

Editors' Summary

THIS ISSUE of *Brookings Papers on Economic Activity* contains papers and discussions presented at the fifty-second conference of the Brookings Panel on Economic Activity, which was held in Washington, D.C., on September 12 and 13, 1991. The first paper examines how poverty in the United States worsened during the 1980s. The second paper explores the apparent upward drift in the natural rate of unemployment. The third attempts to disentangle the determinants of house prices. The first report of this volume looks for evidence of a credit crunch in the banking sector. The second report analyzes current state and local fiscal problems. A special symposium of four short papers examines prospects for the political and economic future of the republics of the former Soviet Union.

THE EXPANSION of the 1980s was disappointing both because it failed to produce the same overall gains in real income as the 1960s and because the gains achieved were not as broadly distributed as they had been in the earlier expansion. The poverty rate, the percentage of people with family incomes below official poverty levels, rose sharply in the 1980–82 recessions, and the subsequent recovery produced a substantial widening of the income distribution and only a moderate decline in the poverty rate, leaving it well above the rate at the end of the 1970s. In the first article of this volume, David M. Cutler and Lawrence F. Katz provide a careful look at what lies behind the disappointing developments of the past decade.

Cutler and Katz first document the historical relationship between macroeconomic activity and poverty. Time series regressions reveal a strong connection between poverty rates and unemployment rates for all but retirement-aged households. They also show that after 1983 poverty rates rose well above the levels predicted by earlier experience. By 1989, the actual aggregate poverty rate of 12.8 percent was 2 to 3 percentage points higher—as revealed by a significant post-1983 trend—

than history would lead one to expect. These departures from earlier experience did not fall equally on all age groups. There is no post-1983 trend for retirement-aged households; indeed, only the elderly had lower poverty rates in the late 1980s than in the late 1970s. The sharpest increase in poverty has been for households with children. Their poverty rate was 20 percent by 1989, 5 percentage points above the level that would have been predicted by equations using data through 1983.

Analysis of the entire income distribution reinforces the message that poverty rates alone suggest. Grouping income recipients by quintiles, the authors estimate regressions relating the income share of each quintile to growth, cycle, and inflation variables, as well as to a trend after 1983. They find that higher unemployment decreases the share of the three lowest income groups while raising the share of the two highest. On the basis of the unemployment rate alone, the share of income going to the lower income groups should have risen as unemployment declined after the recessions of the early 1980s. But a significant negative trend begins in 1983 for each of the bottom four quintiles along with a positive trend for the top income quintile. These equations imply that the income share of the highest quintile rose 4 percentage points more than expected on the basis of pre-1983 experience, while shares for all other income groups fell below expectations.

The authors look at several possible sources of the growing poverty and inequality of the 1980s. Various observers have suggested that the reason for the unequal growth in incomes is an apparent increase in the share of national income going to owners of capital. Cutler and Katz confirm that, using family income as defined in household surveys, labor's share appears to have fallen by about 4 percentage points during the 1980s. But they regard this measure as inappropriate because it omits retained earnings and corporate depreciation from the returns to capital. When these are included, labor's share in total factor compensation shows essentially no change. Since capital is owned disproportionately by high-income households, this adjustment suggests that the household surveys, if anything, overstate the increase in inequality that occurred over the decade. Furthermore, they do not believe that the change in factor shares can explain an increase in the inequality of household incomes.

Family composition is another potential explanation for the increased inequality. The predominant two-parent family with children, the group

with the lowest incidence of poverty, accounted for 65 percent of households in 1963 but only 44 percent in 1989. Between these years, the share of female-headed families with children, a group with a nearly 50 percent poverty rate, rose from 5 percent to 10 percent. Such changing demographics added moderately to the overall poverty rate during the 1970s. But the authors show that they did not account for an important part of the trend in overall poverty rates during the 1980s.

Focusing on the income of the nonelderly, Cutler and Katz show that the dominant source of change in the distribution of family incomes is the change in the distribution of primary-earner incomes. For primary-earner income alone, the share of income going to the lowest quintile declined from 4.3 percent to 3.7 percent during the 1980s. Adding the labor income of other family members affects the level of the income share but not its deterioration over time, reducing the share of the lowest quintile by about 0.4 percentage point in each year. Adding nonlabor income, consisting primarily of government transfers and capital income, reduces the inequality based on labor income alone, primarily because of the importance of transfers at the lowest income levels. However, the changes over time in nonlabor incomes are a different story. In the 1960s and 1970s these changes had substantial equalizing effects on the income distribution. But in the 1980s a relative decline in transfers to the nonelderly poor pushed down their share of total family income an additional 0.4 percentage point. A poverty measure that includes transfers such as food stamps, housing assistance, and medicaid, many of which expanded rapidly in the 1970s but stopped growing or shrank during the 1980s, shows a slightly greater rise in poverty over the 1979–87 period than does the official series based on income alone.

