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An Analysis of the Pattern of Financing of Non-Financial Corporations, 1959-1968

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AN ANALYSIS OF THE PATTERN OF FINANCING

OF NON-FINANCIAL CORPORATIONS, 1959-1968

(TITLE)

BY

MOHAMMAD ABDUS SALEEM

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INTRODUCTION

The main objective of this paper is to determine the pattern of financing of non-financial corporations for the period 1959-1968. Locating the changes in the pattern of financing of non-financial corporations for a 10 year period and then comparing these changes in the light of the changes of the historical period—1901-1958—will enable us to draw conclusions. That is to say, do the changes in the ten year period reflect the pattern of changes of historical period or is the pattern of changes of ten years, 1959-1968, quite different from the pattern of changes of historical period? To compare the changes in the ten year period the data of historical period going back 1901 are either calculated from the statistics made available by different government agencies or have been taken from the work of different authors.

The paper mainly comprises three aspects. First and foremost, light will be thrown on the meaning and significance of corporate financing in order that the term "corporate financing" may well be explained. The next aspect will be the major sources of funds. Finally, statistical analysis will be presented; this is the main portion of the paper and the basis of the conclusions made.

I. CORPORATION FINANCE: ITS MEANING AND IMPORTANCE

Finance, in its over-all sense, embraces many areas other than corporation finance—money, banking, and credit of various types and classes. Considered as a whole, finance may be said to be the circulatory system of the economic body, making possible the needed co-operation between the many units of activity. In an organism composed of a myriad of separate enterprises, each working for its own end but simultaneously making a contribution to the system as a whole, some force is necessary to bring about direction and co-ordination. Something must direct the flow of economic activity and facilitate its smooth operation. Finance is the agent that produces this result. It is largely intangible in its manifestation and is so intermingled with other economic forces that there is difficulty in appreciating the part it plays. Yet in reality, financial operations are a constant force of liaison among and within the units of enterprise.[1]

The subject of corporation finance is a relatively new

[1]William H. Husband and James C. Dockeray, Modern Corporation Finance, (Homewood: Richard D. Irwin Inc., 1957), p. 12.

one, developed since the ownership of business ceased to be concentrated in the hands of a few wealthy individuals. This change did not come in this country until the industrial revolution was well under way.

The few corporations in existence at the time of the American Revolution were largely financial institutions and their ownership was closely held. Only as the impersonal corporation has become dominant and its ownership dispersed among considerable numbers of persons has the subject of corporation finance gained prominence.

Corporations are not just formed by those profit-seeking enterprises or firms, which are our main concern of study, but they have been established in many areas of political, social, religious, and educational activity. Municipalities incorporate to facilitate the conduct of their functions and raising of funds through taxation, special assessments, and borrowing. Federal and State projects are administered by separate corporations, varying in their power and activities. Tennessee Valley Authority provides a good example, with its multipurpose activities.

Social clubs fraternal organizations do incorporate not for an economic purpose, but for gaining certain advantages of incorporation, such as continuity and limited liability. Likewise, hospitals and educational institutions usually become corporations to facilitate the making of contracts and the ownership of property.

The term "corporation finance," with which we are concerned, does not include these public and private corporations.

> The financing of municipalities and government involves either taxation of some form or the issuance of government bonds or some other form of indebtedness. Such organizations are classified as a part of government or public finance.[2]

Corporation finance is narrow in field, concerned mainly with those private profit-seeking corporations which are classified as industrial and public utilities. These are the firms whose securities dominate the activities of the securities exchanges as well as over-the-counter trading. They are private corporations publicly owned by a wide range of stockholders.[3]

In order to produce and distribute a product or service, a company must have acquired the assets with which to carry on that production and distribution. Corporation finance is a study of those procedures and techniques of business judgement suitable for the acquisition and administration of capital.

Procedures for the promotion of a corporation are a part of corporation finance as well as those for financing existing corporations. Growth in size requires additional

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[2]Richard C. Osborn, Corporation Finance, (New York: Harper and Brothers, 1959), p. 9.

[3]Ibid., p. 10.

capital; and corporation finance covers this process of expansion from whatever sources and the growth of the corporation thro gh different forms of combination.[4]

In a more precise way, we can say corporation finance serves two basic important functions.

> First, it is a means of assembling the funds necessary to initiate a new business. Second, and much more important, it provides for additional capital, covering the cost of operation, and generally synchronizing the diverse factors of a going business.[5]

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[4]Ibid., p. 10.

[5]Husband and Dockery, op.cit., p. 8.

II. MAJOR SOURCES OF FINANCING

The meaning and concept of corporation finance gives an idea that its task is to assemble the funds necessary to initiate a new business, and much more importantly, to provide the basis for continued operation—providing for additional capital, covering the cost of operation, and generally synchronizing the diverse factors of a growing business.[6]

Take, for example, the company which has a brilliant new idea. The company may have a plan for converting that idea into a marketable product. It may have access to both the manpower and the materials needed to make the product. And it may have the necessary management ability to insure efficient production. But if the company cannot raise the money needed to put all these things in motion, nothing of very much consequence is going to happen.

To some people, of course, the idea of financing a new commercial venture still conjures up thoughts of an enterprising fellow bustling about in search of prosperous backers who can be persuaded to put up the necessary funds. But while we still might find examples of this today, most new business ventures are now carried out by established compa-

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[6]Ibid., p. 8.

nies interested either in expanding their operations or in branching out into new fields. The need for capital today is certainly no less intense than it was for the first Henry Ford, but the techniques and sources which have evolved are far more sophisticated than they were in his day.

The question with which we are confronted is that of major sources of corporate funds. Apart from outright borrowing from banks and other lending institutions, the modern corporation can tap a variety of sources either for new capital or for internally generated replacement funds.

New capital can come from selling stock, from selling bonds, or from retained earnings. Two of these sources—new issues of stock and bonds—invite public participation in the financing of the corporation. The third, retained earnings, is a source of funds for investment springing from the corporation's own activities. By investing retained earnings, a company can place back into the business all or part of its net profits.[7]

Beyond such infusion of new capital, a corporation can generate funds internally by means of depreciation, and of depletion allowances—in sum, that portion of a corporation's assets which may be written off for obsolescence or for wear and tear of plant and equipment, or for the exhaustion of

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[7] G. Keith Funston, "Where Does The Money Come From? Changing Pattern In Corporate Financing," Vital Speeches of the Day, Vol. 5 (May 15, 1965), p. 468.

natural resources. These allowances do not represent new capital, rather, they represent recovery of previous capital expenditures. The process by which funds are generated through depreciation allowances are dealt in detail under the specific heading of "Depreciation" in the coming pages.

We have already reviewed in general the sources available for corporate funds. Now an individual consideration of internal and external sources and their sub-divisions will be made.

This categorizing of sources will help in analyzing their trends in corporate financing.

A. Internal Sources of Funds.

In modern economics, addition to and replacement of capital goods are, to an overwhelming extent, purchased by the would-be capital users. Therefore, the question of financing arises. Where does the capital acquiring unit obtain the means for purchasing? Here the important distinction between internal sources and external sources arises.

Internal sources refer to the sources of funds obtained through the retention of earnings, funds made available through the capital consumption allowances, and adjustments to the inventory valuations. These categories form the heading of internal sources of funds.

Undistributed Profits.

The question "What are earnings?" may appear to be witless. One has to look at corporate income statements to see what earnings are. In such a statement, the various sources of income, sales, commission, interest, dividends, and so on, are listed by name and amount. The various kinds of expenses--cost of goods, wages, salaries, cost of supplies, depreciation, and so on--are similarly listed. The net difference between the sum of income and expense items is set out as net income before income taxes, or net earnings before income taxes, or net profits before income taxes, and then income taxes are deducted to give a final figure for net income, or net earnings, or net profits.

Retained earnings are those portions of net profit which have been left with the corporation after paying the dividends to the stockholders.

