Wesley Mitchell began his work with elan and buoyant enthusiasm. Three volumes, each a product of prodigious research and bearing evidence of expert knowledge of source materials not readily accessible, appeared at intervals of five years, 1903, 1908, and 1913. The first volume, *A History of the Greenbacks*, brought him widespread recognition; the last, *Business Cycles*, made him famous. The intermediate volume on *Gold, Prices, and Wages under the Greenback Standard* was a bridge between the other two. Taking the three together he had acquired, and in turn given to the public, a vast knowledge of the fluctuations of the American economy over a span of fifty years.

In these younger years he had the joy and thrill of the explorer of new territory. Like Lewis and Clarke, taking measurements and making notes of a vast unknown continent, so Mitchell was busy uncovering a “new world” in American economics. It was not a static survey of resources and industries; it was a motion picture of the economy in motion. What interested Mitchell above all was what happens to a society under conditions of rapid change and fluctuations. His index numbers and charts showed an economic society in action—a dynamic, moving, changing society. Mitchell was interested to discover the sequences of economic life in a process of rapid change. And as each new conquest of data disclosed—chart piled upon chart—the interrelated movements, the never ceasing fluctuations, it began to dawn on him that the most essential characteristic of economic life is its dynamic quality. The subject matter of economics sprang to life. To be an economist—his kind of an economist at any rate—was an exciting adventure.

The researches which ended in the publication of the 1913

volume on Business Cycles had as their starting point the explosive upheaval of the Civil War with its massive tidal waves of inflation and deflation. But this upheaval was followed by a long period of rather moderate undulating waves which at times, to be sure, shot up to pretty high peaks and fell into deep troughs. No sooner were these researches, covering half a century of American history, ended than World War I broke out. Throughout the remainder of Mitchell’s lifetime, fairly stable conditions prevailed for only one brief decade—the decade of the twenties. For the rest there were two world engulfing wars which dealt smashing blows (the effects of which we cannot yet appraise) upon the economic structures and institutions of western Europe, and in less, but still impressive measure, upon the United States; and, in between, a world depression of unprecedented severity and duration.

Mitchell had trained himself to study an economy in motion. But he had increasingly come to regard its dynamic quality in terms of recurring wavelike movements of relatively moderate amplitude. The term “business cycle” became a popular and agreeable concept. Businessmen found it no reproach to describe the system of free enterprise as moving in continuing and self-generating cycles. Rather, they regarded these oscillations as the “heart throb” of a lively, dynamic system. The business cycle became a fad with the business community; forecasting became a national sport, for a time even more interesting than the game of national politics.

The thirty-five years of Mitchell’s work from 1913 to 1948 may be divided into two equal parts. The first seventeen or eighteen years repeated (if we may be permitted a very rough comparison) the Greenback episode and its aftermath. First came the war upheaval of prices, the short postwar restocking boom, a short but sharp depression, and then a plateau of high prosperity and employment with mild oscillations. These were exciting developments, and Mitchell, more than any other living economist, had prepared himself to understand them. Eagerly he plunged into the adventures in economic explorations and public policy to which this flow of events forcefully directed attention. First came his studies on index numbers and prices during the war years, and then, beginning in 1920, the vast program of empirical research by the National Bureau of Economic Research of which he became Director.
Advances in technology, with intermittent surges of innovations and capital formation, never played important roles in Mitchell's concept of the business cycle. Moreover, it is not easy to fit into his scheme the titanic upheavals of two great wars and the devastating collapse of the Great Depression. For him, business cycles were essentially oscillations or fluctuations. The recurrent phases of economic activity "grow out of and grow into each other." In his 1913 volume he declared that a theory of business cycles must be a "descriptive analysis of the cumulative changes by which one set of business conditions transforms itself into another set." The inner processes of business are quite competent to develop from one phase of the cycle into another without the adventitious help of any "disturbing circumstance." Mitchell thus conceived it to be the essential task of business cycle analysis to look for the regular sequences, to discover the leads and lags of the significant economic variables, to trace the "processes of cumulative change."

