II

RECOMMENDATIONS FOR FURTHER RESEARCH: THE CAPITAL MARKET AS A WHOLE

1. *Role of the Capital Market in Attaining National Economic Objectives*

WITH THE INFORMATION ON THE CAPITAL MARKETS WE NOW HAVE, it is time to focus our research on the way the operations of these markets affect the broad economic problems of our times. For example, how does the functioning of the capital market facilitate or hinder the national economic objectives of economic growth, price stability, high-level employment, efficient resource allocation, and balance-of-payments equilibrium? Does our experience have any implications for the presently underdeveloped countries? Could any broad generalizations be made from the economic history of this and other countries which would throw light on the influence of the capital markets on economic growth and stability?

The Committee does not believe that these questions can be completely solved through small-scale or even large-scale research studies. We do not expect to get definitive answers; but we believe that the chances of obtaining valuable insights will be better if researchers keep such questions constantly in mind, even though they may actually be working on topics much narrower in scope.

Among the many topics relevant in this connection is a thoroughgoing comparison of the capital markets in a number of countries in different stages of economic development. This should include their form of organization, their principal financial institutions, the nature and scope of governmental regulation, conventional modes of behavior, the degree of mobility of funds, etc.

Of similar value would be a large-scale attempt to draw up projections of saving, investment, and flows of funds from ultimate lenders directly or through financial institutions to ultimate borrowers, over the next decade or two in the United States. Kuznets' estimates of these magnitudes (see 49 below)[2] have given rise to such considerable controversy that it would be desirable to do more intensive work in this area. Such projections should explicitly include financial institutions and markets. Most economic projections are expressed mainly in "real" terms and overlook financial variables, although there are some notable exceptions, such as the Kavesh-Mackey study (see 47 below). It would then be important to explore the relationships involved in these projections for their implications about those factors which might inhibit or accelerate economic growth and related matters. For example, are inadequate savings

2. Unless otherwise indicated, all such number references in this report refer to the numbered items in the bibliography in Part IV.

likely to hamper economic growth in this country over the next decade or two? If so, what measures might be taken to change this condition?

2. *Role of Government in the Capital Markets*

Throughout this report suggestions are made for explorations of the impact of government regulation on *specific* sectors of the capital market. To do justice to this subject, however, there is need for a broad examination of the role of government influence on the functioning of the financial system *as a whole.* Our capital markets operate within an all-pervasive legal, regulatory, and tax framework which has grown up in a haphazard and unsystematic fashion. A critical examination of the impact of these legal and regulatory influences, on an over-all basis, is long overdue. It should cover regulations on competition among financial institutions and on portfolio policies, regulations affecting flows of funds to alternative markets, tax influences, and the like.

Governmental, regulatory, and tax factors influence the supply and demand side of every facet of the capital market. The question of what the role of government regulation *should be* is a proper and important one in this day and age. Attention should be devoted to specifying standards for an "ideal" capital market: its market structure, its competitive characteristics, how it should function, what we should expect of it, what its role should be in allocating real resources and in promoting and channeling savings into investment. Comparison of the ideal with the real world would reveal the ways in which we might improve the functioning of our capital markets. By this process, we might reach some useful conclusions about the proper criteria, guides, and objectives for government regulation.

In addition to studies of the regulatory activities of government, research should be continued on the role of government as an active participant in the capital markets. In agriculture, housing, shipping, and small-business finance, for example, governmental agencies play an influential or even dominant role. These activities have been studied in the past (see 31a, 69, 70, 284 below), but the problems of measuring government's impact on market structures through its influence on private borrowers and lenders arise in almost every sector of the capital markets. Research should also encompass the extent to which government agency loans and guarantees may complicate the marketing of direct governmental obligations.

3. *Interrelations Among Sectors of the Capital Market*

If corporate bond flotations rise, to what extent and how rapidly does this affect yields in the market for state and local government securities? If corporate bond yields rise, to what extent and how rapidly does this affect the supply of new corporate stocks? A great deal of research has been done on particular segments of the capital market, taken separately, but not nearly as much has been done on the capital market taken as a

single entity. Our knowledge is inadequate about the interrelations among the sectors of the capital market, the way changes in one market are transmitted to the others, the extent of such changes, and the speed of transmission.

