ACCOUNTING FOR CHANGING MONEY VALUE

by Toyozō Takahashi

1. Introduction

Research into this subject has increased steadily since the end of World War II (1939–45) as the consequences of inflation have been felt all over the world. Noteworthy research has ensued in countries where inflation's level and effects have varied widely. This short paper discusses accounting for changing money value in the UK and the USA.

2. Accounting for Changing Money Value in the UK.

2a. Post-World War II

In 1946 the wholesale price index in the UK stood at 227 against 100 for 1931. As C.P. Barrowcliff said in his paper, "Fluctuating Price Levels in Relation to Accounts" presented at the 6th International Congress on Accounting (June 1952, London), the course of events was quite different from that following the First World War and there was no sign of any stabilisation of the pre-Second World War price level(1). In the UK, unlike in Germany, France, and the USA, the price index rose after World War I but peaked in 1920 and began to fall sharply. By 1932 it was lower than before World War I, and not surprisingly very little was written about inflation at the time. The effects of post-World War II inflation, however, were much more serious, and much was written on the subject of inflation accounting. The major developments are discussed below:

The Income Tax Reform Law of 1945.

Because the level of inflation was considered insignificant the government decided not to introduce revaluation, trying instead to deal with the problem by a system of initial allowance(2). The new law was criticised, however, because the only consideration for inflation was for the replacement of fixed assets (ie. the capital side) and because it did not enable adjustment for distortions in profit and loss calculations caused by price changes.

ICAEW (The Institute of Chartered Accountants in England and Wales) Proposal N12 (1949).

Perhaps the most important feature of N12 was, says Prof. Ichiro Katano, its contention that, "In periods when price levels rise rapidly the amount required to purchase new assets is greater in real terms than the amount originally invested in raw materials and fixed assets, and there is a tendency for undercapitalisation to result."[3]

It was, however, greated with dismay by industry companies' efforts to maintain the value of their capital inevitably resulted in their paying more in taxation, and N12 did nothing whatsoever to solve this problem[4].

ICAEW Proposal N15 (May 1952)

N15 stated that the factor that made it difficult to recommend the replacement of Historical Cost Accounting (HCA), by any of several new accounting methods which had been put forward as alternatives, was their lack of objectivity. Hence its main difference from N12 was its positive insistence that HCA was indispensable in periods of inflation[5].

ACCA (The Association of Certified and Corporate Accountants), "Accounting for Inflation" (1952)

This brought toghther all the research on accounting for changes in the purchasing power of money.

"The Chairman, Lord Latham's policy, to use replacement cost instead of historical cost as the basis for adjustments for depreciation" was, says Prof. Kazuo Takamatsu, reexamined[6].

Inflation in the UK from the late sixties was much higher than in Japan, the USA, or France; the wholesale price index (1960=100) in 1976 stood at 298.8 compared with 188 for Japan[7], and naturally the debate became more heated. Representative of the debate was exposure draft ED8, "Accounting for Changes in the Purchasing Power of Money", published in January 1973 by the Accounting Standards Steering Committee (ASSC). Its five main recommendations were[8].

(1) Financial statements should, as in the past, be based on HCA.

(2) These should be supplemented by financial statements adjusted according to the value of money at the end of the year (based on the consumer price index).

(3) Profits and losses caused by changes in the purchasing power of money should be included in pre-tax profits, but as a separate item.

(4) Stockholders' equity should appear as the resulting residual amount after all other items had been adjusted.

(5) For inventory, the lower of adjusted cost and current cost (net realisable value) should be taken.

SSAP7 (Statement of Standard Accounting and Practice), published by the ASSC in May 1974, was substantially the same as ED8 except that the general index recommended was the retail price index. Like ED8 it recommended that traditional HCA be retained as the basic system for publishing annual accounts, but supplemented by accounting for changes in the purchasing power of money (adjusted cost accounting)(9).

2b. The Sandilands Report

In 1973 the Government (the Conservatives under Edward Heath) decided that the effect of inflation accounting on economics and politics was such that they could no longer leave its development entirely to the accounting profession, and on the 25th of June announced that an independent committee of enquiry would be set up with Francis Sandilands as its chairman(10)

The committee's terms of reference were to consider whether, and if so how, company accounts should allow for changes in costs and prices, and to make recommendations accordingly. The report was made up of six parts: (11)

I. Introduction

II. Measurement of Inflation for Accounting (chapters 2–6)

III. Reevaluation of Various Accounting Systems (chapters 7–11)

IV. Recommendation of Current Cost Accounting (CCA) based on evidence presented in II & III (chapters 12–14)

V. Implications of CCA for Public Policy (chapters 15 & 16)

VI. Other Benefits of CCA (chapters 17–20)(12)

The main proposal of the Sandilands Report, then, was the introduction of CCA, dealt with in part IV.

Examples of calculations for current cost accounting were given in Chapters 12 and 13 of the Sandilands Report.