There are a number of reasons why money income may not be an adequate measure of economic well-being. It does not include transfers-in-kind, the service value of homes or consumer durables, or financial wealth. And it does not distinguish between transitory and permanent income. To cut through this myriad of problems with conventional measures of income distribution, Cutler and Katz look directly at the distribution of consumption as a measure of economic well-being. The authors use data collected over three decades from the Consumer Expenditure Survey, a large-scale survey that is used to estimate expenditure patterns of households. Two consumption concepts are used: total expenditure, which measures all out-of-pocket expenditures;

and total consumption, which adjusts expenditures by subtracting payments for insurance, pensions, and social security and substitutes imputed rental value of owned houses and durables for expenditures on them.

Comparing the two concepts, Cutler and Katz find the biggest difference is for the elderly, for whom the consumption measure indicates a much higher living standard than the expenditure measure does. By contrast, for nonelderly adults and children, expenditures are slightly higher than consumption. These differences mainly reflect the importance of owned homes in the consumption of the elderly and the inclusion of social security contributions in the expenditures of the nonelderly. Across income groups, consumption is distributed more equally than expenditure, and expenditure is distributed more equally than income. Poverty rates are generally lower when calculated on the basis of consumption rather than income.

Over time, changes in the distributions of income, total expenditures, and total consumption are not very different. By all three measures, the distribution of income, as measured by the Gini coefficient for deciles of the population, grew more equal between the early 1960s and early 1970s and more unequal since then. For the nonelderly population during the 1980s, the income share of the lowest quintile fell by 0.7 to 1.3 percentage points depending on the measure of welfare, while the share of the highest decile rose by 1.1 to 2.4 percentage points. Poverty rates measured by either income or consumption declined for all groups between the early 1960s and early 1970s. But during the 1980s, using consumption reveals much more dramatic changes in poverty. Between 1980 and 1988, poverty rates of the elderly declined sharply from 6.2 percent to 3.8 percent, while poverty rates for children rose from 11.1 percent to 15.2 percent. Over this period, overall poverty measured by consumption rose by 1.1 percentage points, although it was virtually unchanged using income.

The experience of the 1980s suggests to Cutler and Katz that some of the transfer policies that were curtailed over this period may have a larger effect on the welfare of the disadvantaged than previously thought. They note that while sharp changes in relative demand and increased wage inequality appear widespread in industrialized countries, these changes translated into much smaller increases in family poverty in other countries than they did in the United States. They conclude that

a renewed effort to implement appropriate transfer policies for the disadvantaged is needed.

IN 1970, after a decade in which the adult male unemployment rate fell as low as 2.1 percent, Robert Hall asked, “Why Is the Unemployment Rate So High at Full Employment?” (*BPEA*, 3:1970). The rate in that year stood at 3.5 percent. It would climb to 4.4 percent in the recession of 1971. More recently, after a decade of expansion in the 1980s, the adult male unemployment rate barely got below 5 percent. In the second paper of this issue, Chinhui Juhn, Kevin M. Murphy, and Robert H. Topel revisit Hall’s question. Using microdata from the Current Population Survey for more than 500,000 prime-aged men, they document and attempt to explain the secular and cyclical changes in unemployment and nonparticipation in the labor force and the dramatic increase in the inequality of the employment and wage distribution among different demographic and skill groups.

The authors begin by decomposing changes in nonworking time—the sum of time spent unemployed and out of the work force—into cyclical and secular components. They find that fluctuations in unemployment explain virtually all of the cyclical variation in the nonwork of adult males. Short-run fluctuations in labor demand mainly move workers between employment and unemployment, with discouraged-worker effects apparently unimportant. By contrast, changes in both unemployment and nonparticipation appear to be important in the secular change in labor market conditions. Both grew by approximately 2.35 percentage points between 1969 and 1989, two cyclically comparable years coming near the end of prolonged expansions. One potential explanation for this secular change is a changing mix of demographic groups in the labor force. But the authors show that such compositional effects of the adult male labor force are not important. Virtually none of the secular change in the natural unemployment rate is explained by allowing for changes in the relative importance of different types of workers—categorized by experience, education, race, and marital status—while assuming that each type itself has an unchanged natural unemployment rate. Hence changes in the rates of joblessness appear to have been generated within labor force groups not by changes across groups. Another potential explanation for the secular deterioration in labor market performance is deficient aggregate demand. However, the authors are skeptical of this

explanation for secular increases in unemployment and nonparticipation, arguing that over the longer run wage flexibility and labor mobility preclude a sustained failure of markets to clear.