The thesis that each phase of the cycle is generated out of the preceding stage, that it is not dependent upon exogenous factors external to the system of business itself, such as the intermittent, or perhaps steady, progress of technology, the growth of population, wars, harvests, autonomous monetary developments, or other outside impulses, is an hypothesis which Mitchell advanced, but which he found it no simple matter to prove by his empirical data. The cumulative self-generating process can easily be made to satisfy the test in the periods of expansion and contraction. Difficulties are encountered, however (and Mitchell struggled with them), at the turning points. Exogenous factors he did in fact call to aid; for example, new products, new processes, and the increase in population at the lower turning point. But it is especially with respect to the upper turning point (as a careful reading of Business Cycles will disclose) that the self-perpetuating process stood in need of more explanation than was offered by a recital of the sequence of events.

Nevertheless, the conception of the cycle as a self-generating movement growing out of the quiet inner processes of the business system itself was an interesting and fruitful hypothesis, and it had a profound effect upon economic thinking all over the world. The conception was forcefully and skilfully stated; it was woven into
the description of the sequence of events with endless variation; and it was driven home by constant reiteration. No one ever thought of depressions and prosperity in quite the same way again, it is safe to say, after reading Mitchell’s *Business Cycles*.

The 1913 volume took business cycles out of the ivory tower and made it the “stock-in-trade” of every financial writer and businessman. It was phrased in the language of the market place. The man of affairs at once recognized that here at last was a competent account of what goes on in actual economic life. And for the professional economist all discussion of “crises” became at long last obsolete. The concept of the “cycle” had indeed been advanced long before by many, but it was nonetheless Mitchell who “put it over.” Henceforth the phenomenon to be studied was the *cycle*, an unfolding integrated movement which had to be looked at as a whole.

This then is the story as Mitchell saw it in 1913. He had described a sequence of events, leads and lags in different variables, a process of cost-price-profit adjustment. There is always the inference that somehow this sequence of events, these leads and lags, *explain* the cycle. Yet it is surely truer to say that whenever a cyclical movement occurs, it unfolds in the manner of these leads and lags. The driving forces back of the cycle movement, Mitchell was never able to disclose.

Yet major contributions toward an understanding of the driving forces had already been made by 1913 when Mitchell wrote his *Business Cycles*. Indeed, as a short general statement, one can say that the main foundations¹ upon which the modern theory of business cycles has been erected had been in the making since the turn of the century (1) by Wicksell in his *Geldzins und Güterpreise* (1898), (2) by Tugan-Baranowsky in his *Studien zur Theorie und Geschichte der Handelskrisen in England* (1901), (3) by Arthur Spiethoff in a series of articles appearing in *Jahrbuch für Gesetzgebung* (1902-1903), (4) by Aftalion in the *Revue d’Économie Politique* (1909) and later (1913) in his *Les Crises Périodiques de Surproduction*, and (5) by Schumpeter in *Theorie der wirtschaftlichen Entwicklung* (1912). But Mitchell had not

¹ For a discussion of the Continental Investment School, see my *Business-Cycle Theory* (1927), Ch. IV, and *Business Cycles and National Income* (1951).
absorbed their thinking and made it a part of his mental furniture. Wicksell is not mentioned in the 1913 volume; Tugan-Baranowsky is referred to in a footnote dealing with statistical data only; Spiethoff is indeed discussed, but his essential and vitally significant contribution (relating to the factors determining investment outlets) is not recognized; Aftalion’s theory of diminishing utilities is discussed, but his oscillation analysis (based on the acceleration principle and the period of gestation) is not considered; and Schumpeter is not mentioned. Altogether these five writers had made available prior to Mitchell’s Business Cycles a rich apparatus of business cycle analysis having to do with the rate of investment, the saving-investment problem, the determinants of investment demand, and the oscillatory mechanism inherent in a production technique using capital goods.

Mitchell’s apparent unawareness of the real significance of continental thinking on business cycles was no exception; it was general throughout the English-speaking world. It may perhaps fairly be said that (apart from Aftalion’s work) its importance began to dawn (imperfect though Cassel’s version was) only after the appearance of the English translation of Gustav Cassel’s Theory of Social Economy in 1923. Indeed Keynes’ Treatise on Money, in its business cycle sections, could be described as a belated effort (in large part confused) to catch up with continental thinking, particularly as represented by Wicksell, Tugan-Baranowsky, Spiethoff and Schumpeter. Finally, the General Theory of Employment, Interest and Money is the logical fruition of this stream of thinking relating to investment, the determinants of investment, and the role of investment in the process of income formation.

