, para. 4.4):

a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.

This definition is close to the FASB’s (1980, para. 28, and 1985, para. 35) which itself can be traced back to *Accounting Research Study* (ARS) 1 (AICPA 1961, p.40) and ARS 3 (AICPA 1963, p.8). There has been much controversy about the dividing line between debt and equity (e.g. Clark 1993), and this continues (e.g. IASB 2013, section 5). In the UK, FRS 4 (ASB 1993, para.12) split shareholders’ funds into equity and non-equity components, though this was because of a legal difficulty with treating preference shares as debt even if they met the definition of liability. As a result, the UK’s Statement of Principles (ASB 1999, Chapter 4) treats the difference as representing ‘ownership interest’ rather than equity.

The frameworks are not accounting standards, and the latter frequently depart from the former, as will be explained. Therefore, the operational concept of equity rests on the amounts *treated* as assets and liabilities under a series of individual accounting standards. To take the example of IFRS, the amounts recorded as liabilities are regulated, *inter alia*, by: IAS 32 (financial liabilities), IAS 37 (provisions), IAS 19 (employee benefit obligations), IAS 17 (leases), IAS 12 (deferred tax liabilities) and IAS 20 (government grants). *All* of these standards depart in various ways from the framework’s definition of a liability:

1. Under IAS 32 (para. 11), an obligation which an entity can or must fulfil by delivering a variable number of its own equity instruments is treated as a liability even if there is no expected outflow of resources.
2. On the other hand, under IAS 32 (para.16A), certain puttable obligations to pay cash are treated as equity.
3. Under IAS 37 (para. 10) and IAS 19 (para. 61), an entity accounts for ‘constructive obligations’ which it could avoid (IASB 2013, para. 3.62).
4. Under IAS 19 (para.72), an entity accounts for unvested obligations which it could avoid (e.g. by sacking staff).

(v) Under IAS 17 (para. 33), an entity does not account for its contractual obligations under operating leases.

(vi) Under IAS 12, an entity is required to recognise a deferred tax liability when there is no past event and no current obligation to a third party, e.g. when it re-measures a building at fair value under IAS 16 or IAS 40 (Weetman 1992, EFRAG/ASB 2011, pp. 39-40).

(vii) Under IAS 20 (para. 24), an entity can record a government grant as ‘deferred income’ (which is presented as a liability) even though it has no obligation (and does not expect) to re-fund it.

Further, some liabilities are not recognised because they do not meet the recognition criteria of probable outflows and reliable measurement (e.g. IAS 37, paras. 23 and 26).

There are also examples of *asset* standards which do not comply with the framework, which affects net assets and therefore equity; to name two: (i) IFRS 3 (paras. BC 313-323) explains that an indeterminate amount of the goodwill recorded on a balance sheet is not an asset, and (ii) IAS 37 (para. 33) requires an entity not to recognise a contingent asset even if the entity has a right to a highly probable future inflow of resources resulting from a past event.

In conclusion, in IFRS standards and practice (as opposed to the conceptual

framework), there is no coherent concept of assets and liabilities, so there is no coherent concept of equity capital (see, also, Pope and Puxty 1991). However, that is not the end of the problem: the *quantum* of equity (even if the concept could be clearly defined) will not be meaningful unless all the assets and liabilities are measured in the same way. Chambers (e.g. 1966), his contemporary disciples and his current apostles have continually argued for such accounting in order to enable additivity on a balance sheet. Instead, in IFRS, there is a cornucopia of measurement bases, *inter alia*: inventories at the lower of cost and net realisable value (IAS 2, para. 9); buildings usually at depreciated cost (Kvaal and Nobes 2010, Table 3); equity financial assets at fair value (IAS 39, para. 46); finance lease liabilities usually at discounted contractual cash outflows (IAS 17, para. 20); and deferred tax liabilities at undiscounted imagined cash outflows (IAS 12, para. 53). The inconsistency in liability measurement is examined by Barker and McGeachin (2013). So, even if the *concept* of equity capital had been clear, its quantum would be uninterpretable. The DP proposes to continue this mixed measurement, and justifies it theoretically on the grounds that it reflects the different ways in which various assets and liabilities lead to future cash flows (para. 6.17).

In the context of accounting for a group, a further issue arises: are non-controlling interests (NCI)[[47]](#footnote-47) part of equity capital? Given the above definition of ‘liability’, it is clear that NCI is generally part of equity because there is not usually[[48]](#footnote-48) any obligation to make an outflow. However, for the whole of the twentieth century,[[49]](#footnote-49) NCI were shown outside of equity[[50]](#footnote-50) in US GAAP (Walker 1978, p.298, Williams 1996, pp. 6-19) and in UK GAAP.[[51]](#footnote-51) IFRS changed to showing NCI as equity in 2003;[[52]](#footnote-52) US GAAP changed with SFAS 160 of 2007; and UK GAAP changed when it became a version of IFRS for SMEs (see FRS 102, para. 9.20, issued in 2013).

***7.4 Income as an increase in equity***

The long-running idea that income can be calculated as a change in capital finds formal expression in the asset/liability view of accounting, as illustrated in the derivative definitions of income and expense (see Section 2.4). The standard-setters (FASB/IASB 2005) claim to find theoretical support for this in Hicks’ (1946) definitions of income, though Bromwich *et al.* (2010) suggest that Hicks has been misunderstood and cannot be used as a source of a practical measure of *ex post* income. This suggests a radical question: do the accounts need to balance? In particular, does the measure of an entity’s performance need to depend on the change in equity capital? An old example of the problem came up in Section 4: the absence of a *debit* for depreciation could overstate performance, but the *credit* can obfuscate the explanation of what the directors did with the capital. Some aspects of this problem can be resolved by separating gains into various types, e.g. operating gains, realised holding gains and unrealised holding gains (Edwards and Bell 1961). For example, the upward revaluation of an asset could be disclosed as an unrealised holding gain. However, there are other problems, of which I will examine one.

Suppose that an entity (H&W) is in the business of constructing an unsinkable ship for a customer (WSL) which has paid the full contract price of CU 100 in advance. Suppose that H&W expects the contract to cost CU 80 (measured as discounted expected outflows). Suppose that H&W has spare capacity.[[53]](#footnote-53) What is H&W’s position at the beginning of the contract before it has done any work? It has an asset (cash) of CU 100 and it has a ‘performance obligation’ to construct and deliver a ship. How should we measure that obligation? There are at least five theoretical possibilities:

(i) The proceeds of CU 100 is the IASB’s conceptually recommended measurement basis (2013, para. 6.108) and is required under IFRS 15 (para.106). However, H&W has neither a present obligation nor an expectation of returning the proceeds to WSL. How, then, could the proceeds be a relevant measure of the burden?

