Editors' Introduction and Summary

THIS IS THE EIGHTH ISSUE OF *Brookings Papers on Economic Activity*. This publication appears three times a year, and contains the articles, reports, and highlights of the discussion from conferences of the Brookings Panel on Economic Activity. Financed by grants from the Alfred P. Sloan Foundation and the Alex C. Walker Foundation, the panel was formed to promote professional research and analysis of key developments in U.S. economic activity. Prosperity and price stability are its basic subjects.

The expertise of the panel is concentrated on the "live" issues of economic performance that confront the maker of public policy and the executive in the private sector. Particular attention is devoted to recent and current economic developments that are directly relevant to the contemporary scene or especially challenging because they stretch our understanding of economic theory or previous empirical findings. Such issues are typically quantitative in character, and the research findings are often of a statistical nature. Nonetheless, in all the articles and reports, the reasoning and the conclusions are developed in a form both intelligible to the interested, informed nonspecialist and useful to the macroeconomic expert. In short, the papers aim at several objectives—meticulous and incisive professional analysis, timeliness and relevance to current issues, and lucid presentation.

The three principal articles and three reports presented in this issue were prepared for the eighth conference of the Brookings panel, held in Washington on September 14–15, 1972. These papers generated spirited discussions at the conference. Many of the participants offered new insights and helpful comments; many had reservations or criticisms about various aspects of the papers. Some of these comments are reflected in the summaries of discussion contained in this issue, some in the final versions of the papers themselves. But in all cases the papers are finally the product of the authors' thinking and do not imply any agreement by those attending the conference. Nor do the papers or any of the other materials in this issue necessarily represent the views of the staff members, officers, or trustees of the Brookings Institution.

Summary of This Issue

In the first article of this issue, George L. Perry examines the job market experience of various labor force groups by analyzing the flows of workers into and out of unemployment. Each week a large number of workers—on the order of magnitude of one-fifth of the total number of unemployed—enter unemployment, and a comparable number leave it. Perry develops a model for explaining these flows based on the employment probabilities that confront various members of the labor force under various labor market conditions. He uses this model to estimate the frequency with which unemployment spells are experienced by different workers and the average duration of each spell they experience, thus accounting for unemployment as the product of frequency and duration.

Analyzing cyclical changes in unemployment, Perry finds that, as labor markets weaken, both the number of unemployment spells experienced and the duration of an average spell rise noticeably. For example, on average, 25- to 44-year-old men have a 1 in 5 chance of suffering an unemployment spell in a year of 4 percent unemployment; they have a 3 in 10 chance in a year of 6 percent unemployment. In the first case, they can expect an unemployment spell to last an average of five weeks; in the second, six and one-half weeks. For other age-sex groups, the cyclical differences are of the same sort, although the actual chance of suffering a spell and its expected duration are strikingly different.

Secondary workers, particularly the young, who experience higher unemployment rates, have more frequent spells of unemployment. In a labor market where men over 25 can expect, on average, to suffer a spell once in four or five years, teenagers can expect an average of nearly two spells a year. Such differences between high and low unemployment groups more than account for all the observed differences in their unemployment rates. The average duration of a spell, the other characteristic determining unemployment rates, is actually longer for the lower unemployment groups.

It has been suggested that groups with high unemployment rates have trouble not in finding jobs, but rather in keeping them, or in finding jobs worth keeping. Perry finds this to be only half true. Workers in high unemployment groups do not keep their jobs for long. But the relatively short duration of their unemployment spells is a misleading measure of the difficulty they have in finding jobs. A person leaves unemployment either by getting a job or by dropping out of the work force. When Perry analyzes the probability of leaving unemployment by each of these avenues, he finds that the groups with longer durations—which are those with low unemployment rates—have relatively high probabilities of finding a job. For the high unemployment groups, unemployment spells are short not because people in these groups find jobs more easily, but rather because they frequently end spells by dropping out of the work force.

