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FACTORS INFLUENCING MANAGERIAL DECISIONS IN DETERMINING FORMS OF BUSINESS FINANCING: AN EXPLORATORY STUDY*

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I Basic Issues and Concepts

The fundamental question explored by this paper may be stated as follows: What factors influence the decisions of managements of American business enterprises in determining forms of financing? A subsidiary, though related, question is: What factors should influence managerial decisions regarding forms of financing? For significant differences may exist between actual financing decisions and the decisions that would be made, if managerial knowledge of the relevant determinants were more precise and complete. Attention is focussed upon the current status of knowledge of this subject and upon methods of augmenting that knowledge.

The paper represents an effort at synthesis and the formation of concepts. Its main purpose is not to present the results of empirical research.

Nor is it primarily concerned with the factors that determine the inducement to invest, the amount of investment, or the demand for funds by business enterprise. Herein it is assumed that inducements of given strength have led to certain demands for funds; our preoccupation is with the factors that lead managements to adopt one method instead of others in obtaining such funds. Nevertheless, the two types of decisions clearly are interdependent. The particular forms and variants of financing that are

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available at any time to business concerns have an influence of considerable importance upon the amount of the current demand for funds. For example, the development by commercial banks of such new credit forms as the term loan has undoubtedly reduced the amount of capital rationing undertaken by banks during periods of business recession or high economic uncertainty.

1 *Relation of Public and Business Policy to Knowledge of Financing Forms*

Manifestly, many issues of public policy and of business policy turn upon adequate knowledge of the matter under examination. An enhanced understanding of the financial decision-making process in business concerns would aid in the realization of a primary aim of public policy — to encourage a sustained, rising level of business investment, and thereby to maintain a high level of employment, production and real income. It would also contribute to the success of business policy, which aims to maximize the present value of the anticipated net income of the firm and to maintain its solvency under the control of its management in a fluctuating environment.

Finally, such knowledge holds much value for investment bankers, commercial bankers, insurance companies and other suppliers of funds by enabling them to adapt more rapidly and more accurately the terms of financing arrangements that they stand ready to offer. It is worthwhile to indicate more specifically what bearing the knowledge of factors influencing decisions on forms of business financing has upon the effectiveness of public policy, business policy, and the policy of suppliers of funds.

Federal fiscal and monetary authorities possess the power to influence the structure of interest rates. Interest-rate policy would be more soundly based if governmental authorities knew to what extent interest-rate structure was determinative of business investment decisions, and how business managements respond to changes in the structure of interest rates with respect to the aggregate amount of investment undertaken and the forms in which it is financed.

Federal tax policy also exercises an important influence upon choices of financing forms. What changes in these decisions would probably occur, if specified changes were made in the federal tax structure? For example, if the federal tax on corporate net income were raised (or lowered) by 50 percent, what would be the probable effect upon aggregate investment by corporate business, and upon the extent to which it would be internally rather than externally financed? Answers to such questions as these would be extremely useful to tax policy makers.

Finally, a framework is needed for analysis of proposals for new federal lending agencies and loan-guarantee programs for business, and for proposals to expand or contract existing programs of this type. Public policy could be formulated with more confidence in the need for, and appropriateness of, particular actions, if knowledge of influential factors in business financing decisions were more complete.

While financing decisions cannot be based entirely upon quantifiable considerations, the presence of uncertainty calls for a more, not a less, systematic analysis of the relevant factors. Without a systematic approach to the selection of financing forms, important variables may be overlooked or given insufficient consideration. Certain it is that better selection of available forms would increase the survival rate in the business population. Many enterprises go under during periods of general economic recession — especially those whose sales and profits are highly sensitive to changes in national income — because too large a proportion of their assets was financed by short-term obligations. Ill-conceived financial policy often brings failure to concerns whose managements have well-conceived production and marketing policies with a potential for long-run success. Such failures cause valuable business organizations to be disbanded and productive resources to be reallocated, with social as well as monetary losses to the owners and creditors of the failed ventures.

During recent years American business managements appear to have held expectations of wide fluctuations in business activity, which have made them willing to pay high premiums for reduction in the risk positions of their firms in choosing forms of financing. In many cases such expectations may have caused firms to forego opportunities for profitable investment, where the only available form of financing was believed to carry too great an exposure to the risk of insolvency in the event of business recession. It is possible that a more accurate evaluation of these risks, present and future, would produce a different pattern of financing forms and a higher aggregate level of business investment.

Finally, more accurate and complete knowledge might enable managements to devise financing programs under which the enterprise would be able to secure funds to finance an expansion of total assets at times when asset prices are relatively favorable. A management that recognized the possibility of the firm's profiting from building assets during cyclical recessions would not finance its current operations from a source of funds under which it is debarred by contract from either making further capital expenditures or obtaining additional funds during the life of the loan contract. Better timing of asset expansion through the business cycle, by more adroit use of financing forms, would not only be profitable to the enter-

prise, but it would also make a contribution to general economic stability.

With respect to the policies of suppliers of funds to business, it appears likely that more knowledge of the influential factors governing the form of the demand for funds would enable them to fashion innovations, and to reduce the extent of the restrictions that they now consider necessary to impose upon the funds they will supply. It might further develop an entrepreneurial attitude on the part of suppliers in assuring that there always exists a financing arrangement which supports and encourages business asset expansion and still provides adequate protection to the supplier.

To the extent that a systematic method of analyzing factors influencing forms of financing may be devised, there would be provided a better basis for predicting the amount of the demand for funds in different forms. Such predictions would be useful to suppliers in setting prices for funds and adjusting their own financial positions to impending changes in market demand.

2 *A Classification of Forms*

Initially, it is necessary to state what is meant by "forms" of business financing. For purposes of this exploration, the following simple classification is utilized:

Internal financing
  (retention of net income in the business, or redirection of assets within a given total)

External financing
  (contracting for funds with suppliers outside the enterprise, including its current stockholders)

- a) Equity funds
  (common and preferred stocks)
- b) Credit or borrowed funds
  1) short-term (maturing in one year or less)
  2) long-term (maturing in more than one year)

This classification is not entirely satisfactory, because the distinctions drawn by it may be blurred in practice, or because a single financing transaction may involve several forms of financing simultaneously.

For example, the declaration of a stock dividend by a business corporation entails the allocation of earned surplus, arising from previously retained profits, to the capital account on its balance sheet. This is essentially an incident to *internal* financing of expansion in total assets, although it also involves the *external* aspect of issuance of contracts (shares of stock) by the firm to its stockholders. Again, the arrangement of a "revolv-

ing" line of credit by a business with a bank over a period of several years is essentially a contract for long-term credit, although sums of money actually advanced under the contract may be repaid in their entirety within a year and therefore constitute short-term credit. Or, a term loan made by a bank to a business, repayable over a five-year period in annual installments of equal amount, involves extension of short-term credit to the extent of one-fifth of the total loan and long-term credit to the extent of four-fifths. Despite such difficulties in application, the proposed classification of forms of financing possesses the advantage of corresponding to the traditional categories of liabilities carried on business balance sheets. Mixed forms of financing are comparatively infrequent, and borderline cases can usually be classified without great difficulty into one or another category.

For some purposes it is necessary to utilize a more detailed classification of forms of financing, which recognizes that within each category there are several significantly different variants. For example, short-term credit may be evidenced by a single unsecured note of the borrower, or it may consist of a "revolving" fund of credit secured by a changing complex of collateral, such as assigned accounts receivable or warehouse receipts. Long-term credit may be unsecured or be secured by pledges of real estate, machinery and equipment, on negotiable securities; it may be repayable in a lump sum or in installments of equal or unequal amount.

Equity funds may take the form of common or preferred stocks; and the latter may call for cumulative or non-cumulative dividends, and they may also possess various types of preferences and privileges with respect to claims on earnings or assets, or to control of the corporate board of directors under defined circumstances.

Furthermore, for each form of business financing, and variants thereof, there are usually a number of different types of sources of funds, with each of which, from the standpoint of business management, there are associated certain unique characteristics that differentiate the funds supplied by it from funds supplied by other sources. Thus, consider the case of a business concern that may obtain the funds it requires by borrowing on an unsecured basis for a term of ten years. The source of this credit might be a group of investment bankers who purchased debentures and sold them to the public; it might be a group of insurance companies that privately purchased the debentures for retention in their investment portfolios; or it might be an individual capitalist or investment company with which the business directly negotiated the unsecured loan. We may assume that the legal form of the loan contract was identical in all of these cases. Yet from the point of view of the borrowing business differences in the publicity

associated with the transaction, in concentration of control of the creditorship rights, and in other factors, may make these three types of transactions clearly distinguishable.

II The Present Status of Knowledge

Within the compass of this paper, any summary of present knowledge about factors influencing decisions on forms of financing is bound to be synoptic and impressionistic. A brief review, however, may serve to indicate generally what is known and what remains to be done.

While considerable literature on business finance has appeared, a disproportionate part of it consists of descriptive writing of limited scientific value. The substantial works may be grouped for consideration into six major categories: 1) studies of the formulation of financial plans; 2) studies of financial standards; 3) aggregative studies of financial structure; 4) aggregative studies of financial behavior through time; 5) studies of types of financial contracts made by business enterprises and their uses, and 6) historical studies of firms and industries.

1 *Studies of the Formulation of Financial Plans*

Most of the literature on the formulation of financial plans for businesses is found in textbooks on business finance.[1] Textbooks have not been addressed specifically to the central issue explored in this paper — factors influencing managerial decisions regarding forms of financing. Typically, forms of short-term financing are usually set forth in sections dealing with "working capital" and forms of long-term financing are presented separately in connection with "fixed capital." The impression is conveyed to the reader that short-term funds are appropriately used to finance current assets, and that there is little or no substitutability between long-term and short-term funds. Writers often hold that permanent working capital — the minimum amount of current assets employed by the business at all

[1] Among general textbooks on business finance, that of N. S. Buchanan, *The Economics of Corporate Enterprise* (New York: Henry Holt, 1940) is the most analytical. A. S. Dewing, *Financial Policy of Corporations* (New York: Ronald Press, 1941), the first edition of which appeared in 1919, remains the most comprehensive. Other textbooks in wide usage include: H. G. Guthmann and H. E. Dougall, *Corporate Financial Policy* (New York: Prentice-Hall, 1948); W. H. Husband and J. C. Dockeray, *Modern Corporation Finance* (Chicago: Richard D. Irwin, Inc., 1948); F. F. Burtchett and C. M. Hicks, *Corporation Finance* (New York: Harper & Brothers, 1948); W. B. Taylor, *Financial Policies of Business Enterprise* (New York: Appleton-Century, 1942); and H. E. Hoagland, *Corporation Finance* (New York: McGraw-Hill, 1947).

times — should be financed from long-term sources of funds. They also generally accept a current ratio of 2-to-1 as a useful financial standard, with some recognition of variation among industries.

The relative use of short-term and long-term funds in an enterprise may be deduced from the conventional 2-to-1 current ratio. If current debt should equal no more than one-half of current assets, it would follow that the amount of long-term funds employed by the enterprise, including those furnished by owners as well as creditors, should be at least equal to total assets less one-half of current assets. However, it has not been established that one-half of current assets represents the proportion that is, in fact, the "permanent" proportion in year-end business balance sheets, or that it is the proportion that should be financed by long-term funds. One must conclude that the criteria for determining the relative extent to which short-term and long-term funds should be used in business financial plans are not explicitly stated or adequately defended in the textbooks.

Neither do textbook discussions of financial planning deal satisfactorily with the determination of the proportions of debt and equity funds within the total of the long-term liabilities of the enterprise. In the main they are characterized by treatment of a limited number of factors influencing the choice of capitalization plan, with reference in some texts to averages of aggregate data for broad industrial groupings, to empirical norms, or to "financial experience" of an unspecified nature. For industrial enterprises, Guthmann and Dougall suggest that long-term debt be limited to the lowest of the amounts established by three tests: 1) not more than one-half the amount of fixed assets; 2) not more than the amount of net working capital; and 3) not more than an amount on which the fixed charges are covered at least three times by net earnings.[2]

While each of these tests has some plausibility, the rationale of combining them is not clear, nor has it been demonstrated by empirical test that these criteria are superior to others. For example, if these criteria were accepted, the limits of the use by managements of long-term credit in financing would be completely inelastic with respect to the relative costs of long-term credit and equity funds. It is not conceivable that managements should be oblivious to cost factors. Moreover, the variations in the impact of cyclical fluctuations on individual firms are too large to make admissible any blanket rule applicable to all manufacturing and trading concerns.