For a great number of American business corporations, retained earnings or profits constitute the most important source of assets. For almost all business corporations that are profitable, they represent a significant source of assets, if not the most important.[8]

Corporations of small and middle size often have little or no access to outside sources of long-term funds, and their stockholders have but small amounts of cash for buying additional stock to finance expansion. Though these corporations

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[8]Raymond P. Kent, Corporate Financial Management, (Homewood: Richard D. Irwin, Inc., 1969), p. 631.

may be able to get fair amounts of short-term credits, they must depend chiefly on the retention of earnings. The managements of many corporations, small and large, choose not to tap outside sources of long-term funds even when readily available. And the management of most others, though they may tap many financial markets in their search for funds, generally decide that these sources must be substantially supplemented with generous amounts of retained earnings.[9]

Considerations which favor the use of retained earnings are, as pointed out by Gordon Donaldson, "within full control of management, and available without delay, uncertainty, negotiations, interference, publicity or explanation."[10]

Depreciation.

The physical usefulness of tangible property is invariably subject to decline—buildings decay, machinery wears out, and tools have a limited productive life. These instruments are used up in carrying on the productive process. But their consumption may be very gradual and the rate is significantly dependent upon such influences as climate conditions, the amount of use, and the degree of maintenance and repair.

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[9]Ibid., p. 632.

[10]Gordon Donaldson, Corporate Debt Capacity, (Division of Research, Graduate School of Business Administration, Harvard University, 1961), p. 70.

Good managerial practices require that management protect the owner's investment in working and fixed assets. To accomplish the latter necessitates that the original investment be recovered by the time the assets are "worn out." The method used to recover the investment is to include in the prices of the firm's goods and services an amount equal to the wear and tear (depreciation) of the assets used in their production. If depreciation expense is properly calculated, the original cost minus scrap value will be recovered by the time the asset wears out.

The depreciation charge, unlike other expenses, does not represent a cash outlay; consequently, management may use these funds for any valid purpose.[11]

According to Richard C. Osborn:[12]

> Depreciation is mentioned as a source of current capital funds. Depreciation of itself is simply an accrued expense and furnishes no funds. Only the recovery of this accrued expense in a cash or receivable form through the sale of the product permits the accumulation of funds. Fixed assets are gradually worn out in the productive process and their cost is reco ered in a liquid form. Although these funds will need to reenter the fixed asset form in the future, they will not do so immediately. During a depression they may be retained without reinvestment for a considerable period. In an inflationary period the funds recovered by depreciation are less than those required for replacements of either the same machinery or the same capacity.

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[11]Ernest W. Walker, <u>Essentials of Financial Management</u>, (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1965), p. 140.

[12]Osborn, op.cit., p. 425.

B. External Sources of Funds.

External funds for an economic unit mean obtaining funds from the outside, either equity in the form of stocks, or debt financing—long-term or short-term. Such financing may flow directly from the lender to the user, or via financial intermediaries.

Since, as a matter of course, there are disparities in time and place between the need for capital and ability of a corporation to save, external financing is common. Business units often have opportunities requiring capital investment much greater than the earnings they can retain from current profits.[13]

Of the many different sub-divisions of external funds, a brief description about a few will suffice to elaborate the picture of the over-all picture.

Stocks.

Under the heading "Stocks" come the funds obtained through the sale of common as well as preferred stocks. Funds obtained through this source are also known as "external equity."

The important advantages and disadvantages of funds

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[13] Simon Kuznets, Capital in the American Economy: Its Formation and Financing. (Princeton: Princeton University Press, 1961), p. 20.

obtained through this source are mentioned here.[14] To be more clear, it is necessary to describe them separately for common and preferred stocks.

1) The equity capital represented by common stock serves as a cushion; that is, since owners of common stock are the last group to participate in the assets in the event of dissoluti , any losses that may be incurred are absorbed by this group. Moreover, it also serves as a cushion because, since dividends are not mandatory, the firm does not experience "legal" failure when it fails to earn a profit. 2) Common stock carries no fixed maturity and therefore does not require a refinancing process. 3) Common stock in many cases is easier to sell than either preferred stock or debt. 4) Common stock is desired by a large number of investors because it acts as hedge against inflation.

Although there are several valid reasons why common stock is used, there are also several disadvantages which occur to the firm that employs common stock in the financing process. 1) Since the interest expense of a corporation is deductible for tax purposes, equity capital costs—in terms of non-deductibility of dividends for tax purposes—substantially more than debt capital. 2) The cost of selling com-

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[14] Walker, op.cit., pp. 150-151 and Jules I. Bogen, "The Importance of Equity Financing in the American Economy," Journal of Finance, Vol. 5, No. 2 (June, 1950), pp. 170-171.

mon stock is generally higher than the cost of distributing preferred stock or debt securities because of the great risks involved and the more extensive selling efforts required for common stock selling.[15] 3) An additional issue of common stock dilutes the control of existing shareholders.

Similarly, a list of advantages and disadvantages relating to preferred stock borrowing can be listed as follows: 1) Preferred stock is superior to bonds, because it is not mandatory that dividends be paid to preferred stockholders, whereas interest charges must be paid to bondholders. Evidently, it is the non-payment of interest charges to bondholders which greatly endangers the solvency of the company. While dividend to preferred stockholders can be deferred for a while without any risk to the solvency of the company. 2) Another advantage is that management may use this device to raise equity capital without losing control of the company. 3) The use of preferred stock allows a company to tap an otherwise closed source of funds. For example, certain institutional investors are unable to purchase common stock but are allowed to purchase preferred stock.

A few disadvantages attached with the use of preferred stock can also be cited. 1) The cost of preferred stock is greater than the cost of bonds. This is attributed partly

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[15] Jerome B. Cohen and Sidney M. Robbins, The Financial Manager: Basic Aspects of Financial Administration, (New York: Harper and Row, Publishers, 1966), p. 583.

to the fact that dividends on preferred stocks are not tax deductible, but bond interest is deductible as an expense. 2) A major disadvantage is that, in most cases, the contract provisions tend to restrict management's effort. The cumulative feature may cause arrearages to become so large that any type of future financing would be severely limited. This feature may also curtail management's ability to retain earnings, thus restricting the growth of the company. 3) Another disadvantage is the burden that results from the participating provision; that is, common stock prices do not react favorably when there is a participating feature, thus increasing the cost of funds.[16]

Bonds.

A bond may be defined as a "written promise, under seal, to pay specified sum of money at a fixed time in the future, usually more than ten years after the promise is made, ith interest at a fixed rate, payable at specified nterest rate."[17] Although there are different kinds of bonds with varying conditions, the purpose here is to get an idea about the bonds in general and to discover their advantages and disadvantages to enable analysis of the data related to them.

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[16] Walker, op.cit., p. 155.

[17] Charles W. Geistenberg, Financial Organization and Management of Business, Fourth Revised Edition, (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1959), p. 104.

Bondholders do not as a general rule have any voting privilege and cannot be classified as owners of the business. Rather, they are classified as creditors and, as such, have prior claims to the firm's assets in the event of liquidation.

Bonds which are long-term obligations appear to have gained much importance since World War II.[18] A listing of a few advantages might elucidate the reasons for their increasing importance, particularly compared to stocks. 1) Lower costs in acquiring the funds. According to the securities and Exchange Commission, the average cost of a bond flotation comes to 1.49 percent of the gross proceeds, whereas the comparable figures for a preferred issue is 4.34 percent and for common 10.28 percent.[19] 2) The deductibility of interest in computing income tax liabilities. 3) Avoidance of sharing of control and 4) avoidance of dilution in the common stockholder's claim to assets.[20]

A major disadvantage of financing through bonds is that any default on the part of management to pay interest, a liability of the company, constitutes default, and in most cases accelerates the maturity of the principal. Unless both are paid, the firm is subject to bankruptcy proceedings.[21]

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[18] Kent, op.cit., p. 377.

[19] Cohen, op.cit., p. 583.

[20] Ibid., p. 378.

[21] Walker, op.cit., p. 159.

