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Business Cycle Research and the Needs of Our Times

I

The gift of prophecy has never loomed large in the endowment of economists, whether lay or professional. A generation ago, however, the professional analyst of business conditions at least had the advantage of being able to organize his thinking around such venerable concepts as a self-generating cycle and a regularly rising secular trend. If the advantage proved ephemeral, it nevertheless kept uncertainty under decent restraint while it lasted. Looking back across the years between the Civil War and the first World War, one could see a fairly regular fluctuation in business activity emerging. Except for the lapse in 1895, each peak of an expanding wave towered above its immediate predecessor. The shortest of the nine cycles before 1914 lasted thirty-five months and the longest only forty-six months. The amplitudes of successive cycles were less uniform but severe depressions were infrequent. Through the international gold standard our economy was linked closely to the rest of the world. Every recovery and recession in Western Europe had its counterpart in American experience, although we managed to generate some special cycles of our own. The most spectacular fluctuations occurred commonly in our financial markets and activities preparatory to investment expenditure; and since these seemed to have a critical bearing on developments in the industrial sphere, the movements of stock prices, interest rates, business failures, and investment orders attracted wide attention.

The outbreak of war in 1914 brought new and difficult economic problems. It was generally expected, however, that upon the return of peace the dislocations wrought by war would quickly vanish and the world economy revert to its prewar pattern of growth and fluctuation. This expectation was scarcely fulfilled outside the United States. A wild inflation, which enabled Germany to escape the world-wide depression of 1920-1921, brought disaster in late 1923. Inflation stopped short of complete riot in France but lasted longer and likewise served to insulate its economy. England followed a path of financial orthodoxy, but could not reduce unemployment to the prewar level and faced the ordeal of a gen-

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eral strike in 1926. Russia, having fallen towards the close of the war under communist control, lost little time in organizing for a test of strength with the outside world. Of the great powers the United States alone enjoyed a return to "normalcy." While the depression of 1920-1921 was severe, it passed quickly and was widely accepted as a salutary check of speculative exuberance. The prosperity that followed grew marvelously except for a pause in 1923-1924 and another in 1926-1927. Business confidence ran high despite the monetary, industrial, and political disorganization in other parts of the world. No special controls beyond those residing in the Federal Reserve System seemed necessary to keep the business cycle in check. And for a brief while, as one foreign nation after another limped back to the gold standard under the umbrella of our easy money policy, the prewar world seemed restored.

As we look back to the 1920's, three facts about the business cycle stand out. The first is that it was natural to frame expectations about the business future on the assumptions of international peace and of normal business relations among nations. Second, it was natural to think of the government as playing a minor role in business fluctuations. Third, it was natural to think of business depressions as passing interruptions of progress. This concept of normal business in a peaceful and progressive world, which ruled our economic thinking in the twenties, was severely tested by stubborn depression in the thirties, and then nearly shattered by war and its sequelae in the forties. The old order did not change at once, but it changed swiftly. International disunity erupted first in currency and trade wars, later in ideological and military warfare. And prolonged depression, a second world war, and the growing menace of communism brought to the American people a vast network of controls, high taxes, still higher expenditures, but also a new conception of public responsibility for coping with booms and depressions.

II

The presidential campaign of 1952 gave clear testimony of how profoundly the economic and political storms of recent years have changed our intellectual outlook. The Republican party was not less emphatic than the Democratic party in urging the importance of governmental action to foster a stable economy. In the course of one of his addresses, Mr. Eisenhower declared that "never again shall we allow a depression in the United States." He went on to say that if signs appear "of any . . . depression that would put . . .

men and women out of work, the full power of private industry, of municipal government, of state government, of the federal government will be mobilized to see that that does not happen." This declaration of governmental responsibility goes well beyond the Employment Act of 1946. It caps a long line of social thinking that first had as its objective the cushioning of depression, next pump-priming expenditure, then compensatory fiscal policy, and, finally, comprehensive contracyclical action.

The traditional attitude of letting business depressions 'blow themselves out' had already been repudiated by the Hoover administration. Its experiments with contracyclical devices were not sufficient, however, to check the rising tide of unemployment. The Roosevelt administration moved with greater vigor and attempted both to engineer recovery and to reconstruct economic society. New measures designed to increase the money supply, raise the price level, reform the banking system and security markets, relieve the distress of farmers and unemployed workers, aid local governments, protect homeowners, strengthen trade unions, stimulate construction work, and reduce the inequality of personal incomes followed one another in quick succession. On the whole, consumer spending responded much better to the governmental measures than private investment. Unemployment was reduced but not eliminated. In 1937-1938 economic activity suffered a sharp setback and 8 million were still unemployed in 1940.

