Federal Reserve Bank of Minneapolis Quarterly Review
Fall 1991, Volume 15, No. 4

A Bleak Outlook for the U.S. Economy

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The views expressed herein are those of the author and not necessarily those of the Federal Reserve Bank of Minneapolis or the Federal Reserve System.

The recession that started in 1990 seems mild by conventional measures. Between late 1990 and mid-1991, unemployment rose only half a percentage point; the value of total output, adjusted for inflation, fell only about half as much as it typically does during a recession; and the level of industrial production fell only 3.7 percent, the smallest decline during any of the postwar recessions. But the economy does not seem to be bouncing back from this seemingly mild recession. Although a recovery appeared to start in the third quarter of 1991, as real output increased for the first time in nearly a year, the economy remains so weak that the current period of growth seems more like a malaise than a recovery.

Why is the recovery so weak? Some analysts suggest that it must be weak simply because the recession was mild: Growth didn't fall far, so it doesn't have far to rise. But this view may be too optimistic about the long-run prospects for growth. Conventional measures of recession hide the fact that the economy has been growing quite slowly since 1989—long before the recession began. And there is very little evidence that the economy will return to faster long-run growth in the near future. Without some boost assuring such growth, the weakness of the current recovery is easy to understand: The recovery is and will remain weak because the U.S. economy has entered an extended period of slow growth.

A Long-Run Slowdown . . .

Although the recent recession seems mild by some measures, traditional ways of analyzing its severity mask the fact that the U.S. economy has been growing very slowly for the past three years.

A *recession* is traditionally defined as two or more consecutive quarters of declining real gross national product (GNP), the total value of all goods and services produced in the United States, adjusted for inflation. By this definition, the latest recession appears relatively short and mild. It seems to have lasted only three quarters, from the fourth quarter of 1990 to the second quarter of 1991, and during this time, real GNP fell only 1.2 percent.

However, looking at traditionally defined recessions is not the only way to detect poor economic performance. Another way is to examine periods when real GNP grew more slowly than its average rate. We call such periods *slowdowns.* Chart 1 shows the quarterly pattern of real GNP growth for the United States during the past 44 years. During that period, real GNP has grown at an average annual rate of about 3.2 percent. Slowdowns can be seen on the chart by looking for those periods when growth remained below that rate.

Chart 1 shows that the U.S. economy has been in a slowdown since the second quarter of 1989. This is the longest slowdown since the end of World War II. It has lasted for at least ten quarters; no other slowdown lasted more than seven. Note that a slowdown can continue even during a recovery—which is probably happening now—as long as real GNP growth remains below average.

But the length of the current slowdown is not the only measure of its severity. Another is its depth: the difference between the current level of real GNP and the level it would have attained if it had grown at its average postwar rate during each quarter since the slowdown started.

In the third quarter of 1991, real GNP was 6.8 percent lower than it would have been had it grown at its average rate since the first quarter of 1989. This statistic gives a much bleaker picture of the economy's performance than the observation that real GNP fell only 1.2 percent during the recession. In fact, by the measure of shortfall from average growth, the current slowdown is one of the three worst since 1948.

. . . Not Expected to End Soon

The composition of the current slowdown suggests that slow growth will not end soon. A much larger than usual fraction of the current slowdown is accounted for by slow growth in consumer spending. Such a large slowdown in consumption growth may suggest that people expect continued slow economic growth.

Chart 2 compares the composition of the shortfall of real GNP from its average growth during the current slowdown to those during the typical postwar slowdown and during the Great Depression. During the typical recession, most of the GNP shortfall is accounted for by reductions in investment. Reduced consumption spending accounts for only about a quarter of the shortfall, even though consumption spending is almost two-thirds of GNP.

During the current slowdown, however, consumption has accounted for a much larger fraction of the shortfall of real GNP from its average growth. In fact, over half of the shortfall in real GNP can be attributed to slower consumption growth—a much larger share than during any of the other postwar slowdowns. Chart 2 shows that the consumer spending portion of the slowdown now looks much more like that during the Great Depression.[1]

Why is decreased consumption growth so much more significant in the current slowdown than it was in other recent slowdowns? The *permanent income hypothesis* suggests one reason: people may be more pessimistic now about future economic growth, and thus their long-term economic prospects, than they were during other recent slowdowns.

The permanent income hypothesis states that people make consumption decisions based on the income they expect to make over their lifetimes, rather than on their current income. According to this hypothesis, a temporary decline in people's income will change their consumption relatively little: people will dig into their savings to consume, rather than drastically reduce their consumption, because they expect the decline in their income to quickly be reversed. However, the theory says, if people expect a permanent decline in their income, or in their rate of income growth, they will scale back their consumption plans more sharply because they realize that their current consumption plans are not sustainable.