2c. Current Cost Accounting

The Inflation Accounting Steering Group (IASG), set up in January 1976 to tackle the detailed implementation of the Sandilands Report and chaired by Douglas Morpeth, produced an exposure draft, ED18, on current cost accounting. The ASC responded to the various criticisms of ED18 with (1) the Hyde Guidelines, concise interim recommendations on inflation accounting (applied to listed companies in 1978), and (2) ED24(the IASG's simplification of ED18) (13).It recommended a revised standard with greater emphasis on the use of price indices in conjunction with traditional financial statements (it was applied to larger listed companies in 1979). For both the above proposals adjustments based on current cost accounting were limited to two items: (a) depreciation, and (b) inventory.

For monetary items it was clear that there was still considerable scope for discussion(14), and it is expected that it will be a long time before a satisfactory conclusion is reached.

NOTES

(1) C.percy Barrowcliff, The Sixth International Congress on Accounting 1952. Fluctuating Price Levels in Relation to Accounts p. 12.
(2) Susumu Watanabe in "Kaikei", July 1953, p. 19.
(3) Ichiro Katano, "Accounting for Changing Money Value" – The 3rd ed., December 1976, pp. 430–437.
(4) Ichiro Katano, ibid., pp. 439–440.
(5) Ichiro Katano, ibid., p. 439.
(6) Kazuo Takamatsu "Shogakuronso", September 1955, vol. 23, No. 3 (Sept.), p. 76.
(7) Yoshihito Kako "Kakkoku ni okeru Infureishon Kaikei no Genjō – Igirisu" in Zeikeitsū-shin, March 1977, p. 102.
(8) Nomura Sōgōkenkyūsho "Zaikaikansoku", November 1977, pp. 6–7.
(9) Yoshihito Kako, ibid., p. 102.
(10) Nomura Sōgōkenkyūsho, ibid., pp. 6–7.
(11) Sandilands, F.E.P.Inflation Accounting – Report of the Inflation Accounting Committee, September 1975, pp. V–XII.
(12) Yoshihito Kako "Igirisu Infureishon Kaikei Iinkai Hōkoku" in Kigyōkaikei, February 1976, pp. 138–139.
(13) Nomura Sōgōkenkyusho, "Zaikaikansoku", November 1977, p. 20.
(14) Nomura Sōgōkenkyusho, ibid., p. 4.

3. Accounting for Changing Money Value in the USA

3a. The Development of Inflation Accounting

Research on inflation accounting in the USA has developed along two separate lines of thought. The first, discussed in section 3b, has centred on general purchasing power accounting, the second, discussed in section 3c, on replacement cost accounting.(1)

3b. General Price Level Accounting

Although little was written about inflation accounting in the UK after World War I, in the USA Sweeney wrote several papers on the subject from 1927 onwards, culminating in his book, "Stabilized Accounting", first published in 1936. He argued that if they wished avoid the contradictions and chaos caused by calculations based on the nominal value of money, and to maintain or increase their general purchasing power, companies should use for management purposes calculations of net profit or loss which took into account changes in the value of money (with the general price index to be used as the "stabilizing standard"). The techniques that Sweeney proposed were[2].

(1) Realized net income determination is oriented to the viewpoint of the owner and his command over consumer goods.

(2) This is accomplished by the application of a single cost-of-living price index adjustment to historical figures, in order to state them in terms of year-end purchasing power.

(3) Realized gains or losses arising from changes in the general value of money are shown as a separate item in the profit and loss statement.

(4) Adjustments are made in the balance sheet as well as the income statement.

(5) Replacement cost is recommended as the basis of balance-sheet presentation for plant and inventories, but not for determination of realized income.

(6) The unrealized income section of the profit and loss statement is the reconciling link between balance sheet replacement cost and profit and loss on historical cost adjusted by a cost-of-living price index.

Sweeney's research was neither followed up no-tested out at the time[3], but several papers published in 1974 convered similar ground, the most important being the Financial Accounting Standards Board (FASB) exposure draft, "Financial Reporting based on the General Purchasing Power Unit", and it looked for a time as though information from then on[4].

3c. Replacement Cost Accounting

"The Theory of Management and Business Income[5], by E.O. Edwards and P.W. Bell (1961) provides a good example of the second line of thought. The introduction to the Japanese edition gives United Nations statistics on changes in specific wholesale price indices in Japan. Against 1953 = 100, the figures for 1971 were 77 for textiles, 119 for agricultural products, 104 for Producer's goods, 120 for capital goods, 105 for Consumer's goods, 137 for construction materials, and 105 overall. With this kind of variation, they argued, it was impossible to measure company profits satisfactorily on the basis of historical cost and stated that replacement cost accounting was necessary[6]. They said that theoretically, each time a unit was sold its current cost should be obtained on that date. The sum of these current costs would yield the current cost of materials used. The method they gave was really an approximation, completely accurate only if sales and purchases (not of the same goods) take place on the same dates (or continuously), and the ratio of the quantity sold to the quantity purchased on each date was equal to the ratio of the total quantity sold to the total quantity purchased during the period[7]. Calculation of depreciation on current cost value base presented problems. No market exists for some fixed assets, so that there is no readily obtainable new purchase price which can be used. This applies for example to a) used fixed assets[8] b) assets no longer produced and sold because of technological progress. They said however that for a) the current cost of a used fixed asset could be derived by taking depreciation on the current purchase price of such assets new, while for b) two means of measuring current costs were available: (1) appraisal, and (2) the use of price index numbers for like fixed assets to adjust the original cost base to the level which would now have to be paid to purchase the asset in question[9].