Ten years after the appearance of the monumental Business Cycles, Mitchell made (in Business Cycles and Unemployment, 1923) a condensed, and in some respects improved, version of his “rhythm of business activity.” A careful rereading of this chapter cannot fail, I feel, to instill admiration for a truly classic statement of the thesis that business cycles consist of processes of cumulative change which run regularly within the world of business itself. One new addition is made, an arithmetic exposition of the acceleration principle, but it is not really integrated into his analysis. The self-
generating and cumulative process still rests upon a descriptive account of the sequence of events. There is no real explanation.

The next landmark is *Business Cycles: The Problem and Its Setting* (1927). Here the theoretical, historical, and statistical literature is comprehensively canvassed. Sixty pages are devoted to a survey of theoretical works. There is some recognition of the continental development (especially Tugan-Baranowsky), but one carries away strongly the feeling that the basic contributions of this group of thinkers never fully registered on Mitchell’s mind. At any rate, there is no penetrating exposition of investment analysis, together with a rigorous discussion leading to acceptance or rejection of the bold and impressive formulations of the Investment School. Mitchell’s panoramic survey of business cycle theory, as of the year 1927, gives one the impression that here is a vast, disorganized workshop in which many workers have thrown their tools about. The reader is unhappily not instructed which tools, if any, are of workmanlike quality. Working hypotheses are indeed needed, he tells us, to guide our selection of data and to suggest ways of analyzing and combining them, and for this purpose he seems to suggest that the different theories, if they appear at all plausible, serve almost equally well.

The survey of statistical findings and of business annals discloses that the “normal” condition is a state of change, incessant fluctuation. The fluctuations differ from cycle to cycle, but there is no reason for doubting that these cycles constitute a valid species of phenomena. In a world in which powerful and sporadic disturbances—wars, harvest variations, epidemics, floods, and earthquakes—come and go at irregular intervals, the “tendency toward alternations of prosperity and depression must have considerable constancy and energy to stamp its pattern upon economic history.” Similarly, there is the widest variation in random events from nation to nation. Yet the quiet business forces working toward uniformity of fortunes must be powerful indeed to impress a “common pattern upon the course of business cycles in many countries.”

The conclusion to his 1927 volume suggests further working plans for the future. These include an effort to find “what features have been characteristic of all or of most cycles.” More must be learned about the workings of the interrelated processes. After this
is done "it will be time to see what the question about the cause of business cycles means, and in what sense it can be answered." Once again there is the confident faith that the way to study cycles is to study sequences, leads and lags, interrelations between different variables with respect to timing, amplitude, deviations from a critical range, etc. The conception of the problem remains as in 1913. The data accumulated and analyzed in the intervening fourteen years had not altered this basic concept. And the time is, he feels, not yet ripe to uncover the cause or causes of the phenomenon. The 1927 volume adds further to our detailed knowledge of the sequence of events as the cycle unfolds, but we do not yet know its innermost nature.

Ten years later (1937) appeared a notable publication of the National Bureau of Economic Research—*National Income and Capital Formation, 1919-1935*, by Simon Kuznets. It is indeed a landmark in the literature of business cycles. Here is empirical work of the highest significance. How many dark spaces and corners did it not illuminate? Here was rich grist for Mitchell's mill as he worked at the problem of causation. But one misses—or at least I do—in anything he wrote subsequently, an adequate appreciation of the significance for business cycle analysis of Kuznets' data on income and capital formation. Kuznets' aggregates are, to be sure, subjected (in Mitchell's *What Happens during Business Cycles*) to the Bureau's standard measurements with respect to amplitude, leads and lags, etc. Many competent workers will, however, question whether this represents all that could be learned from Kuznets' rich, empirical study.

Long years of further research at last came to light in the massive *Measuring Business Cycles* by Burns and Mitchell. The volume is mainly devoted to statistical methodology, but it also contains a vast amount of data on the sequence of different time series in the cycle. The title indicates that the "command" given in the 1927 volume had been faithfully obeyed. The objective was not so much explanation as measurement of the cycle behavior. Deviation of movement, timing of peaks and troughs, duration of phases, amplitudes, and rates of change are noted. "These measures together with those showing the sequence in which different activities turn
up at business cycle revivals and turn down at business cycle recessions are essential in tracing causal relations.”