(ii) The fair value is recommended by McGregor (2013), and would be the cost of finding another ship-builder to take over the contract. That might be more than CU 100[[54]](#footnote-54) and it is not usually expected to happen. I suggest that this is not generally a relevant measure.

(iii) The current equivalent proceeds is recommended by Horton *et al*. (2011). However, since H&W is not constrained in its actions by its contract with WSL, the current equivalent proceeds of a similar contract will neither be outlaid nor forgone. Nevertheless, we would need to know more about H&W before we could safely conclude that this measure is not relevant.[[55]](#footnote-55)

(iv) The settlement cost would be what WSL would have to be paid to rescind the contract. This is likely to be more than CU 100, but why would it be relevant normally?

That leaves us with what H&W actually expects to do: spend CU 80 on constructing the ship. If a balance sheet is supposed to be useful for predicting cash flows, why is this not a relevant measure of the obligation? Most other types of liabilities are measured at some version of expected outflows, discounted or not.[[56]](#footnote-56)

Of course, one thing that troubles the standard setters is that this last basis leads, when the contract is signed, to an increase in equity of CU 20 which therefore meets the definition of income. Part of the problem is that there is no sensible definition of revenue (Nobes 2012) and no definition at all of ‘profit or loss’ (IASB 2013, para. 8.28). One solution might be to measure the liability at CU 80, and to show the *credit* of CU 20 as a sort of ‘not yet revenue’; and revenue could be defined in terms of performing work for customers under a contract. This would involve de-coupling ‘revenue’ from the change in ‘capital’.

The eventual profit from the contract might not be as much as CU 20, because various expenses, such as depreciating old machines, are not included in the CU 80. Further, part of the profit might be explained in terms of H&W using up previously expensed intangibles. This prompts another observation: most liabilities can be identified with a particular expected recipient of cash, whereas the expected outflows of cash caused by the construction contract will not go to the vendor but to all sorts of others, e.g. employees. This makes it particularly difficult to estimate the outflows implied in fulfilling the contract. This might mean that, on grounds of verifiability and benefit/cost rather than on grounds of measurement concepts, CU 100 should be used as the initial measure, unless the contract is onerous. This would maintain a superficially re-assuring balance in the accounts.

1. **Summary and policy implications**

Both within and beyond a business context, the word ‘capital’ has taken on many meanings. In accounting, it started as a *credit* concept, although seen in terms of the assets contributed to a business by its owner. As a *credit* concept, it can be as narrow as the originally contributed capital or as wide as all *credit* balances. However, in accounting, the word ‘capital’ is often used in the context of assets, and this is *a fortiori* the case in law, economics and tax. Other terms, such as ‘stock’, ‘fund’ and ‘reserve’, are also ambidextrous. Words have tended to move from a *credit* meaning to a *debit* one, with new words (such as equity) therefore needed for the *credit* meaning. Particularly in the UK, capital (even as a *credit*) has changed sides on the balance sheet more than once. Confusion about capital can still be seen in the contemporary documents of standard setters and others.

Merchants (and then registered companies) using double entry could calculate profit by reference to capital, and they should only pay dividends out of profit. However, an alternative accounting tradition was found in monasteries, then aristocratic estates, and then canal and railway companies. For them, operating receipts and payments were the focus. There was no capital account at all (for monasteries) or it was kept separate by running a double-account system (for canals and railways) until it could be closed when the capital had been properly spent (for canals). Dividends were paid out of revenue without reference to capital. Economists picked up this fixed/circulating distinction. No clear concept of capital was found in economics until, more than a century after Adam Smith, capital was understood to include all assets. The existence of two traditions, and the tendency of everyone but accountants to think that capital means assets or some part of them, seems to have affected law cases on distributable profit from 1889. This was followed by confusion about distributable profit for nearly a century until a German rule arrived in UK law via an EU Directive. However, the rule rests on the meaning of ‘realised profits’ which is so ambiguous a term in the UK that, with legal backing, accountants were again put in charge of determining distributable profit. For taxation on profits, the capital/revenue distinction is vital and has been somewhat clarified by more detailed accounting rules.

Depreciation would add confusion in the double-account system, because the capital account was supposed to show the money spent compared to money received. However, for most ‘registered companies’, depreciation of fixed assets became common in the nineteenth century for calculations of profit, especially distributable profit.

Capital maintenance involves not returning capital to the owners, making good any erosion of capital, and not paying dividends until there is a profit calculated by reference to the capital. However, especially in inflationary periods, there has been no agreement about whether to maintain *debit* ‘physical’ capital (assets) or *credit* ‘financial’ capital (equity). The IASB’s framework appears to allow entities a choice; but the content of IFRS is based on financial capital maintenance except for some re-measurements of non-current assets. The tax system ran ahead of accountants with approximate adjustments for capital maintenance during inflationary periods.

Until the middle of the twentieth century, equity was not displayed on balance sheets: retained earnings were not always shown adjacent to capital, and reserves were not distinguished from provisions. Indeed, there was no definition of equity until late in the century when the standard setters defined it by reference to assets and liabilities. However, the standards (e.g. IFRS) depart from the definition of liability, and the measurement bases are mixed (perhaps justifiably), and so the equity figure is incoherent. Since the measurement of performance rests, like equity, on the definitions and measurement of assets and liabilities, it is also incoherent.

Some policy implications arise, as follows: (i) given the remarkable variety of meanings for ‘capital’, both as a *credit* concept and as a *debit* concept, it might be wise to avoid the word or at least to define it in any document, (ii) similarly, great care is needed with the words ‘reserve’, ‘provision’ and ‘fund’, (iii) the IASB should define an expense as a decrease in equity (which is a *debit*) not as the related decrease in net assets (which is a *credit*), (iv) the IIRC should re-write its discussion of ‘financial capital’ to turn it into a *debit* concept, and should then consider re-naming the capitals as resources or capacities, (v) as part of its current revision of the framework, the IASB should remove the suggestion that entities have a choice between financial and physical capital maintenance, should distinguish between *debit* and *credit* capital, and should discuss the implications for profit measurement of its intention to continue with mixed measurements (and, presumably, mixed capital maintenance concepts), (vi) given the continuing use of mixed measurements for assets and liabilities, an analyst needs to interpret the quantum of the residual equity capital with great care, and (vii) consideration should be given to separating the measurement of performance from the change in net assets.

