CORPORATE SAVING

... DURING THE POSTWAR YEARS

GROWING business demand for plant and equipment and resultant pressures in the nation's capital market have once again focused attention on the sources of funds used in financing corporate expansion. During the postwar period gross corporate saving—retained profits plus depreciation—has accounted for about three-fourths of total corporate outlay for plant and equipment and inventories. Corporations had to rely upon external sources of funds to finance the remainder of their expenditures on plant, equipment, and inventories and also had to raise funds externally to carry their substantially larger volume of accounts receivable and to add to their other types of assets. These external sources of funds consist of stock and bond issues, bank loans, accounts payable, and other types of liabilities. Internally generated funds contributed somewhat less than three-fourths of the corporate outlays for plant, equipment, and inventories during the record upsurge in capital goods spending which began in mid-1955. The result was record volumes of corporate security flotations and commercial bank loans to corporations and a sharp reduction in corporate cash and United States Government security holdings in 1956.

Investment, whether it be in the form of additions to productive capacity or the purchase of a new house by an individual, relies heavily upon saving to finance it. The nation's saving can be looked at as arising from three principal sources: personal saving, which includes savings of consumers and noncorporate enterprises; corporate saving; and government saving (difference between receipts and expenditures). Personal saving is the most important of these three, having accounted for somewhat more than half of gross national saving in the postwar period, while corporate saving has contributed about 42 percent of the total. An article on postwar developments in personal saving was published last year in this *Review*.[1] This article, complementing the earlier one, reviews developments in corporate saving since World War II.

An analysis of saving is important not only for the information it provides as to the sources of investible funds but also because the relationship of planned saving to planned investment is crucial in explaining changes in business activity. For the economy as a whole, when plans to save exceed plans to invest, economic activity tends to be depressed; when planned investment exceeds planned saving, economic activity tends to expand.

Sources and Uses of Corporate Funds

Theoretically, net corporate saving can be derived from either the income account or the balance sheet. The Department of Commerce estimates of net corporate saving which will be used throughout this article are derived from income accounts—the difference between after-tax book profits and dividend payments. Comprehensive balance sheet data are not available. In the absence of a complete balance sheet breakdown, rough estimates showing the relative importance of changes in assets, liabilities, and equities of all corporations (excluding banks and insurance companies) can be obtained from data on sources and uses of corporate funds published by the Department of Commerce.

Plant and equipment expenditures claim largest share of corporate funds

Chart 1 shows the sources and uses of corporate funds broken down for the periods 1946 through 1950 and 1951 through 1956. Let us look first at the uses of funds. The data indicate that of the total uses of corporate funds a large proportion—about 65 percent—was accounted for by gross physical investment, that is, expenditures for plant and equipment and inventories. Gross capital investment was relatively smaller in the period beginning in 1946 than in the later postwar period. This reflects problems

[1] "Postwar Developments in Personal Saving," *Monthly Review*, (April 1956), pp. 43-47.

of reconversion immediately after the Second World War, a decline in the demand for plant and equipment during the 1948-49 recession, and shortages caused by defense needs during the Korean conflict. Except for a decline during the 1953-54 recession, corporations increased their outlays during the latter portion of the postwar period in order to maintain and expand their capital stocks.

In contrast to plant and equipment expenditures, inventories of corporations (measured in terms of book values) increased more before 1951 than after. This difference is partly the result of price increases, which were more pronounced in the earlier part of the postwar period.

