Volume Title: Corporate Income Retention, 1915-43

Volume Author/Editor: Sergei P. Dobrovolsky

Volume Publisher: NBER

Volume ISBN: 0-870-14138-4

Volume URL: http://www.nber.org/books/dobr51-1

Publication Date: 1951

Chapter Title: Concepts and Definitions

Chapter Author: Sergei P. Dobrovolsky

Chapter URL: http://www.nber.org/chapters/c4831

Chapter pages in book: (p. 7 - 12)

• 2 •

CONCEPTS AND DEFINITIONS

AN investigation of corporate income retention policies must of necessity use certain concepts that have been defined variously in the literature of economics and finance. Principally these are: *saving* (undistributed corporate net income being part of the nation's saving), *investment* (expansion of corporate physical assets being part of the nation's investment), and *internal* and *external* financing. Before turning to the factual evidence, it will be useful, therefore, to define how these and other related concepts have been used in this study.

CORPORATE SAVING AND INVESTMENT

According to the usual definitions, "saving" is the difference between income and consumption, and "investment" is an addition to the stock of capital goods (both durable equipment and inventories of goods in process). Since in the entire economy the unconsumed part of income is necessarily an addition to the stock of capital goods, aggregate saving and aggregate investment must always be equal.[1]

On the other hand, if these definitions are applied to individual economic units, or groups of units composing a sector of the economy (for instance, the corporate sector), saving and investment need not be, and indeed rarely are, equal to each other. It is clear that a unit, or a sector, can expand its stock of physical assets in excess of its own savings by drawing on the savings of others, or it can add less than the full amount of its savings to its stock of physical assets and transfer the remainder to other sectors. In the corporate sector, if all nonfinancial corporations are taken as an aggregate, physical asset expansion has in most periods exceeded retained income, since there has been considerable absorption of

[1] Saving is exactly equal to an increase in the stock of physical goods only in a closed economic system. In our economy the two are only approximately equal, the difference representing a net change in claims on foreign countries. National saving and national investment are usually equated by incorporating the net change in foreign claims into national investment.

savings from other sectors. On the other hand, in the manufacturing division of the corporate sector there are periods when savings are released to, and periods when they are absorbed from, the outside.[2]

Intersector transfers of savings result in an accumulation of financial assets by the lending sector and financial liabilities by the borrowing sector. Financial assets represent interests in capital goods in other sectors and are indirect investment. In the corporate sector financial assets are a large proportion of total assets, and the question arises whether, in studying corporate saving and investment, the analysis should be confined to the relation of saving to physical asset expansion (direct investment) or whether the relation of saving to physical and financial asset expansion combined (direct and indirect investment) should also be examined.

In an aggregative type of analysis the economy's physical investment is of paramount interest because financial claims and liabilities must offset each other. When the behavior of an individual sector is under examination, however, as in the present study, changes in both classes of assets are important. The purchase of securities, for example, calls for an investment decision as much as does the purchase of physical equipment. In both cases a return on the investment is anticipated. Furthermore, a sector's income and economic power depend on the amount of its financial assets as much as on the size of its physical assets. In analyzing the sources of financial resources absorbed in building up a sector's assets, it will be our procedure, therefore, to study both physical and total asset expansion.

FLOW OF FUNDS ANALYSIS

Studies of corporate saving and investment frequently involve a "flow of funds" analysis, and a brief explanation of the meaning of the terms "flow" and "funds" as used in this investigation should be made. The production and sales of an active business enterprise are continuous processes, that is, flows of goods and money. Similarly, the savings of an enterprise, accumulated by income retention, are continuously subject to

[2] Retained income constitutes only one of the two components of the unconsumed portion of corporate net income. Amounts saved by stockholders out of dividends constitute the other. While there are no data on the amount of the latter, it is, in all probability, substantial. One estimate (H. S. Dennison, *et al., Toward Full Employment,* New York 1938, pp. 170-71) gives as much as 45 percent of total corporate dividends paid in 1929 as saved. It can be safely assumed that a large part of stockholders' savings goes back into the corporate sector via purchases of new securities. Owing to lack of data, however, it is impossible to trace in detail the inflow of savings into the corporate sector from other sectors.

flows of accretion and depletion, as are the resources obtained from the capital market.

Although a complete day-to-day record of transactions is needed to present an adequate picture of these flows, corporate financial data are available only on an annual or, at best, quarterly basis. What is frequently referred to as an "inflow" (or "outflow") of funds is, in fact, a net difference between the amounts of a specified balance sheet item at the beginning and end of a given period, and gives little indication of the volume of transactions taking place between these two dates. For example, a bank loan may be obtained in the early part of a year and used for expanding inventories; toward the end of that year inventories may have been reduced to the old level and the loan repaid. In this case, the year-end balance sheet figures will not reflect the actual flows. Likewise, there may be considerable retention of income in the early part of a year, followed by dividend payments in excess of current income. If these two movements fully offset each other, the annual corporate data will show neither saving nor dissaving. Annual data, being the most comprehensive, have been used in this study to calculate net differences in specified balance sheet accounts. An attempt has been made, however, to avoid use of the term "flow" in connection with these data, because it implies more than they actually reveal.