Textbook treatments of the forms of financing public utility corporations recognize that the greater temporal stability of earning power makes it feasible for such concerns to assume a relatively greater burden of fixed

[2] *Op. cit.*, pp. 206-16, where the items are presented with some qualifications.

charges against net income than would be appropriate for manufacturing or trading enterprises. Therefore they suggest a larger role for long-term debt in relation to equity funds in the financial plan.[3] Some texts have suggested that long-term debt may comprise as much as 60 percent of the long-term funds of a utility firm; and the Public Utility Division of the Securities and Exchange Commission appears to have adopted a standard of 50 percent bonds, 20 percent preferred stock and 30 percent common stock. The SEC standard also lacks empirical justification, but it is significant as the judgment of a body which has controlling influence over the forms of financing that may be employed by firms subject to the Public Utility Holding Company Act.

The rule-of-thumb advanced by many textbooks for the use of preferred stock in financial plans is that preferred stock should not exceed total tangible assets less total debt. An extreme application of this rule would result in a capital structure wherein the book value of common stock was equal only to the values of intangible assets carried on the balance sheet, such as patents, good will, or organization expense. Why business managements should prefer to use preferred stock forms of financing to this extent is not explained. An implication of the rule is that there is free substitutability between preferred stock and long-term debt, although the rule does not provide guidance for establishing the appropriate proportions between the two categories of liabilities.

The proper ratio of common stock to total assets is not satisfactorily discussed by the textbooks, although the relation of common stock equity to the total capitalization of the firm has usually been given a thorough treatment. To the extent that the proportions of all other types of claims on business assets have been established by some standards such as those cited previously, the role of common stock becomes that of a residual factor in the schedule of liabilities. But since the standards used for other forms of financing are highly questionable, the determination of managerial policy for common stock financing is also unsatisfactory.

Although the role of internal financing is dealt with in some detail in textbook discussions of depreciation and dividend policy, a systematic and complete analysis of factors determining the relative uses of internal versus

[3] Burtchett's elaboration of this principle into a table indicating that the maximum percentages of financing by mortgage bonds, debenture bonds, preferred stock and common stock should vary with the degree of risk of the firm is a notable formulation. The degree of risk of a firm is measured by its average net revenue fluctuations defined as "the average percentage by which the net revenues of one year would deviate from the net revenues of the year on either side of it, when computed over a period of not less than ten years." The concept is reproduced in Burtchett and Hicks, *op. cit.*, pp. 260-61.

external financing is not provided. For example, the cost of funds provided internally by retention of profits is not measured. The question is rarely raised whether management is justified in using internal sources of funds to finance additional investment under circumstances where the cost of external funds would make such investment inadvisable.

In dealing with dividend policy, Buchanan has advanced the interesting hypothesis that marginal returns estimated from investment by retained earnings should be equated to returns available on capital invested outside the enterprise, but his analysis ignores such factors as the risk position of the firm, the effect upon management control, and other nonpecuniary factors influencing such decisions.[4]

No textbook on business finance appears to have been addressed to an evaluation of the full range of factors influencing managerial decisions on forms of financing. Sections of texts contain discussions of financial policy formation that bear upon the central question raised in this paper; but while useful beginnings have been made, we are far from possessing knowledge that would enable us to specify the proper financial plan for a particular business enterprise, on a basis of which a decision as to the form of financing could be made by management. Further progress appears to depend upon the utilization of a more adequate framework for analysis.

2 *Studies of Financial Standards*

Whereas financial plans have generally been treated from the viewpoint of the business manager demanding funds and seeking to formulate appropriate financial policies for the enterprise, the viewpoint of suppliers of long-term funds is reflected in writings on principles and practices of investment,[5] while that of suppliers of short-term funds is generally conveyed in writings on commercial credit and on the operations of lenders of short-term funds.[6] These viewpoints are to a considerable extent con-

[4] Buchanan, *op. cit.*, pp. 233-41.

[5] Widely known investment texts include: G. W. Dowrie and D. R. Fuller, *Investments* (New York: Wiley & Sons, 1941); R. E. Badger and H. G. Guthmann, *Investment Principles and Practices* (New York: Prentice-Hall, 1936); B. Graham and D. L. Dodd, *Security Analysis* (New York: McGraw-Hill, 3rd ed., 1951); and G. H. Evans, Jr., and G. E. Barnett, *Principles of Investment* (New York: Houghton Mifflin, 1940).

[6] The developing literature in this area includes: T. N. Beckman and R. Bartels, *Credits and Collections* (New York: McGraw-Hill, 1949); W. J. Shultz, *Credit and Collection Management* (New York: Prentice-Hall, 1947); W. H. Irons, *Commercial Credit and Collection Practice* (New York: Ronald Press, 1942); and R. Foulke and H. V. Prochnow, *Practical Bank Credit* (New York: Prentice-Hall, 1939).

tained in financial standards that the management of the firm desiring funds must meet.

The discussion of standards for the structure of claims on assets in the literature on investment is oriented generally to the prescriptions set forth in state statutes governing investments of savings banks and insurance companies. Little is said in these statutes concerning standards for the relationship between current debt and the other two major categories of claims on assets. There is a heavy emphasis on the relationship between bonded debt and ownership shares.

Illustrative of the standard ratios of bonds to stocks for investment in a security whose market value is presumed subject to only minor variations are the following:

Type of Industry	*Minimum ratio of stock value to bonded debt*
Public utilities	½
Railroads	⅔
Industrials	1

Standards of this type, along with prescriptions for minimum coverage of fixed charges by net earnings and other financial ratios, undoubtedly influence the form of financing selected by business managers.[7] However, the reasoning behind legislative enactments of standards of these types is difficult to reconstruct. Presumably such factors as group norms and "financial experience" have been guiding influences, though the textbooks do not so specify.

Financial standards utilized in granting short-term credit are distinguished from those in predominate use by suppliers of long-term funds in two respects. First, less rigid formulas are followed, with greater reliance upon comparative financial ratio analysis. Second, a wider range of relationships is explicitly considered. The latter is a desirable emphasis. The implications of the former call for additional comment.

The basic principle of comparative financial ratio analysis is to compare the ratios for an individual firm with the median of ratios for many firms in a closely-related line of business activity. The most widely used ratios are those calculated and published periodically by Dun & Bradstreet, Inc. and by the Robert Morris Associates. The use of such ratios inevitably acts as a centripetal force upon the structure of liability and

[7] This hypothesis is confirmed by such comments as the following, received by the writers in response to a questionnaire sent to recent issuers of bonds, preferred stock or common stock: "In order to do its financing on the most favorable terms, it is considered desirable that the Company meet the investment standards as to capital structure ratios established by institutional investors, such as insurance companies, banks and other fiduciaries, the ideal ratios for a top-grade utility being 45% bonds, 25% preferred stock and 30% common stock."

ownership claims of a firm, and thereby influences managerial choices of forms of financing.

However, to observe that heavy reliance on the use of comparative financial ratio analysis by suppliers of credit will influence the forms of financing selected by business management leaves unanswered still more basic questions. The fundamental problem is threefold: to identify and quantify the factors whose effect on firms in a particular line of business activity results in some central pattern of financial relationships; to determine whether deviations from the central tendency are typically valid indications of less-than-optimum performance; and finally, to formulate a basic explanation of observed differences in the characteristic financial patterns of businesses in different industries and lines of activity.

3 *Aggregative Studies of Financial Structure*

An empirical basis for generalizations about factors influencing choices of forms of financing is provided by studies of financial structure. The most extensive source of basic data for such studies is contained in *Statistics of Income* and the *Statistics of American Listed Corporations.* Reports appearing in the *Federal Reserve Bulletin* also contain materials bearing on influences causing variations in forms of financing.[8] The most analytical and suggestive study in this area is Chudson's monograph on *The Pattern of Corporate Financial Structure.*[9]

With respect to the influence of size, Chudson found that the ratios to total assets of all of the major current liability components decrease as the size of corporation increases. The ratio of long-term debt to total assets maintains no regular relationship to size. The ratio of net worth to total assets increases with size, but that of capital stock alone to total assets falls with size. Profitable corporations have lower debt-to-total-assets ratios, and higher net-worth-to-total-assets ratios compared with unprofitable corporations. Asset composition appears to have a considerable influence upon the structure of claims on assets. "An industry that requires relatively large current assets tends to rely to a greater extent on short-term financing than an industry requiring small current assets."[10] Chudson also

[8] A. R. Koch and C. H. Schmidt, "Financial Position of Manufacturing and Trade in Relation to Size and Profitability, 1946," *Federal Reserve Bulletin,* September 1947; C. H. Schmidt, "Industrial Differences in Large Corporation Financing," *Federal Reserve Bulletin,* June 1948.

[9] Walter A. Chudson, *The Pattern of Corporate Financial Structure: A Cross-Section View of Manufacturing, Mining, Trade, and Construction, 1937* (National Bureau of Economic Research, 1945).

[10] *Ibid.,* p. 70.

calls attention to "evidence of the existence of a relationship between long-term debt and fixed capital assets."[11] These are significant findings. Their importance in developing a framework for the analysis of entrepreneurial decisions in the choice of forms of financing is indicated in the following section of this paper.

In addition to the relationships described in the preceding paragraph, Chudson calls attention to the lack of close parallelism between variations of the notes-payable-to-sales ratio and the (hypothetically related) current assets, and he observes that "the volume of short-term borrowings is subject to the somewhat arbitrary decisions of the firms making up the size groups in each industry."[12] He suggests "that notes and accounts payable are more complementary than competitive, both in their employment by, and in their availability to, corporations."[13]

Finally, Chudson examines the relationships between short-term debt and long-term debt, and between major categories of the long-term capital structure. His conclusions are stated in these words:

> Do long-term debt and short-term debt act as substitutes for each other among the various minor industrial divisions? An analysis of the rank correlations of the ratios of long-term and short-term debt to total assets indicates no statistically significant relationship, inverse or direct. The same absence of a substitute relationship, on an industrial basis, is found to characterize long-term debt and capital stock.[14]

Assuming that Chudson's correlation technique has been correctly applied, his observations appear to have far-reaching implications. They suggest an absence of substitutability between the two large components of short-term debt, between short-term debt and long-term debt, and between long-term debt and capital stock.[15] One possible inference from these conclusions is that the scope for the exercise of managerial discretion in choosing between the major categories of financing forms is limited, because a broad and pervasive set of exogenous factors circumscribes the range of managerial discretion.[16]

These are interesting hypotheses. As Chudson has acknowledged, they require further testing by examination of frequency distributions of the components of financial structure of individual firms within specific industries. Further, the extent of substitutability between the subcategories of forms of financing, and between alternative types of suppliers of funds

[11] *Ibid.*, p. 103. [12] *Ibid.*, p. 54. [13] *Ibid*, p. 79. [14] *Ibid.*, p. 103.

[15] The relationships between short-term debt and capital stock and between capital stock plus surplus and the major debt categories are not explicitly dealt with by Chudson.

[16] See p. 326 f. for a comment by Dr. Irwin Friend, who suggests other possible inferences.

needs further investigation. Cross-section studies represent analyses of the statics of business financing. For many purposes, the relevant questions about financial decisions require longitudinal study of the dynamics of business financing, i.e., the considerations which determine the form of financing to be utilized when a particular type of asset is to be increased or some obligation requires refunding (this is also pointed out by Chudson). Some important elements of the financial decision-making process may be revealed only by analysis of individual cases. Aggregative studies of financial structure may suggest avenues of investigation, but they are not designed to yield definitive knowledge about factors influencing managerial choices of forms of financing.

4 *Aggregative Studies of Financial Behavior through Time*

A number of analytical studies of the financial behavior of particular groups of business enterprises over selected time periods have been published.[17] Like the cross-section studies of financial structure at given points of time, these analyses yield valuable quantitative information about the sources and uses of funds by enterprises, and thus throw light on factors influencing managerial decisions.

Some of the most important findings of these studies may be summarized here. As might be expected, the size of the ratio of current liabilities to total assets is found to be positively associated with the size of the ratio of current assets to total assets. Similarly, temporal changes in current debt are found to be related to changes in current assets.[18] The influence of size of business upon the term of outstanding indebtedness, mentioned in cross-section studies of financial structure, is also corroborated. Large firms offer sufficient stability to attract long-term commitments of funds by suppliers.[19] Small firms typically have relatively low ratios of long-term debt to total assets, even in industries where the ratio of fixed assets to total assets is comparatively high.[20] Thus, the simple generaliza-

[17] Leading studies of this type include: A. R. Koch, *The Financing of Large Corporations, 1920-1939* (National Bureau of Economic Research, 1943); C. L. Merwin, *Financing Small Corporations in Five Manufacturing Industries, 1926-36* (National Bureau of Economic Research, 1943); *Survey of Current Business:* "Financial Performance of Large Corporations," August 1945; "Financial Trends of Large Manufacturing Corporations: 1936-46," November 1947; "Business Financing in the Postwar Period," March 1948; "Financing Corporate Capital Needs," November 1948; and the series of articles on financing new firms, December 1948, April 1949, April 1950, and June 1950.

[18] Koch, *op. cit.*, pp. 62-63.