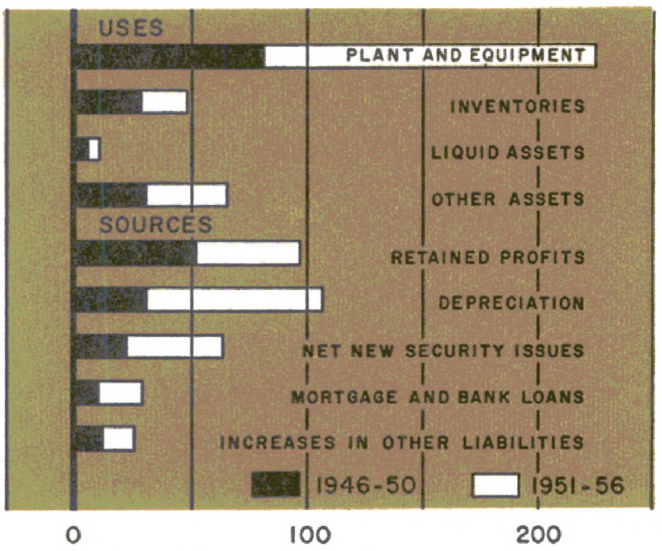
Liquid asset holdings of corporations showed a definite upward trend during the postwar years. Corporations held somewhat less than $51.5 billion in cash and bank deposits plus United States Government securities at the end of 1956 compared with about $38 billion in 1946. Liquid asset holdings declined sharply—about $5.0 billion—during 1956, reflecting liquidations to keep investment programs going smoothly.

Despite the upward trend in liquid assets, the ratio of liquid assets to current liabilities fell from 73 percent in December 1946 to 47 percent in December 1956. The early postwar high reflects a large wartime accumulation of liquid assets. The liquidity ratio declined sharply from 1946 to 1948, rose sharply in 1949, declined steadily to 1952, and remained within a range of 3 percentage points from 1952 through 1955. The ratio at the end of last year was about 7 percentage points below the same period of 1955, the largest annual percentage point decline since 1949. The ratio of liquid assets to total corporate sales followed much the same pattern during the postwar years as did the ratio of liquid assets to current liabilities.

Depreciation allowances now most important source of funds

Chart 1 also shows the importance of internally generated funds in meeting the postwar financial needs of corporations that have just been described. From 1946 through 1956, depreciation allowances plus retained profits accounted for approximately three-fifths of total corporate

CHART 1
SOURCES AND USES OF CORPORATE FUNDS 1/
UNITED STATES, 1946-50 AND 1951-56 2/
BILLIONS OF DOLLARS



[1] Excluding banks and insurance companies.
[2] Figures for 1956 are preliminary estimates.
Sources: United States Department of Commerce, *Survey of Current Business;* Securities and Exchange Commission; and other financial data.

funds. During the six-year period, 1946 to 1951, retained profits contributed a larger fraction than depreciation but since then the relative importance of these two items has been reversed. Depreciation allowances have shown a steady annual upward growth, while retained earnings have fluctuated from year to year.

The steady rise in depreciation allowances resulted from increases in the stock of plant and equipment and from changes in revenue laws with respect to methods allowable in computing deductions for tax purposes. Emergency amortization provisions written into the 1950 revenue law allowed corporations to write off over a five-year period about three-fifths of their plant and equipment investment certified for defense purposes. In 1954 the revenue laws were revised to make possible on a permanent basis a more rapid depreciation on all investment than had previously been allowed. However, the 1954 provision does not allow write-offs that are nearly as rapid as those permitted in the earlier certificate of necessity program.

Net new security issues also contributed a substantial amount to help meet corporate needs for

funds after World War II and were the most important external source. Bond issues accounted for about 64 percent of a total of $63.5 billion raised through net new security issues from 1946 to 1956 and stocks accounted for the remainder. Net proceeds from issues of nonfinancial corporations during 1956 are estimated at a record volume of $8.0 billion.

Bank loans have also supplied substantial quantities of funds and have been more important since 1951 than in the preceding six years. Bank loans outstanding to corporations increased by about $8 billion during the two-year period, 1955 and 1956, more than two-fifths of the total rise in corporate loans since the end of World War II. The increase during 1956 exceeded the 1951 record high.