My commissioned title includes the word ‘evolution’. Is that apt? In a pre-Darwinian sense, evolution is a rolling out. Certainly, the word ‘capital’ has done that. And it is tempting to invoke Darwinian analogies: the word has adapted to different habitats; it has speciated; the descent of each new meaning can be traced back to the original; a usage might die out as a fitter word (e.g. equity) appears. However, the issue of evolution in accounting is controversial (e.g. Basu and Waymire 2006, Macve 2014, setions 3 and 4) and would need much more space for proper treatment.

**References**

*Accountant*, 1889a. Weekly notes. *The Accountant*, XV (746), 23 March, 148-151.

*Accountant*, 1889b. Obligation of a company to provide for depreciation of wasting assets before declaring a dividend. *The Accountant*, XV (784), 14 December, 676-682.

AICPA, 1961. *Accounting Research Study No. 1, The Basic Postulates of Accounting*. New York: American Institute of Certified Public Accountants.

AICPA, 1963. *Accounting Research Study No. 3, A Tentative Set of Broad Accounting Principles for Business Enterprises*. New York: American Institute of Certified Public Accountants.

Arnold, A. J., 1996. Privacy or concealment? The accounting practices of liner shipping companies, 1914-1924. *International Journal of Maritime History*, 8 (1), 43-57.

Arnold, T. and Collier, P., 2007. *The Evolution of Reserve and Provision Accounting in the UK, 1938-1950*. Edinburgh: Institute of Chartered Accountants of Scotland.

ASB, 1993. *FRS 4 Capital Instruments*. London: Accounting Standards Board.

ASB, 1999. *Statement of Principles for Financial Reporting*. London: Accounting Standards Board.

Barker, R., 2010. On the definitions of income, expenses and profit in IFRS. *Accounting in Europe*, 7 (2), 147-158.

Barker, R. and McGeachin, A. 2013. Why is there inconsistency in accounting for liabilities in IFRS? An analysis of recognition, measurement, estimation and conservatism. *Accounting and Business Research,* 43 (6), 579-604.

Basu, S. and Waymire, G., 2006. Recordkeeping and human evolution. *Accounting Horizons*, 20 (3), 1-29.

Bourdieu, P. 1986. The forms of capital. In J. Richardson (Ed.) *Handbook of Theory and Research for the Sociology of Education.* New York: Greenwood, 241-258.

Brief, R.P., 1966. The origin and evolution of nineteenth-century asset accounting. *Business History Review*, 40 (1), 1-23.

Bromwich, M., Macve, R. and Sunder, S., 2010. Hicksian income and the conceptual framework. *Abacus*, 46 (3), 348-376.

Brooks, W.C., 1933. Introduction, pages xiii-xliii in W.C. Brooks (ed.) *The Royal Mail Case: Rex v. Lord Kylsant, and Another*. Edinburgh: William Hodge and Co.; reprinted in New York: Arno Press, 1980.

Bryer, R.A., 1993. The late nineteenth-century revolution in financial reporting: accounting for the rise of investor or managerial capitalism. *Accounting, Organizations and Society*, 18 (7/8), 649-690.

Bryer, R.A., 2000. The history of accounting and the transition to capitalism in England. Part two: evidence. *Accounting, Organizations and Society*, 25 (4/5), 327-381.

Bryer, R.A., 2013. Americanism and financial accounting theory - Part 3: Adam Smith, the rise and fall of socialism and Irving Fisher’s theory of accounting. *Critical Perspectives on Accounting*, 24 (7/8), 572-615.

Cannan, E., 1921. Early history of the term capital. *Quarterly Journal of Economics*, 35 (3), 469-481.

Carlon, S.A. and Morris, R.D., 2003. The economic determinants of depreciation accounting in late nineteenth century Britain. *Accounting, Business and Financial History*, 13 (3), 275-303.

Chambers, R.J., 1966. *Accounting, Evaluation and Economic Behavior*. Englewood Cliffs, N.J.: Prentice-Hall.

Claire, R.S., 1945. Evolution of corporate reports: observations on the annual report of United States Steel Corporation. *Journal of Accountancy*, LXXIX, 39-51. Reprinted in Lee and Parker (1979).

Clark, M.W., 1993. Entity theory, modern capital structure theory, and the distinction between debt and equity. *Accounting Horizons*, 7 (3), 14-31.

Cohen, A.J. and Harcourt, G.C., 2003. Whatever happened to the Cambridge capital theory controversies? *Journal of Economic Perspectives*, 17 (1), 199-214.

Cooper, E., 1894. Chartered accountants and the profit question. *The* *Accountant*, XXX (1042), 24 November, 1033-1043.

Davies, P. and Worthington, S., 2012. *Principles of Modern Company Law*. London: Sweet and Maxwell.

Dicksee, L.R., 1892. *Auditing*. London: Gee & Co.

Edwards, E.O. and Bell, P.W., 1961. *The Theory and Measurement of Business Income*. Berkeley, CA.: University of California Press.

Edwards, J.R., 1981. *Company Legislation and Changing Patterns of Disclosure in British Company Accounts, 1900-1940*. London: The Institute of CharteredAccountants in England and Wales.

Edwards, J.R., 1985. The origins and evolution of the double account system: an example of accounting innovation. *Abacus*, 12 (1), 19-43.

Edwards, J.R., 1986. Depreciation and fixed asset valuation in British railway company accounts to 1911. *Accounting and Business Research*, 16 (63), 251-263.

Edwards, J.R., 1989. *A History of Financial Accounting*. London: Routledge.

Edwards, J.R., 2014. ‘Different from what has hitherto appeared on this Subject’: John Clark, writing master and accomptant. 1738. *Abacus*, 50 (2), 227-244.

EFRAG/ASB. 2011. *Improving the Financial Reporting of Income Tax*. Brussels and London: European Financial Reporting Advisory Group and Accounting Standards Board.

Evans, L., 2010. Observations on the changing language of accounting. *Accounting History*, 15 (4), 439-462.

FASB, 1980. *Statement of Financial Accounting Concepts No. 3, Elements of Financial Statements of Business Enterprises*. Norwalk, CT.: Financial Accounting Standards Board.