The authors conclude the volume, holding fast to the thesis (as also in the 1927 volume) that a central core of stable features runs through successive cycles. Secular or structural changes have left little, if any, influence on cyclical behavior. Successive cycles of the same series bear a family resemblance; the patterns of different series are sharply differentiated, and the relations among the series persist with great regularity from one cycle to the next. “This tendency of individual series to behave similarly in regard to one another in successive business cycles would not be found if the forces that produce business cycles had slight regularity.” Thus to the end Mitchell continued to be interested primarily in the sequence of events. This sequence doubtless displays a certain regularity from cycle to cycle, given fundamentally similar economic institutions, but can this sequence disclose the “forces” that “cause” the cycle?

Finally in his paper on “The Role of Research in Economic Progress,” he refers to the widely different responses that a general business expansion evokes from the different industries ranging all the way from coal mining to farming. These different responses cannot be ascribed to chance, since they recur, cycle after cycle, with the same regularity as the general tides of business. Again he suggests that leads and lags, differences in amplitude, the “relative importance of the leaders and laggards that fluctuate little or much” are the all important problems for anyone “trying to understand how business cycles come about.” His unfinished “progress report” on What Happens during Business Cycles is a comprehensive study worked out along these lines.

Mitchell’s strong emphasis throughout his life’s work was on research, knowledge, and understanding, not on practical policy. Nevertheless, he held persistently the view that knowledge was to be desired, not for the pure pleasure of acquiring it, but for the purpose of putting it to practical use. In the final analysis, scien-

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Does “forces” mean impulses or conditions in Pigou’s sense, or in what sense is the term used?

The Conditions of Industrial Progress (University of Pennsylvania, 1947).
scientific research in the social sciences was to be justified, he believed, by its application to the problems of social and economic life.

The National Bureau of Economic Research, from its inception, has aimed to be strictly a fact finding body and to refrain from making pronouncements on public policy. In conformity with this principle, at the invitation of Secretary of Commerce Herbert Hoover, the Bureau undertook in 1923 an investigation into the feasibility of various plans for mitigating or preventing unemployment. The result was the volume entitled Business Cycles and Unemployment. It presented "not recommendations concerning what ought to be done, but facts which ought to be considered by those who have the responsibility of formulating policies."

As an individual citizen, however, Mitchell voiced his own positive views, not indeed in the report issued by the Bureau, but in a chapter, "The Problem of Controlling Business Cycles," published within the same year (1923) in Edie's The Stabilization of Business. Here he expressed the view that "we have learned how to prevent crises from degenerating into panics and from that success we may derive substantial encouragement to attack the next problems: how to lessen the excesses of 'booms' and the sufferings of depressions." He regarded it as notable that in the current discussions "emphasis is laid upon the prosperous phase of the cycle as the phase which requires control." It was becoming common opinion, he said, that "the time for effective action is the time when industrial activity is approaching the elastic limit set by full use of existing plant and when further expansion will be primarily a speculative boom." He cited the view of Governor Benjamin Strong (with respect to the 1920 crisis) that "it would have been desirable to raise rates before the boom began," his reason being that "an advance of rates would have moderated the expansion of business and thereby diminished the severity of the crisis of 1920." About this Mitchell commented as follows: "If Governor Strong and the men who share his opinion are right[,] as I think they are, may we not generalize and say it is desirable to raise discount rates in future periods of expansion, whenever signs appear that production is nearing its limit?" He challenged Mr. A. C. Miller's view that the "reserve ratio should continue indefinitely

to be the guide to credit policy. . . We should aim at gaining a far more effective control over the wastes of prosperity and the sufferings of depression than the Bank of England has ever exercised.” And if the “business public is unprepared” for a more effective control we may not “treat that attitude as an insuperable obstacle.” If Mr. Miller, as a Federal Reserve official, confines himself to that which is immediately realizable, “as an economist, he might join us in considering plans which involve campaigns of education.”