In 1964 the American Accounting Association (AAA) published Supplementary Statements No. 1, "Accounting for Lands, Buildings and Equipment"[10] and No. 2, "A Discussion of Various Approaches to Inventory Measurement"[11] as part of their revised edition of "Accounting and Reporting Standards for Corporate Financial Statements" (first edition 1957). These supplementary statements proposed the use of replacement cost for the measurement of fixed assets and inventory. They also stated that while the replacement cost might represent a departure from the acquisition cost standard, it did not represent a turning away from traditional asset evaluation procedures[12].

The AAA's 1964 Concepts and Standards Research Committee produced a paper entitled "The Matching Concept." They had come to the following conclusions regarding the measurement of costs[13].

(1) Consumption of directly related product and service factors given up should, where possible, be measured in terms of replacement value at the time they are positively correlated with period revenue.

(2) They proposed that the difference between replacement value allocated against revenue and the original transfer value of product and service factors given up be designated, "realized gains or losses from market fluctuations and price level changes," which should be shown on profit and loss statements.

(3) As long as the original transfer value was retained in the records, it was considered that the proposed application of the matching concept could be reconciled with the AAA's Supplementary Statement No. 2. It would necessitate the use of valuation accounts in order to represent the proposed adjustments to replacement

values proposed in Supplementary Statement No. 2, and the committee suggested that holding gains resulting from revaluation of inventory be treated as unrealised revenue. When realised, revenues could then be divided into "net income from operations" and "gains or losses arising from fluctuations and price level changes."

In 1966 the AAA published, "A Statement of Basic Accounting Theory." In it accounting was defined as,

"- - - - the process of identifying, measuring, and communicating economic information to permit informed judgements and decisions by the users of the information."(14)

It differed from some definitions in that it included information based on non-transaction data as well as on transaction data. In Chapter 3 of this book, "Accounting Information for External Users", current cost for non-transaction date was discussed. They said that in accounting in most countries during times of inflation, current cost would have certainly not the first of the four basic standards they had outlined in Chapter 2 "Accounting Standards" (1. relevance 2. verifiability 3. freedom from bias 4. quantifiability), and if it also not the other three its usefulness could not be denied. They considered that the current cost of obtaining particular assets or services, in other words their replacement cost, was the most appropriate to meet their standards for accounting information(15).

In 1974 it seemed as though the FASB's exposure draft would lead to general purchasing power units being used for accounting information, the principles and standards having the authority of a board influential in the accounting world(16).

In 1976, however, the Securities and Exchange Commission (SEC) issued Accounting Series Releases (ASR) No. 190(17), which required large companies under its control to show replacement costs as a specified item for accounting periods ending after December 25th of that year(18). The fact that the SEC has enforced a system of acquisition cost accounting on many companies(19) suggests that it is likely to lead to a similar transformation for official financial statements in the USA.

NOTES

(1) The Japan Society of Accounting "The Forms and Present Situation of Inflation Accounting", 1978, pp. 8–9.

(2) Wilcox E.B. "Handbook of Modern Accounting Theory", 1955, pp. 261–262.

(3) Minoru Emura, "The Development of American Accounting", 1940, p. 159.

(4) The Japan Society of Accounting, ibid., 1975, p. 10.

(5) Edwards E.O. & P.W. Bell, "The Theory and Measurement of Business Income", 1964.
(6) Edwards, E.O. & Bell, P.W., ibid., p. VII.
(7) Edwards, E.O. & Bell, P.W. ibid., p. 144.
(8) Edwards, E.O. & Bell, P.W. ibid., pp. 185–186.
(9) Edwards, E.O. & Bell, P.W. ibid., pp. 185–187.
(10) AAA "Accounting for Lands, Buildings and Equipment-Supplementary Statement No. 1, Accounting Review" Vol. 39 (1964)
(11) AAA "A Discussion of Various Approaches to Inventory Measurement-Supplementary Statements No. 2 in Accounting Review" Vol. 39 (1964)
(12) Kazuo Takamatsu, "Accounting for Changing Money Value" 1972, p. 167.
(13) AAA Supplementary Statement No. 1, p. 697.
(14) AAA "The Realization Concept" in The Accounting Review, April, 1965.
(15) AAA "Statement of Basic Accounting Theory" 1966, p. 34.
(16) Teijo Ishioka, "Kakkoku ni okeru Infureishon Kaikei no Genjō – America" in Zeikeitsūshin, March, 1977, p. 96.
(17) Accounting Series Release No. 190.
(18) Tetsuyoshi Hasegawa, "Torikaegenkajōhō no Naiji" in Kigyōkaikei", 1976, Vol. 28, No. 11, p. 107.
(19) Teijo Ishioka, ibid., p. 95.