[19] *Ibid.*, pp. 5, 67.

[20] Merwin, *op. cit.*, pp. 11, 59-60.

tion that asset composition governs the liability structure clearly must be modified to admit the influence of business size and other elements determining the risk position of the firm.

During the period covered by Koch's study (1920-39), large businesses decreased their use of both bank credit and trade credit as sources of funds.[21] On the other hand, during the period spanned by Merwin's study (1926-36) small manufacturing enterprises tended to substitute trade credit for bank credit.[22] This latter finding appears to require a modification of the conclusion reached by studies of financial structure — that in the judgments of business management trade credit and bank credit are complementary rather than substitutable sources of funds.

Aggregative studies of business financing through time demonstrate the persistent importance of internal sources of funds, although they do not prove the existence of a secular increase in the relative importance of internal funds in financing business expansion.[23] The reasons why internal financing holds such a high position on the managerial scale of preferences, and the implications of this fact for stability and growth of the economy, require further study.

Another aspect of the analysis of financial behavior through time is represented by changes in the relative importance of different sources of funds at different stages in the life cycle of firms. The Department of Commerce studies of the financing of new firms represent a valuable contribution to our knowledge of sources of funds for businesses at their inception. The findings to date indicate that equity capital supplied from past savings of the organizers of the firms is the predominant source of financing, and that bank and trade credit were also significant as contributing sources.[24]

A finding of importance in the financing of small corporations through time appears to be that managerial discretion in choosing between forms and sources of funds is closely constrained by the boundaries of available alternatives. Managers of large enterprises are conceded to have a greater range of choices, yet even for the large firm the scope of managerial discretion is not unlimited, since, according to Koch, "the specific sources of funds utilized may or may not be a matter of choice."[25] The question then arises, to what extent the narrower range of choices open to the management of the small firm is inherent in its more exposed risk position, and to

[21] Koch, *op. cit.*, pp. 80-81.

[22] Merwin, *op. cit.*, pp. 66-75.

[23] Koch, *op. cit.*, pp. 80-81.

[24] See the statistics summarized by Lawrence Bridge in the paper, "The Financing of Investment by New Firms," in this volume.

[25] Koch, *op. cit.*, p. 61.

what extent it is a matter of custom, tradition, and financial standards governing the actions of suppliers of funds. Merwin appears to accept the former explanation, for he expresses skepticism of the need for providing small enterprises with additional types and sources of financing.[26] The widely differing opinions held on this point suggest the desirability of more intensive study.

5 *Studies of Types of Financial Contracts and Their Uses*

Another body of literature bearing upon the issue of managerial preferences is that concerned with various types of financial contracts and financing arrangements made available by different institutional and non-institutional suppliers of funds. Suppliers of business funds, like suppliers of other commodities and services, engage in product differentiation and development activities, in order to penetrate and stimulate new markets for their services, adapting them to changes in the volume and pattern of demand for funds. This has been a continuing process over the years, but there is some evidence that it has been accelerated during the past fifteen years or so.

The proliferation of variations in bond and preferred stock contracts has obscured the boundary lines that have traditionally existed between these types of instruments and common stock. Changes in marketing techniques and arrangements have occurred, such as direct placement of securities by issuers in the portfolios of large institutional investors. Significant developments in extending medium- and long-term funds are represented by the growth of "term loans"; and, in the field of medium- and short-term credit, by lending on accounts receivable, lending on field warehouse receipts, and installment loans made on the security of commercial and industrial equipment. The "sale and lease-back" arrangement has come into prominence.

Standard textbooks in business finance usually devote a major part of their space to descriptions of the traditional contracts and instruments of financing. During recent years, studies conducted under the Financial Research Program of the National Bureau of Economic Research have dealt with some of the newer credit arrangements, defined their uses, and defined more precisely the nature of banking relations with business.[27]

[26] Merwin, *op. cit.*, pp. 65, 89.

[27] Among studies published by the National Bureau of Economic Research are those by R. J. Saulnier and Neil H. Jacoby: *Term Lending to Business* (1942), *Accounts Receivable Financing* (1943), *Financing Inventory on Field Warehouse Receipts* (1944), *Financing Equipment for Commercial and Industrial Enterprise* (1944), and *Business Finance and Banking* (1947). No definitive study of "sale and lease-back" arrangements has been published to date.

Changes in the array of financial contracts available to business hold significance for the present inquiry in two respects. In the first place, these developments have widened the range of alternatives and thus extended the scope of managerial discretion, especially for medium and small enterprises. In the second place, the nature of the changes in forms of financing made available by suppliers constitute *indirect* evidence of the nature of factors influencing the choices of business managers. The new credit techniques, as is pointed out by Saulnier and Jacoby, have been fashioned to meet the special characteristics of the production and merchandising processes of businesses.

Some of the features of these newer types of loans for which a strong demand has existed during recent years are these: 1) continuity in the availability of credit to the user; 2) flexibility in the amount of credit purchased in accordance with the borrower's requirements; 3) provision of ancillary services such as credit-rating and collection of accounts; 4) gearing the loan amortization schedule to the ability of the business to "throw-off" cash from operations, and 5) reductions in the cost of acquiring and using credit.

Close observation of the nature and use of financing forms by businesses, and their changes through time, provides useful data for a theory of managerial decision-making, because they reflect the adaptations made by suppliers of funds to meet the scale of preferences in forms of financing demanded by businesses. Such studies cannot *per se* provide the basis for a theory, because they cannot reveal the nature of the financing management would undertake if its choices were unrestricted. Up to the present time, these studies of types of financial contracts and their uses have increased the number of determinative factors of which students have become aware. They have shown clearly that simple comparisons of the cost of funds under different forms of contracts are not the sole, or even the most influential, determinant at work.

6 *Historical Studies of Firms and Industries*

A body of literature that throws further light on influences governing managerial preferences in selecting forms of financing is that of business history. This is defined to include objective, systematic studies of the history of individual entrepreneurs, managers, enterprises, or industries, focussed upon the evolution of business concerns. Although the mass of American historical literature is immense, business history as a field of scholarship is relatively new. Viewed against the enormous potentialities of the field, it is apparent that only a beginning has been made. The pioneering accom-

plishments of N. S. B. Gras and his associates in the area must here be noted.[28]

Many general business histories include sections or chapters on financial policy and administration, and these are worthy of examination for the information they yield about choices of forms of financing and motivating considerations.[29] Unfortunately, much of this literature has been eulogistic and uncritical, or, at best, unanalytical. The writers have not been conscious of alternative policies open to the firms they were considering, and in consequence they have failed to treat financial policy with fullness and discrimination.

While financial histories of American enterprises are rare,[30] historical studies of financial *administration* — including policy formation, control, and management — appear to be nonexistent.[31] Systematic histories in this field might be expected to convey, more directly and intimately than is possible by any other technique, knowledge of the forces bearing upon financial decisions. Histories of the administration of an enterprise would represent case studies, but with more penetration and elongated time dimension. They can provide the full setting of social, economic and political forces within which the firm's administration occurred. Whereas the case study usually centers attention upon a particular problem, introducing historical material as a background for understanding the current issue, a history of administration would necessarily include the formulation and execution of policies to deal with a succession of financial episodes in the

[28] See especially: N. S. Gras, *Business and Capitalism* (New York: Crofts, 1939); N. S. B. Gras and H. M. Larson, *Casebook in American Business History* (New York: Crofts, 1939); and the numerous citations to Professor Gras, his associates and students in H. M. Larson, *Guide to Business History* (Cambridge: Harvard University Press, 1948). Studies of entrepreneurship are being conducted under A. H. Cole at Harvard.

[29] See, for example: H. Allen, *The House of Goodyear* (Akron: W. S. Dutton, 1936); H. K. White, *History of the Union Pacific Railway* (Chicago: University of Chicago Press, 1895); W. S. Dutton, *DuPont: One Hundred and Forty Years* (New York: Scribners, 1942); B. Emmet and J. E. Jeuck, *Catalogues and Counters* (Chicago: University of Chicago Press, 1950). Studies of industries and firms, oriented to analysis of price policies, sometimes contain useful evidence on financial policy formation.

[30] Among the more substantial financial histories may be mentioned: E. S. Meade, *Trust Finance* (New York: D. Appleton, 1903); L. H. Seltzer, *Financial History of the American Automobile Industry* (New York: Houghton-Mifflin, 1928); J. W. Stehman, *The Financial History of the American Telephone and Telegraph Company* (New York: Houghton-Mifflin, 1925); C. R. Flint, *Memories of an Active Life* (New York: Putnam's, 1923).

[31] Cf. H. M. Larson, *op. cit.*, p. 765.

survival, growth, or decline of the firm. They would encompass the dynamics of management, and would be productive of new insights into the nature and process of decision-making.

Because financial decision-making is inseparably bound up with business policy in general, what is needed is not more financial histories *per se,* but more general business histories sufficiently detailed, intensive and discerning in their conception to reveal clearly the interrelationships between decisions among forms of financing and other business decisions. To possess maximal value, such studies would need to be the joint product of a cooperating group of historians, economists, and specialists in business policy, or of individuals possessing a combination of these talents.

7 *Recapitulation*

Current knowledge about factors influencing decisions on forms of business financing is fragmentary and incomplete. Much has been learned on an aggregative basis about the relative quantities of funds *in use* by businesses that have been obtained in different forms. Helpful information has been assembled about the nature of the various contracts utilized in business financing, and the frequency of their use. Suggestive hypotheses have been advanced regarding appropriate financial policies (i.e., sets of financial decisions) by businesses operating under different sets of circumstances. For the most part, these hypotheses are untested by application to adequate samples of enterprises, and in some instances they are internally inconsistent. There are few tested and confirmed theories about the variables that are combined in determining the financial plan of a particular concern.

Present formulations of factors influencing managerial choices of financing are deficient in two principal respects. First, they embrace relatively a much smaller number of variables than appears to be operative. Secondly, they provide little empirical evidence that the variables they do include are the most important. This suggests the need for a more comprehensive frame of reference, including all of the influential factors, and the necessity of placing them in a significant relationship to each other.

III A Comprehensive Framework of Analysis

Casual observation reveals a disconcerting diversity among firms with respect to the structure of their liabilities and their financing patterns. This alone should suggest to an observer that the choices made by business managements with respect to the forms in which they obtain funds are based upon consideration of a large number of factors. It suggests diversity in the

weighting of these factors by different managements at the same time, and diversity in their weightings by the same management at different times. It is a plausible inference that no simple explanation of the financial rationale of American business management is valid.

1 *Direct Influences on Managerial Decisions*

In constructing a comprehensive frame of reference for the analysis of choices of forms of financing, a valuable point of departure is the decision-making process in the enterprise. It is desirable to inquire, initially, into such questions as these: Who are the financial decision-makers, and what is their relationship to the owners and directors of the firm? What are the attitudes and motivations of financial decision-makers, and by what factors are they determined? What issues give rise to financial decisions? What are the relationships between financial decisions and production, marketing, personnel, product-line, pricing, equipment, inventory and other types of decisions made by business managements?

Without attempting to develop a complete theory of business management, one may recall certain generally known features of American corporate organization and management. According to statute, the business corporation is operated by a board of directors elected by the stockholders. Typically, the board of directors delegates to a president broad authority to operate the enterprise in accordance with the policies it approves. The president, in turn, redelegates important segments of his authority to major functional or divisional executives. The president and his lieutenants ordinarily initiate proposals for new policies or changes in existing policies, and submit them to the board for consideration and approval. If a majority of members of the board consists of active "outside" (i.e., non-management) directors, the board may exert a strong independent influence upon the firm's policy, including choices of forms of financing. If, on the other hand, the majority of the directors are either operating executives of the enterprise or more or less passive "outside" members, the proposals of management will be more or less automatically adopted. This is especially likely to be true if the operating executives are themselves substantial stockholders in the enterprise.

In almost all instances the active initiation of financial policies, if not the formal act of decision, is undertaken by management, even though some decisions require the approval of the board of directors, and certain major issues — such as recapitalization, merger, or sale of essential assets — must be ratified by the stockholders. It follows that the attitudes of management toward risk assumption, toward its own security of position, and toward the maintenance of its freedom to exercise wide discretion

in operating the business, are highly important determinants of forms of financing. On the assumption that the cost of funds under various types of contracts is similar, management will choose that type of financing contract which minimizes the exposure of the enterprise to risk of insolvency, which least threatens its continued control of policy, and which maximizes its ability to act flexibly in meeting future contingencies.

Observation suggests that managements differ considerably in their evaluation of risks, and that these differences are also highly important in the choice of financing forms. Some management groups, because of age, business experience, relative security of tenure or other factors, are optimistic, aggressive and inclined to accept risk. Other management groups display the opposite characteristics.