To the objection that we cannot know the “precise point in the prosperous phase of the business cycle at which it is desirable to check expansion,” Mitchell replied that this objection “has been met by the progress of statistical research.” He accepted Sprague’s suggestion to use “index numbers of physical production such as have been made recently by Day, King, Snyder, and Stewart.” These series showed, he declared, a rapid rise in output in the first phase of expansion. Thereafter it slows down. “After this point has been reached in the cycle a further rise of prices serves not to increase the current supply of serviceable goods, but to create confusion in the markets. . . . Our aim, accordingly, should be to check the rise of prices when the index numbers of physical output indicate that the limit of existing capacity is being approached.”

Mitchell did not expect “that any plans relating simply to banking practice will give us as large a measure of control over the business cycle as we desire and can attain.” Certain other “plans of control” merit attention. Among these he includes “long-range planning of public works.” In this connection he cited the proposals of Bowley and the Webbs in England and Otto T. Mallery in the United States. He referred to a Senate bill for the planning of federal public works. “It, too, requires a campaign of public education. And no one can tell in advance just what practical importance it may assume. But clearly the average annual volume of construction work now undertaken by various public bodies runs high in the hundreds of millions, and a considerable fraction of this imposing total can be allocated on the basis of the business cycle without detriment to social welfare.” He was urging a mod-

6 Ibid., p. 42.  
7 Ibid., p. 43.  
8 Ibid., p. 45.
erate program of ironing out over the cycle the regular outlays on public works. This, of course, is not to be confused with modern fiscal policy proposals involving the deliberate use of variation in taxes and expenditures on a broad scale as a systematic anticyclical program.

Mitchell also went on record, at this early date, when such proposals were still regarded as advanced if indeed not as radical, for the "various schemes of unemployment insurance now in operation or under consideration by government agencies and private employers."9

He concludes with a plea for "the need of increasing our knowledge of the business cycle and putting this knowledge to better use," and expresses "an optimistic view of the future. For since the money economy is a complex of human institutions, it is subject to amendment. What we have to do is to find out just how the rules of our own making thwart our wishes and to change them in detail or change them drastically as the case may require." And this task is not easy. "On the contrary, the work of analysis is difficult intellectually and the work of devising remedies and putting them into effect is harder still. But one has slender confidence in the vitality of the race and in the power of scientific method if he thinks a task of this technical sort is beyond man's power."10

Ten years later, Mitchell joined with ten economists and engineers in the Report of the Columbia University Commission on Economic Reconstruction, published in February 1934. This was a forward looking document which on balance (though critical of the restrictionist aspects of the NRA and the AAA and of the Warren type of monetary manipulation) was sympathetic to the New Deal outlook. Specifically, the Report favored "a large and well-timed program of public works. The most serious objection to this antideflationary measure is removed by the fact that the country is not at present tied to the gold standard." It was suggested that "funds for financing enlarged public works programs can be raised by creating new bank credits."11 The Report went well beyond the ordinary public works projects. "Schemes for slum clearance,

9 Ibid., p. 46.  
10 Ibid., pp. 52-53.  
the erection of decent workers' dwellings, and city planning projects suffer from the defect that in most cities comprehensive and detailed plans have not existed hitherto, but they offer almost boundless opportunities in the future for construction work of the highest social utility. For this reason prime importance should not be attached to the 'self-liquidating' character of projects to be undertaken. On the contrary, since the object of such expenditures is to increase the total volume of purchasing power, the choice of projects should be determined by their social utility rather than by the prospect of a specific income yield accruing from the services to which the projects are devoted.1

A reflation of the domestic price level was favored "in response to internal business developments and the stimulation of government expenditures, not as a result of inflationary manipulation of the currency." The Report maintained, moreover, a forward-looking attitude with respect to international monetary arrangements.

With respect to the principle of economic planning, the Report was emphatic. "We regard economic planning as a rational and in fact a necessary expedient under the conditions of our present society." And to that end it was recommended "that a National Social-Economic Council, of a purely advisory nature, should be set up and equipped with adequate facilities for research, for the purpose of continuous and concentrated investigation of the main problems of economic planning and with the duty of recommending to the President and Congress such measures as in its judgment would contribute to the balanced economic development of the country."