III. STATISTICAL ANALYSIS OF INTERNAL AND EXT RNAL SOURCES OF FUNDS

The use of sophisticated techniques and equipment has greatly facilitated the task of collecting, organizing and interpreting statistical data. The data on current and past sources of corporate funds have become available mostly through the efforts of National Bureau of Economic Research, the Department of Commerce, the Federal Reserve, and the Securities and Exchange Commission.. From the data pertaining to the private sector, the most important figures are for the largest sector of the business community--non-farms, non-financial corporations.

Financial institutions are of importance, b t they are intermediaries in the process of capital formation. Their significance lies in their effect on the capital markets. The importance of unincorporated business in the money and capital markets is insignificant in comparison with non-financial corporations.[22]

Tables 1 and 2 contain data on sources of funds for non-farm, non-financial corporations for the years 1959-1968,

[22] Raymond W. Goldsmith, The Flow of Capital Funds in the Postwar Economy, (New York: National Bureau of Economic Research, Inc., 1965), pp. 140-145.

prepared by the Department of Commerce and subsequently extended by the Federal Reserve Board. Table 1 contains absolute magnitudes while the relative importance of each source can be found in Table 2.

The different categories mentioned in the data are largely, but not entirely, self-explanatory. For example, capital consumption allowances, include not only depreciation but also accidental damage to fixed capital as well as capital outlay charged to current expenses. Bank loans refer to all loans made by banks.

One of the most important items in the list is inventory valuation adjustment. This is an estimate of the contribution, positive or negative, to total profits that are the result of gains or losses on the inventory account resulting from changes in the price level. The estimate has been taken as it stands and is expressed as a percentage of total sources. Nevertheless, depending on whether it is a positive or negative figure for the year in question, inventory valuation adjustment has the effect of raising or lowering internal, and hence total, sources.

As we are particularly analyzing the trends in corporate financing, i.e., the sources whence the corporation is raising the necessary funds, the main emphasis of this paper is, therefore, on the major sources and its sub-divisions.

A. TEN YEARS PATTERN:

One purpose of this paper is to probe into the pattern of corporate financing during the ten years' period 1959-1968. This part of paper is entirely devoted to the findings of the data related to this period.

To learn the importance of different sources and their components in financing of non-financial corporations a yearly breakdown of sources of funds has been prepared. Table 1 indicates the figure in absolute amounts, and Table 2 shows the percentage distribution, prepared to judge their relative importance with each other. Besides that, the importance of total equity and debt financing can be judged through Table 3 which shows the figures in absolute amounts as well as the percentage distribution. This will help in establishing the ratio between the debt and equity financing.

Another purpose of this paper is to see what is the relationship between the external sources of finance and the general economic conditions of the American economy which can be judged through the use of year-to-year Gross National Product data. By relationship it is meant to see whether the external sources respond to the changes in the economic conditions and, if so, in what way.

It is also of interest to know what has happened to the debt and external equity financing sources during this ten year period.

TABLE 1

SOURCES OF FUNDS, NON-FARM NON-FINANCIAL

CORPORATE BUSINESS: 1959-1968.
(in billions of dollars)

	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
SOURCES, TOTAL	57.9	48.1	56.6	64.9	67.1	71.8	93.1	100.6	94.2	110.4
INTERNAL SOURCES	35.0	34.4	35.6	41.8	43.9	50.5	46.6	61.2	61.2	63.1
Undistributed Profits	12.6	10.0	10.2	12.4	13.6	18.3	23.1	24.7	21.2	22.0
Corporate Inventory Valuation Adjustments	-0.5	0.2	-0.1	0.3	-0.5	-0.5	-1.7	-1.8	-1.1	-3.2
Capital Consumption Allowances	22.9	24.2	25.4	29.2	30.8	32.8	35.2	38.2	41.2	44.3
EXTERNAL SOURCES	22.9	13.7	21.0	23.1	23.2	21.3	36.5	39.4	33.0	47.3
Stocks	2.2	1.6	2.5	0.6	-0.3	1.4	0.0	1.2	2.3	-0.8
Bonds	3.0	3.5	4.6	4.6	3.9	4.0	5.4	10.2	14.7	12.9
Mortgages	3.0	2.5	3.9	4.5	4.9	3.6	3.9	4.2	4.5	5.8
Bank Loans	3.5	1.9	0.7	3.0	3.7	3.8	10.6	8.4	6.4	9.6
Other Loans	-0.3	1.9	0.6	0.0	0.2	0.9	0.6	1.4	1.4	3.6
Trade Debt	5.5	0.6	5.4	4.6	5.3	3.6	9.1	7.3	2.6	5.7
Profit Tax Liability	2.4	-2.2	1.4	0.6	1.9	0.5	2.2	0.2	-4.1	3.7
Other Liabilities	3.6	4.0	1.7	5.2	3.7	3.5	4.6	6.5	5.2	6.9

Source: Economic Report of the President, (Washington: United States Government Printing Office, 1970), p. 264.

To begin with, we will see what happened to total internal and external sources in the broadest sense. What is the ratio between these two sources, has it changed or remained constant?

It is clear from Table 1 that during this ten-year period internal and external sources have increased in absolute amounts. Internal sources, while they provided $35.0 billion to total sources in 1959, in 1968 provided $63.1 billion, an increase of $28.1 billion. The reason why they have increased so much is the fact that the economy had seen a continued expansion in the last 8 years starting from 1961 up to 1968, the result being more profits to the corporations, and profits in turn contributing to the increment of total internal sources.

Any change in total internal and external sources is the sum total of changes of its sub-divisions. Analyzing simultaneously the total internal and external sources and their components we can find out the causes behind their yearly increases to ascertain their increasing or decreasing importance to non-financial corporations.

In the year 1959, the retained profit was $12.6 billion out of $35.0 billion of total internal sources; in 1960 the retained profits dipped to $10.0 billion, while the total internal sources also came down to $34.4 billion. These declines can be attributed to the 1960's recession in the economy, which came after 35 months of recovery from 1957-1958 recession.[23] Early in 1961 vigorous antirecession measures helped get recovery off to a fast start and gave needed assistance to those hardest hit by the recession. In 1962, two important reforms affecting the taxation of business income were put into effect: they were the new depreciation guidelines and the investment tax credit. The guidelines were established to bring depreciation standards closer to actual business experience, considering the rapid technological advances and the earlier obsolence caused by this process. Also the Treasury Department felt that the additional cash flow would stimulate business activity through both increasing the rate of return on investment and making the financing of investment easier.[24] Corporate depreciation allowances in 1962 totaled $29.2 or $4.8 billion more than in the previous year. About $2.4 billion of this increase was attributable to the use of the new guidelines for the depreciation.[25] The recovery in business activity from 1961 to 1962 was accompanied by a rise in corporate earnings, mainly due to the use of new depreciation guidelines, and investment tax credit, which reduced corporate income tax liabilities.

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[23] Economic Report of the President, (Washington; U.S. Government Printing Office, 1963), p. IX.

[24] U.S. Department of Commerce, Survey of Current Business, July, 1963, (Washington; Government Printing Office, 1963), p. 3.

[25] Ibid., p. 3.

The pace of expansion in 1962 slowed, following the rapid recovery of 1961. By mid-1962 it had become apparent that in the given level and structure of Federal tax rates the strength of private demand would be insufficient to carry the economy up to full employment of its resources.

In August 1963, Predident Kennedy announced that he would propose a major tax bill reducing the rate of personal income and corporate profit taxes from a level which had been determined in large part by the need to fight the post-war and Korean inflation.[26]

In the first stage, beginning on July 1, 1963, the rate reduction was to cut individual tax liabilities by a total of $6.0 billion at annual rate and the corporate profit tax rate was to be reduced in stages from the prevailing 52% to 47%, representing a reduction in corporate tax liabilities of about $2¼ billion at the prevailing level of profits.[27] The year 1963 saw prolonged debate over this measure and endorsement came only in February 1964.[28] When the Revenue Act of 1964 became effective, the economy was already moving ahead strongly as a result of the confidence that the prosperity would be maintained with the aid of tax cut; the tax measures of 1962

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[26]Economic Report of the President, (Washington; U.S. Government Printing Office, 1965), p. 37.

[27]Economic Report of the President, 1963, p. 44.