Thus, during the typical slowdown, people largely maintain their consumption plans because they do not expect their long-term prospects to change. However, in the current slowdown—as was true in the Great Depression—people have scaled back their consumption plans substantially because they have become more pessimistic. This extended period of slowing consumption growth may indicate that people expect more-or-less permanently lower growth in their income.

But if people expect an extended period of slow income growth, that necessarily implies that they expect long-run slow growth in GNP. Since GNP is the value of all goods and services produced in the country, it is also the value of all payments made for production of goods and services, and all payments made are received by someone as income.[2] Thus, there is a direct link between people's expectations about their own income and the nation's, or GNP. And according to the permanent income hypothesis, anytime consumers reduce their consumption growth over an extended period, they are showing pessimism about the growth of both personal income and GNP.

An extended period of slow consumption growth is exactly what has happened recently. Consumers have been holding tightly to their wallets for some time now. In fact, over the last three years, consumer spending has grown at an annual rate of just 1 percent. Since 1948, only the economically troubled years of 1980–82 had lower consumption growth than did 1989–91.

Further, recent consumer surveys suggest that spending will not increase anytime soon. In November, the Conference Board's index of consumer expectations dropped to the depth it reached during the 1981–82 recession, and an *ABC News–Washington Post* survey showed that more people planned to cut back their end-of-year holiday spending in 1991 than at the beginning of the recession in 1990.

Justified Pessimism

The three-year history of weak consumption growth and the current prospect for continued weakness suggest that people have been pessimistic about the economy since early in 1989 and that they remain so late in 1991. Is this continued pessimism reasonable?

It may not be. Consumers could just be overreacting to recent bad economic news. If they are overreacting, then a bit of good economic news could quickly eliminate their pessimism. And if unreasonable pessimism is the cause of recent slow consumption growth, then slow consumption growth really doesn't tell us much about future economic conditions. So we need to see whether independent evidence about future economic conditions confirms or refutes the pessimistic views of consumers that may be embodied in recent slow consumption growth.

Several kinds of evidence confirm these views.

Real Estate Prices

Real estate prices provide a clear independent confirmation of pessimism about future economic growth.

In general, the prices of real estate—especially office buildings and houses—provide some of the clearest evidence about future economic conditions. This is because the current price of any asset depends on what people think the asset will be worth in the future. For example, even if an office building is not very profitable today, its value will rise today if people suddenly expect that the building will become more profitable tomorrow. The opposite will happen if the prospects for the building's profitability suddenly plunge.

The fact that real estate prices depend on people's expectations about the demand for real estate means that these prices indicate what people expect about economic conditions. If people expect decreased growth in the demand for commercial real estate, they expect slower growth in overall economic activity. If people expect decreased growth in the demand for residential real estate, they expect a slowdown in the average person's ability to pay for housing, a slowdown linked to slower growth in real GNP.

Unfortunately, real estate prices have fared quite badly in the past few years. Housing prices have collapsed in the Northeast and have stagnated or declined in most of the rest of the country. And commercial real estate prices have fallen even faster than housing prices. Since peaking in 1986, the average value of prime office properties has fallen more than one-third, and there is no end in sight to these declines.[3]

Of course, the price of commercial real estate is tied most directly to expectations for economic conditions: If expectations about businesses' needs for real estate and business income are revised downward, the prices of commercial real estate naturally fall quickly. This seems to be exactly what has happened in the U.S. commercial real estate market in the last few years, and it provides another signal of slow growth ahead.

Labor Force Facts

Another indicator that is consistent with consumers' pessimism is labor force data. These data show that rapid increases in total hours worked are unlikely to allow real GNP to increase as quickly in the near future as it did in the 1980s.

Real GNP growth, by definition, must come from growth in either the total number of hours people work or the amount they produce per hour worked (productivity). As Chart 3 shows, during the past decade, most of the increase in real GNP was due to an increase in hours rather than productivity. Clearly, unless we know of some good reason to expect a substantial change in productivity, we should not rely on its growth to account for much GNP growth in the near future.

If GNP growth must come primarily from increases in total hours worked, we must determine whether those increases are likely to be as large in the next few years as they were during the 1980s. The evidence says they're not.

During the 1980s, hours worked increased both because of an increase in the size of the labor force and because of an increase in the average number of hours worked by each person in the labor force. Charts 4 and 5 show the trends since 1948 in labor force participation and hours worked per person in the labor force. Chart 4 shows that from 1983 to 1989, the fraction of the population in the labor force grew more than 5 percent and reached a new postwar peak. The upswing in labor force participation over the past 25 years was largely the result of the entry of women and baby boomers into the labor force. Many observers believe that labor force participation by women has already peaked. And since all baby boomers are now at least 25 years old, few of them will be entering the labor force for the first time in the next few years. Labor force participation, therefore, is unlikely to increase as rapidly in the next few years as it did from 1983 to 1989.