Corporate Saving-Income Ratio

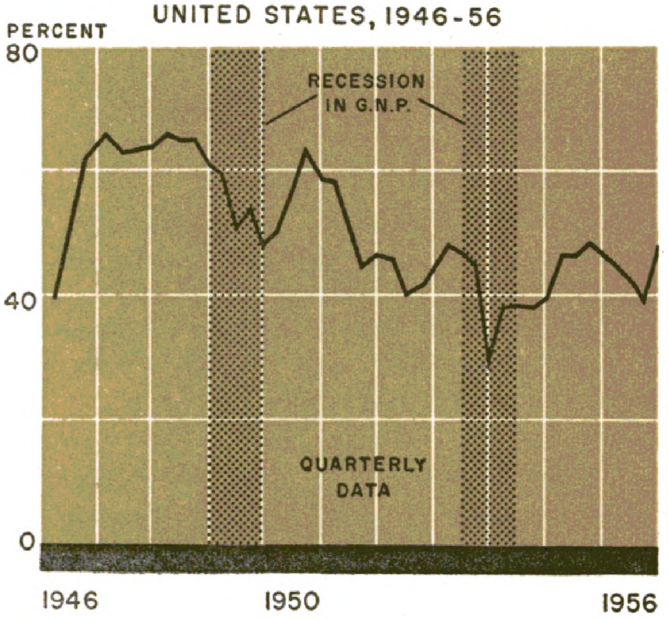
Ratio of corporate net saving to income shows wide range of variation

The foregoing review of the relative importance of the various sources and uses of corporate funds during the postwar period provides a background for discussion of the factors that were responsible for changes in corporate saving during this period. As in the case of personal saving, the relationship between income and saving is also the crucial one in the corporate sector. Nearly all the fluctuations in the basic upward trend in gross corporate saving since World War II have been due to changes in retained profits, which, in turn, are primarily a function of income as measured by profits before taxes.

Chart 2 shows quarterly ratios of net corporate saving (retained profits including depletion allowances) to net corporate income after taxes, both seasonally adjusted, since World War II. Two factors seem to stand out in the chart: the typical volatility of after-tax income retained by corporations and a generally lower net saving-income ratio since the third quarter of 1951 compared to earlier postwar years. The range of variation in the ratio runs between 66 percent during the first quarter of 1947 and about 29 percent in the fourth quarter of 1953.

Before turning to the major factors underlying movements in the proportion of income retained by corporations, a brief review of the two postwar recessions will illustrate the behavior of the net saving-income ratio since the Second World War. Both the 1948-49 and 1953-54 recessions in gross national product are shown by shaded areas in Chart 2. The most salient factor is that the ratio declined sharply during the two recessions. In both cases the declines were the result of sharp drops in corporate profits and increases in dividend payments. The earlier upturn in the 1953-54 recession reflects an early recovery in profits. It is also interesting to note that the downturns in the net saving-income ratio—reflecting downturns in profits—preceded the decline in gross national product. This tendency of corporate profits to move in the same direction as general business activity, but with a slight lead, is also evident in the period between the First and Second World Wars.

CHART 2
RATIO OF CORPORATE SAVING TO CORPORATE INCOME
UNITED STATES, 1946-56



Note: All figures are seasonally adjusted annual rates.
Source: United States Department of Commerce, *Survey of Current Business.*

Changes in before-tax profits account for most of variation in corporate net saving-income ratio

Fluctuations in the corporate net saving-income ratio are the result of changes in profits, corporate profits taxes, and dividend payments. Nearly all of the volatility in the ratio reflects changes in before-tax profits. Except that the

movements were more extreme, corporate profits generally followed the pattern of over-all business activity during the postwar years. Profits advanced sharply immediately after World War II, with the outbreak of the Korean War, and during the 1954 recovery and subsequent boom. Corporations suffered strong declines in earnings during the 1948-49 and 1953-54 recessions and after the period of Korean scare buying[1] during which profits had risen sharply.

The large gains in corporate profits in several of the periods referred to above reflected dollar gains in inventories arising from price increases. This is shown by inventory valuation adjustments which the Department of Commerce makes in order to convert reported changes in book value data to the value of the real change in inventories used in national income accounts. Inventory valuation adjustments averaged roughly one-fifth of before-tax profits during the period 1946-48, and they contributed about one-seventh to before-tax profits during the year of Korean scare buying, mid-1950 to mid-1951. The only postwar periods in which inventory losses reduced corporate profits were in the 1948-49 recession and from mid-1951 through the end of 1952, the period following the second Korean upsurge in buying.