We need to know much more about the mobility of funds between the various segments of the capital market, about the degree of substitutability of one type of security for another in lender portfolios, about the facility of borrowers in seeking alternative sources of funds, about the degree of market segmentation due to legal factors or customary practices, about differential risk attitudes and preferences, etc. Current analyses along these lines would contribute significantly to our understanding of the functioning of our capital markets. Also of interest, of course, are similar relationships between the capital market and the money market.

This is a case where the unavailability of data has thus far been a serious impediment to progress. The National Bureau's Study of Interest Rates, for example (see 14 below), has been seriously hampered by lack of adequate ownership data on private debt classified by term to maturity. It would be extremely helpful if ownership estimates could be made on a monthly or quarterly basis for the major categories of such debt. In the study of the determination of interest rates in general, and of the term structure in particular, it was necessary to use extremely poor data because nothing better was available. Several classifications of private debt are available only annually, and in general the breakdown between short- and long-term is in two categories only: less than one year and one year or more. Nevertheless, despite these inadequacies in existing data, much can still be done with the information at hand, particularly in exploring the relationships between interest rates (and other rates of return) and flows of funds through various financial markets, as shown by the Federal Reserve's flow-of-funds data.

4. *Portfolio Decision-Making and the Liquidity and Transferability of Financial Assets*

Continued economic growth, vigorous competition in financial markets, and rising levels of income have contributed to a proliferation of the types of financial assets held by consumers and businesses, and to a relatively larger increase in claims on nonbank financial intermediaries than on banks. Virtually all of these claims are in some degree substitutes for money balances, and all possess some degree of liquidity in the minds of their holders. An integrated set of studies is needed of the factors determining the composition and magnitude of such holdings, the influence of such holdings upon the economic actions of their owners, and the actual liquidity of the instruments (including equities) which our market mechanism provides. The project could be coordinated with the recent explorations of the Cowles Foundation in analyzing the financial behavior of individuals and institutions (see 6 below).

5. *Influence of Financial Markets on Real Expenditures*

Although the role of financial markets in influencing real expenditures has been the focus of a number of recent studies, particularly those sponsored by the Commission on Money and Credit, remarkably little progress has been made in understanding the relationships involved. Among the major issues are the cyclical influence of interest rates and credit conditions in general on various forms of borrowing and spending, and the interrelations between financial and real variables in various sectors of the economy (both cyclical influences and resource allocation).

For example, do financial variables merely adjust to changes in "real" phenomena, or do they influence the behavior of real variables? If the latter, to what extent? Intensive application of the flow-of-funds accounts should be made to seek answers to such issues.

To illustrate from just one sector: a topic of recurring significance in recent years has been the impact of credit conditions on state and local bond flotations, and on real expenditures of these governmental units. Do federal monetary and debt management policies significantly affect state and local borrowing and spending? Several efforts have been devoted to clarifying the relationships involved (see especially 306, 307, 309, and 313), but the importance of the subject warrants substantially greater research effort.

The general consensus at present, so far as we can gather, seems to be that state and local borrowing through the long-term capital markets is somewhat countercyclical, but that short-term borrowing and other devices are utilized to soften the effects on real expenditures, so that real expenditures remain largely unaffected by monetary conditions. Whether these conclusions are generally accurate or not, however, is far from settled. Indeed, it is rather surprising that the above conclusions should be so widely held in light of the paucity of evidence on which they are based. A great deal more work is needed on the impact of interest cost compared with credit availability on municipal bond flotations and expenditure, by type of expenditure, by type of flotation, by type of issuer, and by size of the unit involved.

Also of interest is the relation between interest cost and size of borrower. Does the size of the governmental unit significantly affect its borrowing costs? If so, devices to pool governmental units for borrowing purposes might be worth more extensive consideration, and such experiments as have been made in this direction provide a body of data that deserve further study.

In considering the influence of financial markets on real expenditures, the role of financial factors in influencing the *allocation* of resources has tended to be somewhat neglected in recent years. Most studies have emphasized the influence of financial variables on the *level* of resource employment. Without denying the importance of the latter, the Committee believes the time has come to strike a more appropriate balance

between the two. The role of financial institutions, and the financial system in general, in allocating real resources among alternative employments should become an integral part of the research in this area. In this connection, the influence of financial innovation in altering the pattern of real resource allocation should also be studied.