We may conceive of two enterprises that are identical in every characteristic, excepting in the propensities of their managements to assume risks. One management, optimistic and daring, will choose a form of financing its requirements that exposes the firm to a material risk of insolvency, should events turn out unfavorably, because *it evaluates these risks as of small magnitude*. The management of the other firm, cautious in its attitude, will choose a financial contract carrying less risk, because it evaluates the risks carried by the first firm's contract in relatively large terms. Yet the risk inherent in the situation confronting the two enterprises may be indistinguishable to a competent and impartial observer.

The theorist may argue that such a difference in managerial behavior is "irrational." Illogical reasoning may, of course, provide part of the explanation. In all probability, however, the contrast in financing policy of the two firms is due to incompleteness of the information required for a "rational" decision, to differences in the bodies of data actually taken into account, and to divergence in the psychological approaches of the two management groups to the interpretation of such knowledge as is available.

In a dynamic economy, managerial decisions are inevitably made in the face of uncertainty and upon the basis of incomplete information. The decision-making process is a connected and continuous chain, in which the necessity for financial decisions arises out of decisions to add new products to the firm's line, to explore new markets, to augment production rates, to mechanize operations, or to accumulate inventory against an anticipated rise in prices. At the time any one decision is made, it is rarely possible to anticipate all of the other issues of policy that will follow in its wake. Scientific study of management problems and forehanded planning can improve the quality of decisions, but they can scarcely be expected to eliminate the need for "judgment" by decision-makers. So long as this is

true, the psychological attitude of managers toward risk will continue to be an independent variable in the choice of financing forms.

The preceding discussion assigns to management the active and initiating role in financial decisions. This should not be taken to mean that the owners of the enterprise or the board of directors lack influence, that the interests of managers and of stockholders are typically divergent, or that the special interests of executives take precedence. Nor does it imply that maximization of the present value of the firm is not the guiding economic principle of managerial behavior. Even where the ownership and management groups in a business enterprise are separate, and stockholders are numerous and dispersed, stockholders and the board of directors always retain a powerful *potential* influence upon management and its decisions.

So long as the firm is producing a satisfactory return, stockholders are likely to remain passive and acquiescent. They accept the judgment of management on issues of policy, because they recognize the limitations upon their own knowledge of relevant facts. If the firm becomes unprofitable, loses ground to competitors, or appears to be missing evident opportunities, stockholder interest in business policy quickly becomes articulate, and managers are called upon to defend their decisions. The management group typically does not have divergent interests from those of the ownership group. Rather, management's appreciation of the complex of factors that bear upon decisions is wider and its horizon of planning may be more distant. Hence one is justified in concentrating attention upon managerial attitudes in studying factors that influence forms of financing.[32]

2 *Indirect Influences on Managerial Decisions*

So far, the problem of constructing an analytical framework to deal with problems of choice in forms of financing has been approached through a consideration of the financial decision-making process within the business firm. This approach has indicated that numerous factors bear *directly* upon such choices from the point of view of management. Such factors obviously include the relative costs of obtaining funds under different types of financing contracts. They also embrace the relative amount of risk imposed by different contracts upon the firm, and the evaluation of risks by the management group. The relative effects of different financing contracts upon the status of management and its powers of control also appear to be influential.

[32] The authors have benefited from valuable suggestions by W. Yost Fulton, arising out of his experience as an investment banker, on the relation between management personnel and financial decisions; see his discussion, which follows, of our paper in its earlier version. Mr. Fulton is not, of course, responsible for the views expressed in this section.

It is now necessary to recognize that the financing decisions of the firm are determined, not alone by factors influencing its management directly, but also by factors influencing the decisions of suppliers of funds. That is to say, the decisions of suppliers limit the range of alternative financing forms open to a particular business at a given time. Hence, a complete analysis of the problem of choice requires a consideration of the factors operative on the supply side of the financing markets which influence management indirectly.

This analysis may be restated for clarity. The range of choice open to the management of a business with respect to the form of its financing is limited and circumscribed by the decisions of suppliers of funds. These decisions, in turn, appear to be based upon the characteristics of the business as they are seen by suppliers, and upon the generally accepted financial standards that are applied to the business by suppliers of funds. Within this range, the management of an enterprise exercises its discretion in choosing from among those forms of financing that are available to it in the market.

The economic characteristics and performance of the firm, including its size, age, profitability, position in the industry, stage of growth, assets, collateral security, seasonal and cyclical fluctuation, future prospects and the reputation and record of its management are all obviously taken into account in "rating" its worthiness to receive funds on an equity or credit basis. Apart from such general economic characteristics, suppliers apply to each firm the generally accepted financial "standards," which take the form of financial ratios and magnitudes considered to be appropriate for the industry or line of trade in which the firm is engaged. Financial standards must be applied with discrimination and interpreted with care; but they are widely utilized and undoubtedly exercise an important influence upon the supply of funds available to an enterprise.

Clearly, the two sets of variables — those directly affecting business managers and those indirectly affecting managements through their influence upon suppliers of funds – are interacting. Managements may be presumed to be aware of the financial standards commonly applied by suppliers of funds, and of the characteristics of their enterprise which are considered to be significant. To the extent that managements possess and use such knowledge, they modify the forms of their demand for funds to meet the conditions of supply. Similarly, suppliers of funds may be presumed to possess some knowledge of the factors that directly influence managerial preferences for financing forms, and through time the financial standards and business characteristics that determine their supply functions will be modified in the light of them. Hence, observation of the

alternative forms of financing under consideration by the management of a business may reveal as much about the decisions of suppliers on the forms of financing they will make available as it reveals about the preferences of management.

3 *A Tentative Classification of Influential Factors*

A comprehensive classification of factors determining the decisions of business managements in choosing forms of financing may now be set forth. It represents a collation and synthesis of factors referred to in published literature, augmented by interviews and correspondence with financial executives of several samples of business firms. The classification is tentative and undoubtedly incomplete, for the present state of knowledge does not permit of a definitive framework. Much further empirical investigation is required to refine and expand the classification, as well as to discover the weights that should be attached to each factor or category of factors.

The proposed classification is intended to be interpreted in dynamic terms, in that all of the factors possess a time dimension. Present decisions as to forms of financing turn partly upon management's anticipations of *relative* shifts in the terms carried by various financing forms. To illustrate, a firm may elect to borrow on short term because its management anticipates a reduction in long-term money rates relative to short-term rates in the future. Such relative shifts may affect each of the factors listed in the classification, so that it would be unnecessarily duplicative to include anticipations explicitly.

Tentative and incomplete though it is, the classification is believed to provide a more comprehensive, systematic, and valid conceptual framework for dealing with decisions regarding financing forms than any that has previously been formulated. It demonstrates the wide range of factors involved in such decisions. At the minimum, its use should lessen the probability that erroneous conclusions will be drawn on the basis of oversimplified analyses.

A Classification of Factors Determining the Decisions of Business Managements Regarding Forms of Financing

GROUP I. FACTORS INFLUENCING MANAGEMENTS DIRECTLY

A) Cost Factors

1) Price of funds per dollar per annum
(The effective annual interest rate charged for borrowed money; or the *expected annual earnings per share/net proceeds per share* ratio in the

case of common stock issues;[88] the *annual dividend requirement per share/net proceeds per share* ratio in the case of preferred stock issues)

2) Cost of obtaining funds
(Sums paid to investment bankers, lawyers, accountants, engineers and other experts; value of time of executives and other employees; registration, filing, recording, and other fees required by law; other cost incurred prior to receipt of funds by the business)

3) Cost of utilizing the funds
(Cost of assembling, pledging, transporting and releasing collateral security; fees of stock transfer and registrar agents; cost of listing securities on exchanges and filing reports with exchanges; other costs incurred while funds are in use by the business)

4) Effects upon tax liability
(Extent to which federal, state, and local tax liabilities are presently or potentially affected)

5) Flexibility in amount of funds utilized (and charged for)
(Degree to which funds in use and charged for are related to temporal changes in the requirements for funds by the enterprise; extent to which contract does not impose obligation to pay for "idle" balances)

B) Qualitative Factors in Funds Supplied

1) Speed of availability
(Rapidity with which funds are placed at the disposal of the enterprise after negotiation of the contract)

2) Breadth of publicity
(Range of disclosure of business affairs required; extent of publicity required or probable and its effect upon business operations)

3) Amount of advice and counsel provided by supplier of funds
(Value, in the judgment of the management, of financial counsel and advice provided by supplier as part of the transaction without additional charge. Value, in the judgment of the management, of organizational, personnel and business policy services provided by supplier as part of the transaction without additional charge)

C) Inherent Risk Factors

1) Relative rigidity of contractual terms
(Relative vulnerability of the firm to fluctuations in sales and net income, in the light of the fixity of payments for the use of funds)

2) Flexibility of repayment schedule
(Degree of flexibility in loan contract regarding repayment of debt, including provisions for gearing repayments to sales, profits, cash "throw-off" ability; provisions for renewal at option of borrower, etc.)

3) Pledge of assets required
(Range and extent to which assets are required to be pledged as collateral security; extent to which assets are rendered unavailable as a basis for future financing)

[88] It is recognized that the expected dividend rate is viewed by some as a more appropriate measure of cost to the firm. An approach which avoids a direct calculation of the cost of equity funds evaluates the cost of alternative financing forms by measuring their effects upon capitalized earnings per common stock share. This may be regarded as an alternative formulation of the relationship cited above.

4) Liabilities imposed on management
(Degree to which officers and directors are exposed to suits by stockholders, or to legal actions by governmental regulatory agencies)
5) Foreclosure of other sources of funds
(Extent to which resort to other sources of funds is inhibited by formal agreement or informal understanding; failure to develop alternative contacts for lines of credit)
6) Policies of supplier in event of default
(Probability that supplier of funds will modify terms of contract in event of difficulty; reputation of supplier for pursuing strict or lenient policies in enforcing obligations)
7) Likelihood of renewal
(Probability that the initial financing experience will open up opportunities for utilizing the source of funds to meet future requirements of the business)
8) Impact of business fluctuations upon the firm
(Income elasticity of demand for the firm's products; need and ability to achieve liquidity as general anticipations change; impact of secular changes in demand and technologies)

D) Factors Influencing Management's Evaluation of Risks

1) Management's attitude toward uncertainty
(Relative aggressiveness of management; willingness to take chances)
2) Term of management's service in office
(Duration of present management's tenure in office; expectations of duration of tenure in the future)
3) Extent of management's experience
(Length of service in other firms as well as the present firm; nature and duration of experience in the performance of executive duties; indicated ability to conduct effectively an enlarged scale of operations)
4) Maturity of the organization as an operating unit
(Length of time that members of the present organization have been functioning together; frequency and recency of changes in scope of operations requiring formal organization structure changes; extent to which high morale and effective organization communication has been achieved)
5) Extent of management's ownership interest
(Magnitude of personal stake in the enterprise; influence of stewardship responsibilities)
6) Extent of managerial influence on the board of directors
(Extent of management representation on the board; extent of indirect influence on the board; degree of confidence of the board in management and variations in the range of decision-making power delegated to the management by the board)
7) Security of management's control position
(Degree of exposure of present management to replacement by virtue of shifts in ownership of voting securities, presently or contingently)
8) Expectations regarding economic change
(Appraisal by management of the nature of likely short- or long-run business fluctuations; the *Weltanschauung* of management toward economic change)

E) Factors Affecting Management's Power of Action

1) Approval of owners and other groups
(Measure of "social approval" accorded the form of financing by stockholders, employees, customers, governmental agencies and other groups, according to prevailing attitudes)
2) Shifts in the locus of legal control rights
(Extent of dispersion and shifts of voting securities and the probable impact of any changes upon the range of powers delegated to management)
3) Effects upon range of managerial decision-making powers
(Extent to which management is required to secure approval from source of funds regarding capital expenditures, changes in officers' salaries, payment of dividends, and other matters as a condition of obtaining funds)
4) Restrictions upon use of funds
(Degree to which uses of funds are restricted by the supplier; degree of freedom with which management may employ funds in acquiring assets of different kinds)

GROUP II. FACTORS INFLUENCING MANAGEMENTS INDIRECTLY, THROUGH INFLUENCE ON SUPPLIERS

A) Characteristics of the Firm

1) Size of firm
(Size, measured in total assets, is positively correlated with fund availability because larger firms usually have greater market and earnings stability)
2) Age of firm
(Age is positively correlated with fund availability because it implies a record of successful operation and solvency)
3) Profitability of the firm
(Historical record and future prospects of the profit rate, measured by rate of earnings on invested capital or on net sales)
4) Position in the industry
(Occupancy of market of the industry, role as innovator in the industry)
5) Stage of life-cycle of the industry
(Whether fundamental demand-supply forces indicate a growing, mature, or declining role of the industry in the economy)
6) Stage of life-cycle of the firm
(Whether history of the firm, age of owners and managers, and other factors, indicate the firm is in a phase of growth, maturity, or decline)
7) Reputation of management
(Character, experience, record of policy-making officers of the firm)
8) Composition of the firm's assets
(Amount, stability, modernity, and marketability of the assets held by the firm, which affect their value as collateral security)
9) Collateral security available
(Amount and types of negotiable securities held by the firm; availability of guarantees of obligations by officers or directors of the firm)

10) Length of the production period
(Time elapsing between decision to produce and appearance of product on market, which affects the amount of risk carried on account of market fluctuations in the interim)

11) Seasonality of operations
(Amplitude of fluctuations in operations within each year, which affect amount of risk carried on account of market fluctuations on seasonal inventory holdings)

12) Amplitude of cyclical fluctuation
(Relative amplitude of cyclical fluctuations in sales, profits and cash "throw-off" ability of the firm, and therefore in the risk position of the firm with respect to fixed commitments)

13) Record of meeting obligations
(Historical record of the firm in meeting obligations when due; absence of evidence raising suspicion of fraud or evasion)

14) Vulnerability to adverse legislation
(Probability that legislation or public regulation may reduce prices, raise costs, require undesired investment, or otherwise reduce the profit rate)

15) Vulnerability to labor union action
(Probability that labor organizations may adversely affect profitability by raising wage rates, reducing hours of work, increasing pension provisions, medical and sickness benefits, etc.)