Since then the course of international events has dominated the economic scene. Military demands for men, materials, machines, and munitions started to climb after the collapse of France and became insatiable after the attack on Pearl Harbor. Taxes increased sharply, yet expenditures outran taxes and a huge federal deficit accumulated. At the same time, personal incomes mounted, unemployment disappeared, civilian consumption increased, liquid assets piled up, and curbs on inflation replaced recovery stimulants. The war experience raised the hope not only of intellectuals but of common folk everywhere that depressions could be prevented in the future by vigorous governmental policy. Before long official pronouncements of individual governments, including our own, and the Charter of the United Nations gave eloquent expression to this hope.

With the approach of victory men's minds turned again to the tasks of peace. In 1944 federal outlays on goods and services were over 40 per cent of the gross national product, and of course interest and transfer payments carried dollar expenditures far beyond

the volume of purchases. Under the circumstances there was, quite naturally, considerable uncertainty whether demobilization and abrupt cuts in war production could be carried through without bringing back mass unemployment. The fears proved unfounded. The civilian economy, starved for self-expression through the war and more handsomely equipped with cash than ever before, manifested a power with which not many economists were then inclined to credit it—a power to generate activity on as lavish a scale as had the military a few years earlier. Between the first quarters of 1945 and 1946, federal purchases fell from an annual rate of \$91 billion to a rate of \$26 billion. But buying by the rest of the community, principally households and domestic business firms, increased sufficiently to replace two-thirds of the decline. By the first quarter of 1947 federal purchases were down to an annual rate of \$16 billion, a drop of \$75 billion from their peak rate. In the meantime, the gross national product had risen slightly, so that the rest of the economy fully compensated for the unprecedented reduction in governmental spending. Of course, commodity prices rose sharply after price controls were dropped and the rise continued well into 1948. At the same time the physical volume of activity also increased and all major branches of the economy—including federal purchases, which were already being lifted by Marshall Plan aid—continued to expand until the closing quarter of 1948.

The recession which began in the fall of that year was of slight consequence. Consumer expenditures continued to expand, as did housing construction, automobile production, and many other activities. In all, the gross national product declined merely 4 per cent, and this reflected principally a drop of inventory investment. By the last quarter of 1949 aggregate activity was again moving upward. Recovery was rapid and proceeded without special aid from the public purse, except for the veterans' insurance dividend, until the fateful month of June 1950, when the communists struck with guns in Korea. The noble illusion of peace in our time was now ended. Once again the government projected a heavy phase of military spending, higher taxes, and ramifying controls. Meanwhile, consumers and businessmen alike, fearing that shortages of civilian goods would soon develop, rushed to stock up on all sorts of things. For a few months prices rose at an alarming pace; but production also expanded rapidly and by early 1951 it became evident that merchandise was generally in good supply and that the anticipated shortages had failed to materialize. Presently, con-

sumers revised their expectations and stopped adding frantically to their accumulated stocks. Manufacturers and dealers in consumer goods responded in similar fashion, and a sizable decline of output in the consumer goods industries followed. This quiescence of the civilian sector proved very timely and neutralized the inflationary pressure of military spending. Federal outlays on goods and services, which were at an annual rate of \$31 billion in the first quarter of 1951, rose to \$55 billion eighteen months later; but the aggregate physical volume of production increased only slightly and the level of wholesale prices declined somewhat. Of late, consumer spending has increased perceptibly, although personal savings have continued at an exceptionally high level.

Taken as a whole, the quarter century since 1929, some of whose features I have so hastily sketched, provides the sharpest contrasts of business conditions in our history—contraction running from the mildest to the most violent of which we have any knowledge, expansion ranging from hesitant recovery to a long and vigorous boom. The tendency towards regularity in cyclical fluctuations, which seemed so clear a generation earlier, became fuzzy. Social control of business cycles emerged as a political necessity, both domestically and internationally. Extensive experiments in contracyclical action were undertaken, of which a persistent tendency towards easy money and a persistent difficulty in attaining budgetary balance became the principal outward symbols. Foreign developments at times aided, at others complicated, the efforts of government to promote a stable and prosperous economy. Over a considerable part of the period the rate of governmental spending, buffeted about as it was by international developments, itself became the principal active factor in the economic situation, rather than a response to variations of private spending. In some years the civilian economy compensated for the violent shifts in public spending, in others it aggravated their consequences. At all times, even when sales and profits were eminently satisfactory, uncertainty about the course of international relations or of governmental economic policy added a note of anxiety to business planning. On the other hand, the social legislation of the period, which aimed to afford some protection against the hazards of unemployment, old age, bank failures, and declining farm prices, brought a new sense of security to millions of Americans.