[28]Economic Report of the President, 1965, p. 37.

and the expansionary monetary policy also helped in keeping the economy moving. As a result, there was an increase in retained profits and depreciation allowances of corporations in the year 1963.

In early 1964, the tax-reduction bill was enacted. Personal income tax liabilities were cut by $6.7 billion and corporate profit tax liabilities by $1.7 billion, with further reduction in rates taking effect in 1965: the cut in liabilities will be $11.0 billion for individual and $3.0 billion for corporations.[29] The year 1964 saw increased amounts of retained profits due to rising sales, surging profits, and the tax reductions.

The year 1965 saw a surge especially in total external sources from the previous year. The reason was an increase in outlays for business fixed investments: there was a 15½% jump as compared with an average annual rate of increase of 7½% in the years 1962 and 1963.[30] Business' fixed investment averaged 9.8% of GNP during the entire post-Korean period. The share rose from the beginning of 1964 to the end of 1966, ultimately reaching a peak of 10.9%.[31] The rapidly expanding economy and its effects were visible in the increased retained

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[29] Ibid., p. 37.

[30] Economic Report of the President, (Washington; U.S. Government Printing Office, 1966), p. 36.

[31] Economic Report of the President, (Washington; U.S. Government Printing Office, 1967), p. 46.

profits of $23.1 billion in 1965, a big surge in total external sources to $36.5 billion in 1965 from $21.3 billion in 1964. Bank loans in 1965 increased to $10.6 billion, a very significant increase compared to the $3.8 billion of 1964. The surge in bank loans was due to the growing needs of the prospering economy and the role of monetary policy, which throughout this expansion maintained a ready availability of credit. The money supply grew by 4.0% in 1964 compared to 3.8% in 1963[32] and helped business to tap resources to meet their growing demand for outlays. The strong rise in external sources was partly attributable to the growing volume of funds committed by the corporations to uses other than capital outlays. In the past 2 years, corporations had markedly increased their net extensions of trade and consumer credit.[33] The figures of trade debt showed a significant increase from $3.6 billion in 1964 to $9.1 billion in 1965. A number of special factors in 1965 also contributed to the sharp increase in business borrowing. Inventories were rising rapidly and foreign investment by corporations was unusually high early in the year.[34] In the closing months of 1965, conditions changed drastically, and rapid

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[32]Economic Report of the President, 1966, p. 46.

[33]Economic Report of the President, 1965, p. 69.

[34]Ibid., p. 46.

rise of business investment far exceeded the growth of corporate cash flow, which we see in the surge of total external sources. In December 1965 the Federal Reserve signaled the forthcoming tightening of monetary policy by increasing the discount rate from 4% to 4½%. At the same time the maximum allowable interest on time deposit of commercial banks was raised from 4½% to 5½%.[35] Banks tried to satisfy the mounting demands for business loans by obtaining additional loanable funds by increasing their borrowing from the Federal Reserve, reducing their investment in securities and bringing back funds from their foreign branches. The effect of the policies are reflected in the decreased amounts of Bank loans, from $10.6 billion in 1965 to $8.4 billion in 1966. The strong demand for investment funds led firms to issue large amounts of new securities,[36] the capital raised through bonds jumped to $10.2 billion in 1966 compared with $5.4 billion of 1965. Similarly, stocks contributed $1.2 billion, while in 1965 no capital had been raised through this source. We also find increasing retained profits and depreciation allowances, which are the outcome of a constantly growing economy and the earlier tax cuts, and liberal depreciation policies of the government.

The moderation of the rate of economic advance at the

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[35] Economic Report of the President, 1967, p. 54.

[36] Ibid., p. 55.

end of 1966 produced a setting for monetary and credit developments in 1967 which was in several respects the opposite of that which had prevailed a year earlier. Plant and equipment expenditures had leveled off following a period of exceptionally rapid advance.[37] As a result, we find a decrease in retained profits, bank loans, and trade debts. The increase in depreciation allowances to $41.2 billion in 1967 from $38.2 billion does indicate the larger dollar base value of depreciable assets. The increase in bonds share registered a substantial increase in volume, from $10.2 billion in 1966 to $14.7 billion in 1967. The explanation for the exceedingly large volume of corporate borrowing in 1967 lies in the events of 1966; in part it reflected expectation of what might happen in 1968.[38] Some corporate issues were postponed during the market squeeze of 1966; another important legacy from 1966, however, was the lesson that corporations learned about of cost of excessive dependence on commercial banks. The lesson that bank credit could become very difficult to obtain, even by highly credit-worthy borrowers, led many of them to conclude that a large part of their debt capital should be obtained at long-term. The impetus this gave to bond issue was strengthened as the expectation began to spread that

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[37] Economic Report of the President, (Washington; U.S. Government Printing Office, 1968), p. 76.

[38] Ibid., p. 80.

long-term rates would increase as soon as economic activity rebounded.[39]

The American economy achieved large gains in output and employment in 1968. The GNP after adjusting for price increases increased by about 5%.[40] Corporate retained profits were $22.0 billion as against $10.2 billion of 1961, depreciation allowances etanding at $44.3 billion in 1968 as against $25.4 billion of 1961. Capital raised through bonds and stocks declined by combined total of $4.9 billion. The reason was the rise in interest rates in the open market. By late May 1968 high grade corporate bonds commanded more than 7%.[41]

After analyzing the yearly changes in the light of the general economic conditions, it would be reasonable to sum them up to form a broad picture about the different categories like total internal and external sources, total short and long-term debts, undistributed profits, and capital consumption allowances.

In general, it can be said that total internal sources on an average have provided 63.9% of total sources during the period under study. And external sources contributed

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[39]Ibid., pp. 80-81.

[40]Economic Report of the President, (Washington; U.S. Government Printing Office, 1969), p. 33.

[41]Ibid., p. 39.

TABLE 2

PERCENTAGES OF TOTAL SOURCES ACCOUNTED FOR BY SPECIFIC SOURCES OF FUNDS FOR NON-FARM NON-FINANCIAL CORPORATE BUSINESS, 1959-1968.

	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
SOURCES										
INTERNAL SOURCES	60.4	71.5	62.8	64.2	65.4	70.3	60.7	61.1	64.9	57.1
Undistributed Profits	21.7	20.8	18.0	19.1	20.2	25.4	24.8	24.7	22.5	19.9
Corporate Inventory Valuation Adjustments	-0.8	0.4	-0.1	-0.4	-0.7	-0.7	-1.8	-1.8	-1.2	-2.9
Capital Consumption Allowances	39.5	50.3	44.9	45.1	45.9	45.6	37.8	38.2	43.6	40.1
EXTERNAL SOURCES	39.5	28.4	37.1	35.7	34.5	29.6	39.2	38.8	35.0	42.8
Stocks	3.7	3.3	4.5	0.9	-0.4	2.0	0.0	1.1	2.4	-0.7
Bonds	5.1	7.2	8.2	7.2	5.8	5.6	5.9	10.1	15.6	11.7
Mortgages	5.1	5.1	6.9	6.9	7.3	5.0	4.2	4.1	4.8	5.2
Bank Loans	6.1	3.9	1.3	4.6	5.5	5.2	11.3	8.3	6.8	8.7
Other Loans	-0.5	3.9	1.1	0.0	0.2	1.2	0.7	1.3	1.4	3.2
Trade Debt	9.5	1.2	9.6	7.2	7.8	5.0	9.8	7.2	2.8	5.1
Profit Tax Liability	4.2	-4.5	2.5	0.9	2.8	0.7	2.3	0.2	-4.3	3.3
Other Liabilities	6.2	8.3	3.0	8.0	5.5	4.9	5.0	6.5	5.5	6.3

Source: Calculations based on data from: Economic Report of the President, (Washington: United States Government Printing Office, 1970), p. 264.

NOTE:- Because of rounding total will not be equal to 100 percent.

the remaining 36.1% on an average basis. Undistributed profit share in absolute amounts did increase from $12.6 billion in 1959 to $22.0 billion in 1968, their percentage actually declined in 1968 to 19.9% as against 21.7% of 1959. But their average share was 21.7 percent during 1959-1968. Their maximum contribution in percentage terms came in the year 1965, for the reason already explained in the preceding pages. Capital consumption allowances, on the contrary, did provide a much higher percentage share towards total sources. On the average, 43.1% of the total sources was raised through capital consumption allowances.