16) Vulnerability to competition
(Degree of exposure of firm to more intense competition from new entrants into industry, new technologies, new products: extent to which profitability depends upon patents or "sheltered" positions of transient significance)

B) Financial Standards

1) The current ratio: current assets/current liabilities
(The accepted measure of short-term solvency)

2) The "acid test" ratio: cash, marketable securities and receivables/current liabilities
(A measure of immediate solvency)

3) The inventory turnover ratio: sales/inventory
(Measures the effectiveness of purchasing and selling operations)

4) The average collection period: accounts receivable/daily sales
(Measures the effectiveness of trade credit extension and collection policies and procedures)

5) Turnover of fixed assets ratio: sales/fixed assets
(Measures the effectiveness of use of real estate, buildings, machinery and equipment)

6) The debt-equity ratio: total debt/net worth
(Measures the extent of owners' commitments to an enterprise, and the extent of coverage of creditors' claims against it)

7) Coverage of fixed charges: net earnings before fixed charges/interest and rental commitments
(Measures the capacity of the enterprise to support fixed annual commitments, and the protection afforded holders of its obligations)

8) Operating ratio: operating expenses[34]/net sales
(Measures the physical operating efficiency of the enterprise in producing its products or services)
9) Net profit margin: net profits/sales
(Indicates the nature of management policies, and measures over-all management performance)
10) Profitability of equity investment ratio: net profits/net worth
(Measures the profitability of historical ownership investment in the enterprise)
11) Profitability of total investment: net profits/total assets
(Measures the yield of assets committed to the enterprise, and approximates the "efficiency of capital")
12) Cash throw-off ability: annual net profits plus depreciation allowances
(Measures the period of time required to discharge indebtedness – the "payout" period)

4 *Comments on the Classification*

A number of comments should be made on the classification, and certain of its implications pointed out, in order to indicate its utility as well as its limitations as an analytical device.

a) It is emphasized that the classification should, at this stage, be viewed as a series of hypotheses requiring extensive testing by empirical research.

b) The factors that influence managerial decisions directly have been grouped in five categories, referring respectively to considerations of cost, quality of funds, inherent risk, evaluation of risk, and managerial powers of control. There is some overlapping of categories as well as some overlapping of the factors within each category. For example, restrictions upon the use of funds contained in a financing contract is a factor which may affect the exposure of the firm to risk of insolvency by foreclosing alternative uses of the funds which would be more desirable in the light of changing events. It may therefore be viewed partly as a factor of inherent risk, although its more important aspect appears to be curtailment of managerial powers of control of the enterprise. In cases where a particular factor bears in more than one direction upon problems of choice, the intent has been to assign it to the category of its primary impact.

c) Such factors as the volume of personal and business savings, the composition of savings, the level of business investment, the fiscal position of the federal government do not appear in the classification. That is because they are presumably reflected in the cost (price) of funds avail-

[34] "Operating expenses" are defined to include only production expenses, and to exclude depreciation allowances, selling, general and administrative expenses, and taxes.

able to businesses in various forms, which does appear in the classification. It is unnecessary in the present context to analyze the price-making forces that determine "pure" interest rates or risk-premium rates.

d) One may inquire whether or not the particular use to which a firm proposes to put the funds it is seeking is a determinant of the form in which the funds are obtained. This raises the question of the extent to which managements seek "special-purpose" financing instead of "general" financing. The hypothesis implied by the classification — which is supported by some preliminary research — is that managements ordinarily approach financing questions in terms of amounts of funds required rather than in terms of acquisition of specific assets. The working capital of the enterprise is usually regarded by managers as a pool of resources available for whatever purposes appear to be most urgent or profitable. If this be true, then the type of asset to be acquired by additional funds is not properly to be regarded as a factor influencing the managerial choice of financing forms. Instead, it influences the forms of financing made available by suppliers of funds, by altering the composition of the firm's assets available to secure the repayment of loans. This factor influences managements indirectly, and it therefore appears in Group II.

e) Finally, some readers may accept the classification as a logical theoretical construct, but may question its usefulness on the ground that business executives do not make decisions logically. Now, in the face of the uncertainty present in a dynamic economy, business decisions never can be exercises in pure logic. Impulse, intuition, hunch and judgment inevitably play a role. The classification merely assumes *rational* behavior by business managers — not strictly logical behavior. It assumes that managers normally proceed as far as possible to collect, classify, analyze and draw deductions from the data pertinent to a decision. Use of such a classification as is proposed should extend the range of rationality, by revealing all of the pertinent variables and their interrelationships. To deny rationality as a premise of business behavior would obviously be tantamount to denying the utility of making business behavior the object of scientific study!

5 *Relative Weighting of Direct and Indirect Factors*

When a financing decision by a particular business is analyzed in terms of the preceding classification, it is clear that the relative weights assigned to factors in Group I and Group II may differ markedly. Thus, if we are considering a small, new enterprise, without an established record of profitability, lacking much collateral security, operating in a highly competitive environment, and subject to large cyclical fluctuations, the range

of choices open to its management may be severely restricted by suppliers of funds. In a real sense, the decision as to the form its financing will take lies mainly in their hands. The firm is obliged to accept the terms dictated by the market, in the light of its characteristics and the accepted financial standards applied to it by suppliers.

To consider the opposite extreme, one may conceive of a large, established business, which is the dominant firm in a growing industry, managed by officers of high reputation, possessed of a variety of collateral security, immune to cyclical fluctuations, protected from rigorous competition by possession of patents, and relatively invulnerable to labor union activity and adverse legislation. In this case, the range of choice open to its management as to forms of financing may be practically unlimited. The principal significant factors that govern the financing decision are those of its management, listed in Group I.

These extreme hypothetical cases make clear the distinction between what decisions management *would* make, if the range of choice were unlimited, and what decisions management *does* make, within the particular circumstances in which it operates. This distinction points to the need for interpreting the structure of business balance sheets with great care. For the composite of liabilities may often indicate merely what combination of forms of financing were in the past considered to be the best available to the business, rather than express the unfettered choices of its management. Therefore, a focal point of research into factors influencing managerial decisions regarding forms of financing should be the determination of the degree of freedom open to managements of firms possessing different sets of characteristics, given the prevailing financial standards in use.

6 *Relative Weighting of Direct Factors*

Let us assume that a firm possesses such attributes of size, age, profitability, etc. that the range of forms of financing open to its management is unlimited for all practical purposes. In making a financing decision what weights does its management assign to each of the direct factors in Group I? The problems posed by this question derive from the fact that many of the influential factors are either difficult to measure or are inherently unmeasurable in pecuniary terms. If management is considering several alternative forms of financing, it is possible to express in dollars and cents the weight of each of the factors in the "cost" category. But factors in the other categories cannot readily be expressed in monetary units.

For example, let us assume that alternative forms of financing under consideration are: first, public sale of shares of common stock aggregating a substantial percentage addition to the number of shares already

outstanding; and, second, negotiation of a long-term loan secured by a mortgage of the firm's principal real estate holdings. Assuming that the "cost" per dollar of equity funds is 8 percent per annum and of mortgage credit is 4 percent per annum — "cost" being taken to represent the summation of factors in category A – how may management determine whether the differential of 4 percent in favor of the mortgage loan is, or is not, offset by a worsening of the risk position of the firm, or by restrictions imposed by the loan contract upon the use of mortgage funds or upon the range of management powers?

If a firm in these circumstances does issue common stock, the least that may be inferred from its behavior is that other factors jointly outweighed the cost disadvantage, in the judgment of its management, and that their combined weight may be evaluated at more than 4 percent per annum. The frequency with which business concerns in strong financial positions utilize equity financing, even when the relative cost disadvantages are greater than those assumed in this example, suggests that considerable weight is typically assigned to these other factors.

IV Research Methodology

The probability that numerous influences bear upon decisions regarding forms of financing business, and the qualitative nature of many of the variables, present difficult problems of research methodology. How may one obtain the data required to test the validity of such a framework as the classification of factors presented above? Further, how may one evaluate the weights of the different factors and factor categories? The econometrician may be inclined to throw up his hands at the prospect of utilizing such a frame of analysis and conclude that it does not formulate the problem in operational terms. If so, he should concede that this may reflect the inherent complexity of the problem rather than defects in its formulation. Econometric techniques may have limited applicability, at least in the initial stages of inquiry.

The research approach that appears to hold most promise in the initial stages is microscopic examination of the financial decisions of each of a large number of firms having various economic characteristics, internal organizations, and management personnel, and operating under various sets of external conditions. The systematic accumulation of detailed knowledge about financing decisions by a large number of firms, and about the related characteristics of the firm and of its management, may make it possible to induce valid generalizations about the determinants of forms of financing.

The possibility exists that different factors have unlike weightings in the decisions of different firms at different times and unlike weightings for the same firm at different times, or that all of the many factors are of about equal significance. If this is so, generalization becomes impossible, and one may infer that it is not feasible to predict business reactions to specific tax, monetary, and other measures. *A priori* considerations as well as some empirical evidence suggest, however, that analysis of numerous case studies would show that the number of highly influential variables is reasonably small, that the relative weightings of variables do not change rapidly through time, and that groups of businesses with similar characteristics behave in approximately homogeneous ways in deciding upon forms of financing. Certainly, the value of valid generalizations would be so great as to warrant an effort to determine whether they exist.

Adoption of an intensive case study approach raises subsidiary questions of methodology. Specifically, how should a "microscopic" examination of financing decisions be conducted? Recorded information – published and unpublished – provides only part of the necessary data, and the investigator must also get at the more elusive information contained in the minds of business policy-makers, especially the influential factors in management's evaluation of risks.

The pertinent questions are: Why did management make this decision? What alternatives were considered? Why were the alternatives rejected? What objections were raised to the decision? What degree of support did it have? What compromises were made? For the development of really informative answers to such questions the mailed questionnaire will not suffice. The investigator must conduct personal interviews with those who participated in the decision-making process, probably of the "depth" or indirect type often utilized in psychological research. He may find it advisable to "live with" the firm for an extended period of time, to obtain an accurate view of its internal organization and personnel.

One problem of research method is the range of subject matter to be included in the proposed case studies. Should such studies embrace the entire business organization and policy, be limited to financial policy, or even be confined to the restricted set of categories of factors influencing financing forms? The interconnection of financial decisions with other aspects of business policy formation, and the probable intercorrelations of the variables that bear directly upon choices of financing forms, both strongly suggest the economy of comprehensive business case studies. In other words, the same research effort would be more productively applied to comprehensive treatment of the same sampling population of firms than

it would be to a series of narrower analyses of different sampling populations. There is danger in "departmentalized" empirical research before the most significant factors have been identified and weighed.

V Possible Areas of Research

The nature of research is such that detailed advance prescriptions of the courses to be followed often have limited value. Worthwhile problems are more likely to be suggested to the investigator as incidents to the performance of other tasks than by the deliberate preparation of elaborate blueprints. Nevertheless, the organization of strategic factors in the comprehensive classification provides a fresh foundation upon which to project investigative work. It indicates ways of delineating segments of the whole subject in order to direct attention to specific issues. It furnishes a schema for assembling evidence prior to consultation with business policy-makers, and for developing interview guides, questionnaires, and other research tools, although it may be found that the most efficient procedure is to collect the information basic to the study of *all* areas simultaneously.

The following research areas are suggestive of the possibilities, rather than exhaustive of the field:

1 *Influential Factors in Internal vs. External Financing*

An intensive investigation might be made of factors that govern managerial decisions to finance business expansion internally by retention of profits rather than externally by issuance of debt or equity contracts. If, as has been frequently suggested (*vide* the undistributed profits tax of the 1930's), the comparatively large role played by internal financing in the expansion of American enterprises is undesirable, then clearly the strength of factors conducive to internal financing should be reduced and the strength of factors leading managements to finance externally should be increased. Public policies having the desired effect might well be called for. Taxes on undistributed profits may merely inhibit business investment rather than change the form of financing it. We must first know the influential factors and their respective weights.