Changes in corporate profits taxes and dividend payments account for remainder of variation in ratio

Total corporate tax liabilities moved in the same direction as before-tax book profits, but not necessarily by the same proportion, during every year since World War II except for 1946. Corporate tax liabilities fell in 1946 despite a rise in pre-tax profits. The expiration of the excess profits tax and a reduction in normal tax rates offset the effects upon tax liabilities of increased corporate earnings that year. In the four-year period 1946 through 1949, corporate tax liabilities totaled $43.4 billion and amounted to about 39 percent of before-tax income. In 1950 there was an increase in corporate income tax rates. A new excess profits tax also went into effect that year and lasted until the end of 1953. During these four years, marked by higher tax rates and larger pre-tax profits, total tax liabilities were about twice as large as in the preceding four-year period and averaged about 52 percent of book profits before taxes. Since 1954 corporate taxes have claimed about one-half of before-tax profits.

Corporate dividend payments generally followed a slow and steady upward trend during the postwar years except for a bulge during the Korean upsurge and a sharp upturn in the past year. Corporate dividend outlays were at an annual rate of about $12 billion in 1956 compared with $5.8 billion in 1946. The generally consistent growth of dividend payments has affected the long-run relationship between net corporate savings and income. Dividends have increased steadily from quarter to quarter. Because this rise in dividend payments since the end of World War II has been greater than the increase in net income, net retained earnings have tended to decline as a proportion of income. While dividend payments have exercised a downward pressure on the net saving-income ratio, their rise has been steady in contrast to wide short-term fluctuations in retained earnings. These shifts in retained earnings result mostly from sharp changes in before-tax earnings and occasional changes in tax rates.

Manufacture and trade account for three-fourths of corporate saving

Major postwar fluctuations in corporate profits and saving have been dominated by changes in the fortunes of manufacturing firms. From 1946 through 1955 retained income of manufacturing corporations, which accounted for about 56 percent of total corporate net saving, averaged 55 percent of net after-tax income compared with somewhat less than 53 percent for all corporations. Manufacturing corporations exhibited larger-than-average saving-income ratios during each of the ten years and the annual movements of the ratio were in the same direction as those for all corporations combined. From 1946 through 1948 manufacturers of nondurable goods rang up larger dollar profits than those producing durables, but since 1949 the opposite has been true. This reversal reflects the

[1] For a detailed discussion of corporate profits and factors underlying these changes during the postwar years, see "Corporate Profits Since World War II," *Survey of Current Business*, United States Department of Commerce, (January 1956), pp. 8-20.

greater problems of reconversion in durable goods industries after the war and differences over time in demand for durable and nondurable products.

Corporations engaged in wholesale and retail trade accounted for about 19 percent of total corporate saving during the postwar years. These firms retained about 67 percent of their after-tax incomes. Changes in the proportion they saved generally followed the all-corporation ratio. Construction firms showed the highest saving-income ratio of any industry group for the period 1946 to 1955, about 76 percent. However, since 1947 the ratio showed continued year-to-year declines, moving from 85 percent to about 68 percent in 1955.

All other industry groups retained a smaller fraction of their after-tax profits than the combined industry figure. The most notable trends in this group occurred among mining and agricultural organizations. Agricultural corporations have had net dissaving since 1951 because of annual losses from operations. Since 1951, mining corporations have, on the whole, allowed yearly declines in net saving to parallel continued annual decreases in profits. In general, annual movements in net savings of transportation, communications and public utilities, and service organizations followed the movements for all corporations.

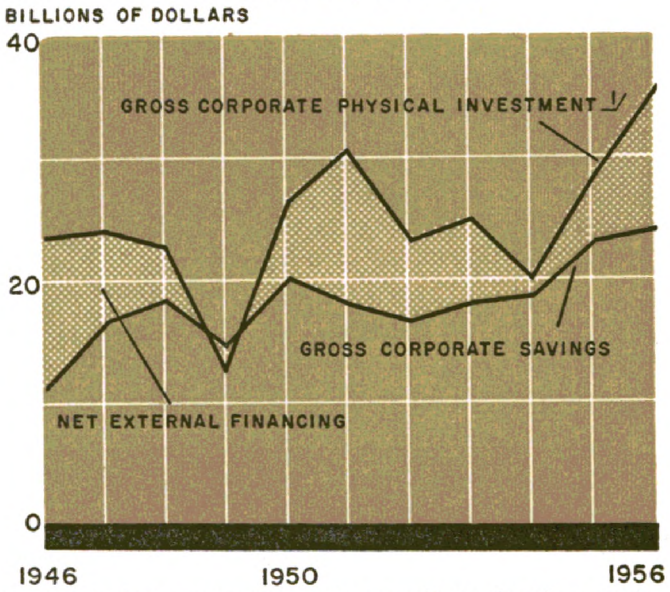
Corporate investment exceeds corporate saving during most postwar years