III

In closing his first book on *Business Cycles* in 1913, Wesley Mitch-

ell ventured the prediction that, since cumulative changes in economic organization are likely to occur in the future as they have in the past, the economists of each generation "will see reason to recast the theory of business cycles which they learned in their youth." The course of events in the past quarter century has borne out his historical insight. Not only have recent fluctuations in aggregate activity become less regular in duration, but many of their internal features have been modified. For example, the tendency of interest rates to rise during expansions of aggregate activity has become decidedly weaker, the ability of wage rates to resist contractions has become stronger, the conformity of the velocity of bank deposits to over-all economic movements has become irregular, the lag of dividends at cyclical turns has become shorter, the tendency of private construction contracts to lead general recovery and recession has become less dependable. But cumulative movements of expansion and contraction have continued to diversify our economic fortunes, and many features of earlier business cycles have persisted although they have been obscured by the predominantly expansive pressures since 1938. The sequence of developments in 1948-1949, as Geoffrey Moore has shown, bore a striking resemblance to earlier cyclical declines; and the shrinkage of private spending during 1951, when public spending was rapidly expanding, is another warning that the present boom will not last forever.

The only things we can be reasonably certain of in the proximate future are, first, that our economic system will continue to generate cyclical tendencies, and second, that the government will at some stage intervene to check their course. The outcome of these opposing tendencies must needs be, at this time, a matter of judgment. It is reasonable to expect that contracyclical policy will moderate the amplitude and abbreviate the duration of business contractions in the future, so that our children will be spared the sort of economic collapse that blighted lives in the early thirties. The strengthening of the banking system, the development of unemployment compensation and general assistance programs, the large and automatic reduction of taxes that now takes place when the national income contracts, and above all the assurance that the government is not likely to permit deflation to proceed unchecked support this faith. But there are no adequate grounds, as yet, for believing that business cycles will soon disappear, or that the government will resist inflation with as much tenacity as depression, or that deep but brief contractions such as occurred in 1920-1921

and 1937-1938 will never again take place. Our limited experience with contracyclical policy does not provide strong support for the belief, so often expressed by theoretical writers, that the government is capable of adjusting its spending, taxing, and regulatory policies with the fine precision and promptness needed to assure virtually full employment and a virtually stable price level at all times. Not only is the art of contracyclical action as yet imperfectly understood, but there are practical obstacles to the effective use of such knowledge as exists. In a world in which international crises keep recurring, in which the domestic population clamors for relief from burdensome taxes, and in which different groups of the community are either deserving or persuasive enough to win the special solicitude of government, considerations of economic stability neither are nor can be the sole concern of public policy.

These obstacles to effective contracyclical action are likely to continue. It may be hoped, however, that as knowledge of business cycles is extended, contracyclical policy will improve and the burden of counteracting its own mistakes will become lighter. Interest in business cycles has never been so keen, nor the social and political importance of curbing their wandering so widely recognized, as at present. Perhaps, before many years pass, an economic general staff will emerge within the government and take on some of the characteristics of military general staffs. Just as the military often find it helpful to draft plans for resisting different potential aggressors, each or a combination of whom may strike at this point or at that, so an economic staff may in the future find it prudent to work concurrently on plans for meeting a great variety of economic troubles that we loosely call booms and depressions. And just as the military staff tends to concentrate on immediate danger points, but without neglecting the lessons of past campaigns and battles, so the economic staff may come to combine historical and theoretical research on business cycles with the devising of policies to meet emerging conditions. But though much may be accomplished by a general economic staff in the future, it is unlikely that it will ever be able to pursue far enough or deeply enough all the problems that come its way. In the future, as in the past, the scientific study of business cycles will therefore continue to be a primary responsibility of our great centers of learning—the universities and private research institutes like the National Bureau.