A look at the changes that have occurred between the mid-fifties and the present—for a given overall unemployment rate—shows that differences in the unemployment experience of various groups have widened. The age-sex groups generally characterized by more frequent spells have experienced substantial increases in the frequency of spells in recent years, while the oldest age groups—men and women 45 to 64—have obtained increasingly permanent job attachments. The widening dispersion of unemployment rates between younger and older workers that Perry had noted in an earlier study is due entirely to the increased frequency of unemployment for the younger groups today compared with earlier years. The average duration of a spell for these groups has not risen.

Relatively frequent transitions in and out of the labor force are characteristic of labor force groups experiencing high unemployment rates. And the large numbers of entrants and reentrants are often cited as an explanation for the high unemployment rates in these groups. However, Perry finds that people are far more likely to leave the labor force if they are unemployed than if they are employed, and concludes that dropping out—and subsequent reentry—is as much a result of high unemployment among these groups as a cause of it. He also finds that, while the large proportion of entrants in the work force of younger groups helps account for their relatively high unemployment rates, higher unemployment rates experienced by nonentrants in these same age groups account for as much. He concludes that frequent transitions in and out of the work force for these groups are neither altogether voluntary nor the main explanation for the unemployment disparities that are observed.

In the second article of this issue, William Poole and Charles Lieberman discuss the reasons why the Federal Reserve cannot precisely hit a target for the size of the money stock—demand deposits and currency—and propose several reforms designed to improve its aim. The Federal Reserve exercises primary influence over the money stock through open market operations by which it purchases and sells government securities. When it buys such securities, it provides additional reserves to commercial banks, thus enabling them to create a larger total of demand deposits. But the volume of bank reserves is also affected by other developments—for example, changes in currency holdings of the public—and hence is not precisely controlled by Federal Reserve open market transactions. Similarly, while the money stock is strongly influenced by the volume of bank reserves, it is also affected by many other aspects of banking that the authors analyze. Thus the chain of causation that flows from Federal Reserve security holdings to bank reserves and then to the money stock has imperfect links.

Poole and Lieberman emphasize that the imperfection of these links reflects an institutional structure for commercial banking and central bank regulation that developed over decades when control of the money stock was not regarded as a major objective of monetary policy. They assume that the Federal Reserve would now like to use the money stock as its key instrument for influencing economic activity, and hence would wish to tighten the links in the chain. With tighter control, the Federal Reserve could make the growth of money steadier when it so desired, and could make it vary more accurately when deliberate policy decisions called for variations to stimulate or restrain economic activity.

The authors outline eight steps that could be taken to improve monetary control. First, they propose the elimination of reserve requirements on deposits of the U.S. Treasury in commercial banks. Treasury deposits are not part of the money supply but are now subject to the same reserve requirements as are private demand deposits. Thus when, for example, an unanticipated increase in Treasury deposits occurs, banks have less reserves available to support private demand deposits and thus tend to contract the money supply. Second, they suggest that the reserve requirements that now apply to banks that are members of the Federal Reserve System should be applied symmetrically to nonmember banks, thereby ensuring that shifts of reserves between member and nonmember banks would not create erratic changes in the money stock. Third, the authors propose, at least for serious consideration, the elimination of reserve requirements on time and savings deposits. The argument is similar to that regarding Treasury deposits. Under present regulations, unforeseen increases in time deposits absorb bank reserves, thus tending to exert downward pressure on demand deposits and hence on the money stock. The authors advance this proposal more tentatively than they do others, recognizing the unsettled issue of whether the Federal Reserve should try to control the money stock singlemindedly or should focus on broader measures of liquidity that include time as well as demand deposits.

Fourth, Poole and Lieberman propose that reserve requirements should apply to contemporaneous deposits rather than to deposits of two weeks earlier, as they do under existing regulations, arguing that this change would dampen erratic movements in the money stock. Fifth, they recommend acquisition of additional processing equipment to speed the process of check clearing, as well as amendments of regulations to reduce the magnitude and fluctuations of Federal Reserve "float," thereby cutting one source of variation in the volume of bank reserves. Sixth, they urge that member banks be permitted to count as reserves only a fraction (rather than the entire amount, as at present) of their vault cash, in order to reduce the impact of changes in the public's currency holdings on the volume of bank reserves. Seventh, Poole and Lieberman propose that the Federal Reserve discount rate charged on member bank borrowing should be kept above interest rates in money markets in order to reduce the volatility of member bank borrowing and hence its contribution to erratic movements of the money stock.