From this analysis a few conclusions are drawn. First, retained earnings are comparatively less important than capital consumption allowances in providing funds towards total sources. Secondly, capital consumption allowances have not shown a significant increase in their percentage share to total sources in the year 1968 as judged against the year 1959.

Stocks, which are also known as external equity sources, give a picture of declining importance, judged either in absolute amounts or percentage contributions to total sources. The low percentage share of stocks to total sources reflects the change in the attitude of corporations in relying less and less on equity capital. In a brokerage firm study which shows that since 1955 only eight of the 30 companies whose stocks are listed in the popular Dow-Jones Industrial Average have done any common stock financing. And seven of those eight, the exception being American Telephone and Telegraph Company, have done no common stock financing since 1957.[42]

Long-term debt which is the total capital raised through bonds and mortgages shows the fact that it has on an average provided 13.7% of the total sources. Starting 1966 there was a surge in the amounts raised through bonds for the reasons of increased need for capital in a growing economy and lack of availability of loans from commercial banks.

Analyzing the debt sources, we observe that the share of short-term debt to total sources is higher compared to the share of long-term debt to total sources. Short-term debt on the average provided 19.9 percent of the total sources, their maximum being 29.1% in 1965 reaching a minimum of 11.2% in 1967.

Bank loans and trade debt which are the prominent groups under the short-term debt heading reflect a pattern of significant changes. Bank loans' share increased and decreased very significantly depending on the various factors of the economy which changed their course of action, for the reasons explained in the earlier pages. Bank loans provided \$1.3 billion in 1961 and in 1965 their share to total sources was \$11.3 billion, a remarkably significant change. Trade debts, on the contrary, maintained a pattern of insignificant changes, except for the recession year of 1960, when its share declined

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[42]Funston, op.cit., p. 469.

to $1.2 billion as against $9.5 billion of 1959.

Profit tax liabilities are mainly connected to the tax structure of the economy and the profits of the corporations; the changes in tax policies and total profits will change their contributions to total sources. The different figures in Tables 1 and 2 do reflect those points mentioned and the general policies discussed in detailed earlier.

The importance of major components of internal and external sources has already been considered. It is now desireable to make an account of the role of equity and debt capital to total sources. The importance of equity capital can be verified by Table 3, which indicates the total equity and debts sources in absolute amounts, as well as their percentage distribution.

Study of this ten year period reveals the fact that the debt-equity ratio has not changed significantly; rather its behavior is stable in nature, and on the average, debt equity ratio for the period 1959-1968 was 65.6 percent. A yearly analysis also indicates the same fact, with a few exceptions like 1960 and 1968, in which the variance from the ten year average is distinct. In 1960 equity/debt ratio was 74.8/25.1, and in 1968 it was 57.1/42.8. A second important point is that the percentage contribution of equity sources on the average is approximately 2/3 of total sources, and debt sources contributed 1/3 of the total sources.

The wide variance between the debt/equity ratio in the

TABLE 3

THE RATIO OF EQUITY AND DEBT SOURCES TO TOTAL SOURCES OF FUNDS

ALL NON-FARM NON-FINANCIAL CORPORATIONS: 1959-1968.

	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
SOURCES, TOTAL	57.9	48.1	56.6	64.7	67.1	71.8	93.1	100.6	94.2	110.4
Stocks	2.2	1.6	2.5	0.6	-0.3	1.4	0.0	1.2	2.3	-0.8
Internal Sources	35.0	34.4	35.6	41.6	43.9	50.5	56.6	61.2	61.2	63.1
TOTAL EQUITY SOURCES	37.2	36.0	38.1	42.2	43.9	51.9	56.6	62.4	63.5	63.1
TOTAL DEBT SOURCES	20.7	12.1	18.5	22.5	23.2	19.9	36.5	38.2	30.7	47.3
RATIOS:-					(in Percent)					
Equity to total sources	64.2	74.8	67.3	65.2	65.4	72.2	60.7	62.0	67.4	57.1
Debt to total sources	35.7	25.1	32.6	34.7	34.5	27.7	39.2	37.9	32.5	42.8

Source: Calculations based on data from; Economic Report of the President, (Washington: United States Government Printing Office, 1970), p. 264.

NOTE:- Because of rounding total will not be equal to 100 percent.

year 1960 and 1968 was mainly the outcome of economic conditions. The recession of 1960 saw a decline in the capital accumulated through trade debts, mortgages and bank loans. Consequently then, there was a decline in the total amount raised through debt sources and as such their percentage share declines. The recessionary conditions of 1960 caused the decline of the funds raised through debt sources. As a result, we found an increase in the percentage share of equity sources, from 64.2% in 1959 to 74.8% in 1960. This surge in equity share reduced the contribution of debt sources to total sources, from 35.7% to 25.1% in 1960.

In 1964, a surge in retained profits and an increase in depreciation allowances, which were the outcome of the fiscal policies of the government—corporate tax reduction and liberal depreciation policies—led to an increase in the percentage share of the equity capital and a decline in the debt capital to total sources. In 1968, although the total sources available for corporations were greater than those in 1967 by $16.2 billion, the capital raised through debt sources, especially through bank loans and the trade debt, led to an increase in the debt percentage share and a decline in the equity share to total sources.

Returning to the point of analyzing the external sources and its relationship with general economic conditions, we have determined through simple graphical means as well as simple regression or correlation analysis—a statistical technique for determining and evaluating the relationship between two variables[43]—that there is direct relatiohship between the yearly percentage changes in Gross National Product and External sources. Also, the degree of relationship or the closeness of relationship is significant.

The graphical representation is a preliminary effort to determine the relationship between the changes in GNP and external sources. It shows when the GNP is increasing at a faster rate, the total fund obtained through external sources also increases. Similarly, a slower rate of increase in GNP reduces the amount of capital raised through external sources. Thus, it establishes a positive graphical relationship between the two variables.

The results of simple correlation analysis between yearly percentage changes in Gross National Product and those of external sources are shown in the Simple Correlation table.

To measure the relationship between the two variables, in our case yearly changes in Gross National Product and external sources, we must discover the value of coefficient of determination (r^2), which is used to measure the relative closeness of the relationship. It seeks to explain or attribute the variations in the dependent variable by variations