The use of the term "funds" also requires caution. In financial language "funds" is often synonymous with cash. While virtually all business transactions involve cash payments, the total amount of assets transferred within a given period need not equal the total amount of cash payments effected within the same period. In a study of corporate investment behavior, cases in which assets are transferred without a concurrent counterflow of cash are not unimportant. Thus, inventories are frequently increased by expansion of trade credit, and fixed assets are acquired by some companies in exchange for shares of their own stock. If these and all other cases of asset expansion are to be explained in terms of flows of funds, funds must be defined broadly to include cash and certain noncash items. Accountants have a technique for analyzing "sources and application of funds" based on a concept of "working capital funds." A modified version of it has been used in some financial studies in which funds have been defined as "cash and cash equivalent." [3] To avoid confusion, it seems best to confine the use of the term "funds" in this study to the area of cash

[3] See Albert R. Koch, *The Financing of Large Corporations, 1920–39* (National Bureau of Economic Research, Financial Research Program, 1943) p. 118.

flows. The term "financial resources" will be used when both cash and noncash items are considered.

INTERNAL AND EXTERNAL FINANCING

A division of total financing into "internal" and "external" components cannot mean that in one case resources are accumulated without transactions with other economic units, while, in the other, transfers from the outside are involved. The fact is that the retained income of any company is part of its revenue from sales to other companies or individuals. From this viewpoint, financing through income retention is no more "internal" than financing through the sale of securities. In most cases, however, the decision to retain income is made independently by a company's own management, while the acquisition of financial resources from the capital market, whether through security sales or short-term borrowing, must be approved by outside financial institutions. It is justifiable, therefore, to say that the degree of internal control is substantially greater in one case than in the other.

Other questions arise in connection with internal financing. Are we to include both depreciation accruals and undistributed net income in internal financing, or are we to be restricted to the latter? That is, are we to use a concept of *gross* or *net* corporate saving? And are we to consider the accrual of "other" liabilities as an internal or an external source of funds?

NET AND GROSS CORPORATE SAVING

In the usual distinction between net and gross saving, the undistributed part of net income is called net corporate saving, and this amount plus depreciation accruals is called gross corporate saving. Similarly, on the investment side net and gross asset expansion can be set apart, according to whether or not account is taken of losses through depreciation of fixed assets.

Business cycle analysts have concentrated mainly on gross saving and investment, and some studies of internal and external financing have utilized a concept of gross corporate saving.[4] In connection with the latter type of studies, however, it is more important to have data on net corporate saving, since net corporate saving and external financing are alternative

[4] See, for example, Oscar L. Altman, *Saving, Investment, and National Income* (Temporary National Economic Committee, Monograph No. 37, 1941) p. 1 and pp. 50 ff.

methods of achieving net expansion of assets. Depending upon circumstances, one or the other of these procedures, or some combination of them, will be found preferable by management, though this does not imply that other methods are financially unsound.

In contrast, gross corporate saving and external financing cannot, in general, be taken as alternatives. Gross saving includes the amounts required for replacement of worn-out assets, and in a sound enterprise replacement must be taken care of by internal financing. An enterprise that does not expand, but merely maintains its assets at a given level, requires internal financing from sheer necessity. Indeed, it would be indicative of financial weakness and would impair the owners' capital if such an enterprise had to resort to the capital market for replacement of its equipment.

Admittedly, it is difficult to measure net asset expansion accurately, because of possible inaccuracies in the data on the wear and tear of physical capital assets. If depreciation accruals exceed wear and tear, net asset expansion and net corporate saving are understated, and the importance of internal financing relative to external financing appears to be lower than is actually the case. The reverse is true if accruals fall short of actual wear and tear. Despite possible errors, however, data on net asset expansion and net corporate saving must be used when comparisons are made between the relative importance of internal and external financing as *alternative* methods.

Gross corporate saving and external financing may be compared to find out to what extent total capital expenditures (replacements as well as additions) have been covered by the accumulation of depreciation reserves and earned surplus. In this study, data on gross asset expansion and gross corporate saving are examined briefly, though the analysis is concerned mainly with net amounts. To compute these data, adjustments were made where possible for revaluations and changes in book values resulting from corporate consolidations,[5] but lack of data has not permitted corrections for excessive or insufficient depreciation accruals.

TREATMENT OF ACCRUED LIABILITIES

Accrual of liabilities is similar to retention of income and to building up depreciation reserves in the sense that all of these processes represent an accumulation of resources from the revenue stream. There are a number

[5] See A. R. Koch, *op. cit.*, pp. 118-21, for a description of the technique used.

of differences, however. Accrued taxes—the predominant component of accrued liabilities in recent years—and similar items are amounts withheld by the enterprise for a short period (usually not longer than several months); retained income, as a rule, is held much longer and is generally considered by management an appropriate source for financing long-term investment. Furthermore, rates of accruals are not determined by an individual company but by outside factors (for instance, the government determines the tax rate and the collection schedule), while, in contrast, management is free to change the rate at which net income is retained.

Classification of various sources of financing obviously can and should vary according to the purpose of an investigation. For example, it may be useful in certain analyses to combine retained income and accrued liabilities into one class of internal financing (that is, financing via the income stream). In other cases, it is preferable to include accruals with other short-term liabilities. In this study accrued liabilities will, for the most part, be treated as a component of short-term external financing; but, in some instances, fluctuations of the combined amounts of retained income and tax accruals will be analyzed.