Except in 1949, annual corporate outlays for physical assets have exceeded gross corporate saving since World War II.[1] This difference, shown in Chart 3, reflects net balances of external financing. From 1946 through 1956, gross corporate saving averaged roughly three-fourths of corporate investment in plant, equipment, and inventories, and external financing accounted for the remainder.

The earlier discussion on the upward trend in internally generated funds suggests that corporations may be growing more independent of the capital market during the postwar years. Such a pattern would result in a downward trend in the importance of external financing since 1946, but no such tendency is evident from Chart 3. Expansions in physical investment have generally been financed through increases in both internal and external sources, with the importance of external funds increasing relative to the rise in investment. Most of these external funds were obtained through net new securities issues—the most important single source—and increases in bank loans.

CHART 3

NET BALANCE
OF CORPORATE EXTERNAL FINANCING
UNITED STATES, 1946-56



[1] Gross physical investment includes expenditures for plant, equipment, and inventories.
Note: All figures are seasonally adjusted annual rates.
Source: United States Department of Commerce, *Survey of Current Business.*

Chart 3 shows that external financing declined during the two postwar recessions. During the 1948-49 downturn corporations were able to finance their total outlay for physical assets out of internally generated funds and also release resources to other sectors of the economy. In the 1953-54 recession, corporations showed relatively little dependence on outside sources to meet their investment demands. Liquidation of bank loans and trade accounts payable accounted for much of the decline in total external financing during both postwar recessions.

Comparison of external financing by corporations and individuals throws light on inflationary and deflationary forces operating in the private sector of the economy since World War II.

[1] Excludes banks and insurance companies.

In general, those years in which both corporations and individuals invested more than they saved were marked by price rises; the years in which an excess of investment over saving by one group was coupled with an excess of saving over investment by the other group were, on the whole, characterized by stable or declining prices. From 1947 through 1950, individuals as a group demanded external funds to finance their capital outlays; Chart 3 shows that, within this period, 1949 was the only year during which corporations did not turn to other sectors of the economy for investment funds. From 1951 through 1954 individuals saved more than they invested so that, on balance, they were able to provide funds—either directly or indirectly through financial institutions such as life insurance companies and mutual savings banks—for corporate investment programs. During the 1955 upsurge in corporate demand for external funds, individuals also demanded external financing but at a much lower rate than during the earlier postwar period. Data for 1956 indicate that individuals tempered the inflation by again saving more than they invested.

Summary and outlook

In summary, this discussion of corporate saving and corporate needs for funds has shown that internally generated funds have averaged about three-fourths of total corporate investment during the postwar years. These gross savings were typically volatile. Nearly all of the variations resulted from fluctuations in retained profits, while depreciation allowances showed a steady year-by-year upward trend. These movements in retained profits are largely traceable to changes in before-tax corporate book profits—changes which, although of a greater magnitude, were in the same direction as movements in general economic conditions. Variations in corporate profits taxes and dividend policies are the other factors which contributed to the fluctuations in retained earnings. Manufacturing firms dominated major postwar movements in aggregate corporate profits and saving.

Plant and equipment expenditures claimed most of total corporate funds since World War II. This has been especially true since 1951. In contrast, the dollar value of inventory accumulations was larger during the earlier than in the later postwar period. Price increases were a major factor during the earlier increase in inventory book value—and in corporate profits. Receivables, like inventories, showed a larger increase before than after 1951. Total liquid assets rose during the postwar period; but, despite this, the ratios of liquid assets to both corporate sales and current liabilities declined from early postwar highs. Variations in the liquid assets-current liabilities ratio were within a range of three percentage points from 1952 through 1955. During 1956 this ratio was at a postwar low.