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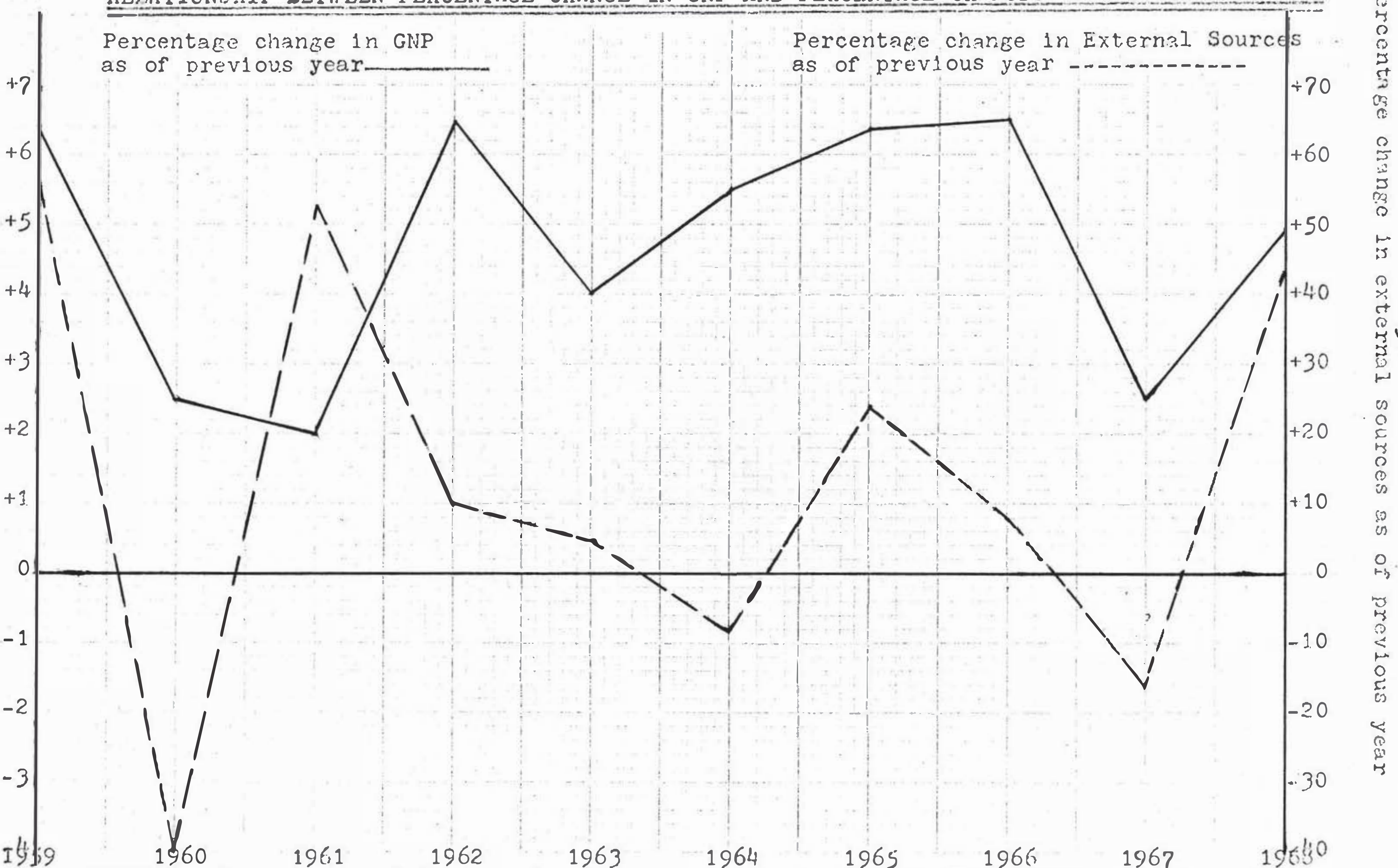
[43] Edward N. Dubois, Essential Methods in Business Statistics, (New York: McGraw-Hill Book Company, 1964), p. 141.

RELATIONSHIP BETWEEN PERCENTAGE CHANGE IN GNP AND PERCENTAGE CHANGES IN EXTERNAL SOURCES



SOURCES: Gross National Products' figures taken from Business Statistics; U.S. Department of Commerce, (Washington D.C.: U.S. Government Printing Office, 1969), p.4; External Sources figures are taken from table 2, p.22.

in the independent variable.[44] In our case the coefficient of determination (r^2) is 0.80 and can be interpreted to mean that 80 percent of the changes in the dependent variable (percentage change in external sources as of previous year) is determined by the independent variable (percentage change in GNP as of previous year). Since the most we could explain be 100 percent, we obviously have a good correlation here.

The coefficient of correlation (r) is 0.895. It is defined as the degree of relationship or the degree of correlation between yearly percentage change in external sources and yearly percentage change in GNP. The coefficient of correlation tend to overstate the degree of relationship between the dependent and independent variable. The coefficient of determination (r^2) = 0.801 and indicates that about 4/5th of the variation in the dependent variable is attributable to independent and 1/5th of the variation is not explained. The correlation coefficient $r = \sqrt{0.80} = 0.895$ and indicates a rather high correlation between the two variables. Thus, the coefficient of determination seems to be a more desirable measure to use to explain the relationship between dependent and independent variables.

To determine whether a correlation coefficient is significant, we must employ the null hypothesis. The null hypothesis in this problem is: There is no correlation between

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[44] Ibid., p. 143.

TABLE—3A

SIMPLE CORRELATION COEFFICIENT:

Independent Variable	=Percentage change in GNP as of previous year. (in constant 1958 dollars)
Dependent Variable	=Percentage change in External sources as of previous year
Simple Correlation Coefficient	$=r=0.895$
Coefficient of Determination	$=r^2=0.801$
Goodness of Fit	=32.152
Constant term	=-36.440
Regression Coefficient	=0.1118
T. Value	=5.670
Standard Error of Estimates	=4.917
Total Number of Observations	=N=10

Source: Computations based on the figure from page 36 yearly percent changes in GNP and external source.

In accepting or rejecting this hypothesis we examine the following:

1. T value = 5.6703
2. Degree of freedom =n-2=8
3. Confidence Coefficient = 0.99
4. Critical value = 3.35

The null hypothesis is rejected even at the 0.99 percent confidence level, for the t value of 5.67 falls far beyond the critical (table) value of 3.35. The null hypothesis can be rejected with 99 percent confidence. It is unlikely, therefore, that there is no relationship between yearly change in GNP and External sources. On the contrary the t value does indicate that it is quite likely that a relationship does exist.

B. CORPORATE FUNDS BY INDUSTRY:

An examination of the data of individual groups which form the non-financial corporations provides some insight into their individual pattern of financing. Although a breakdown of data on sources of funds by individual industries has not been available since 1964, the one which is available still provides some idea about their individual trend.

From table 4 it is observed that there is a considerable degree of diversity among industries in the relative importance placed on various categories of funds. Communications and public utilities appear to rely much more heavily on external sources than do any of the other sub-classifications; yet it is to be seen that for all groups the importance of internal sources has increased in 1959-1963.

Retail trade seems to rely much more heavily on short term debt, requiring little long-term financing. For public utilities the opposite is true.

Manufacturing and mining have used the external sources up to 33 percent in 1947-1958, but it declined to 25.1 percent in 1959-1963. A similar pattern is visible in the non-railroad transportation, but railroads appear not to have utilized external sources in 1959-1963.

It appears only manufacturing and mining, public utilities, and communication have tapped the equity market for

TABLE 4

PERCENTAGE DISTRIBUTION OF SOURCES OF CORPORATE FUNDS

BY INDUSTRY, 1947-1958 AND 1959-1963.

Sources of Funds	Manufacturing and Mining	Railroads	Nonrailroad Transportation	Public Utilities and Communications	Trade
Internal Sources					
1947-1958	67.0	87.9	66.9	32.9	71.8
1959-1963	74.9	109.1	71.7	53.4	-
Retained Earning					
1947-1958	32.9	33.1	9.5	3.3	40.1
1959-1963	25.3	-27.3	-0.9	7.8	-
Depreciation					
1947-1958	34.1	54.8	57.4	29.6	31.5
1959-1963	49.6	136.4	72.6	45.6	-
External Sources					
1947-1958	33.0	12.1	33.1	67.1	28.4
1959-1963	25.1	-9.1	28.3	46.8	-
Short-term Debt					
1947-1958	16.5	4.0	13.5	7.8	23.2
1959-1963	16.6	12.1	14.2	8.2	-
Long-term Debt					
1947-1958	14.3	10.5	19.6	35.1	5.2
1959-1963	9.3	-21.2	14.2	23.8	-
Stock					
1947-1958	2.2	-2.4	*	24.2	*
1959-1963	-0.7	*	*	14.8	-

SOURCES: Calculated from data in Survey of Current Business, September 1957, table 2, p. 10; November 1964, table 2, p. 9.

Calculated from data in Survey of Current Business, September 1957, table 2, p. 10; October 1959, table 2, p. 15.

*Aggregates amounts were less than $50 million.

-Data are unavailable.

Note: Internal and External Sources may not equal to 100 percent because of rounding.

new issuance of stock during the post-world war II period. In relative terms, public utilities have placed heavier reliance on equities while mining and manufacturing seem to have experienced a net retirement of equity issues during the 1959-1963 period.