Finally, the authors urge the Federal Reserve to decide explicitly how much it wishes the money stock to vary from month to month to accommodate seasonal shifts in needs, rather than mechanically following the statistical techniques of deriving seasonal adjustment factors from past experience. In their view, seasonality often confuses and obscures the key stabilization issues confronting the makers of monetary policy.

In the third article, Barry Bosworth reviews the experience under Phase II of the wage-price controls program. He points out that statutory controls were instituted with the freeze of August 15, 1971, only after inflation had shown remarkable immunity to persistent and widespread slack. Prior to the freeze, no deceleration was evident in wholesale prices, in the price deflator for private nonfarm output, or in economy-wide measures of wage rates. Although the consumer price index had slowed significantly early in 1971, that deceleration seemed shaky because it depended so heavily on a sharp decline in mortgage interest rates.

Compared with the pace just prior to August 1971, the annual rate of increase in both prices and wages slowed down 1½ to 2 percentage points by the second quarter of 1972. As Bosworth cautions the reader, he does not necessarily attribute the whole of that slowdown to the controls, but he believes that any explanation that gave them no credit for the result would have to invoke an incredible coincidence in timing. In Bosworth's view, the specific disapprovals of proposed wage and price increases by the authorities played only a minor role in slowing the inflation. Rather, he judges that the controls program changed the general environment in which wage and price decisions were made; he points particularly to the 5½ percent general standard for wage increases as a key element in the slowdown. The general nationwide limitation influenced wage rates significantly because it was consistent with the employer's self-interest and met the major concern of workers by ensuring them that other workers would not get ahead of them with large wage increases.

The moderation of price inflation, in turn, has been aided by the slowdown in wage increases, partly through competition in the marketplace and partly through actions by the Price Commission that may have shortened the normal lag of prices following a deceleration of wages. In addition, price controls had some favorable influence directly on the costs of medical care and on the margins of retailers, in Bosworth's view. While the price regulations also may have had a deterrent effect in discouraging some large firms in Tier I from applying for price increases, Bosworth believes that on the whole the cost pass-through limitations for Tier I firms have not been particularly effective. He also points to two other troublesome areas: utility rates, where the Price Commission chose to delegate its authority; and food prices, where controls could not have been expected to exert a major influence. In Bosworth's view, disappointing rises in food prices have increased the skepticism of workers about the evenhandedness of controls and have obscured the deceleration of overall prices.

While he finds that prices and wages have slowed down essentially in parallel, Bosworth concludes that restraint has operated primarily through the wage side. He is concerned about that emphasis, and recommends several reforms of the price control system to improve the balance. Market pressures against price increases could be more effectively reinforced, he believes, if the Price Commission dropped its heavy reliance on the 1968–70 profit-margin benchmark as a criterion of the need for price increases and replaced it with new standards of cost justification based on direct labor and material costs. In Bosworth's judgment, that change would increase incentives to firms to reduce costs as a means of increasing profits, as well as curbing price rises more effectively. Bosworth also suggests that business resistance to excessive wage increases could be reinforced by disallowing them generally as a basis for price adjustments, as the Price Commission did in the specific case of coal. Finally, Bosworth urges the Price Commission to focus its efforts more sharply on the industries where it can have an important impact, using flexible criteria that go beyond firm size to define the scope of effective controls.

In the first report in this issue, Robert J. Gordon performs a statistical appraisal of the impact of the wage-price controls, presenting some results that reinforce, and some that conflict with, those of Bosworth. First, Gordon reviews and updates a number of statistical models developed to explain wage and price performance prior to the imposition of controls. Through this exploration, Gordon reaffirms his conviction that the stubbornness of inflation in 1969–70 reflected two major influences: structural shifts in the labor market and growing inflationary expectations. The widening spread between the high unemployment rates of teenagers and the low ones of adult men weakened the downward pressure on wages associated with any given overall unemployment rate. Meanwhile, after several years of rapidly rising prices, inflationary expectations were intense and contributed to demands for large increases in wages.