FASB, 1985. *Statement of Financial Accounting Concepts No. 6, Elements of Financial Statements*. Norwalk, CT.: Financial Accounting Standards Board.

FASB/IASB, 2005. *Revisiting the Concepts*, at: http://www. fasb.org/project/communications\_paper.pdf (accessed 11.11.2014).

Fetter, F.A., 1937. Reformulation of the concepts of capital and income in economics and accounting. *Accounting Review*, 12 (1), 3-12.

Fisher, I., 1896. What is capital? *Economic Journal*, 6 (24), 509-534.

Freedman, J., 1993. Defining taxable profit in a changing environment. *British Tax Review*, 5, 434-444.

French, E.A., 1977. The evolution of the dividend law of England. *Studies in Accounting* (W.T. Baxter and S. Davidson, eds), London: Institute of Chartered Accountants in England and Wales.

Glynn, J.J., 1984. The development of British railway accounting: 1800-1911. *Accounting Historians Journal*, 11 (1), 103-117.

Green, E., 1982. *A Business of National Importance: The Royal Mail Shipping Group, 1902-1937*. London: Taylor and Francis.

Haller, A., 1992. The relationship of financial and tax accounting in Germany: a major reason for accounting disharmony in Europe. *International Journal of Accounting*, 27 (4), 310-323.

Hatfield, H.R., 1926. The earliest use in English of the term capital. *Quarterly Journal of Economics*, 40 (3), 547-548.

Haswell, S. and Langfield-Smith, I., 2008. Fifty-seven serious defects in ‘Australian’ IFRS. *Australian Accounting Review*, 18 (1), 46-62.

Hatfield, H.R., 1934. The early use of “capital”. *Quarterly Journal of Economics*, 49 (1), 162-163.

Hicks, J.R., 1946. *Value and Capital*. Oxford: Clarendon Press.

Hicks, J.R., 1974. Capital controversies: ancient and modern. *American Economic Review*, 64 (2), 307-316,

Hill, N.K., 1955. Accountancy developments in a public utility company in the nineteenth century. *Accounting Research*, VI, 382-390. Reprinted in Lee and Parker (1979).

Horton, J., Macve, R. and Serafeim, G., 2011. ‘Deprival value’ vs ‘fair value’ measurement for contract liabilities: how to resolve the ‘revenue recognition’ conundrum? *Accounting and Business Research*, 41 (5), 491-514.

IASB, 2008. *Exposure Draft of an Improved Conceptual Framework for Financial Reporting*. London: International Accounting Standards Board.

IASB, 2010. *The Conceptual Framework for Financial Reporting*. London: International Accounting Standards Board.

IASB, 2013. *A Review of the Conceptual Framework for Financial Reporting*. London: International Accounting Standards Board.

IASC, 1989. *Framework for the Preparation and Presentation of Financial Statements*. London: International Accounting Standards Committee.

ICAEW, 1943. *Reserves and Provisions*. Recommendation No. 6. London: Institute of Chartered Accountants in England and Wales (reprinted in Zeff (2009)).

ICAEW, 1945. *Depreciation of Fixed Assets*. Recommendation No. 9. London: Institute of Chartered Accountants in England and Wales (reprinted in Zeff (2009)).

ICAEW, 2010. *Guidance on the Determination of Realised profits and Losses in the Context of Distributions under the Companies Act 2006, Tech 02/10*. London: Institute of Chartered Accountants in England and Wales; and Edinburgh: Institute of Chartered Accountants of Scotland.

IIRC, 2013. *The International <IR> Framework*. London: International Integrated Reporting Council. Available from: <http://www.theiirc.org/wp-content/uploads/2013/12/13-12-08-THE-INTERNATIONAL-IR-FRAMEWORK-2-1.pdf>

James, S.R. and Nobes, C.W., 2013. *The Economics of Taxation*. Birmingham: Fiscal Publications.

Jevons, W.S., 1888. *The Theory of Political Economy*. London: Macmillan.

Kaldor, N,, 1961. Capital accumulation and economic growth. Chapter 10 in *The Theory of Capital*, F,A, Lutz and D.C. Hague, London: Macmillan, 177-222.

Kitchen, J., 1974. Lawrence Dicksee, depreciation and the double-account system. *Debits, Credits, Finance and Profits*. H.C. Edey and B.S. Yamey (eds). London: Sweet and Maxwell, 109-130..

Kitchen, J. And Parker, R.H., 1980. *Accounting Thought and Education: Six English Pioneers.* London: Institute of Chartered Accountants in England and Wales.

Kvaal, E. and Nobes, C.W., 2010. International differences in IFRS policy choice: a research note. *Accounting and Business Research*, 40 (2), 173-187.

Lee, G.A., 1973. The Florentine bank ledger fragments of 1211: some new insights. *Journal of Accounting Research*, 11 (1), 47-61.

Lee, G.A., 1977. The coming of age of double entry: the Giovanni Farolfi ledger of 1299-1300. *Accounting Historians Journal*, 4 (2), 79-95.

Lee, T.A. and Parker, R.H. 1979. *The Evolution of Corporate Financial Reporting*. Sunbury-on-Thames: Nelson (reprinted in 2013, London: Routledge).

Macve. R. 2014. Fair value vs conservatism? Aspects of the history of accounting, auditing, business and finance from ancient Mesopotamia to modern China. *British Accounting Review*, forthcoming (available online).

Marx, K., 1887. *Capital. A Critical Analysis of Capitalist Production*. Edited by F. Engels, Moscow: Progress Publishers, as reprinted in 1974, London: Lawrence and Wishart.

McCartney, S. and Arnold, A.J. 2012. Financial capitalism, incorporation and the emergence of financial reporting information. *Accounting, Auditing & Accountability Journal*, 25 (8), 1290-1316.

McGregor, W., 2013. *Liabilities – The Neglected Element: A Conceptual Analysis of the Financial Reporting of Liabilities*. Occasional paper no. 1, Melbourne: Australian Accounting Standards Board.

Mellis, J., 1588. *A Briefe Instruction, and Maner, How to Keepe Bookes of Accompts.* London: John Windet.

Mill, J.S., 1848. *Principles of Political Economy*. London: Longmans, Green and Co.

Morris, R.D., 1986. Lee v. Neuchatel Asphalte Company (1989) and depreciation accounting: two empirical studies. *Accounting and Business Research*, 17 (65), 71-81.