From the relatively spotty data available on the pre-World War II period, there seems to be no trend in the reliance manufacturing and mining corporations have placed on internal sources. According to Kuznets, the ratio of internal financing to total uses was "0.70 in 1900-1910, 0.97 in 1920-1929, and 0.67 in 1946-1953."[45]

On the other hand, there has been a marked upward trend in the reliance on internal funds in the regulated industries. Kuznets estimates that between 1901 and 1910, internal sources for all regulated industries would have accounted for at most 20 percent of total uses. In 1941-1950 period, the proportion was about 62 percent.[46]

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[45]Kuznets, op.cit., p. 253.

[46]Ibid., p. 256.

C. HISTORICAL RECORD:

In the American economy the importance of non-financial corporations is reflected by their dominance in the private sector. To arrive at any meaningful conclusions for the pattern of corporate financing for the period 1959-1968, it would be very important to observe the historical pattern of their financing. Then, a comparison of the period 1959-1968 with the past 50 years, which is the historical record, will enable us to arrive at a conclusion about the pattern of financing of non-financial corporations.

To present a historical record data have been collected from different sources. The most comprehensive work in this field has been directed by the National Bureau of Economic Research, the two main authors, whose work has been of immense importance have been, Simon Kuznets,[47] and Raymond W. Goldsmith.[48]

The data for forming the historical record have been

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[47]Simon Kuznets, Capital in the American Economy: Its Formation and Financing, (Princeton, N. J.: Princeton University Press, 1961).

[48]Raymond W. Goldsmith, Financial Intermediaries in the American Economy Since 1900, (Princeton, N. J.: Princeton University Press, 1958), and Raymond W. Goldsmith, The Flow of Capital Funds in the Postwar Economy, (New York: National Bureau of Economic Research, Inc., 1965).

either calculated or taken from the work of different authors and are mentioned under the sources of the tables.

A problem in making a historical comparison is dividing the series into meaningful periods. To draw valid conclusions from the data it is necessary to organize the figures so that the forces affecting the composition of funds are similar. As Simon Kuznets observes, it is possible to do so, first, by eliminating, "the periods of war and distortion due to cyclical depressions, and observing the ratios over the periods marked by substantial capital formation under relatively prosperous conditions,"[49] and secondly,

> —by including all periods, even the exceptional ones of war or other unusual conditions on the theory that those exceptional periods were the product of antecendent years—which were consequently also exceptional becauae they gave rise to exceptional effects—and those exceptional spans were in turn followed by periods that represent reactions and thus were also in some way unusual, we should include all periods.[50]

Thus, we are including all periods—relatively prosperous and periods of cyclical depressions. The data calculated and collected represent short and long-periods, which exclude wars and the Great Depression but which are otherwise cyclically comparable are labeled "Short-periods", while those including these distortions are labeled "Long-periods."

A comparative study of the period 1959-1968 and the

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[49]Kuznets, op.cit., p. 242.

[50]Ibid., p. 242.

historical record going back to 1901 provides a great deal of information to observe the pattern of non-financial corporation's financing. According to Arnold W. Sametz, "It is by now well known that since World War II internal equity finance—the reinvestment of retained earnings and depreciation funds—has provided a huge proportion of total corporate funds, and that external equity finance—new common stock issues—has played a relatively small role. It has also been popularly assumed that these recent trends are unique, especially as compared with earlier periods of this century."[51]

John Linter in his findings concludes that "there has been no long-term trend toward increasing reliance upon internal funds."[52] Linter's conclusion that internal sources have provided a stable proportion of total non-financial corporate business were viewed differently by Simon Kuznets. While using the same data Kuznets found a slight upward trend in the ratio of internal sources. "The ratio was 0.55 in 1901-1912, 0.55 in 1913-1922, and 0.61 in 1946-1956."[53] Linter's findings are based on the comparison of periods of different characters. He used 1913-1922, primarily a

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[51]Arnold W. Sametz, "Trends in the Volume and Composition of Equity Finance," Journal of Finance, Vol. 19, No. 3 (September, 1964), p. 450.

[52]John Linter, "The Financing of Corporation," in E.S. Mason (ed.), The Corporation in Modern Society, (Cambridge, Mass.: Harvard University Press, 1960), p. 190.

[53]Kuznets, op.cit., p. 249.

war period, to indicate an early high (0.60)[54] internal finance period. He then compared this high (0.60) internal finance period with the later non-war period of 1946-1949 when the ratio was also 0.60. The argument, forwarded by Sametz, is that, "If Linter preferred to use the 1913-1922 period when the internal proportion of total finance was 0.60, the proper later comparable period would be 1940-1949, when the internal proportion was 0.71".[55]

The data in this paper are based on the figures of Goldsmith and those of Commerce-Federal Reserve estimates. Searching in the light of the above argument over the fact that the periods to be compared should be of similar nature, we have seen in table 5 that the percentage share of internal sources has increased definitely in the post-World War II period. In 1901-1912 it was 55.2 percent, in 1959-1968, 63.8 percent, an increase of 8.6 percentage points. In the longer periods, when the two World Wars and the Great Depression are included, Goldsmith's estimates show an upward trend through 1939, then a decline in the importance of internal sources from 1940 to 1958. The Commerce-Federal Reserve estimates show the internal sources for the post-World War II period to approximate the levels in the Goldsmith data of the 1913-1939 period.

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[54]Linter, op.cit., p. 190.

[55]Sametz, op.cit., p. 453.

TABLE 5

INTERNAL SOURCES OF FUNDS AS A PERCENT OF TOTAL SOURCES FOR NON-FINANCIAL CORPORATION FOR SELECTED YEARS, 1901-1968.

Short Periods	Internal Sources as a percent of Total Sources	Longer Periods	Internal Sources as a percent of Total Sources
1901-1912[a]	55.2	1901-1922[a]	58.7
1923-1929[a]	54.7	1913-1939[a]	65.8
1946-1958	55.9	1940-1948[b]	59.4
1946-1958[b]	62.9	1946-1968[c]	64.0
1959-1968[c]	63.8		

Sources: [a]Calculated from data in Raymond W. Goldsmith, Financial Intermediaries in the American Economy Since 1900, (Princeton, N. J.: Princeton University Press, 1958), table-53, p. 222.

[b]Computed figures taken from Ward S. Curran, Principles of Financial Management, (New York, McGraw-Hill Book Company, 1970), table 17-4, p. 372.

[c]Calculation based on data from table 2, p. 28.

The question why internal sources are relatively less important in the short periods than in the longer periods has been answered in the following manner.

> "During periods of peacetime prosperity containing relatively minor recessions, an expansion in demand for goods and services is often followed by an expansion in the demand for capital. The demand curve for funds intersect the supply curve at a relatively high level, reflecting an expansion in external sources."[56]

Similarly,

> "During war periods a nation's capital resources are fully utilized. Restrictions are often placed on the supply of funds, with the war affort taking precedence. The government dominates the capital market and corporations are forced to rely heavily on internally generated funds."[57]

Thus, it can be concluded that internal finance share during 1959-1968 is larger and has increased in comparison to the historical record. The data do reflect a long-term trend toward increasing reliance upon internal sources.

It is known that internal sources are comprised mainly of depreciation allowances and those of retained earnings. We observe in table 6 that capital consumption allowances are the major contributor to the total sources throughout the historical record and in particular that their share has significantly increased in the period under study, 1959-1968. Their share in 1959-1968 is 43.1% as against 33.5

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[56]Curran, op.cit., p. 373.

[57]Ibid., p. 373.

TABLE 6

RETAINED EARNINGS AND CAPITAL CONSUMPTION ALLOWANCES AS A PERCENT OF TOTAL SOURCES FOR SELECTED YEARS, 1901-1968.

Percent of Total Sources					
Short Periods	Retained Earnings	Capital Consumption Allowances.	Longer Periods	Retained Earnings	Capital Consumption Allowances.
1901-1912[a]	21.7	33.5	1901-1922[a]	25.1	33.6
1923-1929[a]	17.4	37.3	1913-1939[a]	8.1	57.7
1946-1949[a]	34.0	30.5	1940-1949[a]	33.1	37.8
1946-1958[b]	27.1	35.8	1946-1968[b,c]	25.1	38.9
1959-1968[c]	20.7	43.1			

Sources: [a]Calculated from data in Raymond W. Goldsmith, Financial Intermediaries in the American Economy Since 1900, (Princeton, N. J.: Princeton University Press, 1958), table-53, p. 222.