The levels of unemployment and nonparticipation can be decomposed into the rates at which individuals enter those states and the average duration of their stay, itself a reflection of the rates at which they exit. The authors calculate entry rates and durations for unemployment and nonparticipation and for the two together, nonemployment. Over the 1967–89 period the average number of weeks unemployed and out of the labor force have both increased substantially. In the case of unemployment, entry rates and durations tend to move together both cyclically and secularly. However, since reaching a peak in the recession of 1981–82, the entry rate has declined much more rapidly than duration. As a result, despite the fact that the entry rate to unemployment in 1987 was close to the rate in 1973, the average rate of unemployment was 1.6 percentage points higher because the average spell of unemployment lasted about 25 percent longer. Nonparticipation also increased substantially over the period, with the average number of weeks per year out of the labor force increasing by nearly 60 percent between the late 1960s and late 1980s. This increase came from a dramatic rise in the average duration and occurred despite a 25 percent drop in the entry rate to nonparticipation over these years. The increase in duration itself reflects an increase in the number of men who have permanently left the labor force. Whereas the percentage of workers with some time out of the labor force was roughly the same in the late 1980s and the 1960s, the frequency of apparently permanent withdrawal from the labor force has more than doubled.

How are these changes in unemployment and nonparticipation distributed among individuals of different skills? Explicit information on individuals' skills is hard to come by, so the authors assume that an individual's wage is a good indicator of skill and productivity. In particular, they categorize individuals by their percentile position in the distribution of average hourly wages for each year. In effect they assume that individuals with the same rank in the wage distribution in different years have the same relative level of marketable skills. Thus if the relative wages of workers in the lowest decile fall, they infer that the relative price of their skills has fallen as well. For individuals who did not work

in a given year, the authors impute wages from the distribution of wages among those who worked 1 to 13 weeks, in effect splitting nonworkers among the 10 wage categories in the same proportions as those who worked 1–13 weeks. Although the authors recognize that the characteristics and productivities of the individuals in the various wage deciles may have changed over time, they do not believe that such variation alters their central findings.

When individuals are categorized by wages, unemployment and nonparticipation rates are perfectly rank ordered by wage decile with the lowest decile experiencing far higher rates of joblessness than those in the upper deciles of the wage distribution. More striking, these differences increase over time; there are pronounced trends toward greater inequality in the distributions of unemployment and nonparticipation over the period 1967–89. For the least skilled workers, the nonemployment rate rose nearly 16 percentage points between 1967–69 and 1987–89, or 8 weeks a year. By contrast, the nonemployment rate of the top 40 percent of wage earners was virtually unchanged. Nearly all of the aggregate long-term increase in unemployment and nonparticipation has fallen on less skilled individuals.

Not only has there been a dramatic increase in the joblessness of those in the lowest deciles of the wage distribution, but these workers have also experienced an equally dramatic decline in real wages. Controlling for experience, the authors show that the real wages of individuals in the lowest decile fell by more than 30 percent between the early 1970s and the late 1980s. By contrast, those in the top 40 percent of the wage distribution had stable real wages over the period.

What explains this striking secular deterioration in the relative wage and employment experience of individuals at the bottom of the wage distribution? The authors note that the secular deterioration in the employment experience of low-wage workers resembles the change that occurs in a typical recession, but they argue that the reasons for the secular deterioration are quite different from those operating over the cycle. First, they find it implausible that inflexible wages are important in the long run, especially since they find substantial wage reductions among the most adversely affected groups. Second, they note that nonparticipation, which plays almost no role in cyclical movements, is a major factor over longer periods. Finally, they note that the deterioration in both un-

employment and labor force participation has been much larger secularly than cyclically. In the authors' view, this evidence undermines the idea that long-run and short-run behavior are similar phenomena.

One common explanation of unemployment is that it is part of the natural process of reallocating workers among activities in response to demand or technological shocks. The authors report that their earlier studies found that workers who changed industries accounted for a minor and virtually constant amount of unemployment. In their sample they find no evidence that less skilled individuals, who account for a large share of changes in unemployment, have greater relative mobility during high unemployment periods. Another hypothesis is that increases in income from sources other than men's own earnings could reduce their labor supply. The fact that the household incomes and living arrangements of the long-term unemployed have been stable over time despite declining real wages appears to support this idea. This could well reflect the fact that both female labor market participation and earnings rose dramatically during the period the authors study. However, the authors find that the largest changes in income and female participation occurred in high-wage rather than low-wage households, so that this explanation of the deterioration in labor market participation requires the additional assumption that low-wage men are more responsive to changes in female participation and other income.