Certain members of the Commission felt it necessary to write brief dissents with respect to specific points covered in the Report. Mitchell did not feel it necessary to do so. He did write a charming and characteristic supplementary statement in which he said that the Report "states more effectively than any other document known to me what I take to be the basic economic problem that now confronts mankind—the problem of developing an economic organization that will enable the citizens of a modern state to buy from one another what modern industrial methods enable them to

1 Ibid., p. 37.
produce.” If progress is to be achieved, he declared, “men who have had the privilege of studying the social sciences must be ready at any time to contribute what in them lies to the agelong process of bettering economic organization by taking thought, however little chance they have of being right at all points.” He declared himself in “full accord” with the “constructive spirit” of the Report, and closed with a statement which reflects at once an innate modesty, a healthy agnosticism, but withal a faith that progressive pioneering in the adjustment of economic institutions to the requirements of a changing world deserves support. The statement follows: “Realizing keenly the fallibility of any opinions I can form regarding the best ways of dealing with the intricate problems discussed, I attach no great importance to my doubts concerning certain of the views expressed. Believing that the opinions of my colleagues on the committee are similarly fallible, I commend heartily those passages in the report that stress the need of more penetrating studies of social processes.”

Some three years later Mitchell was honored by Harvard University on the occasion of the Tercentenary Celebration in 1936. At a symposium participated in by D. H. Robertson, D. B. Copland, and others, Mitchell delivered a paper on “Intelligence and the Guidance of Economic Evolution.” In particular, he addressed himself to the problem of economic planning. He referred to American policy from the outset as “an unstable mixture of national planning and reliance on the play of private enterprise. . . . The first Secretary of the Treasury under the Constitution plunged at once into national economic planning and scored a series of notable successes. . . . Early in our history we sought to develop a national transportation system of highways and waterways; later we put our trust in privately owned railroads, to which we made lavish grants of public lands; later still we subjected the railroads to a complex set of state and federal regulations. . . . We lagged behind European countries in social legislation and in governmental ownership of public utilities, but we led in efforts to check the growth of monopolies and to compel businessmen to compete with one another.” More and more “our individualism has expressed

Ibid., p. 82.
itself in efforts to use the government as an agency for attaining what we severally desire."

"This secular trend toward bolder and more varied economic planning . . . was suddenly and enormously stimulated by the World War." And while most of the wartime controls were released after the return of peace, there was no such trend toward laissez faire as followed the Napoleonic Wars. Finally "the grave, economic errors perpetrated by private economic planning during the 1920's combined with the after-effects of the War to bring on the Great Depression of the early 1930's, and with it a marked recrudescence of national planning. . . . In the United States, discouraged by three years of ineffectual efforts to stem the growth of unemployment by an administration that believed in 'rugged individualism,' the electorate put in power a party whose leader promised a New Deal in economic affairs."14

"To my mind, this cursory survey of the relations between the state and economic enterprise in the western world since 1776 suggests that we are in for more rather than for less governmental planning in the calculable future. . . . Its course will be diversified by accelerations and retardations, perhaps by some vigorous reactions toward laissez faire. But the indications seem to me fairly clear that in the long run men will try increasingly to use the power and resources of their governments to solve their economic problems even in those nations that escape social revolutions. . . . Our choice does not lie between two sharply contrasted systems, private enterprise and governmental regulation; the real choices that we shall be making more or less deliberately are choices among the indefinitely numerous possible mixtures of private enterprise and governmental regulation, as applied to this, that, or the other type of activity, under different conditions of time and place."15

In view of this growing tendency, Mitchell favored the establishing of a national planning organization "charged to study the collateral and the long-run effects of public policies."16 Such a

15 Ibid., pp. 24, 26-27.
16 The National Planning Board, of which Mitchell was a member (the other members being Frederic A. Delano and Charles E. Merriam), submitted a
National Planning Board would be "the best safeguard against ill-considered measures." A systematic and continuing study of national problems by such a federal agency would not necessarily accelerate the trend toward governmental regulation. "It might have the opposite effect." Such an agency would find its technical tasks exceedingly difficult. Experienced men "know how hard it is to foresee the indirect and cumulative consequences of public policies, to approximate social gains and social costs, to find the most efficient ways of accomplishing given ends. And the ends to be aimed at are not given; they must be chosen:... In a democratic country, national planners would have to serve as an agency for accomplishing what the majority desired." The proposal which Mitchell here made seems to bear close resemblance to the Council of Economic Advisers set up by the Employment Act of 1946.