Many unsettled questions would fall within the ambit of this study. For example, does new investment financed by sale of new securities on the open market pass more searching and rigorous tests of economic value than does investment financed by earnings held in the business? Or is investment internally financed undertaken mainly in response to the desire of management for personal or "monopoly" power, with little regard for

its prospective profitability?[35] Another way of stating the question is to ask whether the criteria by which business managements typically reach decisions to finance new investment internally are significantly different from those determining decisions to finance it externally.

An experimental exploration of the latter issue was made by the writers through the method of personal interrogations, by a depth-interview technique, of the policy-making executives of a small sample of nonfinancial business corporations. While so limited a study could not support any lasting generalizations, the preliminary findings tend to indicate a negative answer to the question asked above.[36]

That is, decisions to expand assets were based upon the fact, or expectation, of profitable use of additional assets, and not because surplus funds from profits were available. Most of the firms would not have expanded physical assets more extensively, if retained earnings had been larger. Tests of profitability of new investment were typically the same, irrespective of the form of financing. These tentative findings at least indicate the need for more searching exploration of the matter. The results of the experimental study suggest the utility of the method employed.

2 *Influential Factors in Debt vs. Equity Financing*

A companion study might be made of the factors that govern managerial

[35] Corwin D. Edwards has argued in his *Maintaining Competition* (New York: McGraw-Hill, 1949), pp. 145-47, that because large firms may expand by retaining profits, they are not obliged to compete for funds in the capital markets, and "no independent discretion is exercised in deciding whether the corporation shall be enlarged. Thus a concern that has enough bargaining power to obtain large profits enjoys a preferential status in increasing its size and bargaining power still further." He calls for an undistributed profits tax, with rate graduated upward in proportion to the absolute amount of earnings retained, as a device "to make sure that there is no continuous accretion of power to a few managements by virtue of their mere determination and opportunity to enhance their power."

A. S. Dewing has emphasized the role of managerial ambition in the internal financing of business expansion. Cf. *Financial Policy of Corporations* (New York: Ronald Press, 4th ed., 1941), p. 854.

[36] To assure that a wide range of alternative forms of financing were available, and that the problem of financing expansion had recently been confronted by the management, twelve firms were selected at random from among manufacturing and distributing firms which had headquarters in the Los Angeles area and met the following criteria: (a) net profits were earned during each of the last three years; (b) at least 50% of profits had been retained in the business; (c) material expansion of assets and operations had occurred within the past three years; (d) size was over 500 employees and over $5 million of total assets; (e) securities were publicly distributed; (f) external forms of financing had been utilized in the past. The assistance of Mr. Benjamin Z. Katz, who conducted the field interviews, is acknowledged.

decisions to finance business expansion, or to refinance a stable total of assets, by means of ownership funds rather than by borrowed funds. In this context, retention of profits becomes, of course, a form of equity financing. What is the rationale of the determination, by managers of enterprises as well as by suppliers of funds, of particular proportions of debt and equity claims in the enterprise's structure of liabilities?

It is a plausible hypothesis that the desire to minimize the exposure to insolvency carries a heavy weighting in the mind of business management, and causes management to pay a heavy premium for equity funds over and above the cost of credit. But is this hypothesis borne out by the facts? Is there a high degree of correlation between the actual cyclical fluctuations of profits, and the proportion of total liabilities taking an equity form? How do managements attempt to evaluate the degree of risk attached to fixed commitments against future earning power, and to calculate the premium paid for equity financing?

Because interest is an expense deductible in computing corporate income subject to tax, while dividends paid on equity securities are not deductible, the present tax structure provides a strong inducement to debt financing. What would probably happen if this inducement were removed? Are there other factors than exposure to risk of insolvency that account for the prevalent preference of American business management for ownership funds? If managements held expectations of general business stability rather than their present set of expectations, would a strong shift to debt financing occur?[37]

Again, it appears necessary to bring all of the influential factors bearing upon this primary type of financial decision into the equation, and to determine their relative weights in the decision-making process. A solution to this problem would have obvious bearings upon business and public policy. Managements would be enabled to choose proportions of debt to equity funds that would more fully maximize the capitalized net income of the firm, for whatever schedule of risks they desired to carry. Legislators and public regulatory bodies would be able to predict more accurately the

[37] In this connection, it is interesting to speculate upon the question whether there has been a secular shift from debt to equity financing during the past century, concurrent with rising entrepreneurial expectations of future instability. Studies in the Financial Research Program of the National Bureau of Economic Research show that since about 1900 there has been no marked change in the ratio of equity to credit employed in nonfinancial businesses. On the other hand, the heavy emphasis given to the significance of the borrowing undertaken by businessmen by the classical economists suggests that debt financing may have occupied relatively a more important position in the structure of business liabilities during the nineteenth century than it has in the twentieth.

responses of enterprises to public laws and regulations. Among other things, the urgency of the need for channeling more of the nation's savings into investment in an equity form could be measured.

If equity financing is more desirable, as many have argued, because it makes the individual firm less likely to behave in ways that reinforce and cumulate a general business boom or recession, a knowledge of the influential factors bearing upon decisions to finance with owners' rather than creditors' funds should suggest means of modifying these factors so as to bring about the desired pattern of financing.

3 *Influential Factors in Short-Term vs. Long-Term Debt Financing*

In the same series as the preceding studies, and logically following them, is a proposed study of factors governing managerial decisions to finance the indebtedness of the enterprise on a short-term rather than a long-term basis. Many unsettled issues might be examined in this investigation.

Why does trade credit — a form of short-term indebtedness — occupy the high position among liabilities that business balance sheet analysis reveals? To what extent are short-term and long-term debt considered to be substitutable, and to what extent complementary? Is there a high degree of correlation between the proportion of the total assets of an enterprise that are short-term in nature and the proportion of its total liabilities that are also of short term? To what extent are the loans of commercial banks and other lenders which are formally written as short-term credits actually treated and regarded by business managements as long-term funds? Would managements make much heavier use of long-term credit, 1) if it were more generally available and if there were a smaller differential between its cost and the cost of short-term credit, or 2) if long-term rates were lower than short-term rates as they have been at times in the past?

The implications of the findings of such a study for public policy are obvious and important. If the public interest is, in fact, served by increasing the proportion of outstanding business credit that is long-term in character, then the factors influencing decisions to utilize this type of credit need to be identified and strengthened.

4 *Influence of Financial Standards upon Forms of Financing*

The study next proposed would isolate for examination the influence of one group of factors — financial standards such as those enumerated in category *B* of Group II in the classification above — upon the forms of business financing. The principal question to which it would be addressed is this: What weights do the principal financial standards employed by users and suppliers of funds have upon the structures of liabili-

ties characteristic for firms of different sizes and in different industries? Questions subsumed under this category are numerous: How did financial standards evolve? How generally are they utilized? How rapidly do they change? How may their validity be tested? In practice, how influential are they in governing choices of forms of financing? Do the various standards in actuality possess the significance commonly attributed to them? Which of the standards are of primary significance, and which of secondary or peripheral value? In what respect do the standards of different types of suppliers of funds (e.g., investment banks, commercial banks, life insurance companies) differ?

A large research program, utilizing a battery of accounting and statistical techniques of analysis, as well as techniques of attitude measurement, can easily be projected in this area. In all probability the amount of business investment, as well as the form of its financing, is materially affected by prevailing financial standards. This is obviously true in the case of enterprises subject to public regulation. The Securities and Exchange Commission has announced financial standards for public utility holding companies; the Interstate Commerce Commission utilizes such standards in connection with steam railroads and interstate motor carriers; criteria of the Federal Deposit Insurance Corporation exert much influence on the liability structures of commercial banks; those of state public utility commissions influence the capital structures of operating public utility firms, and so on. The standards utilized by banks, life insurance companies, commercial finance companies and other suppliers of funds may have similar effects upon nonfinancial and nonregulated enterprises. If so, it is desirable that these standards be appraised objectively.

5 *General Economic Instability and Forms of Financing*

Like the previous study, an investigation into the influence of *general* economic instability upon forms of business financing would direct attention to the role played by one important variable affecting the financial decisions of management. The word "general" is italicized to emphasize the fact that, from the point of view of the individual firm, there are several types of instability in its environment. Herein, we are concerned only with the facts and the expectations of fluctuations in national income, employment, and production – with what is called the "business cycle." We are not concerned with those instabilities of the enterprise that are inherent in a competitive, free-market economic system, in which the competitive position of the firm is constantly shifting as a result of technical innovation, discoveries of new resources, new products, and alterations in consumers' tastes and preferences.

Economic theorists have given much attention to the relation of the *amount* of business investment to business fluctuations, but singularly little attention has been paid to the *forms* of business financing through the cycle. Is there a relative shift to debt financing as aggregate business investment increases, and conversely? If so, what are the factors causing managements and suppliers to change their preferences at different stages of the cycle? Is the major consideration a change in the relative cost of funds obtained in different forms; or are changes in expectations about the future and re-evaluations of the risk of insolvency the dominant variable?

Suppose that, in consequence of a long succession of years of high and rising production and stable prices, business managements generally came to hold expectations of steady growth and general economic stability extending indefinitely into the future. What changes would probably occur in the forms of business financing utilized? Partial answers to such questions may be provided by deductions drawn from the economic theory of business fluctuations, and by empirical studies of aggregative data on forms of financing business investment. Complete answers would require, in addition, measurements of the expectations and attitudes of managements with respect to all of the factors that influence their choices.

Such a study might well embrace an analysis of the opposite effects — the influence of forms of business financing upon general economic instability. Conventional doctrines on this subject appear to require re-examination. How is the debt structure of firms related to forced liquidation in the cyclical downswing? Do some forms of debt or of debtor-creditor contracts provide greater relative flexibility in practice than others? Does the debt-equity ratio of an enterprise materially influence its ability to finance the expansion of its assets in the cyclical upswing, and hence bear upon the timing and aggregate amount of business investment? Dependable evidence on such questions would be useful in public policy formation.

6 *Influence of Tax Policy upon Forms of Financing*

When taxes have come to appropriate more than 25 percent of the national production for government, it is manifest that tax policy must seriously affect not only the amount of business investment but also the form in which it is financed. Effects upon the tax liability of the firm of adopting particular financing measures is a variable deserving of independent study. What types of decisions with respect to asset and liability structure are affected by tax considerations? How important are these decisions in the general policy of the enterprise? Is the influence of tax policy on choices

of financing forms socially advantageous? If not, how should the influential factors be modified?

Many important changes in forms of financing have been stimulated by taxation, especially by the federal tax on corporate income. The "sale and lease-back" arrangement appears to hold attraction for management because it creates rental payments, which are deductible business expenses, in lieu of non-deductible earnings from the ownership of land and buildings. Because interest paid on debt is also deductible, it is possible that the factor of tax liability has produced a lengthening in the term of indebtedness, by reducing the net cost to the enterprise of higher priced longer term credit.

The ratio of equity to debt funds in the liability structure of business has probably been reduced by federal taxation in two ways; first, income tax payments have reduced the amount of earnings retained, and thus inhibited the growth of ownership funds; secondly, the deductibility of interest has made credit cheaper, and transferred at least some decisions from equity financing to borrowing. How important these effects have been, when weighed against all of the other factors influencing managerial decisions, remains to be discovered by research.[38] A number of investigations have already been launched into the impact of taxation on business behavior, but it would appear desirable that one study deal intensively with the effect of taxation on *forms* of financing.[39]

7 *Influential Factors in the Financing of Expanding vs. Stable Businesses*

In decisions regarding financing, the managements of stable or mature enterprises may respond to different factors, carrying different sets of

[38] The dangers of generalization on this subject are revealed by the results of a mail questionnaire addressed by the writers in December 1949 to a sample of 75 firms, all of which had recently made public offerings of securities. In answer to the direct question "To what extent did the present federal tax policies influence the source of financing you selected?" almost 50 percent of the respondents stated that federal tax policies had no influence. Responses to other questions suggested that financial standards were more influential determinants of managerial choices.