Morris, R.D., 1991. Distributable profit in Britain since 1980: a critical appraisal. *Abacus*, 27 (1), 15-31.

Mumford, M., 1979. The end of a familiar inflation accounting cycle. *Accounting and Business Research,* 9 (34), 98-104.

Napier, C., 1990. Fixed asset accounting in the shipping industry: P&O 1840-1914. *Accounting, Business and Financial History,* 1 (1), 23-50.

Napier, C., 1997. The British aristocracy, capital and income, and nineteenth century company accounting. Paper presented at the *Accounting, Business and Financial History* conference, Cardiff, 17 September.

Nobes, C.W., 1982.The Gallerani account book of 1305-1308. *Accounting Review*, 57 (2), 303-10.

Nobes, C.W., 1983. The evolution of the harmonising provisions of the 1980 and 1981 Companies Acts. *Accounting and Business Research,* 14 (53), 43-53.

Nobes, C.W., 2011. On relief value versus fair value for the measurement of liabilities. *Accounting and Business Research*, 41 (5), 515-524.

Nobes, C.W., 2012. On the definitions of income and revenue in IFRS. *Accounting in Europe*, 9 (2), 85-94.

Nobes, C.W. and Parker, R.H., 2012. *Comparative International Accounting*, Harlow: Prentice-Hall.

Noke, C.W., 1981. Accounting for bailiffship in thirteenth century England. *Accounting and Business Research,* 11 (42), 137-151.

Pacioli, L., 1523. *Summa de Arithmetica Geometria. Proportioni: et Proportionalita*.[[57]](#footnote-57) Venice: Paganini; as reprinted in Toscolano in 1523.

Parker, R.H., 1994. Finding English words to talk about accounting concepts. *Accounting, Auditing & Accountability Journal*, 7 (2), 70-85.

Parker, R.H., Harcourt, G.C. and Whittington, G., (eds.) 1986. *Readings in the Concept and Measurement of Income.* Deddington: Philip Allan.

Paton, W., 1922. *Accounting Theory*. As reprinted, Houston: Scholars Book Co., 1973.

Piketty, T. *Capital in the Twenty-first Century* (tr. A. Goldhammer). Cambridge, Mass.: Belknap Press.

Pollins, H., 1956. Aspects of railway accounting before 1868. In A.C. Littleton and B.S. Yamey (eds), *Studies in the History of Accounting*, London: Sweet and Maxwell.

Pope, P. and Puxty, A., 1991. What is equity? New financial instruments in the interstices between the law, accounting and economics. *Modern Law Review*, 54 (6), 889-911.

PwC, 2007. *Manual of Accounting. UK GAAP. 2008*. London: PricewaterhouseCoopers.

Reid, J.M., 1987. Judicial views on accounting in Britain before 1889. *Accounting and Business Research*, 17 (67), 247-258.

Ricardo, D., 1821. *On the Principles of Political Economy and Taxation*, 3rd edition. London: John Murray.

Richards, R.D., 1926. Early history of the term capital. *Quarterly Journal of Economics*, 40 (2), 329-338.

Schoenmaker, D., 2015. Regulatory capital: why is it different? *Accounting and Business Research,* 45 (4), ???-???.

Scott, W.R., 1912. *The Constitution and Finance of English, Scottish and Irish Joint-stock Companies to 1720, Vol. 1*. Cambridge: Cambridge University Press.

Smith, A., 1776. *An Inquiry into the Nature and Causes of the Wealth of Nations*. London: Strahan and Cadell.

Sombart, W., 1924. *Der Moderne Kapitalismus*, 6th edition. Duncker & Humbolt.

Sweeney, H. W. 1930. Maintenance of capital. *Accounting Review*, 5 (4), 277-287.

Sweeney, H. W. 1933. Capital. *Accounting Review*, 8 (3), 185-199.

Taylor, R.E., 1980. *No Royal Road; Luca Pacioli and His Times*. New York: Arno Press.

ten Have, O., 1956. Simon Stevin of Bruges. In A.C. Littleton and B.S. Yamey, *Studies in the History of Accounting*. London: Sweet and Maxwell, 236-246.

Tweedie, D.P. and Whittington, G., 1997. The end of the current cost revolution. In T. E. Cooke and C.W. Nobes, *The Development of Accounting in an International Context*, London: Routledge, 149-176 (issued in paperback in 2014).

Vanes, J., 1967. The ledger of John Smythe, merchant of Bristol. *The Accountant*, 16 September, 357-361.

van Mourik, C., 2010. The equity theories and financial reporting: an analysis. *Accounting in Europe*, 7 (2), 191-211.

von Gebsattel, A., 1994. *Exposition of Double Entry Bookkeeping*. Venice: Albrizzi Editore.

Walker, R.G., 1978. *Consolidated Statements*. Arno Press, New York.

Weber, M., 1927. *General Economic History* (Tr. F.H. Knight). Glencoe, ILL.: Free Press.

Weetman, P., 1992. *SSAP 15: Accounting for Deferred Taxation.* Edinburgh: Institute of Chartered Accountants of Scotland.

Whittington, G., 1983. *Inflation Accounting: An Introduction to the Debate*. Cambridge: Cambridge University Press.

Williams, J., 1996. *GAAP Guide*. San Diego: Harcourt Brace.

Yamey, B.S., 1941. Aspects of the law relating to company dividends. *Modern Law Review,* 4, 273-298.

Yamey, B.S., 1949. Scientific bookkeeping and the rise of capitalism. *Economic History Review*, 1 (2/3), 99-113.

Yamey, B.S., 1962. The case law relating to company dividends. In W.T. Baxter and S. Davidson (eds.), *Studies in Accounting Theory*, 2nd ed., London: Sweet and Maxwell, 428-442.

Yamey, B.S., 1964. Accounting and the rise of capitalism: some further notes on a theme by Sombart. *Journal of Accounting Research*, 2 (2), 117-136.

Yamey, B.S., 1970. Closing the ledger. *Accounting and Business Research,*  1 (1), 71-77.

Yamey, B.S., 2005. The historical significance of double entry bookkeeping: some non-Sombartian claims. *Accounting, Business and Financial History*, 15 (1), 77-88.

Ympyn, J., 1547. *A Notable and Very Excellente Woorke*. London: Richard Grafton.

Zeff, S.A., 2007. The SEC rules historical cost accounting: 1934 to the 1970s. *Accounting and Business Research*, 37, Supplement 1, 49-62.