Mitchell's next important pronouncement on public policy was made in an address in 1940 at the University of Pennsylvania Bicentennial Conference. Among other matters he discusses the problem of employment. "This inability to buy from one another what we know how to produce and what we need to consume is the fundamental reason why we have cyclical depressions. But the reason is itself a riddle. Business cannot produce because people cannot buy; people cannot buy because business cannot pay wages, dividends, interest, and rents without turning profits into losses. ... At present the rate of operation of every business enterprise depends upon the rates at which other enterprises operate—those which produce the goods it needs, those which do its hauling, and those which buy from it." The problem is posed exclusively in terms of an exchange of goods between producers. There is no recognition or grappling with the problem of investment and saving. "The rub is that we do not know just how to overcome the defects we recognize without running grave risk of creating worse troubles. Logic suggests that complete nationalization of produc-

Report (1934) on planning divided into four sections as follows: Section I. Planning Activities; Section II. A Plan for Planning; Section III. Science in Planning; and Section IV. National Planning.

37 *Authority and the Individual*, pp. 34-36.

18 *Studies in Economics and Industrial Relations.*

tion under the management of the ablest engineers might make every enterprise an internally efficient unit adjusted perfectly to the other units in a systematically-planned series of operations. But experience raises awkward questions about this vision. . . . Most of us answer questions of this sort out of the abundance of our feelings. None of us is able to answer them out of the fullness of knowledge. This ignorance may be a good reason for postposing radical changes until we know more; but it is a bad reason for resting content with a system characterized by wastes and friction.”20

“Only in great emergencies do we mobilize our industries under the direction of a general staff. Our reasons for putting up with such a rudimentary organization are doubtless sound; but they are based upon lack of knowledge. We do not know how to combine full use of our engineering skill with our reliance upon competition to protect the consumer from exploitation.”21

In all this Mitchell appears to be looking for a solution along the lines of organization of industry. Monetary and fiscal policies, as possible stabilizing and expansionist factors operating upon a mixed society, largely private enterprise, are not examined.

Mitchell ends his discussion urging once again that “more energy be put into cultivating social sciences of a type that can be applied to practical affairs.” Social inventions show a lag behind technological inventions. The social engineer cannot “perfect his schemes by methodical experiments.” The social inventor “must persuade administrative officials, or legislators, or even a majority of voters that his innovation is worth all the trouble, expense, and confusion incident to a change in established practices. At worst he must wage a ‘campaign of education’ on a wide front over a long time. And whatever obstacles have to be surmounted are almost certain to be made more formidable by opposition from groups whose interests are menaced by the proposed change.”22

“On the basis of this analysis I venture to urge a practical conclusion concerning social policy. If our inability to employ our other resources to the best advantage is due largely to maladjustments among economic processes, and if economics is now applying

20 Ibid., p. 11.  
methods that enable it to deal with actual conditions, then enlightened citizens and public men should do all they can to promote economic research. . . . For example, the billions of dollars this country would gain from a mitigation of cyclical contractions justifies investing some millions in trying to find out how the flows of products, incomes, and purchases can be kept better balanced."

In September 1944, Mitchell wrote four articles for the *New York Times* in which he discussed the economic problems confronting the United States once the war was over. In part they were derived from his "Economic Research and the Needs of the Times," the *Twenty-fourth Annual Report* of the National Bureau of Economic Research.

During the first postwar years, he wrote, "Americans will congratulate themselves upon the efficiency of an economic system that passed the test of war with flying colors, reconverted itself to peaceful conditions promptly, caught up war shortages at home and helped foreign countries to get back on their feet. This industrial accomplishment will show us at our best." Few, if indeed any, have written a better forecast than that of the first postwar years.

