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Economic Meaning of Capital Adjustment

MEANING OF THE ACCOUNTING RECORDS

Retirements and abandonments

ENTRIES recording retirements and abandonments are made only when capital goods are finally discarded. The discarding of capital goods is not determined solely by reference to the technical capacities of these goods. Expectations concerning demand and other economic factors enter. Because retirements and abandonments are presumably related to the current and forecasted state of business, entries recording them may be expected to follow the cycle of business in general, and conditions within an industry or establishment in particular.

Since these entries do not arise out of transfers they cannot represent mere revaluations consequent upon changes in general price levels or discount rates. By their nature they are confined to adjustments for unforeseen obsolescence and inadequate depreciation, depletion, and maintenance.

Losses and gains on sales of capital assets

Changes in capital values realized upon sale do arise because of changes in prices and interest rates. These changes result in a disparity between book value and sales price which may be positive or negative, depending on the current level of prices (or interest rates) in relation to that existing at the time of original acquirement. Probably of most importance are changes in relative prices arising from changes in demand and other causes of obsolescence. Since shifts in demand may often

result in gains in one part of the system and losses in another which offset one another, it is most useful to devote attention to the net difference between capital gains and losses.

With respect to the distribution of these gains and losses in time, it is obvious that total changes in demand consequent upon cyclical movements in business, as well as other factors involved in obsolescence, will result in cyclical movements in the degree and sign of disparity between book value and current market value of capital goods. This is suggested by the figures themselves. The gains and losses will appear, however, only when sales are actually effected. The variation in gains and losses will, therefore, also depend upon the cyclical movement in the turnover of capital assets.

Losses and gains realized on the sale of business property influence the magnitude of other elements of capital consumption. Book values are raised or lowered by the amount of gain or loss. Since depreciation charges are based upon book values they also will be raised if there is a gain, lowered if there is a loss. Similarly, other elements of capital consumption, such as depletion and accidental loss, will be affected. As a consequence of this influence the available figures on capital consumption are better adapted to our purpose; for book values are therefore closer to current values, and the available measures of depreciation and depletion come closer to measuring *current* value of durable goods used up in production.

Revaluations

Also dependent on the disparity between book values and current market prices, but not on the actual realization of these differences by sale, are revaluations. The above comments therefore apply to these entries also.

In the reports of revaluations the cause of the capital adjustment is often explicitly stated. But these are the causes as they are seen by business men. The basic economic factors are often hidden.¹ Unforeseen obsolescence, for example, often

¹ Cf. National Bureau *Bulletin* 62, pp. 6-9.

seems to the business man simply a decline in the 'market' value of his equipment, and he finds it unnecessary to specify more accurately the reasons for the decline or to distinguish it from general changes in prices. To get at the true economic factors in each case of revaluation would require detailed studies of individual companies and of individual industries.

Revaluation may not be made even when a major difference between current and book value appears and persists. One important reason is the refusal, by income tax authorities, to permit revaluations to affect the depreciation and depletion base or the basis for computing capital gains or losses on sales. This lessens any incentive to revalue even when the change in book value would be large. On the other hand, revaluations are relevant to insurance valuations, public utility rate bases, and property tax bases. Most important, perhaps, among the reasons for the absence of revaluation is the habitual disinclination to adjust accounting records. When write-ups are suggested by the current situation, conservatism deters. Because it is difficult to estimate anything but original cost, a strong feeling develops that accounts are not intended to record anything except original cost. But tolerance toward revaluation of fixed assets increased (at least temporarily) as a consequence of the great change in prices during and following the War. In other countries, notably Germany,² where the rise in prices was tremendous, definite changes in accounting practices were forced upon reluctant business enterprises.

That revaluation on a broad scale, if careful and detailed, is extremely difficult and expensive is suggested by the experience of the Valuation Bureau of the Interstate Commerce Commission. Following the requirements of the Valuation Act of 1913, the Commission began an attempt to value the American railroad properties as a basis for the regulation of earnings. Efforts were made to obtain original cost and reproduction cost at the date of inventory of hundreds of rail-

² See the literature cited by Henry W. Sweeney, *Stabilized Accounting* (Harper, 1936).

way operating systems extending over 400,000 miles of track. It is estimated that this gigantic appraisal, which took twenty years, cost the government about 50 million dollars. In addition, it is believed that even larger sums were spent by the railways.³ While this historical episode is hardly typical with respect to cost, it emphasizes the technical difficulties of appraising a going concern.⁴

Another source of the accountant's disinclination to revise book values is the inconstancy of the current situation. The experience of the Interstate Commerce Commission is relevant here also. In order to revise and correct the original valuations it had to keep informed "of all new construction, extensions, improvements, retirements, or other changes in the condition, quantity, use, and classification of the properties subsequent to their original valuation . . . , of all additions and betterments, of all changes in the investment, of current changes in cost and value of all properties."⁵

Besides reflecting the difficulty of recognizing and assessing obsolescence, the infrequency of revaluation may be attrib-

³ Cf. H. G. Moulton and Associates, *The American Transportation Problem* (Brookings Institution, 1933), p. 366.