Zeff, S.A., 2009. *Principles before Standards*: *the ICAEW’s ‘N Series’ of Recommendations on Accounting Principles 1942-1969*. London: Institute of Chartered Accountants in England and Wales.

|  |  |  |  |
| --- | --- | --- | --- |
| *Capital and Liabilities* | | *Property and Assets* | |
| I | Capital | III | Property |
| II | Debts and Liabilities | IV | Debts |
| VI | Reserve Fund | V | Cash and Investments |
| VII | Profit and Loss |  |  |

Figure 1. Balance sheet format from the Companies Act 1856 (Schedule, Table B, para.72).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | | £ s. d. |  |  | | £ s. d. |
| Capital |  | | 3,800,000 0 0 | Plant at Stations |  | | 4,063,499 16 2 |
| Premiums on Stocks |  | | 327,345 13 0 | Stocks at Stations |  | | 595,349 4 6 |
| Debenture Stock - 3½ per cent |  | | 473,600 0 0 | Cash at Stations |  | | 49,962 12 4 |
| Dividends unpaid |  | | 2,468 4 0 | Sundry Debtors |  | |  |
| Interest on Debenture Stock |  | | 6,906 13 4 | at Stations | £466,687 8 7 | |  |
| Sundry Creditors |  | |  | in London | 12,027 16 5 | |  |
| at Stations | £243,625 15 5 | |  |  |  | | 478,715 5 0 |
| in London | 28,923 4 0 | |  | Cash at Bankers in London |  | |  |
|  |  | | 272,548 19 5 | General Account | £14,553 19 1 | |  |
| Dividend Equalisation Account | | | 369,353 18 8 | Dividend Account | 1,200 16 0 | |  |
| Barclay & Co. Ltd. Temporary Loan | | | 100,000 0 0 | Cash at London Office | 166 15 8 | |  |
| Appropriated to meet contingencies or for | | |  |  |  | | 15,921 10 9 |
| enlarging, repairing, or improving the Works | | | 1,022,785 4 9 | Loans on Security of Bills |  | | 25,000 0 0 |
|  | | |  | Loans to Foreign Gas & Electric Light Cos. | | | 225,463 6 3 |
|  | |  | 6,375,008 13 2 | Investments in English, Indian & Colonial Securities | | | 908,261 9 8 |
| Profit for six months to | |  |  | Investments in Foreign Bonds & Shares | | | 134,841 6 1 |
| December 31, 1900 | |  | 192,005 17 7 | Freehold Property in London | | | 70,000 0 0 |
|  | |  | 6,567,014 10 9 |  | |  | 6,567,014 10 9 |

Figure 2. Imperial Continental Gas Association – Balance Sheet, December 31, 1900.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LIABILITIES.** | £ | | **ASSETS.** | £ |
| SHARE CAPITAL *Issued* |  | 2,316,306 | PROPERTIES | 4,650,113 |
| MORTGAGE DEBENTURE STOCK |  | 1,010,000 | FURNITURE, FIXTURES AND MOTOR VEHICLES | 490,395 |
| LOAN AT 4½ per cent |  | 251,875 | STOCK IN TRADE | 588,602 |
| LOAN AT 4 per cent |  | 500,877 | TRADE INVESTMENTS | 7,875 |
| LOAN (SECURED ON PROPERTIES) |  | 101,356 | SUNDRY DEBTORS | 32,336 |
| TRADE AND SUNDRY CREDITORS |  | 585,756 | CASH AT BANKERS AND IN HAND | 497,844 |
| CREDITORS for Expenditure on Properties |  | 138,274 |  |  |
| GENERAL RESERVE ACCOUNT |  | 570,000 |  |  |
| FREEHOLD PROPERTIES DEPRECIATION RESERVE |  | 90,303 |  |  |
| PROPERTIES CONTINGENCY RESERVE |  | 38,670 |  |  |
| PROFIT AND LOSS ACCOUNT |  |  |  |  |
| Balance from Profit and Loss Account | 847,879 |  |  |  |
| *Less* Dividends | 184,131 |  |  |  |
|  |  | 663,748 |  |  |
|  |  | 6,267,165 |  | 6,267,165 |

Figure 3. The balance sheet of Marks and Spencer Limited as at 31 March 1934 (main headings only; shillings and pence rounded).

**Liabilities**

|  |  |
| --- | --- |
| CAPITAL AND RESERVES | 15 128 803 |
| Issued capital | 1 541 449 |
| Share premium account shares and converted bonds | 1 373 860 |
| Revaluation reserve | 2 764 919 |
| Legal reserve | 153 587 |
| Other reserves: |  |
| General reserves | 7 365 000 |
| Surplus arising on exchange of shares | 14 335 |
| Profit brought forward | 292 039 |
| Profit for the year | 1 623 034 |
| Legal revaluation special provision | 580 |
| PROVISION FOR RISKS AND CHARGES | 2 190 300 |
| Provisions for general risks | - |
| Provisions for financial risks | 321 300 |
| Provisions for pensions and similar obligations | 539 000 |
| Provisions for specific sector risks | 1 330 000 |
| CREDITORS | 12 778 386 |
| Financial | 5 442 539 |
| Convertible debenture loan | 311 227 |
| Other debenture loans | 1 926 852 |
| Unclaimed debentures repayable and interest | 30 725 |
| Accrued debenture interest | 92 497 |
| Other loans and finance debts | 2 938 367 |
| Interest accrued thereon | 42 008 |
| Bank accounts | 100 863 |
| Operating | 7 297 085 |
| Trade creditors | 5 574 892 |
| Other creditors | 1 722 193 |
|  |  |
| Sundry | 2 988 |
|  |  |
| Amounts uncalled in respect of shares in affiliated companies | 2 988 |
|  |  |
| Regularization accounts | 35 774 |
| Accruals and deferred income | 35 774 |
| Difference on exchange | 165 082 |
| GRAND TOTAL | 30 262 571 |

Figure 4. Right-hand side of balance sheet of Total Oil, as at 31 December 1985 (in thousands of French francs; some columns deleted).