"The test that will be hard to pass will come after the extraordinary postwar demands have been satisfied and our business settles down to supplying the continuously recurring demands of a long stretch of peace. Can we then maintain a high level of employment year in, year out? Experience answers 'No.' . . . Unless we can learn to manage our affairs more skilfully in the future, we must look forward to an indefinite series of cyclical depressions, some relatively mild, some drastic." If ways are not devised, he went on to say, of preventing, or at least ameliorating, cyclical depressions without checking growth, "there seem to be reasons for expecting that public opinion will become more critical than ever before of our traditional form of economic organization and demand radical changes." The reader will note that here again Mitchell appears to discount (or at least he does not discuss) the possibilities of measures less radical than a drastic change in our "economic

*New York Times*, September 18, 1944.  
American Socialists, he says, have long argued for a vigorous extension of governmental control over economic activities, and now they can point to the "quite unexpected efficiency of the Soviet economy. . . . Thus one of the developments that peace seems likely to bring the United States is a fierce controversy over the fundamental character of economic organization. No doubt there will be sharp differences of opinion about the precise role to be assigned to Governmental planning even during the transition from war to peace; but they promise to concern details rather than fundamentals. . . . The all-out struggle will not come until we have reverted to business as usual, practiced it buoyantly during several years of active demand for goods, then succumbed to severe depression."

"How can we operate a system of free enterprise without falling every few years into a spasm of unemployment? For that problem no nation has yet found a solution that does not involve the suppression of free enterprise itself. We know ways of mitigating the sufferings that unemployment brings, but we cannot rest content with costly and partial cures. What we need to learn is how to prevent this recurrent disease of our body politic. The job is one that calls for scientific research quite as truly as does the prevention of cancer or infantile paralysis. To it the nation may wisely devote resources matching those it devotes to the diseases that afflict individuals."26

This was in 1944 and it was one of Mitchell's last pronouncements on public policy.27 In the following years, 1945 and 1946, he took no public position pro or con, as far as I can discover, on the Murray Full Employment Bill or the Employment Act of 1946, though he had advocated, as we have seen, something similar to this in his Harvard Tercentenary address. In a paper "The Role of Research in Economic Progress" delivered on the occasion of the twenty-fifth anniversary of the Industrial Research Department of the University of Pennsylvania in 1947 he again stressed

26 Ibid.

27 Mention should, however, be made of the Report of the Technical Committee of which Mitchell was chairman, on *Prices and the Cost of Living in Wartime*, issued June 15, 1944. The Technical Committee was appointed by the chairman of the President's Committee on the Cost of Living.
the importance of gaining a "clearer insight into the characteristics and workings of our economic organization." But as Mitchell deepened his knowledge of that organization through a lifetime devoted to research, and supplemented by the researches of a vast institute, he seemed to become less and less certain of himself, less and less ready to take a position in current controversial issues of public policy, or indeed on the scientific controversies relating particularly to his field of interest, namely, the vast issues raised by Keynes' *General Theory*. In 1923, as we have seen, he felt pretty sure of himself and was prepared to make positive recommendations. Twenty years later, that was no longer the case. This is understandable, and perhaps almost a universal experience. The social sciences appear to be so complex, that the more we know, the less sure we are that what we know is tolerably reliable, especially for policy decisions. All this raises disquieting thoughts—thoughts which emerge from the very nature of the human problem. Nonetheless, Mitchell clung to the end to his faith in knowledge, in the ultimate practical value of economic research. Indeed there is no other alternative. Human life is unfolding in a rapidly moving stream of events. Decisions have to be made every day, and whatever the underlying forces, knowledge is a guide to action. Of one thing we can be certain: There will be no moratorium on scientific research, whether in the natural sciences or the social sciences. It is the nature of the human animal to wish to know, to enlarge his knowledge of himself and of the universe. Whether this makes for progress or not, or indeed what is meant by progress, is another matter.

On this there is universal accord: Mitchell occupies a commanding place in the history of American economics. Not only did he perform singlehanded, especially in his early years, prodigious researches which were veritable gold mines of information, but he organized, inspired, and directed a great program of empirical studies designed to prevent economists from running away from their essential task—the task of understanding and guiding our economic life, to serve human needs and human values. Mitchell retained to the end his deep human and democratic sympathies, his faith in mankind, his belief in progress. He was skeptical of doctrinaire views, whether advanced by antiplanners of the
Hayek school or by fiscal planners of the Keynesian persuasion. He believed in the individual, but also in the social responsibilities of government. He was open-minded to new social ventures, but he counseled moderation, taking time for careful thought. He recognized that governments must act from day to day, but he believed it to be his own special function, and also that of economics as a science, to provide the surest possible foundation of knowledge upon which to act. Thus, though practical policy decisions press for immediate answers, he knew that those answers were never final. And so he turned back again and again to his study and to planned programs of research.