Before 1952, retained earnings were the most important single factor contributing to total corporate sources of funds. Since then depreciation, reflecting the effects of faster tax write-offs and the larger volume of investment, has become the major source of corporate funds. Net new issues—especially bonds—constituted the major external source of funds. Relatively speaking, bank loans are not a major source of corporate funds; but it is significant to note that more than two-fifths of the total postwar rise in corporate bank loans occurred in 1955 and 1956.

Corporate spending for physical assets exceeded gross corporate saving during each of the postwar years except in 1949. This means that, except for the early postwar recession, corporations have demanded external funds to meet their physical investment needs. There has been no noticeable tendency for corporations to become more financially self-sufficient and thus less dependent on the capital markets since the end of the Second World War. These postwar developments in corporate external financing appear to be in line with a statistical study of corporate savings during the interwar period which found that ". . . the amount of funds absorbed by corporations from the capital market has depended primarily on the rate of corporate investment. Changes in the degree of dependence on external financing were associated with changes in the level of investment activity . . ."[1]

The outlook points to an increase in corporate demand for external funds during 1957. According to the latest survey of investment in-

[1] S. P. Dobrovolsky, *Corporate Income Retention, 1915-43*, (New York, National Bureau of Economic Research, 1951), p. 6.

tentions by the United States Department of Commerce and the Securities and Exchange Commission, businessmen anticipate increasing their new plant and equipment expenditures by 6.5 percent in 1957. Thus, if the past relationship between the rate of corporate investment and the demand for external funds prevails and if these planned capital expenditures are realized, corporate pressures on money and capital markets will be stronger this year than last. Also, a substantial proportion of the anticipated increase in investment is accounted for by utilities, which generally rely more heavily on capital markets to finance their expansions than other kinds of industries.

The intensity of this demand may, however, be tempered to some degree as a result of recent price increases and high costs of borrowing. Recent advances in interest rates paid on personal savings accounts by commercial banks, savings and loan associations, and other personal savings institutions may possibly increase the supply of loanable funds. In fact, if the expected rise in business outlays for plant and equipment along with the continued demand for funds for other types of long-term investment, such as real estate, are to be realized without inflation during 1957, there will have to be a higher rate of saving on the part of corporations, individuals, government units, or all three.

Soil Bank Program to Reduce Plantings of District Field Crops

TWELFTH District farmers intend to plant fewer acres to major field crops in 1957 than they did a year ago. This was revealed by information issued by the United States Department of Agriculture based on reports from farmers as of March 1, 1957 and supplemented by December 1, 1956 planted acreage data for winter wheat and rye. The Soil Bank program was instrumental in bringing about this reduction. A smaller acreage, of course, does not necessarily indicate a reduction in output, as yields in the past have often increased sufficiently to offset the effect of a decline in acreage. However, production conditions in 1956 were generally favorable, and yields were above average. Unless a marked gain in yields is obtained this year, a reduction in output is likely.

Soil Bank influences farmers' planting plans

Farmers' plans regarding the amount and types of crops to plant are being increasingly influenced by their growing participation in different types of agricultural programs designed to control crop production. Farmer acceptance of acreage allotments and marketing quotas has been the usual means of limiting the acreage to be planted to certain crops. These controls will be in effect in the Twelfth District again this year for wheat, rice, cotton, and sugar beets. Planting prospects for the current year, however, are further influenced by a new program, the Soil Bank.

The experiment with the Soil Bank program, which started in 1956, will be given its first full year of trial in 1957. To carry out the program this year, national expenditures of over a billion dollars have been authorized for two types of Soil Bank payments—acreage reserve and conservation reserve.

The acreage reserve is designed to reduce the planting of "basic"[1] crops below the acreage allotted for their production under the price support program. In 1956 the approved payments to District farmers totaled $2.7 million compared with $61.0 million allocated for use in District states this year. Although the latter sum amounts to only about 2 percent of average annual returns from crop marketings of District farmers in recent years, its importance for producers of specified crops is much greater. For wheat growers the relative importance of the funds allotted for the acreage reserve program in 1957 varies from 17 percent of the value of wheat

[1] Wheat, cotton, rice, tobacco, peanuts, and corn.