**Liabilities**

A. Shareholders’ equity

B. Reserve for risks and changes

C. Staff severance fund

D. Payables

E. Accrued liabilities and deferred income

Figure 5. Main headings from the right-hand side of the balance sheet of Davide Campari S.p.A. as at 31 December 2004.

|  |  |
| --- | --- |
| **ASSETS** | **LIABILITIES** |
| A. Called up share capital not paid | A. Capital and reserves |
| B. Fixed assets | I Called up share capital |
| C. Current assets | II Share premium account |
| D. Prepayments and accrued income | III Revaluation reserve |
|  | IV Other reserves |
|  | B. Provisions for liabilities |
|  | C. Creditors |
|  | D. Accruals and deferred income |

Figure 6. Format 2 of the balance sheet in the Companies Act 2006 Statutory Instruments (first two levels of headings from Regulations 2008, Schedule 1, Part I, Section B).

|  |  |
| --- | --- |
| **LIABILITIES AND SHAREHOLDERS’ EQUITY** |  |
| SHAREHOLDERS’ EQUITY | 41,150,524 |
| Common shares | 10,978,868 |
| Paid-in surplus | 8,039,727 |
| Revaluation reserves | 2,020,704 |
| Legal reserve | 950,015 |
| Untaxed reserves | 1,209,169 |
| General reserves | 12,738,004 |
| Retaining\* earnings | 1,705,059 |
| Income for the year | 3,508,978 |
| OTHER EQUITY | 1,954,845 |
| Perpetual subordinated securities repayable in shares | 1,954,845 |
| CONTINGENCY RESERVES | 2,460,000 |
| Reserves for financial risks | 125,600 |
| Reserves for retirement benefits, pension plans and social termination plans | 1,904,400 |
| Reserves for special industry risks | 430,000 |
| DEBT | 23,448,269 |
| Loans | 19,291,057 |
| * Convertible debentures | 0 |
| * Other debentures | 6,440,397 |
| * Other loans | 12,800,601 |
| * Bank overdrafts | 50,059 |
| Liabilities | 4,162,350 |
| * Accounts and notes payable-trade | 2,847,766 |
| * Other payables | 1,314,584 |
| OTHER CREDITORS AND ACCRUED LIABILITIES | 325 |
| TRANSLATION ADJUSTMENT | 539,884 |
| TOTAL LIABILITIES AND SHAREHOLDER’S\* EQUITY | 69,558,985 |

\*these words are as spelt in the original.

Figure 7. Right-hand side of balance sheet of Total Oil, as at 31 December 1993 (in thousands of French francs; some columns and notes deleted).

Partnerships;

Companies Act companies (e.g. 1845 Act)

Partnerships;

Companies (1980 Act)

Partnerships

Merchants

(double entry)

INCOME IS AN INCREASE IN CAPITAL

Hicks (1946)

*Lee v. Neuchatel* (1889)

Fisher (1896)

Parliamentary companies (double account, e.g. Railways Act 1868)

Monasteries, Aristocratic estates

(charge/

discharge)

INCOME AND CAPITAL ARE SEPARATE FORMS OF WEALTH

Companies

Companies

Jevons (1888)

Ricardo (1821)

Mill (1848)

Adam Smith (1788)

Figure 8. Concepts of Income and Capital.

*Note*: In this figure, the horizontal axis is time. The entities or writers in the top half see income as an increase in capital. Those in the bottom half do not.

