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Some Accounting Problems Involved in Matching Costs and Revenues

by

William H. M. Bowens

One of the chief goals of all accounting activity is the determination of periodic income for a business enterprise. With the sharp increase in price levels in the United States since World War II, emphasis has shifted sharply from the balance sheet to the income statement. Although this trend toward income statement emphasis started in the 1930's, it has increased sharply since World War II. Thus, the focus in Accounting is no longer centered on the accounting equation but on well defined concepts of cost and revenue and the methods of matching costs against revenue periodically. Out of the periodic matching process, the periodic income statement emerges.

The chief objective of this report is to present and discuss some of the problems involved in matching periodic costs against periodic revenues. It is hoped that this report will show that there is no all-purpose method of income determination; moreover, there is no need for one since Accounting is a dynamic, ever-changing art which must serve the needs of many diverse groups.

The basic items involved in the matching process are cost, expense, revenue, and income. Cost is the actual outlay or expenditure for materials, labor, overhead, finished products, and general selling and administrative costs, as related to wholesale, mercantile, and service enterprises. Although there are many types of cost, historical cost, generally, is considered the starting point for the matching process. This is referred to as the cost concept approach. Other costs such as reproduction costs; cost or market, whichever is lower; average costs; and numerous others, referred to as valuation costs, are used in the matching process in many accounting situations, but are considered more subjective than historical cost. In fact, the special significance of historical cost is that it preserves objectivity in the accounting records.

Although used interchangeably in Accounting literature, cost and expense are identical in meaning. An expense is an expired cost or a cost which has been applied against revenue. It results in a decrease in proprietorship.

Revenue is the total income received in exchange for goods and services. It is the total income from the total business operation before any expenses are deducted. True revenue stems only from transactions with outsiders.

Conversely, income, sometimes mistakenly referred to as revenue, is the excess of revenue over cost incurred in earning that revenue. It is the net increase in firm capital from operations. Income, then, is synonymous with net income or net profit.

With the shift in emphasis from the balance sheet to the income statement in the 1930's the matching process assumed added significance.

The process of measuring periodic income encompasses the division of the stress of costs incurred between the present and some period in the future. In deducting periodic costs from revenues, each deductible cost must be carefully considered and deducted in compliance with certain generally accepted accounting principles, doctrines, and conventions. This involves careful analysis of various accounting transactions in order to properly match periodic costs against periodic revenues.

In developing techniques for matching, two approaches have evolved. One is the cost accounting approach. Under this approach cost accountants endeavor to set up a specific relation between all manufacturing costs and individual classification or items of products in order to establish the manufactured cost of each unit of product sold. The other is the general accounting approach. Under this approach, the general accountant matches costs against revenues in the same period. Unlike the cost accountant, he does not attempt to match specific items of cost with specific items of income. Thus, his problem is totally different from that of the cost accountant.

Matching costs and revenues is basically a problem of establishing satisfactory bases of association. The real test is the reasonableness of the association, all other pertinent factors considered, rather than physical measurement, since periodic allocations of cost to revenues must be estimated and estimations involve reasoning and judgment.

When businessmen, investors and others invest capital in any business enterprise, this is only a means to an end. The earning of income is that end. Perhaps no other accounting and economic concept has been the object of so much controversy, since income has so many diverse meanings in Accounting, Law, Economics and tax regulations. In a period of steadily rising prices such as has been the case since World War II, the controversy over reporting periodic income more fairly has been greatly magnified. Increases in federal income tax expenses also have contributed to the accentuation of the controversy.

Among the proposals advanced for more fairly reporting periodic income are use of the accounting readjustment or quasi-reorganization; making additional charges to income, based roughly on current replacement costs of certain capital assets; accelerated depreciation; conversion of inventories held for a substantial period to current price levels; setting up profit equalization reserves, and use of current operating performance income statements in which extraordinary, non-recurring, and unpredictable charges or credits to income are not included. None of these measures are currently practiced on a widespread basis.

When specific identification procedures are deemed inefficient, alternate methods of assigning cost to periodic revenues may be utilized with reference to inventories and fixed assets, the choice of method depending upon the assumption made with reference to cost properly chargeable to current revenues.

The importance upon net profit by the employment of various inventory methods and various methods of depreciation are even more significant. In inventory costing, the methods that have achieved widest application are first-in, first-out; last-in, first-out; and average. In a period of rising prices, FIFO matches rising sales revenue with oldest, low-cost, inventory, thus expanding the gross margin on sales. In a period of declining prices, the reverse is true. LIFO, on the other hand, matches current high costs with increasing sales revenues in a period of price increases, and low costs of acquiring goods with declining sales prices in a period of falling prices. The average method recognizes both past and present costs in the inventory.

Fixed plant and equipment items represent a single classification in a larger group of non-current assets, all of which constitute deferred charges to future income.

This larger group includes intangible assets such as patents, copyrights, organization expense, franchises, goodwill, and various items of prepaid expenses. The cost allocation of these items is referred to as depreciation, amortization, depletion and exhaustion.

Amortization generally applies to intangible assets; depletion and exhaustion to natural assets such as mines, oil well, and over-cropped lands, and depreciation to tangible fixed assets.

Amortization, depletion and depreciation are forecast with a considerable difference in accuracy. Amortization (Bond Premiums, for example) can be determined with considerable accuracy. Depreciation provisions are generally less accurate, while the determination of a proper provision for depletion is more difficult than the provision for depreciation, because the physical facts are more uncertain.

The periodic balance sheet bears a direct relation to the matching process in that a majority of items contained therein represent amounts waiting to be charged or credited to future income and revenue. Among these items are deferred credits and charges, inventories, fixed assets and prepaid expenses.

What conclusions may be reached with reference to the problem of matching costs with revenues? In the first place, there are many controversial matters in Accounting which are far from being settled. Despite this, however, such factors as the federal income tax laws, and federal agencies such as the Securities and Exchange Commission, as well as the growth in the number of small corporate investors, are making for more uniformity in accounting practices with reference to periodic income determination.

In the second place, Accounting information serves many diverse groups, each of them interested in Accounting information for different reasons. Since this is true, Accounting information should be adapted to meet the various needs of these groups. In short, uniformity in Accounting reports and hence application of principles involved in the matching process, is of necessity relative to the purpose involved.

In the third place, the present controversy centering around price-level changes being reflected in accounting records, deserves careful consideration, particularly with reference to inventories and depreciable assets. Failure to recognize price-level changes in the matching process and in income determination is misleading to would-be investors and, in terms of present dollar values, falsely portrays income and financial position. However, the argument that historical cost should be dispensed with as a basis for determining income and financial position is unsound. Historical cost, since it is objective, should be the basis of both periodic income determination and financial position. These statements, however, should be supplemented by statements which reveal income and financial position in terms of the current price level.

Finally, it should be emphasized that Accounting principles and conventions, like principles and conventions underlying other branches of knowledge, are not and cannot be fixed and rigid. Accounting is an ever-changing, dynamic art which must necessarily change to meet the changes in a rapidly changing economic and social order. This is so if Accounting is to remain a vital, useful, and indispensable tool of the interests it serves.

To those who berate Accounting because of its limitations, whether they apply to the matching process or other aspects of the discipline, it is well to remember that every branch of knowledge has certain limitations. This, nevertheless, is not a sufficient basis for eliminating the discipline so long as it serves a vital and basic need, as Accounting indeed does. Limitations simply must be realized, coped with, and improved upon, where possible or whenever the occasion warrants. Why should Accounting be perfect in an imperfect world?

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