IV

The 'new economics,' of which less is heard nowadays than a few years back, found little need for the study of business cycles as an earlier generation knew it. Equipped with a 'consumption function' that was supposed to take full account of the influence of variations in the national income on consumer outlay, looking upon investment expenditure as an 'exogenous' variable that shaped the course of the nation's income, and braced by a crisp formula of compensatory fiscal policy, the new economists had sufficient thunder without bothering much about the cumulative processes of change and adjustment in a business economy. Their bold thinking stimulated much useful analysis and research, but experience has not dealt gently with their simplification of Keynes' teaching. Under the influence of war and inflation, a strong interest has of late reemerged in the mutual adjustment of costs and prices; in the influence of consumer spending, profits, construction costs, and terms of financing on business investment; in the influence of accumulated assets, borrowing, and changing expectations of consumers on their rate of spending; in the influence of investment on industrial productivity, on business competition, and commodity prices—in short, in the numerous and lagged responses that bind economic activities together into a system. Theoretical models of business cycles are once again exciting general attention and, while they may sometimes unwittingly caricature the economic process, their emphasis on cumulative movements, lags, and self-reversing tendencies is salutary.

Except for the minor setbacks in 1945 and 1948-1949, our economy has moved steadily forward since 1938. This is undoubtedly the longest sustained expansion of recent history, yet it is not the only movement of its kind. The period from 1921 to 1929 was also one of sustained expansion broken only by minor cyclical declines; so too were the periods from 1897 to 1907, 1885 to 1893, and 1867 to 1873—if not the entire span from 1858 to 1873. Each of these major expansions culminated in a speculative boom, each was followed by deep depression, and three of the depressions lasted years. One of the important tasks awaiting students of business cycles is thorough historical study of the booms that preceded these as well as other contractions. Studies of this type are worth making, not because of any immutabilities of historical sequence, but because there is a need to clarify the work of policy makers who, while earnestly resolved to do away with depressions, sometimes seem to

neglect the need of controlling booms and trust too exclusively in our ability to check any contraction that may get under way.

Of the massive materials compiled by the National Bureau, we have thus far analyzed most carefully the record of the twenties. The extravagance of its boom in common stocks is notorious, but the speculation of the time was by no means confined to stocks. It extended to urban real estate, foreign government bonds, and many types of industrial enterprise. As the decade rolled on, borrowing piled up in all directions but the quality of new loans, as measured by their later ability to meet the test of hard times, declined progressively. Thus Ilse Mintz has found that 18 per cent of the dollar amount of foreign government loans placed in the United States during 1920-1924 defaulted during the thirties. The wave of defaults caught a much larger proportion of later issues: 50 per cent of the bonds acquired from 1925 to 1929 and 63 per cent of those acquired in 1928. Saulnier's study of urban mortgage loans by life insurance companies, the study of mortgage loans of commercial banks made by Behrens, and Hickman's recent study of domestic corporate bonds likewise indicate a progressive relaxation of credit standards. Hickman finds, for example, that 17 per cent of the par amount of railroad bonds offered during 1920-1924, but fully 53 per cent of the amount offered over the next quinquennium, went into default by 1944. The defaults ran lower in the case of public utility and industrial bonds, yet each of these groups also showed a trend towards deterioration. The net result was that the bonds offered in the early twenties eventually yielded something more to investors than they had been promised, while the offerings of the late twenties—especially those issued at the very height of the boom—brought the average investor far less than the promised yield.

Hickman has also gathered some empirical evidence on the business psychology of the twenties, and this is especially interesting in view of the huge expansion in practically every category of private debt in the United States since 1945. One might perhaps expect that the investment rating agencies, if not the financial market generally, would have recognized the increasing risk that attended the new bond issues. This did not happen in the twenties: the optimism of the time was general and financial specialists did not escape infection. Judging from Hickman's compilations, the rating agencies failed to sense the declining quality of new bond issues before 1928, perhaps not even then. The judgment of the market place was poorer still, as is evident from the fact that the propor-

tion of new offerings rated as high grade by the market rose rather consistently over the decade for each of the major bond categories—railroads, utilities, and industrials. These findings enlarge the significance of Ilse Mintz' earlier comparison of the risk premium on foreign bonds with their subsequent performance. Apparently, investors in domestic as well as foreign securities "not only were unaware of the increasing riskiness of new . . . issues but even grew more confident at the very time the quality of new bonds was lowest."

It is, of course, impossible for any people to see their own current actions, shaped as they are in large degree by expectations of an uncertain future, with the cold detachment and knowledge that a later generation can sometimes bring to the same events. Economic research will never alter this pervasive feature of life. It may, however, usefully bend the course of events, first by bringing the lessons of experience to bear on current developments, and second, by devising improved methods of diagnosing the direction in which the economy is currently moving. The latter problem, no less than the former, has long occupied the attention of the National Bureau. Our greatest contribution has been, of course, the development of national income and gross product accounts, which are perhaps the most widely used of all statistics at the present time. Morris Copeland's highly original investigation of money flows, which we published last year, provides a new set of tools that the Federal Reserve Board has already found helpful in its studies of the relation between credit and economic stability. Still another approach to economic diagnosis is the one that Mitchell, Moore, and I have used in our studies of indicators of cyclical revivals and recessions.