6. *Comparative Studies of Financial Institutions and Market Structures*

The Committee did not consider the subject of financial institutions per se within its purview. Nevertheless, it is obvious that the growth and behavior of financial institutions exert a powerful impact on the functioning of the capital markets; to that extent their behavior is pertinent to the interests of the Committee. The American financial fabric comprises many different types of institutions, a goodly number of which originally were adapted to special circumstances and accordingly endowed with specialized powers. During the postwar period there have been marked changes in the relative importance of, and some changes in the functions performed by, the major types of institutions; it is evident that still further changes are currently in process. Accordingly, it is important to document these recent changes and assess their relevance to the issue of special-purpose versus general-purpose institutions. Particular issues which should be examined are the criteria that might be used in assessing the optimum degree of specialization among financial institutions, the extent to which our institutional structure falls short of the optimum, and whether that structure has on balance tended to improve or deteriorate in the period under review.

To these ends, the Committee recommends that further research be conducted into the *comparative* behavior of various financial institutions in such matters as deposit policies, portfolio policies, competitive relationships, market structures, regulatory and supervisory influences, etc. What we have in mind is not so much the analysis of one type of financial institution in isolation from the others, but rather the differential experience of all of them, across the board, with respect to one or the other of their practices, functions, or environmental influences, and the resulting implications for the capital market. It would be useful to search for such regularities as may exist between, say, market structure and portfolio policies, or between competitive relationships and deposit policies, to give only two examples. It might be mentioned that a particularly useful study along these lines at the present time would be an analysis of the impact of localized recession on the financial institutions in that locality, and their reactions to it.

One primary focus of such studies would be the degree of competition among financial institutions for loans and investments and for savings, and the implications for the capital markets. There is a fairly large volume of recent literature on commercial banking structure and the characteristics of bank competition for various sources and uses of funds, but relatively little has been done along these lines for financial institutions

other than banks. Grebler and Brigham (see 130 below) have developed a conceptual framework for analyzing overlaps between submarkets (defined in terms of loan characteristics, terms, etc.) served by different lenders in the mortgage market, but its empirical basis is fragmentary. Because the Federal Home Loan Bank Board is now beginning to collect and publish a considerable amount of data on loan samples, much more intensive work in this area will soon be possible.

In this connection, as elsewhere, it would be desirable to have flow data in gross as well as net form, i.e., to have data on various financial institutions' loan extensions and repayments separately, instead of only the net changes. There is also a serious gap in the information about financial institutions in the securities markets; i.e., there is a lack of data on short-term investments of state and local government working funds, and of current data on long-term investments of state and local government retirement systems.

Finally, of growing interest is the development of a theory of the *financial* firm. This could be given some headway by a thorough study of the pricing policies of financial institutions in the sale of their services to users and suppliers of capital. Can we apply standard pricing theory to financial services? Developing pricing models and testing them against institutional policies might prove highly valuable to our knowledge of the process of resource allocation.

7. *Integration of National Income and Flow-of-Funds Accounts*

Thanks to the Department of Commerce and the Board of Governors of the Federal Reserve System, the United States has excellent data in the national income and the flow-of-funds accounts. However, it is extremely clumsy and awkward for users to move from one set of accounts to the other. The income and product accounts of the Department of Commerce are concerned exclusively with flows of goods and services, whereas the flow-of-funds accounts of the Federal Reserve are concerned primarily with financial transactions. It should be possible to move quickly and easily between the two, in order to examine the crucial relationships between the real and financial sectors of the economy. In brief, the accounts should be integrated into a unified whole. To suggest this is in no sense to disparage the value of the accounts as they are now constructed. Indeed, the flow-of-funds data promise to accelerate progress in capital market analysis in ways impossible only a decade ago. But improvements can still be made, and in the minds of the Committee the greatest need is for a rearrangement of the accounts into a single integrated pattern. (For further discussion of this topic, see 31 below.)

A second aspect of the flow-of-funds data which seems susceptible of improvement is the treatment of capital gains. The distinction between realized and unrealized capital gains needs to be worked out more fully, both statistically and conceptually, and so do their implications for aggregate demand and real output.

8. *Measurement and Flow of Saving*

At least three projects in this area are of major importance. First, data on saving now emanate from several different sources: the Department of Commerce, the Board of Governors of the Federal Reserve System, the Federal Home Loan Bank Board, and the Securities and Exchange Commission. Each defines the concept somewhat differently, so that the various saving series often behave differently over the cycle. A project exploring the reasons for the different cyclical behavior of the various saving series, and the implications of the differences, would be of great value. Consideration should also be given to continuing, and possibly revising, the long-term estimates of saving made by Goldsmith in his *A Study of Saving*. A segment of such a project might be devoted to the conceptual and statistical difficulties involved in the frequent comparison between financing "out of saving" compared with financing "by monetary creation." The conceptual distinction between these two is not always as clear as it might be, nor are the implications for their impact on the economy.