⁴ The I.C.C. stresses the magnitude of its task: "The law required 'that the commission shall make an inventory which shall list the property of every carrier subject to the provisions of the act in detail'; that the physical property be classified; that we ascertain and report the original cost, the cost of reproduction new, and the cost of reproduction less depreciation in detail as to each piece of property, and an analysis of methods by which these several costs were obtained and the reasons for their differences, if any, and separately ascertain and report other values and elements of value, if any . . . The law also directed that 'such investigation shall show the value of the property of every common carrier as a whole and separately the value of its property in each of the several States and Territories and the District of Columbia, classified and in detail as herein required' " (*46th Annual Report of the Interstate Commerce Commission*, December 1, 1932 [Washington, 1932], p. 87).

⁵ *47th Annual Report of the Interstate Commerce Commission*, December 1, 1933 (Washington, 1933), p. 73; quoted by the Commission from H.R. 11642, 72d Cong., 1st Sess.

The indexes of current costs of capital goods compiled by the I.C.C. for the above purposes constitute some of our best material on changes in prices of durable producers' goods; see Ch. 10.

uted, in part, to the optimism of business men. The relatively long life of many capital goods prolongs the possibility of self-deception. The sporadic appearance and, in most instances, small amount of revaluations throw doubt on the extent to which adaptation to the changing economic situation is effected in this manner.

Revaluations and gains or losses on sales appear to be complementary. In a period of prosperity, when revaluations upward might otherwise seem to the business man as called for, the very profitability of the current situation, combined with conservatism, may prevent write-ups. However, it is especially during such a period that consolidations and combinations are effected.⁶ Upward revaluations therefore tend to be chiefly in the form of gains on sales of capital assets.⁷ During prolonged depression mergers and consolidations appear to fall off in number. On the other hand, voluntary revaluations downward appear to become more frequent. It is then in the form of write-downs that these revaluations of assets are made.

When capital gains and losses are not recorded, the current measures of capital consumed, especially depreciation and depletion, are based on unrevised values. These measures then include a portion of capital gain or loss. This is another aspect of the fact that the available figures do not measure the current value of capital goods used up in production.

TYPES OF CAPITAL ADJUSTMENT

Two major types of adjustment are combined under the term 'capital adjustments', neither of which is included in our

⁶ See W. L. Thorp's figures on the number of consolidations during prosperity and depression: *Recent Economic Changes*, I, 184, and *American Economic Review Supplement*, March 1931.

⁷ Even in this situation write-ups may not be allowed to affect the property account. Book values of the selling company may be retained, any excess of price paid over original book value being recorded as an intangible asset. Or the excess of price paid over assessed or appraised value of physical property may be debited to intangibles. Examination of the reports to the Securities and Exchange Commission indicates, however, that such conservatism is by no means general.

measure of capital consumption. One is a modification of book values to recognize substantial changes in price levels (or interest rates). The other is an entry for wear and tear, or shortening of life not originally allowed for (or incorrectly allowed for) in the entries for depreciation, depletion, obsolescence, and other loss. Expressing total capital decline (current capital consumption plus charges on capital account) in constant or current prices would eliminate the first type of adjustment.⁸ This type of capital adjustment is therefore purely nominal. It does not represent a 'real' decline in capital.

The second type of capital adjustment does represent a real decline in capital. It might even be called non-current capital consumption: consumption not ascribable to the fiscal period in which it is recognized. The net capital losses consequent upon catastrophic accident, unforeseen obsolescence, and inadequate current estimates of depreciation or depletion, must be made good if capital is to be maintained.

SOCIAL AND PRIVATE VIEWPOINTS

If we accept the business distinction between charges on income account and on capital account, as we have done above, even the second type of capital adjustment is not relevant to the current computation of income and savings.

The possibility of a difference between economic and private expectation enters here. Sometimes what, to the restricted vision of business men, is a charge on capital account, may be anticipated, even though roughly, on the basis of economic theory. To the extent that this is possible the second type of capital adjustment (e.g., 'unanticipated' obsolescence) may properly be treated as a charge on income rather than on capital account.

If those capital adjustments that represent real changes in

⁸ In the adjustment of depreciation and other charges for price changes the amount of revaluations already on the books should be allowed for. No attempt was made to do this, however, in computing the deflator of depreciation charges, since any possible modification would be small and because there is little of the statistical material needed for this allowance.

capital are considered as charges or credits on income account, the question of the fiscal period to which they are relevant arises. If they are related to a business cycle as a whole, and are merely recognized, recorded, or revealed in specific phases of the cycle there is obvious reason for allocating them to the entire cycle. Here especially, the cycle seems to be the natural accounting unit, and the annual fiscal period impresses one as unsatisfactory. If the annual period is retained, all types of capital adjustment must be considered as charges (and credits) on capital account.

Capital adjustments representing real changes in capital may often more properly be related to the secular development of individual industries and establishments. They would therefore be allocable to a period longer than that of a business cycle. For the entire economic system, however, we may ignore this possibility, for secular movements vary from industry to industry.⁹

⁹ While A. F. Burns has shown, in *Production Trends in the United States since 1870* (National Bureau of Economic Research, 1934), that there is a general trend-cycle, there is no reason to expect coincidence (in time) in what he terms primary trends. On the contrary, Dr. Burns suggests reasons for expecting non-coincidence.