Gordon demonstrates that his preferred statistical model does a creditable job of tracking wages and prices through 1970. Although this model underestimates inflation during the first half of 1971, Gordon does not regard that as a serious aberration. He then calculates the wage and price path the model would have predicted for the period from 1971:3 to 1972:2, assuming no controls were in operation. Compared with that prediction, the actual rate of price advance during the controls period was nearly 2 percentage points lower—a finding consistent with Bosworth's estimated slowdown of 1½ to 2 percent. The actual rate of wage increase was also below the no-controls prediction of Gordon's model, but only by roughly one-half of a percentage point. Thus, while Gordon agrees with Bosworth that controls slowed inflation substantially, he infers, in striking contrast with Bosworth, that the Price Commission has held prices down relative to wages and has shifted the distribution of income from nonlabor to labor income.

In particular, profits before tax of nonfinancial corporations in the second quarter of 1972 were $8½ billion below Gordon's statistical prediction using actual real output and wages but no price controls. His model projects the typical historical experience of a rapid upswing in the share of income going to corporate profits in periods of cyclical recovery.

In past upswings, productivity has risen strongly, curbing labor costs per unit of output markedly but holding down prices only modestly. In the current upswing, productivity has again risen strongly and unit labor costs have slowed down substantially. But this time the marked slowdown in prices has allowed only a modest rise in the profit share of income.

The issues raised by the Bosworth and Gordon papers were illuminated by the discussion at the conference. Not everyone would accept the common finding of the two papers that the controls program had substantially reduced inflation. Alan Greenspan was skeptical because of the scarcity of evidence of visible downward pressure exerted by the controllers. He was not satisfied by the implied explanation that an "immaculate conception" disinflation had been achieved by the mere enunciation of controls.

The contrasting verdicts of the papers on the relative impact of the controls on labor and property incomes were subjected to intense scrutiny. As Robert Solow suggested, the difference between Gordon's and Bosworth's appraisals of relative wage and price performance stems in large part from the difference in the time period chosen for evaluation. Bosworth focuses on performance during the second quarter of 1972 as a fair test of how the program was operating after retroactive and catchup payments in wages had been essentially completed. Gordon, on the other hand, views the whole time span of the program as the relevant record. If the low rate of wage advance in the spring of 1972 is maintained, wage deceleration is likely to catch up with price deceleration in Gordon's calculations. If, however, the cumulative performance of the program to mid-1972 is indicative of the future, Gordon's model will show a further squeeze on prices relative to wages and a persistent shortfall of profits below the pace that would have been expected in a cyclical upswing without price and wage controls.

In the second report in this volume, William D. Nordhaus seeks a common cause for the worldwide wage explosion of recent years. About 1968, all major industrial nations were hit by a sharp acceleration in their rates of wage increase. The actual rate of increase varied from country to country; and the acceleration did not start in 1968 in every case. But the phenomenon was widespread and occurred over roughly the same period everywhere. In most countries, it is apparently continuing this year. Nordhaus notes that a variety of causes have been offered to explain the wage acceleration in particular countries. But he is loath to accept an assortment of separate explanations for so pervasive a development and tries to determine whether any one explanation has general applicability.

Nordhaus cites five theories that have been offered as explanations for wage increases. He formulates simple versions of each and uses them in an effort to explain wage changes in each of seven major industrial nations: Canada, France, West Germany, Japan, Sweden, the United Kingdom, and the United States. The theories are then compared for their ability to predict wage changes in each country.

Nordhaus finds that no one theory is adequate, but some do better than others. Two theories fare particularly poorly: a *monetarist* explanation that relates inflation to the growth of the money stock; and a *frustration* theory, that relates the wage explosion to a slowdown in real net earnings (resulting from rising prices and rising taxes) that led workers to intensify wage demands.

A *naïve Phillips curve* theory, using only the official unemployment rate to explain wage changes, fares somewhat better. But its performance is dominated by an *expectations Phillips curve* model that includes price expectations based on past price changes as well as unemployment to explain wage changes. For the United States and Canada, this theory does especially well in explaining both the whole history of wage changes and the recent wage explosion. But it does not hold up well for the other five countries.