The fact that both the real wages and employment rates of workers at the bottom of the wage distribution have fallen markedly over the period leads the authors to treat the increase in nonemployment as a labor supply response. They estimate this response by regressing the percentage of the year spent working on a quadratic function of the log wage, taking wage deciles as the unit of observation. The resulting estimates suggest partial elasticities of labor supply for low-wage workers on the order of 0.3, much larger than most other studies have found. They also estimate similar regressions allowing for regional and time effects on each skill decile. The results, which in effect reflect the labor market experience within a region, give estimates of the supply elasticity that are remarkably similar to the simpler labor supply equations.

The authors believe that most of their data are consistent with a simple market-clearing view of labor market developments—labor supply has been stable and shifts in demand have been responsible for observed changes in wages and employment. They recognize that declines in the

quality of workers over time could generate similar results. For example, recent cohorts may have larger proportions of low-productivity workers. However, they note that wage and job inequality and joblessness have increased within cohorts and at all experience levels; if declining worker quality were the explanation, the decline would have had to take place within each cohort. The authors speculate on the possibility that joblessness itself generates declining market skills. This leads to the pessimistic possibility that an increase in the demand for less skilled workers could not quickly reproduce the low jobless rates of the past. Past patterns of demand may have altered the economy's stock of human capital, raising future natural rates of unemployment and nonparticipation.

HOUSING is a major component of private net worth. In 1990 the value of owner-occupied housing was more than 25 percent of total household wealth and nearly double the value of corporate equity owned by households. As a consequence, movements of real house prices have large effects on household wealth and potentially on consumer spending. Furthermore, they have a major effect on the profitability of housing construction, an important component of aggregate demand. In recent years house prices have attracted unusual attention because for the first time in decades they have declined in some major areas of the country. Such price declines have not only eroded household net worth but also have contributed to the stress on financial institutions, particularly in New England and in California. In the third paper of this issue James M. Poterba examines the determinants of house prices and the efficiency of the housing market.

Poterba begins by documenting the movement of new-house prices relative to the GNP deflator over the past three decades. Nationally, the real price of new single-family houses was relatively constant during the 1960s, grew by almost 30 percent during the 1970s, and has declined by roughly 10 percent since then. Disaggregated data show substantial differences across regions. In the 1970s real prices more than doubled in the West while increasing less than 20 percent in the Northeast. In the 1980s they declined in all regions except the Northeast, where real prices ended the decade almost 40 percent higher than they began. Heterogeneity in price trends is also apparent across metropolitan areas. Between 1980 and 1990, the median real sale price rose by more than 4 percent a year in 4 of the 39 cities Poterba studies while 18 cities experi-

enced real house price declines. House prices reflect the cost of both structures and land, and unfortunately there are few data to help distinguish between changes in these jointly determined components of price. Poterba does report that for a small sample of cities where he has both land and house prices only about a quarter of the variation in house prices can apparently be accounted for by changing land costs. This suggests to Poterba that important local factors in addition to raw land costs are at work in determining house prices and that local data may be crucial for assessing various theories of house price determination.

Poterba presents a simple model of how various factors would be expected to affect housing prices. Equilibrium in the market for the existing stock of houses requires that homeowners, in their role as investors, earn the same return on housing investments as on other assets. In particular, the marginal value of rental services relative to the price of housing should equal the user cost for housing. The user cost is the sum of the nominal interest rate and the property tax rate, both adjusted for the homeowner's marginal income tax rate minus the expected rate of nominal house price appreciation, with further adjustments for depreciation, maintenance, and an appropriate risk premium. The value of the rental services is determined by the interplay of demographic factors affecting demand and the stock of housing, which itself is determined by past investment. In Poterba's model, the volume of new investment—residential construction activity—is determined by the ratio of house prices to construction cost. The model can be closed by a variety of assumptions about the expected change in house prices. The most theoretically appealing assumption imposes rational expectations on investors who recognize the link between house prices and housing investment and who have rational forecasts of demographics and other variables influencing the future demand for and supply of housing.

This framework leads Poterba to focus on three factors affecting house prices. He first briefly investigates the importance of changes in construction costs, which according to the model affect current and future housing prices by affecting the stock of housing over time. Poterba shows that approximately half of the increase in real house prices during the 1970–80 period can be explained by assuming that increases in construction costs are reflected fully in house prices. Changing user costs are a second factor that could be responsible for changing house prices. Poterba notes that user costs in the 1970s fell as a consequence of in-

creases in inflation and nominal interest rates: the real after-tax cost of borrowing declined because of the tax deductibility of interest and the low effective tax rate on housing capital gains, an effect that should be more pronounced among high-income households. By contrast, the tax changes in the 1980s raised user costs by reducing marginal tax rates for many households, especially those with high incomes. Taking account of such effects, Poterba calculates real user costs for three different income classes of households at five-year intervals. Using actual tax rates, actual mortgage interest rates, and a five-year average of CPI inflation for expected housing prices, he finds that real user costs for most households declined between 1970 and 1980 and then increased through the 1980s. These changes were most striking for high-income households. For a family of four with 1990 adjusted gross income of \$250,000, the user cost fell from 7.5 percent in 1970 to 4.5 percent in 1980 and then increased to more than 11 percent by 1990.