Recently, we have laid plans for exploring how one of the firmest and most important of the Bureau's findings about the business cycle—namely, that the cycle in aggregate activity has been invariably preceded by a remarkably regular cycle in the proportion of individual activities undergoing expansion—might be put to current use. This cycle in the structure of economic activity is a very sensitive fluctuation. Its amplitude has been large even when aggregate activity has undergone only minor fluctuations; further, its movements have led by a considerable interval the movements of aggregate activity itself. But before this knowledge, which we have wrung from observations cast in a cyclical mould, can be applied to the analysis of current conditions, it will first be necessary to carry out extensive experiments and see if it is possible to

construct from raw data a tolerably stable monthly or quarterly measure of the degree of preponderance of expansions over contractions or vice versa in individual lines of economic activity. In contrast to our earlier efforts, such an index of diffusion would not involve any assumptions about regularity of leads or lags of particular series, and this should enhance its usefulness in times of stormy change such as ours.

But even if its predictive value turned out to be small, a soundly conceived index of diffusion—preferably, a set of such indexes covering output, employment, prices, and profits—should at least help students in their efforts to arrive at informed judgments about the current state of the economy. For if it is well to know whether aggregate activity has recently risen, it is surely desirable to know also whether the scope of expansion in our complex economy has broadened or narrowed. A few figures based on a cyclical index of diffusion that we built up several years ago from a sample of over 600 time series for the interwar period may perhaps be suggestive. At each peak of aggregate activity, the expansions and contractions of individual activities were approximately in balance; that is to say, the proportion of expanding series then stood at or close to 50 per cent. This proportion declined to 47 per cent three months later, in the downturn of 1926; to 41 per cent in the downturn of 1923, 38 per cent in the downturn of 1920, 31 per cent in the downturn of 1937, and 29 per cent in the downturn of 1929—the specific date for the figure last cited being September or one month before the stock market crash. This ranking, based on the *scope* of the contraction almost at its beginning, turns out to be precisely the same as that of the *depth* which the several contractions eventually reached. Whether this correspondence has any predictive significance is uncertain. It does seem, however, that if compact and up-to-date information on the scope of the several contractions had been available at the time, whether through a diffusion index or some other statistical device, men charged with responsibility for formulating economic policy could have gone about their tasks with a somewhat keener awareness of the economic state of the nation.

V

The figures I have cited on the contractions of the interwar period reinforce the judgment, long entertained by observers of economic conditions, that the causes of varying degrees of severity of busi-

ness contractions are to be sought primarily in the developments that precede them, rather than in the fresh complications that crop up while the contractions are in progress. However, although it is justifiable in the current setting to emphasize study of booms, it would be shortsighted to neglect the study of depressions. The high goal of business cycle research is to disclose and, as far as possible, clarify the multitude of problems with which contracyclical programs must grapple. The business cycle of a speculative thinker may be one phenomenon; the business cycles of experience are many. Governmental measures that are well suited to one decline of aggregate output may be poorly suited to another, even if its magnitude and momentum are no different. An age which takes contracyclical policy seriously must seek to improve knowledge of how an economic organization based on substantial freedom of individual enterprise typically generates cumulative movements of expansion and contraction. Not less important, however, especially in times like ours, when international factors and governmental policy loom so large, is the need to push on from knowledge of the typical course of business cycles to their special circumstances and to the direct examination of the effectiveness of alternative contracyclical devices.

A significant part of the National Bureau's research is gradually moving in these directions. The development of factual knowledge about governmental economic activities has become one of our major themes. Kendrick is investigating federal expenditures over the past century and a half, giving special attention to the influence of wars on later spending. Seltzer, Holland, and Dobrovolsky are making historical and statistical studies of the impact of the federal income tax on individuals and corporations. Copeland is investigating the behavior of federal and local finances over the past sixty years, concentrating on the factors that have given rise to changes in the public debt. Robinson is studying how the federal government has managed its debt, especially during the great wars of our history. Earl Rolph, who is also concerning himself with debt management, is analyzing the effects of different policies on economic conditions in the United States and several other countries in the turbulent years since 1920. The federal government is now, of course, an important lender and guarantor of loans as well as borrower. The recent growth in these lending operations and their ramifying economic effects are being explored by Saulnier, Jacoby, Halcrow, and their associates. Further, Stigler and Abramovitz have begun an inquiry into the trends of govern-

mental employment in several foreign countries, with the aim of broadening the factual basis for interpreting the economic growth of government in the United States over recent decades, which Fabricant has recorded in our recently published volume.