For Japan and the European countries, on the whole, the best results are derived from an *export-constraint* model. In that theory, the rate of wage increase is limited by public policy when it threatens the country's balance of payments. Thus rising import prices and strong productivity gains in export industries end up generating wage inflation, because they improve the balance of payments and thus remove the rationale for domestic restraint.

Nordhaus offers a summary picture of the wage explosion. Tight labor markets—as part of the Vietnam war boom—in the United States and Canada initiated a speedup in wage increases in the mid-1960s. This speedup spread outside of North America through the permissive economic climate generated by rising import prices. Nordhaus reasons that the United States played a pivotal role in worldwide inflation, and that it did so because it essentially ignored the consequences of domestic inflation for the U.S. balance of payments.

In the final report of this issue, Nancy Teeters reviews recent developments and the outlook for federal fiscal policy. The budget for fiscal year 1972 turned out substantially less expansionary than had been initially programmed, as a result of delays in the enactment of general revenue sharing and unexpected increases in withheld income taxes. But these same factors increase the deficit for fiscal 1973, and so, on balance, do new legislation and reestimates. In an updated appraisal of the expenditure outlook after congressional adjournment, the author sees prospective expenditures (unified basis) for fiscal 1973 of about $256 billion, approximately $6 billion higher than the administration's preferred level. That prospect could be altered by executive discretion in impounding funds. For fiscal 1974, a benchmark budget involving no new revenues or new programs—but no cutbacks in programs either—points toward a full employment deficit of $7 billion; moreover, if new programs previously proposed by the Nixon administration but not yet enacted are recommended again, that full employment deficit becomes a sizable $15 billion.

Participants in the Conference

Participating in the conference and discussing these papers were the members of the Brookings panel, the senior advisers to the panel, and a few guests with special expertise in the material covered. The members of the panel for 1972 are:

Barry Bosworth *Brookings Institution*
William H. Branson *Princeton University*
Stephen M. Goldfeld *Princeton University*
Robert E. Hall *Massachusetts Institute of Technology*
F. Thomas Juster *National Bureau of Economic Research, Inc.*
Stephen P. Magee *University of Chicago*
M. I. Nadiri *New York University*

William D. Nordhaus *Yale University*
Arthur M. Okun *Brookings Institution*
George L. Perry *Brookings Institution*
William Poole *Federal Reserve Board*
Nancy H. Teeters *Brookings Institution*

Senior advisers attending the eighth conference were:

William C. Brainard *Yale University*
Daniel H. Brill *Commercial Credit Corporation*
Otto Eckstein *Harvard University*
David I. Fand *Wayne State University*
William J. Fellner *Yale University*
R. A. Gordon *University of California, Berkeley*
Robert J. Gordon *University of Chicago*
Alan Greenspan *Townsend-Greenspan Company, Inc.*
Walter W. Heller *University of Minnesota*
Charles C. Holt *Urban Institute*
Saul H. Hymans *University of Michigan*
John H. Kareken *University of Minnesota*
Lawrence R. Klein *University of Pennsylvania*
Lawrence B. Krause *Brookings Institution*
Franco Modigliani *Massachusetts Institute of Technology*
Robert M. Solow *Massachusetts Institute of Technology*

Those guests whose writings or comments are incorporated into this volume were:

Hyman Kaitz *Bureau of Labor Statistics*
Charles Lieberman *University of Pennsylvania*
Arnold Packer *Committee for Economic Development*
Walter S. Salant *Brookings Institution*
Frank Schiff *Committee for Economic Development*
Charles L. Schultze *Brookings Institution*

Several others at Brookings contributed to the quality and style of this volume. Mendelle Berenson and Virginia Haaga edited the manuscript; Evelyn Fisher reviewed the accuracy of the facts and figures; Nancy C. Hwang, Robert E. Litan, and Herbert F. Lowrey, Jr., assisted in the research; and Mary Green and Annette Whyte prepared the manuscript.