These changes are large enough to account for very large swings in housing prices but have a mixed record in explaining past price behavior. User costs can explain the rise in average house prices in the late 1970s, but average house prices did not fall by nearly as much as user costs would suggest in the 1980s. On the other hand, Poterba shows that the changes in the prices of trade-up houses relative to starter houses are consistent with the importance of changing real user costs. During the late 1970s, when the interaction of rising inflationary expectations reduced the user costs to high-income households relative to low-income households, the relative price of trade-up houses increased. During the mid-1980s, when changes in tax law and declining inflation had the reverse effect, the appreciation rate of large homes was substantially lower than that of small houses.

Demographic change is the third candidate for explaining for the behavior of house prices. Most individuals increase their housing consumption substantially between the ages of 20 and 34, frequently as a result of starting a family. N. Gregory Mankiw and David Weil, for example, have found a strong correlation between demographic demand for owner-occupied housing and real house prices. While almost any theory would predict that demographics are important to house prices, the theories differ significantly in the timing of this effect. If housing markets were myopic, one might expect house prices to rise in the 1970s when household formation boomed. By contrast, if the housing market

is rational, an unusually large cohort of new households should have essentially no effect on the change in house prices as they come into the market, because their entry should have been anticipated years in advance. Poterba finds that, for whatever reason, demographics did not seem to dominate relative price movements in the 1970s. Instead, when Poterba looks at changes in relative house prices in four major cities in the 1970s, he finds the dominant effect comes from higher inflation lowering the relative user costs of trade-up houses.

The substantial differences in the appreciation rate of real house prices across cities suggests the use of city-level data to evaluate alternative explanations of house price movements. Poterba runs a reduced-form cross-city model that relates real house prices to several variables: local construction costs, a demand variable based on population structure, real per capita income, and user costs. The resulting estimates imply a substantial effect of real income growth on house prices, with an income elasticity of two. Demographics fare less well, with an insignificant and wrong-signed coefficient. Real construction costs appear to matter. However, because installation costs rather than materials costs are important, there may be reverse causality in the estimates. Recognizing the potential for simultaneity in the determination of house prices and income, Poterba uses the lagged change in per capita income and federal procurement as instruments. This increases the estimated effect of income on house prices and leaves most of the other coefficient estimates unaffected.

Housing markets provide an interesting arena in which to examine whether asset markets are forward looking and rational. Poterba presents extreme values from the distribution of nominal house price appreciation by city. There are 26 city-years in which nominal appreciation exceeded 20 percent in the 1980s and only 1 observation, Houston in 1986, in which nominal prices fell by more than 10 percent. House price booms in a single city are virtually impossible to explain on the basis of user costs since most of the factors determining user costs are national. Poterba therefore argues that explanations must focus on shifts in the local demand for housing. One possibility is shifting expectations of income growth. But Poterba shows that, controlling for economywide factors, only about a third of a current income shock persists through the next period; it is difficult to argue that jumps in house prices reflect rational expectations of substantial permanent shifts in income. Neverthe-

less, Poterba does find that house prices contain some predictive value in explaining real per capita income changes. A 10 percent rise in house prices forecasts a 0.4 percent rise in the next year's income growth rate. An interesting question is whether house prices contain information about the future that is not available elsewhere. Poterba constructs an innovative city-specific stock index and finds that, even after controlling for house prices, which remain significant, it too has substantial predictive power for future income growth. Interestingly, changes in the city-specific stock index also predict movements in house prices.

The predictability of the excess returns on houses provides another test of efficiency. Poterba confirms earlier evidence that lagged house price appreciation and the lagged change in real per capita income help forecast future house price movements. Hence his results suggest that short-run fluctuations in house prices are hard to explain by fundamentals and raises the possibility that house prices are subject to bubbles in the short run.

The United States has yet to experience periods in which house prices in general have experienced a sizable decline. But Poterba reports data from three other nations suggesting the U.S. experience is unusual. Recalling his evidence that homeowners often appear to extrapolate recent price trends, he even speculates that "the aftermath of declining house prices in many regions during the late 1980s could be a period of slack housing demand, as many potential home buyers extrapolate recent price reductions and conclude that house prices will continue to fall."