[b]Computed figures taken from Ward S. Curran, Principles of Financial Management, (New York, McGraw-Hill Book Company, 1970), table 17-4, p. 372.

[c]Calculation based on data from table 2, p. 28.

percent in the 1901-1912 period. From this it is to be concluded that internal sources have provided a significant proportion of total funds in the historical record, and, secondly their share has increased considerably during the period 1959-1968.

The increasing percentage share of capital consumption allowances can be due to many factors. Keith Funston in his article has provided some clues relating to the increasing importance of depreciation allowances, especially from the mid 1950's onward.

> "For one thing, the stock of depreciable assets held by corporations has been rising. In 1955, about $290 billion of property was being written-off by American business. Estimates for 1964 indicate that there are now some $540 billion of physical assets eligible for similar treatment. Inflation has been one factor here. Write-offs in the mid-1950's were based, in part, on plant and equipment acquir d at the tail-end of depression. Assets currently eligible for depreciation allowances were acquired largely after the inflationary post-war period and consequently, represent a much higher base dollar value. Furthermore, during the decade, over $300 billion were invested in new plant and equipment by non-financial corporations."[58]

Some other factors which also contributed toward the increasing flow of depreciation funds are improved technology and tax policies of the government. Again as observed by Funston "Technology has been an even more important factor. As machinery wears out or becomes obsolete, the replacement

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[58] Funston, op.cit., p. 468.

typically is more elaborate and costlier, in line with efforts to increase both productivity and quality."[59] Thus increasing the cost of depreciable assets, in turn, generates more depreciation funds.

Similarly, Federal tax policies were revised in 1954 to encourage write-off's of depreciable assets, and the effect has been to enable companies to write-off a large portion of an asset's cost during the early years of its life rather than at a constant rate.[60] The "Guideline Procedures" were adopted by the U.S. Treasury in 1962 and the investment credit provided a major stimulus and simultaneously boosted depreciation allowances.[61] The result is observed in figures of short periods starting from 1946 and going up to 1968. We note that the capital consumption allowances have been relatively more important sources of funds in the post-World War II period than in the earlier years. In the long periods, particularly during 1913-1939, capital consumption is very important. The reason why it was not so in earlier years has been explained by Curran, "The Great Depression dominated the earlier series to such an extent that it distorted the long-term trend in both capital consumption allowances and retained earnings. World War I did not produce

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[59]Ibid., p. 469.

[60]Ibid., p. 469.

[61]Ibid., p. 469.

the same effects as either the Great Depression or World War II."[62] It indicates the disastrous effects of the Great Depression, which either wiped out many businesses or decreased their profits to such an extent that we find very reduced figures of retained earnings for the long-period which included depression. Depreciation allowances increased due to the governments' policies of earlier write-off of capital goods to stimulate the recovery of the economy.

Retained earning's picture give a different view. While its share increased to 34.0 percent in the period 1946-1949 from 21.7 percent of 1901-1912, it dropped to 20.7 percent in 1959-1968. Although retained earnings increased in the historical period, it does not seem as much in relative importance as that of capital consumption allowances.

A similar comparative study of external sources based on the figures of historical period and those of 1959-1968 reveals the picture of declining importance of external sources. Table 7 provides a picture of total external sources and its sub-divisions. These sub-divisions are long-term debt which include bonds and mortgages; short-term debts include all other sources of debts except bonds and mortgages; stocks represent the total of both preferred and common stock.

While observing the external sources in general we

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[62] Curran, op.cit., p. 375.

TABLE 7

EXTERNAL SOURCES AS A PERCENT OF TOTAL SOURCES FOR NON-FINANCIAL CORPORATION FOR SELECTED YEARS, 1901-1968.

	Percent of Total Sources			
Short Periods	External Sources	Long-term Debts	Short-term Debts	Stocks
1901-1912[a]	44.5	22.5	8.0	14.0
1923-1929[a]	45.3	21.6	4.3	19.4
1946-1958[a]	44.1	17.3	20.0	6.8
1946-1958[b]	37.1	12.1	20.0	5.0
1959-1968[c]	36.0	13.7	20.6	1.7
Long Periods				
1901-1922[a]	41.3	15.6	13.6	21.1
1913-1939[a]	34.3	13.9	4.3	16.1
1940-1958[a,b]	40.6	12.1	22.0	6.5
1946-1968[b,c]	36.0	13.2	19.4	3.4

Sources: [a]Calculated from data in Raymond W. Goldsmith, Financial Intermediaries in the American Economy Since 1900. (Princeton, N. J.: Princeton University Press, 1958), table-53, p. 222.

[b]Computed figures taken from Ward S. Curran, Principles of Financial Management. (New York, McGraw-Hill Book Company, 1970), table 17-4, p. 372.

[c]Calculation based on data from table 2, p. 28.

have seen that there is clear evidence of its declining role in the financing of the non-financial corporations. The declining importance is revealed in both short and long periods. In 1901-1912 their share was 44.5 percent and in 1949-1968 it had declined to 36.0 percent. In longer periods the same trend is observable. In 1913-1939 period a distinct declining trend is evident, this period includes not only the Great Depression, but also the World War I. The period 1946-1968 does not include any such major event, but still we find declining figures, supporting our findings that external sources are declining in importance as a source of new capital for non-financial corporations.

Considering the changes in long-term debt, short-term debt and stocks we have observed that there is distinct shift of sources from long-term debt towards short-term debt. Most important of all is the significant decline in the importance of funds raised through stocks. In the short period 1901-1912 the share of long-term and short-term debt to the total sources was 22.5 and 8.0 percent respectively; the percentage of short-term debt for 1959-1968 is 20.6 and of long-term on 13.7. It shows the fact that corporations are more able to repay the debt over a short period of time than the usual fifteen-twenty years of bonds.[63] The fastest declining component of external

[63] Sametz, op. cit., p. 458.

sources is stock issues rather than the long-term debt, from 14.0 percent during 1901-1912 to 1.7 percent during 1959-1968, approximately an 88 percent decline in the amount raised through this source. It is also clear that the stock as a source of corporate funds has declined substantially in the post-war era compared with that of the 1920's.

CONCLUSION

An analysis of trends of non-financial corporation for the period 1959-1968 reveals the fact that the non-financial corporations, in general, have relied heavily on the funds obtained through internal sources, and that the external sources are not as important as internal sources.

The sub-divisions which form the broad category of internal and external sources reflect their individual importance. From the sub-divisions of internal sources, capital consumption allowances are relatively much more important source of funds than retained earning. The sub-divisions of external sources show that the stocks are losing their importance as a source of fund. Debts, in general, are becoming more important, particularly short-term debts.

The statistical figures of 1959-1968 period and the historical data judged on the whole show the same trend as those observed in 1959-1968. The importance of external sources is declining decade after decade, and there has been a relative gain in the importance of internal sources as a source of funds. In short as well as long periods internal sources have provided more and more funds.

The financing pattern of the ten year period and the historical trend reflect the point that there is a change in the pattern of financing of non-financial corporations from external sources towards internal sources. This long and continuous changing pattern in the same direction, that is, towards internal sources, can be used to make a prediction about future corporate financing behavior. On this basis, we can predict with reasonable certainty, that the future financing pattern of non-financial corporations would follow the present financing pattern.

It is the conclusion of this paper that there has been a change in the pattern of financing of non-financial corporations, which is consistent with the changing pattern of historical period. The change is from external towards internal sources. The fastest declining component of total external finance is stock issues, and there is also a change in the composition of debt finance (from long to short), but the relationship between debt as a whole and equity as a whole remains relatively constant.

The topic of this paper can be further divided into many small individual areas for more extensive research work. For example, the change in debt structure from long-term towards short-term can be studied in terms of its effect on the sources of these funds. The increasing role of bank loans and trade debt can be dealt with individually, and their importance studied to ascertain their impact on corporate financial activity. Furthermore, I think each individual component of internal and external sources can be analysed separately to discover its current importance and future role in the financing of non-financial corporations.

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