[39] The Tax Research Program at the Graduate School of Business Administration of Harvard University, under the direction of Professor Dan Throop Smith, includes seven different studies dealing with the direct effects of federal taxation. The first of these, by J. Keith Butters and Powell Niland, is on *Effects of Taxation on Inventory Accounting and Policies* (Cambridge: Harvard University Press, 1949). Other studies in process deal with the effects of taxation on: 1) individual savings and investment policies; 2) management incentives; 3) corporate compensation and retirement plans; 4) mergers; 5) depreciation policy; and 6) corporate financial policy (*op. cit.*, pp. vi-vii). The last-mentioned study would appear to include the subject of tax effects on forms of financing.

weights from those governing managements of rapidly growing businesses. Research is now proposed to test this hypothesis. Does the firm in the early stages of its growth cycle typically give less weight to such factors as risk of insolvency, cost of funds, and effects upon managerial decision-making powers, and more weight to speed of availability, flexibility in amount of funds utilized and likelihood of renewal? What are the dominant factors in the minds of managements of young, expanding concerns in choosing sources of funds? How do they compare with the dominant considerations that motivate policy-making officers of stable or declining enterprises? Is the range of choice of alternative financing forms open to one narrower than that open to the other?

A set of related questions deserves investigation because of their overriding importance. To what extent is unavailability of the needed or desired *kind* of financing equivalent, in practical effect, to an absolute lack of funds? Is expansion of business assets inhibited by unavailability of funds of the desired form? If so, is the retarding effect of such unavailability greater on some types of firms and industries than on others? To what extent is the vigor of innovation and adaptation of enterprise stifled by poverty of financial means?

Two different methodological approaches might be made to this study. One would be to make a longitudinal analysis of the relevant factors in an unchanging sample of enterprises, observing changes in the weights of different factors as these firms progressed from "youth" to "maturity." A second method would be to compare the factors influencing financing decisions over a short time period, (a) for a group of firms in rapid expansion, and (b) for a group of firms in "maturity." The findings of research on this subject should be useful in the formulation of public policies intended to remove obstacles to the growth of new and small enterprises. They should also aid financing institutions in devising new arrangements that more accurately satisfy the respective demands of growing and of mature enterprises.

VI CONCLUSION

The authors venture to set forth succinctly the gist of this exploratory essay.

1) Important issues of business and public policy may not be formulated with confidence until knowledge of the factors influencing business decisions on forms of financing has been increased. The consequences of changes in monetary or tax policy, or of alterations in financial practices, cannot be predicted without a firmer grasp of the financial decision-making process in business.

2) Existing treatments of business financing policy embrace only a limited number of variables, and have not been tested to ascertain whether the factors they do include really are the strategic ones.

3) A comprehensive classification of relevant factors is suggested, containing a wider range of variables which exploratory work indicates to be influential. These influences appear to be numerous and variable both among firms and through time.

4) The nature of the factors included in the suggested classification framework indicates that intensive study of the dynamics of decision-making in the enterprise probably is the most fruitful research approach in the initial stages of inquiry. Whether this approach will reveal that the decision-making process is sufficiently systematic to permit of the selection of a relatively small number of important variables for use in econometric and statistical studies cannot be determined at the present time.

5) A number of possible areas of research are suggested. These studies would be oriented to the measurement of the influence of different factors and factor-categories upon (a) the most important types of financing decisions, and (b) the financing patterns of given types of enterprises. They would also analyze the effects upon business financing forms of tax policy, general economic instability, and other forces exogenous to the enterprise that appear to be especially significant.

Discussion and Comment

Discussion:

W. YOST FULTON, *Fulton, Reid & Company*

The questions which Messrs. Jacoby and Weston raise in their paper are: What factors *do* influence management in the choice of forms of financing? And, second, what factors *should* influence management? The authors group the factors which they mention as "direct" and as "indirect," the direct being factors which appeal to the company, indirect being those which affect the market in which the company seeks its financing.

I suggest that there is a further possible grouping. This would be external and internal factors. All of the factors mentioned in the Jacoby-Weston paper fall under the first heading — that is, external. Our own observation suggests that the internal factors may be even more significant in corporate decisions than those outlined in the paper, whatever ought to be the case.

Some of the internal factors affecting management decisions on forms of financing are (and I do not necessarily put these in order of importance): age of management (young management may be inclined to take more risks than old management, and this is irrespective of the experience of that management); the degree of the entrepreneurial or ownership forces represented on management (if management has a relatively small ownership interest in the company, the degree of risk which it is willing to take may be greater or less than if it represents substantial ownership in the company); duration of management (how long it has been in office or how long it anticipates remaining in office — in other words, can its plans be on a long-range basis or must it obtain maximum benefits at the earliest possible moment?). The authors of the paper suggest case studies from the financial history of corporations. This would be intensely interesting, but please remember when these studies are made that in many cases the patterns shown will have developed under the influence of various managements, not under any continuity of management.

A factor clearly affecting decisions is the experience of management. How many cycles has it lived through in its particular business? Has it been in the saddle only on upswings, or has it ridden through complete cycles? Perhaps at this point, it will be well to remember that selfishness is not necessarily the proper word to apply to management which attempts to maintain itself in the management position. If any of us are thrown into a stream, we are expected to paddle to keep our heads above water. If we refuse to paddle and allow ourselves to sink, we are accused of suicide. It is not selfishness for us to swim. If we tried to push someone else under the water in order to save ourselves, then that becomes selfishness, but not just the effort to keep ourselves afloat. Management which does not govern its decisions in a way that will continue that management in power must either believe that it should be out of power, that is, show lack of confidence in itself, or be completely irrational, it would seem to me.

Management's sense of responsibility is a very real factor. Frequently, management is drawn in on a kind of hit and miss basis knowing that for the preservation and advancement of its own interest, it must take long chances. It cannot be expected to do otherwise. Decisions may then depend on the type of organization. If management is backed by an untried, young, aggressive organization, its decisions must be different from those it would make if backed by a well-rounded, time-tested organization on which management can depend without even worrying about it. A final internal factor is thus the type of board. A board completely dominated by management may produce a completely different result in management decisions from a board including some very strong personalities with

longer or different experience from that of management. We know that frequently management decisions on finance are made as part of a compromise with the board of directors in order to obtain other concessions from certain strong members of the board.

Then, there is another type of factor entirely apart from any of these we have discussed, and that is the type of company, and we speak of this in another sense than that used in the Jacoby-Weston paper. A company manufacturing a broad, diversified line may take a totally different attitude toward the publicity requirements of registration from a company manufacturing a single line, for the publicity involved in registration on a single-product company may give much more information than would be the case in a multiple-line company. The same would be true in the case of a single store instead of a chain store.

Then, there is still another group of factors, and in this is included the type of advice available to management, and the closeness of management to its advisers. You may very properly accuse me of prejudice in my discussion of these factors. I believe that it is within the scope of proper investment banking to give all-round advice to corporations in relation to their financing problems. Investment banking firms should be equipped to do either public or private financing, and in any form available in the market. They should be able to give unprejudiced advice. The frustrating limitations placed on investment bankers by the various securities acts have forced many of them into the role simply of trader and market operators rather than that of the broader investment banking role. The discrediting attacks on investment bankers during the thirties, regardless of how well merited those attacks may have been, again have set up a barrier between the investment banker and his appropriate corporate client. The client who before 1932 was likely to come first to the investment banker and, at the proper time, be referred by him to lawyers, auditors, and commercial bankers, now is much more likely to meet and become acquainted with his auditor, his tax consultant, his lawyer or his commercial banker before he comes in to his investment banker. And, no one of these can give well-rounded investment banking advice, nor can the institutional investor, the investment trust or the insurance company. Each of those men must recommend that type of financing which he is equipped to give, or must recommend financing out of a limited experience. No one of them can be an impartial adviser, trained in the field in which he is asked to give advice at this point.

Finally, most financial decisions are not made on any grand style. They are made as small decisions. The small decision makes us decide to expand. Perhaps we strain our working capital, and then replenish it with

commercial borrowing. Next, because our expansion is successful, we have to expand more. We see a chance to do some financing and do it, but the decisions are not major ones carefully taken with an eye to all factors involved, but rather small decisions, step by step, that begin to form a pattern which can be followed. Questions of building to save rent, of putting in some experimental machinery to cut costs, all of these things may make the major decisions small decisions when they are finally reached. All of us who are God-fearing men are glad that this is so, because we believe man acts more wisely in making small decisions than he does in making great ones.

Discussion:

DAN THROOP SMITH, *Harvard University*

The type of investigation proposed by Messrs. Jacoby and Weston should be very useful in developing our understanding of the great diversity of practice in corporate financial policy even under seemingly similar conditions. Mr. Alexander remarked earlier on the wide spread around average figures which he had found in his own studies, noting the absence of any normal distribution or even of any significant modal value. I have been much impressed by the multiplicity of factors which may influence actual financial decisions and with the absence of any systematic method of even noting, not to mention weighting, these relevant points by business managements.

Theoretical and deductive analyses of business financing are subject to the great danger of oversimplification. The traditional presumption that maximization of income was the dominant objective may certainly be counted now as an example of oversimplification. Mr. Durand in his paper offers the concept of maximization of present value as the dominant objective, with a plan for a statistical determination of the increasing risk inherent in higher debt ratios. The idea of applying lower capitalization rates to future income subject to greater risk is a familiar and useful one, but by itself it would be nearly as great an oversimplification as the income maximization concept which it is apparently intended to replace.

The examinations of specific business situations contemplated by Messrs. Jacoby and Weston should do much to give us a more realistic understanding of the manner in which decisions are actually made. In making such studies, I suggest the advantage of intensive detailed examinations of a smaller number of situations in preference to a survey ques-

tionnaire of a larger number of situations. Direct answers to a list of predetermined questions are not likely to provide full appreciation of the subtle attitudes and intuitive judgments which, along with logical reasoning, are involved in financial as well as other administrative policy decisions. Where several people participate in a joint action it is interesting to find that they often give entirely different explanations for it. Oversimplification, in fact, may exist in the interpretation of a simple situation as well as in generalizations about many situations. Enough discussion to get the points of view of those principally concerned seems a prerequisite for an adequate interpretation.

Since the chief advantage in the proposed studies, in my opinion, will come from the greater reality of our understanding of financial policy, I shall not comment on the lists of factors presented in the paper. A few points seem to be missing; others that are included will probably be inconsequential. I hope that those making the study will for some time regard it as developmental. It is not quite clear from the written paper whether the authors intend to try to develop their own systematic weighting of factors in order to provide a formula for determining ideal conduct, or to measure the relative importance of factors actually taken into account to provide a generalized description of present conduct on the basis of the sample covered. I should be highly skeptical of the possibility of attaining either of these possible objectives in the near future.

As regards a formula for guidance to management, the relative importance of the different relevant factors varies so greatly from situation to situation that any system of weighting, no matter how complex it was, might give inadequate recognition to an individual factor which should be dominant in a particular set of circumstances. The idea of a composite measure, or index of indices, was once popular in credit analysis, but it was found to obscure important critical facts. A composite index seems even less appropriate in the more complex problem of general financial policy. In the same way, a generalized description of the cases obtained would probably obscure the many significant differences which should be the principal result of the study. Patterns of behavior should become apparent; but a full description of the differences in action and attitudes would at this stage be a greater contribution than any attempt to describe diverse behavior in universal terms.

In the course of rather extensive inquiries during the past eighteen months on the effects of taxation on corporate financial policy, I have been trying to determine what significant patterns existed in certain types of decisions on financing. Perhaps a few of my tentative conclusions will be useful in indicating the need of broader studies.

It was quite promptly apparent that financial decisions were not simply based on maximizing income; even more importantly, they were very commonly not even based on the objective comparison of the relative costs of many different methods of financing. Rather, a management often seems to start with a strong predisposition in favor of some method or methods which are used unless they are prohibitively expensive. Also, certain other possible methods are not seriously considered. The dislike of debt, for example, is a very real force for many managements, so that any long-term debt is, in the most literal sense of the word, unthinkable. Some owner-management groups in smaller companies, on the other hand, are unwilling to have any public ownership of common stock. It is not unknown to have the form of financing determined by matters of pride; a less favorable available rate than that secured by leading competitors has turned decisions away from a choice of debt or preferred stock which would make the comparison conspicuous. These are among the real non-pecuniary motives.

Even systematic financial calculations do not seem to be carried on in any uniform manner. The cost of additional equity financing in an established company is not a concept on which there is a common understanding. Most frequently, in other than regulated companies, the dominant calculation seems to be that of the required return on new funds to maintain per share earnings. When stock is sold at less than the value per share of the assets at current market value, a sale of stock produces an increase in assets less than in proportion to the increase in shares outstanding. This is true even on the assumption of a continuation of whatever debt-equity ratio is considered normal for the firm.[1] Earnings per share are thus reduced unless the rate of return on added assets is higher than that on existing assets stated at current market value; and even if this is the case, funds available through operations can be used for the proposed new outlays over a period of time. Internally available funds may be thought of as pre-empting the more profitable uses. The comparison between returned cost must be made, therefore, not with the best possible use of funds, but with what would be the marginal uses.