In addition to these basic studies, Firestone has compiled new monthly series on federal receipts and expenditures since the 1870's, which lay the groundwork for more thorough analysis of the role of fiscal policy in past business cycles than has hitherto been possible. Even a rough inspection of these records suggests how instructive they are likely to prove. For they show that even before World War I federal revenues tended to move in close harmony with the business cycle, while expenditures ordinarily rose during contractions as well as expansions. In other words, 'built-in' fiscal stabilizers are not an invention of recent years, although their importance has gained immensely with the growth of the federal budget. Nor can unbalanced budgets qualify as a new development of peacetime finance. It is only proper to add, however, that although annually balanced budgets have been elusive in experience, earlier generations had far better success than our own both in restraining the size of public deficits and in alternating them with surpluses.

International economic relations, which have been a constant source of anxiety in our times, are also assuming some importance in the Bureau's research program. To facilitate informed judgments about the prospects for enlarging our foreign trade and investment, Fabricant is now devoting himself to a close study of their trends. Penelope Hartland is investigating the influence of international capital movements on Canadian development. Ilse Mintz is analyzing the cyclical fluctuations of our foreign trade. Morgenstern is completing a study of the cyclical behavior of international financial transactions, and Woolley is drawing plans for extensive statistical research on the structure of world trade and payments.

While only some of our studies of governmental activities and international economic relations are directly concerned with cyclical behavior, they all are likely to enrich, and to a considerable extent have already enriched, those of our investigations that are more narrowly devoted to cyclical issues. The like is true of the studies of secular changes in domestic capital formation under Kuznets' direction, of production and productivity under Mills, of wages and the labor force under Wolman, and of the workings of financial institutions under Saulnier. All these investigations are

developing new information on the changing institutional setting within which business cycles have run their course, or are adding to the statistical knowledge needed to construct realistic models of the business cycle, or are contributing directly to the understanding of economic fluctuations. Partly under their influence, partly as a result of progress internal to our specialized work on business cycles, our current research on economic fluctuations—even when it seems immersed in distant periods or issues—is sensitive to newly emerging conditions. We continue to investigate the typical features of business cycles, seeking in the spirit of science well-founded generalizations having a wide range of application. But our research has reached a stage where we can usefully give increasing attention to variations among business cycles and to the workings of contracyclical policies. Several members of our business cycle group are now engaged in significant research in these directions.

Thirty years have passed since *Business Cycles and Unemployment*, our first study of business cycles, was published. This volume was devoted to an objective analysis of the contribution that the government, the banking system, and individual business firms could make to economic stability. Since then we have returned from time to time to explicit research on contracyclical policies—as in the studies of public works by Wolman and by Gayer in the early 1930's; Maxwell's recent study, *Federal Grants and the Business Cycle*; and the Conference papers on *Regularization of Business Investment*, which are now in press. Might it not be well, however, to pursue research on contracyclical policies more deliberately? For some time we have been considering the feasibility of undertaking a full-scale empirical study of the contracyclical efficacy of our unemployment insurance system, another of the experience gained since 1930 in the use of public works as a contracyclical weapon, still another of the probable changes in disposable income that would result under a given set of conditions from specified changes in personal income tax rates or deductions. But the time seems ripe, if we could manage it without injury to the basic research now in hand, for a comprehensive investigation of business cycle policies—an investigation that would have the same general aim as our first book on business cycles, but which would deal with the new as well as old instruments of policy that have figured in the economic thinking and practice of our generation.

A broad inquiry of this sort, carried out by a corps of outstanding scholars, could make a contribution of the first importance to

public welfare as well as economic knowledge. It would be well for us to keep this project before our minds, even if we cannot find the way to it promptly. And we should not be deterred by the prospect that the new investigation, like its predecessor of thirty years back, will leave many questions unanswered. For not the least of our current needs, as Cournot so well expressed it for his time, is to make "clear how far we are from being able to solve, with full knowledge of the case, a multitude of questions which are boldly decided every day."

I owe a heavy debt to my colleagues, especially Geoffrey H. Moore, for advice and assistance in the preparation of this report.