Second, useful work could be done on the differential rates of growth of savings at various types of financial institutions, and the characteristics and motivations influencing depositors at each. An important issue here involves the interest elasticity (as well as convenience and availability elasticity) of financial savings as determinants of the type of savings facility selected by households. While economists have concerned themselves intensively with the response or lack of response of aggregative savings to changing interest-rate levels, very little work has been done on the response to differential interest rates and other conveniences and facilities offered by different financial intermediaries. We know, of course, that location, convenience, selling effort, and images of relative safety, as well as interest rates, are important determinants of savings, but beyond such generalities our knowledge is extremely limited.

This could involve, eventually, expectations surveys of large savers similar to those now conducted on consumer buying intentions and on business spending plans. (For a start along these lines, see 137, 154, and 156 below.) By moving their funds among financial institutions, the largest holders of financial assets can significantly affect the supply of funds available for investment by various types of financial institutions. Since some institutions tend to specialize in certain markets, such movements might have considerable influence on the pattern of financial flows and, ultimately, on the allocation of real resources.

Finally, more work needs to be done on the measurement of flows of financial saving. At present we get little information on gross financial saving flows—such as gross deposits and gross withdrawals—and instead only a figure for net change. Gross data might reveal tendencies and relationships not discernible from net figures, especially with respect to the influence of interest rates and other variables on financial flows. (Indeed,

this observation applies equally well to other markets—bonds, mortgages, loans, etc.) Such data might be classified by category of savers, by geographic area, by occupation of individuals, and by type of institutions. In addition, the effect of compound interest on savings accruals should be distinguished from inputs of new funds.

9. *Quality of Credit*

The issues of credit quality, its cyclical changes, and its influence on economic activity cut across many areas of the capital markets. For mortgage credit, for example, preliminary data as revealed in James S. Earley's progress reports in the Quality of Credit Program[3] suggest that the quality of mortgage credit may be deteriorating, perhaps more so than in any other sector of the capital market. The quality standards of different types of mortgage lenders should be examined, as well as the supervisory and legal safeguards which regulate the activities of various types of lenders. The relationship between mortgage quality and yield, default experience, cyclical and secular variations in quality standards, and related matters are all worthy of investigation. Commercial as well as residential mortgages should, of course, be included. A thorough study of secondary financing of residential properties, in all their various forms, would also fit in well with such a quality of credit project.

Similarly, a substantial gap in our knowledge of the functioning of the municipal bond market is due to the lack of data on the quality of state and local government credit, including the relationship between quality and yield and the cyclical and secular behavior of the quality of state and local credit. The volume of outstanding state and local government obligations has now reached close to $100 billion, almost five times what it was at the end of the war. Furthermore, outstanding municipal securities have been increasing in recent years at the rate of about $8 billion annually, over four times the annual increment of the late 1940's and early 1950's. The possibility that this pace of growth in state and local indebtedness might be outstripping the tax and other revenue sources available to these governments deserves intensive analysis, quite aside from the fact that in general our knowledge of the quality characteristics of this type of credit is very limited.

The National Bureau's Quality of Credit Program has made some tentative explorations about municipal bond quality, but has had to defer further work for lack of sufficient resources. On the basis of the work which has been done, no clear conclusions are evident. For example, agency ratings do not show any appreciable decline in quality in recent years, nor is any cyclical movement demonstrable. On the other hand, the large proportion of municipal securities in revenue bond form and the fact that a large percentage of issues are not rated at all by the rating agencies raise questions about quality.

3. See 13 in the bibliography and the Forty-Second and Forty-Third Annual Reports of the National Bureau, pp. 88-92 and 16-17, respectively.

A thorough inquiry into the quality characteristics of municipal securities would obviously scrutinize closely the relation between quality and yield differentials, the cyclical behavior of quality, and the historical record of quality standards. This topic has perhaps acquired more immediate urgency than heretofore by the recent change in Regulation Q—the Federal Reserve regulation governing the payment of interest on time deposits—and the consequent build-up of municipal securities in commercial bank portfolios.

Finally, the evidence available thus far seems to indicate that there has been no deterioration in the quality of foreign securities, but a closer look might be useful in view of experience during the 1920's and 1930's.