Cash budget considerations are so important in some companies that the costs of new financing are projected in terms of cash drains. In one

[1] The point may be illustrated by a firm with $1,000 of book assets (currently worth $2,000), a debt of $500 and an equity of $500. If $100 of new equity is sold at book value, there is in this first instance a 20 percent increase in the equity interest against a 10 percent increase in book assets and a 5 percent increase in present market value of assets. Even if another $100 of assets is secured by an increase of debt to $600 (maintaining the debt-equity ratio) there is only a 10 percent increase in assets against the 20 percent increase in the claims against earnings.

large listed company, for example, preferred dividend requirements were compared with interest plus sinking requirements on a debenture issue (without reference to the fact that the sinking fund payments retired debt and were not an expense), and preferred stock was chosen because of its inherent advantage in view of the fact that it cost very little more in terms of cash.

In many closely controlled corporations, the dilution of the asset value of stock is a critical factor. An original owner-management group often thinks in terms of its own investment per share, including retained earnings, and categorically refuses to sell stock at less than that amount, regardless of the effect on earnings. When stock of established companies is selling at substantial discounts from asset values, the stock of closely controlled companies at prices equivalent to book value as a minimum, with all its disadvantages as regards liquidity, is not likely to appeal to investors unless the prospects for capital gains are unusually high.

One brief digression may be appropriate in view of the several remarks made earlier on the effects of taxation on financial policy. The advantage given to debt financing through the deductibility of interest is widely recognized as a tax influence. I have already noted that relative costs of different methods appear to be less important than the absolute cost of equity financing which may be deemed to be prohibitive.

At the present time, taxation is encouraging the use of high debt and preferred stock ratios in newly incorporated closely controlled companies because of the advantage of retiring senior securities, in effect from earnings, but in a manner which constitutes a return of capital rather than income, with an increase in the common stock equity and an eventual capital gain. The senior securities are usually held *pro rata,* by the same group which owns the common stock. If the common stock is purchased with independent funds by children or grandchildren of those providing most of the capital, a saving in estate taxes is often secured by having the build-up in equity interest achieved through the retirement of senior securities go to the benefit of younger generations. Capital structures of this sort may over the years very considerably influence certain of our statistics relative to smaller companies. But since the senior obligations are in identical, or at least in friendly hands, the rigidities and vulnerability which are usually feared as a result of thin common stock ratios will not be serious.

At various times during the discussion here, questions have been raised as to the differences, if any, between the use of retained earnings and funds from new security issues. I believe there are very great differences, both in logic and in fact, in this area. In closely controlled corporations the stockholders think of their proportionate shares in corporate

earnings as their own; but subject to taxation if the funds are paid to them in dividends. The higher the individual income tax to which they are subject, the less capital, and hence the less income, they can receive if they use the funds individually. Thus the inducement to have earnings accumulate is strong. A relatively low rate of return through a corporate use, therefore, can be more attractive than a higher rate from personal use. In more than a few situations some ingenuity has been exercised to find a use that will remove the danger of a Section 102 penalty tax on unreasonable accumulations. The prospective rate of return is likely to be secondary; at least, the rate of return considered satisfactory from retained earnings under these conditions is likely to be much lower than the rate necessary to justify additional stock financing with its dangers of dilution.

In widely owned companies, the same logic exists, but the diverse individual tax status of its stockholders prevents a direct calculation of the relative attractiveness of corporate retention and use as compared to distribution and personal use of funds. In some cases, but by no means in all, and perhaps not even in a majority, the reduction of dividends by individual income taxes does seem to be at least implicit in the thinking of directors in voting dividends. More commonly important, perhaps, is the simple fact that any return on retained earnings increases per share earnings. After traditional – or seen from some other standpoint as reasonable – dividends are paid, remaining funds are available for use without a calculation of the opportunity cost based on the gross and net returns available to stockholders if more funds were distributed among them. In this respect and to this extent the concept of a widely owned corporation as a separate entity appears to be rather broadly held.

In the past several years a somewhat peculiar set of conditions in various industries has made conspicuous the difference between the use of funds available from operations and those acquired from new financing. With stock selling at less than book value, which in turn is much less than replacement cost, new companies with high-cost assets could not be established and financed to yield competitive rates of return. Nor could established companies do new equity financing to secure funds for new separate units substantially similar to old ones without diluting both the earnings and assets per share. Adequate returns for new companies or on new plants considered separately would require price levels which would give very high profits for established companies or plants acquired at lower price levels. But though a new company could not be successful, or even a new plant, if financed by stock issued for the purpose, established companies can and do successfully use funds becoming available through operations and retained earnings to replace low-cost with high-cost equipment and to

build additional capacity including separate new plants. As high-priced capacity bulks larger as part of the total, it is reflected in depreciation charges and, in the long run, presumably in prices, unless offset by greater productivity in the new capacity. Established companies can show appreciable increases in per share earnings from the use of retained earnings, and in the process of maintaining their competitive position may justifiably use funds in ways that would not give reasonable returns for newly established companies. This condition is one of the many lags that develop in, and following, an inflationary period.

These remarks are intended merely to stress the importance of systematic inquiry on actual financial behavior, which itself may be quite nonsystematic. In conclusion, I wish to emphasize what appears to me to be the importance of recognizing that financial decisions are also human decisions and as such are subject to conflicting influences many of which may be rational though nonlogical. We have come to recognize in labor relations that our traditional concept of the economic man was a gross oversimplification. It is time to recognize that in management problems even pecuniary motivation is highly complex, and that nonpecuniary forces are also relevant and may be dominant.

Comment:

MRS. RUTH P. MACK, *National Bureau of Economic Research*

The classification of factors used in Messrs. Jacoby and Weston's study seems to me to be too long and too complicated. After all, everything influences the decision to buy equipment, just as everything — personality, circumstance and society — influences the patterns of consumption. What we need to know is which of myriad influences are the important ones and, perhaps, important under what conditions. A classification of the sort used in this study does not, on the one hand, provide the requisite system of weights to attach to the answers to such questions as are asked; nor, on the other hand — and this is the point I want to elaborate for a moment — does it insure against the failure to ask important questions.

The selection of items in this classification is based in effect on pre-knowledge of the subject under investigation — pre-knowledge which is chiefly derived from venerable theoretical formulations. Such questions may be the important ones to ask if we are interested in learning how business men *ought* to act. If, on the other hand, we are interested in how they *do* act, or in the direction in which government ought to endeavor to

influence their action, it is, I think, ill advised to start with a set of questions of this sort. The thinking of the people who are interviewed is forced into a Procrustean bed. Whether the bed fits or whether amputation was required, one cannot tell, since no one has taken independent measurements of their figures.

I do not think it safe to short-circuit what ought to be the first step in an investigation of this sort: learning what questions ought to be asked. And I know of no better way to learn this than to ask — to talk informally with people who participate in investment and financing decisions to learn what questions they put to themselves. Interviews of this sort cannot be assigned to a number of students, however gifted. They must be done by one person — the man who plans the study and whose judgment can cumulatively ripen. His judgments can later be tested, amplified and corrected by questionnaires, other sorts of detailed surveys, study of time series, or econometrics.

There have been suggestions in our discussions that there is little use in talking with businessmen: one man says one thing and another something dramatically different. This seems to be put forward as proof that businessmen do not really know much about their motives and, by implication perhaps, that economists do. It reminds me a bit of the quip about how the theatre critic is obviously a smarter man than the author, for it certainly takes a smarter man to find a mistake than it does to make one. Actually, the conflicting testimony may not even be a mistake. Sometimes what appears to be a contradiction is really just another way of looking at substantially the same thing; sometimes it represents a real contradiction, but one of importance to the understanding of the investment process.

Let me illustrate from a study of investment in inventories, rather than in durable goods, on which I am working.

Some businessmen have said on the one hand that they increase their holdings of raw (actually semi-processed) materials when they believe prices will rise; others have said that they increase such holdings when they suspect they will not be able to get as much as they need if they wait until close to the time when production must get under way. This sounds like conflicting testimony but it really is simply two ways of thinking about the same thing: rising prices and lengthening delivery schedules occur together. The apparent conflict points toward a very important question that has not, so far as I know, been asked in the study of inventory policy: how do delivery periods vary from time to time and what effect does this fluctuation have on buying?

An example of a case in which apparently contradictory statements are actually found to conflict can be drawn from inventory policy in an

industry that processes raw materials. Some men have said that they buy somewhat further ahead than they otherwise would when they expect that prices will rise; others claim that they do so when they can sell their finished product currently at prices that afford a better than usual margin over the current raw materials cost. Now margins and prices do *not* move together, and therefore the two statements do not amount to the same thing. Investigation suggests that both statements are valid, though prices become more important when sizable price change is in process, whereas margins are watched more or less all the time. There are many interesting implications of the distinction.

Incidentally, to investigate investment in inventories by these raw material processors, I have found, one really cannot ask about inventories at all. Because of the important reservoir function of stock in these enterprises, the term "policy" or "intentions" with respect to inventories applies in only a very limited sense. For the most part the decisions that determine the size of inventories focus on other management problems and only secondarily result in a certain behavior of stockpiles. The questions that seem to me important to ask are four: How is customer demand experienced and what impact does it have on management decisions? What effect do changes in the supply of raw materials have on buying? How is operating efficiency conceived and enforced? How is pecuniary efficiency in selling and purchase prices conceived and achieved?

I have selected these situations from the inventory investment field, but they might have been selected from the field of investment in durable goods in which much more work has been done. Take as a single example the conception of the pay-off period. The importance of this idea in business investment decisions is now fairly well recognized and it has manifold implications. Yet it has not really penetrated the field of econometrics or many other individual studies of equipment purchasing.

What I am trying to suggest is something very simple. A fundamental first step in the study of investment policy is the determination of the important questions to ask. Decision-making is a very subtle process that can be seriously distorted by an improper turn or emphasis of a thought. The fact that it may be possible to translate a business decision into language conforming to Marshallian tenets does not mean that it can be safely studied in these terms to start with. Economists can only learn what to ask if they seriously try to understand how businessmen think about those problems whose solution ends in the purchase of investment goods. If this first step is omitted, and it is only a first step, we are all too likely to end by crossing t's and dotting i's in nonsense sentences.

Comment:

WALTER HOADLEY, *Armstrong Cork Company*

Throughout a large part of the discussion runs the basic question: what reasoning underlies the economic, and specifically the financial, policies of business managements? Examination of the various questionnaire-interview techniques to ascertain how business decisions are reached gives promise of some useful results, but it also clearly indicates that many shortcomings in method remain.

A wide gap continues to exist between the terminology and thinking of business executives on the one hand, and of economists generally, on the other, regarding almost any subject of mutual interest. Here is a real barrier to economic research and economic understanding, and one which seems to be retarding business financial research. There is an obvious need to narrow this gap in terminology and understanding to the benefit of all concerned. Until these differences are reduced, questionnaire-interview techniques cannot be too effective.

In actual business operations, one is impressed by the great variety of products, prices, and competitive market conditions, in contrast to the necessarily limited number of variables normally found in most theoretical economic literature. Questions addressed to business executives involving such terms as "product," "industry," "price" and "policy" – not to mention "marginal efficiency" or "capital formation" — commonly bring a quizzical response. Such words or expressions typically have no clear-cut meaning to businessmen. The latter ordinarily 1) deal in many products and variations of products, rather than one or two; 2) see no easy way to classify their firm into a homogeneous industry group because of their complex product-mix; and 3) think of policy-making primarily in terms of many small individual decisions rather than a few sweeping ones, as is often supposed. Part of the confusion arises because these executives are too close to the day-to-day affairs of their company to have a broader perspective. Equally evident is the failure of many economists to appreciate fully the complexity of business operations and decisions, the importance of non-price motivations, and the importance of developments external to the concern, including government actions, upon company policies and procedures.

In the face of unsettled business conditions, there seems to be a gradual trend for more business organizations to employ economists at a policy-making level. Two possible useful results for economic research may evolve from this tendency. These business economists may help 1) to provide in at least general terms — but far more specifically than currently

available — the kind of information needed to answer research inquiries about business decision-making, as well as frame questions for detailed studies and interviews, and 2) to obtain the cooperation of many top-ranking executives in furthering business economic research of economists not attached to private firms. An increasing number of corporations are inviting university professors to spend extended periods of time in their offices and plants to get firsthand knowledge of actual operations and policies. This comparatively recent development seems to be another worthwhile step toward improving understanding between business managements and academic economists, and indicates that cooperation of certain business executives in financial and other economic research programs very likely will be forthcoming.

Later conferences might well begin with a carefully chosen panel of business executives who would tell as much as possible about how financial and other policies are determined, and also be available for questions on specific points. The natural hesitation of many business executives to expose themselves to the detailed scrutiny of professional economists probably could be reduced by inviting some of the speakers through, or in cooperation with, the business economists in their particular firms. Also the business economists may be able to fill in gaps of information not otherwise covered.

Certainly with all the unresolved questions remaining in business finance and economics generally, every effort should be made to use the most direct means of research available. The methods suggested here should help fill in some of the needed information about business decision-making. Obviously a careful study of all findings regardless of method will be necessary to insure valid conclusions.