THE SAVINGS AND LOAN CRISIS has been followed by a succession of bank failures and reorganizations aimed at avoiding failure. At no time in the postwar era has there been greater concern about the health and viability of these institutions, so important both in money markets and in the provision of credit to individuals and firms. Some observers have suggested that the current recession was caused in part by the reluctance or inability of these stressed institutions to extend credit. Whatever the role of such a "credit crunch" in causing the recession, there is now concern that the reluctance of these institutions to extend credit is slowing, even preventing, recovery. In the first report of this issue, Ben S. Bernanke and Cara S. Lown attempt to assess the importance of a shift in the willingness and ability of banks to extend credit in the current recession.

Bernanke and Lown begin their investigation of whether bank lending is unusually weak this time around by comparing the growth rate of loans with their growth rates in five earlier recessions. In the five reference recessions (1960, 1969, 1973, 1980, and 1982) total loans outstanding from the quarter preceding the cyclical peak to three quarters later grew at annual rates between 3.5 percent and 12.2 percent, while in the current recession they actually fell by almost 4 percent. In part, this atypical decline in lending reflects the shrinkage of the savings and loan industry, whose loans outstanding fell by more than 20 percent between 1989:2 and 1991:1, but the lending by domestically chartered commercial banks grew by only 1.7 percent, much more slowly than normal. A regional breakdown confirms that loans are down most dramatically in those regions where financial institutions are most stressed. Worst off in this period is New England, where total loans from commercial banks are down by more than 13 percent and industrial loans by more than 18 percent from 1990:2 to 1991:1.

In contrast to this clear evidence that the volume of bank lending is lower than normal for the early stages of a recession, reported credit terms have moved much as they did in previous recessions, with interest rates on loans falling slightly over the first two quarters of the recession before dropping more sharply in 1991:1. The authors believe this evidence should be interpreted cautiously because of difficulties in realistically measuring the cost of credit to borrowers. Changes in collateral, compensating balances, and other requirements may affect the true cost of loans; for instance, if banks have limited the availability of credit to higher-risk borrowers, what appear to be the same loan terms actually represent tightening. Information on other credit terms is limited, but the authors cite the Federal Reserve's Loan Officer Opinion Survey that reports a tightening of credit standards during 1990 that appears about normal for a recessionary period.

The authors examine a number of possible explanations for a reduction in the supply of bank loans. Unlike the recessions of 1973–75 and 1981–82, this time there is little evidence that tight money explains reduced loan supplies. In the earlier recessions the ratio of large time deposits to total bank deposits jumped sharply, indicating that banks bid aggressively for funds to offset the reduction in loanable funds caused by tight monetary policy. By contrast, from 1989:2 to 1991:1 this ratio fell by nearly 15 percent among domestically chartered commercial

banks. Furthermore, interest rates on certificates of deposit have come down even more than other market rates have. Increased securitization is another potential explanation. If it was important, the reduction in bank loans would be illusory, simply reflecting a change in the way banks finance their lending. But the authors conclude that securitization cannot explain much of the slowdown in on-balance-sheet lending. Securitization of consumer loans is too small to explain much of the lending decline, and bank sales of commercial and industrial loans actually peaked near the beginning of the recession and then fell. Mortgage securitization was large and growing, but bank mortgage lending actually grew more quickly than all other loan holdings during the recent recession.

Having rejected securitization or tight money as explanations for the slowdown in bank lending, Bernanke and Lown examine two related hypotheses that have recently gained currency. One hypothesis suggested by some bankers is that overzealous regulation has forced banks to make excessive charges against current capital and to accept new credit risks more cautiously. The authors note that there is little evidence bearing directly on whether examination procedures have become excessively tough. They do examine bank provisions for loan losses and net charge-offs in 1989–90, finding that neither seems far out of line with past experience, particularly given the increasing losses experienced by banks during the recent period.

The hypothesis that weak bank lending is associated with shortages in bank capital in the most troubled regions fares much better. In New England, the capital-asset ratio fell by more than 15 percent between 1988 and 1990. By the end of 1990, this ratio was 10 percent below that in the Mid-Atlantic states, which in turn was more than 15 percent below the ratio in the next lowest region. The authors also run cross-state regressions showing that lower capital-asset ratios are associated with slower loan growth. That relation remains even when contemporaneous state employment growth, a proxy for loan demand, is added to the regressions, strengthening the evidence that the capital-asset ratio has an independent influence on the supply of loans.

The authors also conduct a small case study of banks in the state of New Jersey. Because banks within a given state face more or less the same general economic conditions, differences in loan growth among them are likely to come from factors specific to the individual banks.

