9. Further Studies in Progress

Although some parts of the initial interest rate project have not yet been completed, work is already going forward on the second phase, and general plans have been laid for a substantial part of that undertaking. Planning has been greatly aided by the work of the National Bureau's Exploratory Committee on Research in the Capital Markets, under the chairmanship of Roger F. Murray. We have also benefited from discussions with the Advisory Committee for the project, and with others. The past policy of selecting for research a number of studies under a disaggregated approach will be continued. It still seems wise to devote some attention to studies that will cast light on the linkages of financial markets and the determinants of interest rates, but we shall also begin exploration of the effects of interest rates on economic activity.

Extensions of Current Research

Continuation of studies along lines suggested by the initial project will attempt to round out the analysis of the linkage among financial markets, to extend substantially our studies of the mortgage market, and to explore in greater depth the causes of the cyclical behavior of interest rates.

THE MORTGAGE MARKET

On one- to four-family residential mortgages we plan to develop the implications of data already collected by Guttentag and Beck, as well as that from the other sources now under study (as described above). This work will attempt to cast light on: (a) Relations between the movements of rates on mortgages and those on other types of securities. (b) The cyclical and secular behavior of mortgage rates. (c) The relation between the yields and the other terms of mortgage loans, especially the relations between costs of borrowing as reflected
in interest rates and other measures of credit availability. (d) The implications of the study of mortgage yields for a general theory of interest rate determination.

On nonresidential and multifamily residential mortgages we plan studies on both the determinants of interest rates and the effects of these rates on the level and nature of economic activity. Collection of original data on the nonresidential mortgage loans of major life insurance companies has already begun. The first analysis of these data will consist of cross-section studies much like those made by Cohan in his study of direct placements. By this means we hope to find objectively measurable determinants of the yields on nonresidential mortgages in order to devise a system by which such mortgages may be classified according to "quality." Having done this, it will be possible to study yield behavior over time for each of several classes found essentially homogeneous with respect to these yield-determining characteristics. We should then have meaningful yield series on nonresidential mortgages. Other aspects of this study are described below, in the section, "The Effects of Interest Rates."

LINKAGE OF FINANCIAL MARKETS

Two studies in the initial project were directly devoted to the linkage of financial markets: yield differentials between new and seasoned corporate issues, and the term structure of interest rates. Important evidence on this subject also was developed by other studies, especially the cyclical and the seasonal analyses.

This work should be rounded out by a number of other projects, and the following are planned or under way: (a) A study of the yield differentials between various types of securities by nature of borrower (federal, state, corporate) and degree of risk. (b) A study of the actual movement of security ownership among types of institution, indicating the flexibility of institutional portfolios in terms of types of securities held in response to changing market conditions. (c) An empirical evaluation of the various determinants of the term structure of interest rates as developed in the hypotheses of a number of contemporary scholars, including some new lines of research not covered by Kessel's study. (d) An analysis of the influence of coupon and call on the yields of corporate bonds.
Further Studies in Progress

CYCLICAL BEHAVIOR OF INTEREST RATES

Phillip Cagan's present work on the cyclical behavior of interest rates will describe the various rates, and will analyze their relation to the rate of growth of the money supply. He has already begun the examination of the relation between interest rates and the major components of bank assets, namely, loans and investments. These studies are proving significant both in themselves and for the light they cast on the determinants and effects of interest rates. He plans similarly to relate the cyclical behavior of interest rates to other relevant series, including sectoral data found in the flow-of-funds accounts. This quantitative analysis should be supplemented by a study of the detailed history of interest rate behavior over individual cycles, including study of nonquantifiable factors such as institutional changes.

A related study by George R. Morrison of Cornell University is concerned with the cyclical behavior of stock and bond financing and concomitant variations in stock prices and bond yields. Morrison was a Research Fellow at the National Bureau during 1964–65, under a grant from the Sloan Foundation.

The Effects of Interest Rates

A large number of investigators have attempted over the years to discover the effects of interest rates on real economic variables. One of our projects, being undertaken by F. Thomas Juster, is a pilot study to review and evaluate the findings from this work. The study will explore the fruitfulness of various means of attacking this problem, including econometric analysis, the use of surveys, cyclical studies, and so forth. It will provide a review of what is now known and suggest the kinds of approach that appear most promising for future research. In the light of it, further work can be planned. In the meantime other studies now decided upon or under way should cast light on specific aspects of this question.