1. This word has the same root as ‘capital’ but comes via the Capitoline in Rome. [↑](#footnote-ref-1)
2. I have used the version of the Summa as reprinted in Toscolano in 1523. Pacioli’s word is “*cauedal*” or, sometimes, “*cauedale*”, which might now be transliterated as “*cavedal*” or “*cavedale*”. Pacioli (or the printer) seem to use ‘u’ and ‘v’ interchangeably, as was also found in English at the time. However, in other parts of the Summa (e.g. Tractatus 7 (3)), Pacioli uses ‘capitale’ and ‘capital’. Stefano Zambon (letter to me of 23.12.2013) suggests that ‘cavedale’ was used in Sienese texts of the period. [↑](#footnote-ref-2)
3. This is an English translation which had been published in Dutch and French in Antwerp in 1543. [↑](#footnote-ref-3)
4. The book was later discovered in Moscow, and Parker (1994, p.78) confirms the quotation. [↑](#footnote-ref-4)
5. I hope that readers will accept the word “he” as accurate at this date. [↑](#footnote-ref-5)
6. I have borrowed this observation from Bryer (2000), although Edwards (1989, p.95) notes that some other companies had permanent stock earlier. [↑](#footnote-ref-6)
7. I am grateful to Dick Edwards for pointing out that there had been non-company precedents, e.g. consolidation of military establishments for the information of the UK parliament in the nineteenth century. [↑](#footnote-ref-7)
8. The company began on 1 April 1901. [↑](#footnote-ref-8)
9. As noted, the US company narrowed the term liability in 1943. And, for example, in the 1955 balance sheet of Marks and Spencer, there is no heading for the credit side. [↑](#footnote-ref-9)
10. This balance sheet (and those shown in Figures 5 and 7) were said by the company to be prepared under national law. It was audited by Arthur Andersen. [↑](#footnote-ref-10)
11. This is the last balance sheet under Italian GAAP produced by the company. [↑](#footnote-ref-11)
12. In French and Italian, but not German, the words have become nouns as well as being adjectives. [↑](#footnote-ref-12)
13. “*Passif*” included equity. Various liabilities were shown on balance sheets, e.g. “*provisions*” and “*dettes*”. The German version of IFRS uses ‘*Schuld*’ for ‘liability’, a word that does not appear in the Directive. [↑](#footnote-ref-13)
14. I have consulted the original Italian but, for English translations given here, I use those of von Gebsattel (1994). [↑](#footnote-ref-14)
15. This is the case for the entries in the books of account. There were no balance sheets. [↑](#footnote-ref-15)
16. Stevin’s books include *Vorstelicke Bouckhouding op de Italiaensche Wyse* of 1604. The point about capital being on the left is noted by ten Have (1956, p.244). [↑](#footnote-ref-16)
17. First Schedule, No.13. [↑](#footnote-ref-17)
18. There is one in the 1862 Act but not in the 1908, 1929 or 1948 consolidating Acts. [↑](#footnote-ref-18)
19. Old French ‘asez’ from Latin ‘satis’. [↑](#footnote-ref-19)
20. Barker (2010) pointed out the analogous problem for “income”. [↑](#footnote-ref-20)
21. The first quotation is from Section 121 of the standard clauses proposed (by the Companies Clauses Consolidation Act 1845) for any new companies set up by parliament, The second is the formulation in paragraph 73 of the optional Table A in Schedule 1 to the Companies Act 1862, which was the model form of Articles of Association. Similar wording was found in the Schedule 1 to the 1908, 1929 and 1948 consolidating Acts. [↑](#footnote-ref-21)
22. *in re* Exchange Banking Company 21, Ch.D. 518. [↑](#footnote-ref-22)
23. (1889) 41.Ch.D. 1. [↑](#footnote-ref-23)
24. . However, Alisdair Dobie (letter to me of 18.11.2014) notes that monasteries often prepared a ‘status’ at the start of an abbacy, listing all the assets and liabilities of a house, so that comparison could be made of the 'status' of the house at the beginning and end of a period of rule by an abbot or prior.  [↑](#footnote-ref-24)
25. Any excess of finance over expenditure (while building was in progress, or at completion) was taken to the general balance sheet. [↑](#footnote-ref-25)
26. (1894) 2. Ch. D. 289. [↑](#footnote-ref-26)
27. (1896) 2 Ch. D. 279. [↑](#footnote-ref-27)
28. In the IASB *Framework* (para. 4.25 of the 2010 version), “income” is the antithesis of “expenses”. Income comes in two forms: revenue and gains (para. 4.29). The former is gross. There is much confusion here. For example, Haswell and Langfield-Smith (2008) incorrectly accuse the IASB of writing ‘revenue’ when it meant ‘income’, because the words had opposite meanings in the Australian and IASB conceptual frameworks. [↑](#footnote-ref-28)
29. (1918) 1 Ch. D. 266. [↑](#footnote-ref-29)
30. (1961) 1. All E.R. 769. [↑](#footnote-ref-30)
31. Richard Macve has pointed out to me that Hicks (1974, p.310), at least, was aware of the different views of economists and accountants on this point. [↑](#footnote-ref-31)
32. This method was proposed as compulsory in the exposure draft. Vestiges of that can be seen in the prohibition of a change from fair value to cost (para. 31) and in the requirement to disclose fair value if cost is used in the balance sheet (para.s 32 and 79e). [↑](#footnote-ref-32)
33. §39 of the 1980 Act; now §830 of the Companies Act 2006. [↑](#footnote-ref-33)
34. The Companies Act permits this (CA 2006, S.I, Sch. 1, para. 33 (3)), and accounting standards require it (from a revision to SSAP 12 in 1987 onwards). [↑](#footnote-ref-34)
35. As paragraph 90 of Schedule 1. [↑](#footnote-ref-35)
36. That is, in the UK, for corporation tax or for income tax on business profits. [↑](#footnote-ref-36)
37. For example, *Law Shipping Co. Ltd. v IRC (1924)* and *Odeon Associated Theatres Ltd. v Jones CIR (1951)* relate to whether repairs are expenses or capital cost when they concern assets purchased in a dilapidated state; and *Samuel Jones & Co. (Devondale) Ltd. v CIR (1951)* and *Brown v Burnley Football and Athletic Co. Ltd. (1980)* relate to whether certain costs were repair expenses or additions to assets. [↑](#footnote-ref-37)
38. Strictly speaking, it is erroneously defined as the increase in net assets (which is a *debit*). See the analogous discussion on ‘expense’ in Section 2.4. [↑](#footnote-ref-38)
39. The departures from cost for the measurement of financial assets were introduced by SFAS 115 of 1993. [↑](#footnote-ref-39)
40. This is mentioned by the DP (para. 9.53) and is explicit in the equivalent former UK standard (FRS 15, III, para. 19). [↑](#footnote-ref-40)
41. Whether or not they are ‘realised’ is a complex question, as explained in Section 5. [↑](#footnote-ref-41)
42. Current cost accounting was required in the UK for large companies, in the form of supplementary information, by SSAP 16 which was issued in 1980. The mandatory status was removed in 1985, and the standard was withdrawn in 1988 (Tweedie and Whittington 1997). [↑](#footnote-ref-42)
43. *R v Kylsant and Another*. [↑](#footnote-ref-43)
44. I am grateful to Christopher Napier for suggesting these last ten words, which draw on findings in Brooks (1933, pp. xxviii-xxix). [↑](#footnote-ref-44)
45. In the 1948 Act, which was current until 1981, these terms were found in paragraph 6 of Schedule 8. [↑](#footnote-ref-45)
46. IASB (2013, para. 2.11) proposed to change this to ‘a present obligation of the entity to transfer an economic resource as a result of past events’. [↑](#footnote-ref-46)
47. ‘Non-controlling interests’ is the term used from 2008 in IFRS; now in IFRS 3 and IFRS 10. The previous term, ‘minority interests’ is inappropriate when the scope of consolidation includes entities that are controlled even if less than majority owned. [↑](#footnote-ref-47)
48. There can be exceptions, e.g. if the parent guarantees dividends to NCI holders. [↑](#footnote-ref-48)
49. The first set of consolidated statements was for U.S. Steel in 1901/2, though consolidation of less-than-wholly-owned subsidiaries did not begin until the 1920s (Walker 1978, p.296). [↑](#footnote-ref-49)
50. Sometimes as liabilities and sometimes between equity and liabilities. [↑](#footnote-ref-50)
51. Walker (1978, p. 49) reports on the 1920s. The Companies Acts formats (e.g. Schedule 4A, para 17 of the 1985 Act) require minority interests to be shown separately. In practice, this was outside of equity (PwC 2007, p.24096). [↑](#footnote-ref-51)
52. IAS 3 (para. 43) required that minority interest should not be shown as equity. IAS 27, from 1988 until 2003, required it to be shown separately from liabilities and parent’s equity, and afterwards within equity, separately from parent’s equity. [↑](#footnote-ref-52)
53. This is of some relevance; see Horton *et al*. (2011) and Nobes (2011). [↑](#footnote-ref-53)
54. Depending on the state of the industry, it might be less, but H&W won the contract under competitive conditions. [↑](#footnote-ref-54)
55. Richard Macve suggests (in a letter to me of 6 November 2014) that the following, *inter alia*, are relevant: the structure of competition in the market; the degree of uncertainty/risk in performing the contract; what ‘overheads’ H&W is committed to incurring (but that are not yet accounted for); and what previously expensed intangibles (e.g. brand reputation) are being recovered in the price. [↑](#footnote-ref-55)
56. This is the basis for pension obligations, lease liabilities, provisions and deferred tax. It could also be said to be consistent with the measurement of bank loans and accounts payable. [↑](#footnote-ref-56)
57. The punctuation in this title is as in the original. [↑](#footnote-ref-57)