Large banks in New Jersey were generally less well capitalized than small banks and they contracted lending sharply relative to small banks. However, separate regressions for large and small banks show that the relationship between lending growth and the capital-asset ratio of small banks was highly significant and quite similar to that found in the cross-state regressions, but the relationship was much weaker for large banks. The contrast between the small- and large-bank correlations is damaging to the capital shortage hypothesis because the relationship for small banks is most likely to reflect the effect of local demand.

The authors look at whether other forms of credit have substituted for bank loans to an exceptional degree in the most recent recession. They conclude, however, that if anything there has been less switching to alternative forms of credit this time. In previous recessions slowdowns in bank lending have been accompanied by spurts in the issue of commercial paper. But in the 1990–91 recession commercial paper outstanding actually declined. This further supports the idea that the decline in loan demand brought about by the recession was much more important than any shift in loan supply in explaining the weakness of overall borrowing. While they find some support for the idea that declines in bank capital have contributed to the slowdown in lending, their results suggest that the fall in capital explains only a few percentage points of the lending decline, even in New England.

BETWEEN the mid-1980s and the end of the decade, the fiscal position of state and local governments deteriorated dramatically. With the 1990–91 recession reducing revenues and increasing transfer payments, the fiscal problems have deepened and states and localities have been forced to cut employment and expenditures and to raise taxes. In the second report of this volume, Edward M. Gramlich places the present state and local fiscal problems in historical perspective and analyzes both how they got where they are and how state and local budgeting might be improved.

The national income account (NIA) surplus of the state and local government sector grew steadily from a deficit in the 1950s to a surplus of 1.7 percent of GNP in 1984. Gramlich notes that this large surplus was, at the time, offered as a reason not to worry about the growing deficits in the federal budget. But since 1984 the state and local surplus has dropped precipitously to 0.6 percent of GNP by 1990. Gramlich argues

that two adjustments should be made to this NIA surplus in order to make it more relevant for analyzing either the fiscal condition of state and local governments or the contribution of the sector to overall national saving and investment. The first adjustment removes the surplus of pension funds for state and local employees on the grounds that this surplus is generally not under the control of state and local officials. This change shifts this element of national saving from the government to the private sector, an adjustment that Gramlich argues parallels the treatment of private pension funds, which are treated not as business saving but as saving of the household sector. The second adjustment removes state and local construction spending from expenditures on the grounds that it is a way of approximating investment, which is properly treated as part of the capital budget. For the past several years, these two adjustments have approximately offset each other, so that the operating surplus—the concept Gramlich arrives at after the adjustments—has behaved much like the NIA surplus. But whereas the NIA surplus grew steadily until the mid-1980s, the operating surplus remained on a plateau of about 2 percent of GNP during the 1960s and through the mid-1970s.

Unlike the federal government, state and local governments generally operate under constitutional budget constraints that limit how much they can borrow and under what conditions. Generally they can borrow only for investment and for short-term needs. In addition, they are prohibited from letting balances fall below a certain level. Previous surpluses built up these balances and have permitted states and localities to run deficits for some time. But Gramlich notes that balances in the aggregate appear to be approaching low levels. Most states and regions of the country are feeling some fiscal pinch, with New England and California projected to have the most severe fiscal problems in 1992. Absent new taxes or cuts in scheduled employment or other expenditures, budgetary projections for 1992 show deficits of 23 percent of spending in New England and 33 percent in California. These deficits will not actually materialize because governments will be forced to make painful changes in taxes and spending in order to avoid them, but they do indicate how big the problems are.

According to Gramlich, the main culprit for the emergence of state and local fiscal problems is health costs and medicaid financing. He estimates equations designed to show how the state and local sectors reacted historically to changing economic conditions and changing grants

and incentives from the federal government. The equations are descriptive and do not purport to establish causation; they cannot distinguish the reaction of the policymakers to events from the effects of the events themselves on expenditures and revenues. He uses these equations to track post-1984 experience. Gramlich finds that the rising cost of health care is by far the most important factor in the decline in the operating surplus of the state and local government sector. He draws two important implications from this finding. First, the fiscal problem is likely to continue, even if the current recession turns into an economic recovery. Overcoming the deficits will require better control of health-care related costs or alternative arrangements for paying these costs. Gramlich argues that there are good reasons for the federal government to take on the states' share of medicaid, which is currently about \$30 billion a year. Doing so would make it easier to reform the present system—currently a patchwork of uncoordinated providers of health insurance. Second, since medicaid is a form of income support for low-income groups, making it a federal program would eliminate interstate inequities and the inefficiency of interstate migration.