THE MORTGAGE MARKET

A number of studies have indicated high sensitivity of residential building to interest rates and other mortgage terms. For many reasons
Part III

it should now be possible to deepen these studies as well as to update them. We now have substantially more data than when they were first made, including that supplied by this project, and recent experience will be richer because of changes in conditions surrounding the mortgage market, such as rising foreclosure rates, depletion of demand backlogs for housing, and changes in monetary policy.

The study described earlier regarding the relation between interest costs and other mortgage terms should help substantially in an effort to find whether it is possible to separate the different ways by which tightness in the market for money and capital impinges on residential construction.

If feasible, we shall also examine individual segments of the nonresidential and multifamily residential mortgage market with a view to observing the effects of changes in credit tightness on activity there. These segments include such construction as shopping centers, office buildings, apartment houses, hotels, and motels. One reason it is hoped that an examination of these categories of construction may be especially feasible for study is the fact that in many such cases mortgage loans provide the major source of funds, so that the influence of credit availability or cost may best be isolated here.

CONSUMER CREDIT

F. Thomas Juster and Robert P. Shay, in the National Bureau's study of consumer finance, have been exploring some ingenious new techniques for determining the effect of finance rates, maturities, and other credit terms on the use of credit by consumers.1 These involve the use of surveys in which several sets of hypothetical questions regarding financial transactions are asked of different, randomly selected, groups of consumers. The differences in response among these groups appear to provide sensible indications of the influence of interest rates and other variables on the demand for credit. The project has also developed historical information on finance rates and the use of credit. These results will undoubtedly be useful in our explorations of the effects of interest rates, and the techniques may prove capable of extension to other financial markets.

Other Studies

Consideration is being given to the feasibility of research on two other subjects. One is the secular movements of interest rates. Such a study could test presumptions reached about the theory of interest based on studies of shorter periods. In addition it might well reveal other important elements for such a theory. For example, here we meet again the familiar question: Does the supply of money or its rate of change significantly affect interest rates in the long run, or do we find that in this perspective the major impact is on commodity prices? If one purpose of theory is to aid prediction, then long-run analysis is important partly because there is wide need to form judgments regarding probable long-run changes in interest rates.

The other subject is the recent and historical changes in financial institutions and their practices, as well as the changing knowledge within the financial community. A study of the changing financial environment would provide balance to the more narrowly statistical work done in other parts of our study, and contribute to the evaluation of linkages, both within financial markets, on the one hand, and between financial markets and real economic activity, on the other.

Scope of Interest Rate Project

We have outlined the studies of the first phase of the interest rate project of the National Bureau, most of which are now nearing completion. We have also described plans which will, when executed, comprise most of the second phase. Together these studies fall into three broad categories. First, three projects are devoted to the analysis of the movement of interest rates over time. These include study of the seasonal, cyclical, and secular movements of rates.

Second, it is hoped that our studies will provide a fairly well-rounded picture of the linkage of financial markets, including statistical studies of rate linkages and more descriptive studies of portfolio flexibility. For this purpose the segments studied may be distinguished according to a variety of criteria: term to maturity, degree to which security issues are "seasoned," degree of risk, nature of borrower (fed-
eral, state, corporate), and type of instrument (mortgages, directly placed bonds, publicly offered bonds, term loans, equities). If present plans are achieved, we shall hope to have examined all these relations except rates on term loans and returns on equities, and some start will have been made on the latter.

A third major aspect of our studies is the analysis of the relations between financial markets and real economic activity. Causal influences here flow in both directions. It is hoped that the analysis of relations among financial markets themselves may provide useful insights regarding the determinants of interest rates, including the effects of "real" events on these rates. Specific studies described above should also reveal some of the influences of interest rates and other aspects of credit availability on the level and nature of economic activity, providing the other half of the linkage between real and monetary variables.

Much will remain undone. The possible depth of studies in these areas is unbounded. Aside from that, a number of highly important investigations will not have been attempted, including study of the relations between interest rates and international capital movements, and a broad analysis of the connections between returns on debt instruments and equities. Despite the gaps that will remain, it is hoped that out of our researches it may be possible to give sounder, empirical content to the theories of interest—theories that are taught in our colleges, influence our activities in the market place, and govern our economic policies.