A SPECIAL FEATURE of this issue of the *Brookings Papers* is a symposium on prospects for the political and economic structure of the former Soviet Union. Events in the Soviet Union have moved rapidly since the September meeting of the *Brookings Panel*, but many developments were anticipated by the panelists and many of the issues raised continue to be relevant. Four papers were prepared for the symposium and are presented in this volume. Besides addressing the common question of what economic policies should be pursued, each also stresses particular aspects of the problem. In his paper, Stanley Fischer presents alternative scenarios for how the reorganization of the Soviet Union might evolve and anticipates that the most likely outcome would be several republics joining to form a weak federal structure, much like the structure that emerged at the end of 1991. He suggests that under such a regrouping scenario the essential economic reforms would be much the same as those proposed by many Western economists before the dissolution of the Soviet Union. These included macroeconomic stabilization that reduced budget deficits and brought monetary restraint, current-account convertibility of the ruble, liberalization of prices, privatization, and the maintenance of free trade among republics. Fischer argues that Western

humanitarian aid is crucial to reduce the internal chaos that threatens to emerge. In addition, he urges that individual republics be given technical assistance to set up tax and legal systems and to institute agricultural and financial reforms. He believes both these forms of aid should begin immediately and should be a coordinated effort of the various government and international agencies that are involved. By contrast, he argues, more general financial assistance could and should wait until the political and economic structure is clarified; eventually, it should be used to encourage the republics to move toward democracy and market economies.

William W. Hogan, in his paper, emphasizes the determination of individual republics to break away from central authority and anticipates even more political independence than has emerged to date. He cites the long history of suppression of Ukrainian culture and language by the center as an example of the experience that has led to the present anti-Soviet, pro-independence beliefs that characterize the emerging political movements. Hogan suggests that these beliefs have made the leaders of Ukraine anxious to pursue their own economic policies and concludes that the West should deal directly with the new republics and target its assistance to them. He stresses that the drive for independence runs the danger of disrupting trade among the republics, which have been highly interdependent economically—deliveries to other republics amount to more than 30 percent of net material product. Although the growing political independence of these highly interdependent economies risks a host of new problems, Hogan believes that they cannot go back to a strong union and argues that the West must mount large-scale programs of technical assistance aimed at the republics.

In their paper, William D. Nordhaus, Merton J. Peck, and Thomas J. Richardson anticipate the disintegration of the Soviet Union and ask what lessons history and theory can teach about the role of borders in economic affairs. They note that in a world of free trade and liberalized prices the existence of borders would make little difference to patterns of production and consumption. They also show that there is little if any empirical connection between size and economic performance among nations. But history warns that borders often cause economic problems. The authors regard the dissolution of the Austro-Hungarian empire as an event with some parallels to the dissolution of the Soviet Union. They review how the dissolution of that empire led to inflation and economic

decline in the associated countries because free trade collapsed and banking and fiscal institutions were lost or weakened.

Together with others at the symposium, the authors regard most of the reform proposals that were appropriate for the Soviet Union before the August 1990 coup attempt as still relevant to a more independent confederation of republics. But they also note that greater independence would bring both new advantages and new problems. One advantage is that if one republic privatizes and liberalizes prices, it would bring competitive pressure on the others to do the same. On the other hand, independence could bring new trade restraints among the republics, which would be very costly because the Soviet Union has been characterized by a highly monopolized economy with great specialization, making the republics extremely reliant on one another. The authors see this risk of trade barriers as serious and recall John Maynard Keynes' observation from over half a century ago: "In a regime of Free Trade and free economic intercourse it would be of little consequence that iron lay on one side of a political frontier, and labor, coal, and blast furnaces on the other. But as it is, men have devised ways to impoverish themselves and one another; and prefer collective animosities to individual happiness."

In the last paper, Andrei Shleifer and Robert W. Vishny focus on the reasons for the collapse of economic activity in the Soviet Union during the past several years. Whereas many observers have attributed this collapse to exogenous shocks, the authors believe it stems from the widespread refusal of many economic agents to produce and trade at state prices. They believe that the collapse can best be explained by a combination of severe repressed inflation which distorted incentives and the incomplete liberalization of prices which completely undermined plan enforcement. In their view, repressed inflation diverted labor away from productive activities, created incentives to hoard inputs, and led firms to divert their output to higher-paying customers. In the process, firms deprived their usual business customers of supplies and so disrupted production downstream. Shleifer and Vishny believe that a return to central planning would fail and that the highest priority should be given to letting markets develop for allocating goods throughout the economy and to providing monetary and fiscal discipline. They believe that the West should focus its aid at the level of the republics, where most of the reforms need to take place and where elected leaders will have the most power and authority to propose and implement changes. They also note

that dealing directly with the republics will allow aid to be tailored to each region's needs and suggest that the West can foster competition between republics in order to speed up reform. They also recognize the risks of trade wars stressed by Nordhaus, Peck, and Richardson and suggest that aid to the Soviet republics should be conditioned on maintaining liberal trade policies.