Chart 5 shows the other important source of growth in total hours worked from 1983 to 1989: the average number of hours worked per labor force participant. This number increased nearly 10 percent during those seven years. By 1990, it had reached its highest level in more than 15 years. And Chart 5 suggests that, even if average hours worked were to increase a bit, rapid growth is unlikely to resume. To begin with, the number is already extremely high. If average hours worked rose only 4.8 percent from its third quarter 1991 level, it would be above its highest level in the postwar era. Besides that, recent opinion polls show that increased leisure time is a high priority for most Americans. This evidence strongly suggests that a large increase in average hours worked is quite unlikely in the next few years.

Labor force data are consistent with the permanent income hypothesis. Together, the data and the theory can explain both the rapid consumption growth of the mid-1980s and its slowdown recently. According to this analysis, peoples' estimates of their permanent income increased during the mid-1980s because they decided to work longer hours and because more of them decided to permanently enter the work force. As their permanent income increased, their consumption grew rapidly. In the 1990s, however, as people have come closer to the limits of their willingness to work more hours or to enter the work force, their estimates of permanent income are increasing much more slowly. Therefore, consumption growth has fallen.

If increases in labor force participation and average hours worked are unlikely to provide the same growth in total hours worked as in previous years, what could be the source of future increases in total hours? Only one source remains: population growth. Yet few people believe that the U.S. population will grow rapidly in the foreseeable future.[4] If that is right, and population growth must be the primary source for increases in total hours worked, then growth in real output over the next few years is likely to be very small.

A Model's Short-Run View

A final confirmation of the view that recent slow consumption growth is a good indicator of future slow economic growth

comes from the forecast of a statistical model used by researchers at the Federal Reserve Bank of Minneapolis.

During the business cycle, real GNP typically grows at its fastest rate at the beginning of a recovery. So if we are to have any hope of getting out of the long-run slowdown soon, real GNP growth at the beginning of this recovery—over its first year or so—would have to be higher than its average rate during the past 44 years.

The Bayesian vector autoregression (BVAR) model used at the Minneapolis Fed predicts that economic growth in 1992 and 1993 will only be about average for the postwar era.[5] Table 1 shows this model's forecast for several key economic variables, along with their estimated values for 1991 and their average values since 1948. The model predicts that real GNP will grow 3.9 percent between the fourth quarter of 1991 and the fourth quarter of 1992 and 4 percent during 1993, slightly more than the average annual GNP growth since 1948 of 3.3 percent. Real growth in both consumer and government spending is expected to be weaker than average while investment spending is expected to be stronger than average.

The model also forecasts, by the way, that inflation will remain under control over the next two years. It predicts that the consumer price index will increase at an annual rate of 2.4 percent in 1992 and 3.1 percent in 1993 while the GNP price deflator increases at an annual rate of only 1.7 percent.

Unfortunately, in Table 1, the outlook seems better than it is. Table 1 compares the forecast for each of the next two years to the economy's average performance since 1948. Because economic performance at the beginning of a recovery is usually stronger than average, the appropriate comparison here is between the model's forecast for the first year of this recovery and the economy's actual performance at the beginning of previous recoveries.

Table 2 shows just such a comparison. As we saw in Table 1, the BVAR model predicts that the recovery that seems to have begun in the third quarter of 1991 will continue through the next two years. But at the same time, as we can see in Table 2, the model predicts that the economy's performance will be much weaker during the first year of this recovery than it was during the first year of recoveries in the postwar era. Growth in real GNP is predicted to be only 2.8 percent during the first year of this recovery, roughly half of the average first-year growth.[6]

Table 2 also shows that the model expects relatively little stimulus at the start of this recovery from three usual sources: durable goods consumption, investment, and government spending.

Durable goods consumption is predicted to grow at an annual rate of only 5.3 percent during the first year of this recovery, only about a third of its average first-year value. This modest prediction is easy to understand, given the model's concurrent predictions for growth in employment and personal income. (See Table 2.) Employment is predicted to grow only three-tenths of a percent during the first year of this recovery, which is less than a tenth of its average growth. And personal income, adjusted for inflation, is predicted to grow only half as much as usual.

Investment spending is predicted to grow at about half the rate typical at the beginning of a recovery. Business investment in buildings and equipment is predicted to be especially weak for this stage of the business cycle. The depressed condition of the commercial real estate market has caused the model to predict that business investment in buildings will fall 15 percent during the first year of the recovery. Since investment in equipment is usually closely linked to durable goods consumption, the growth of spending on equipment is also predicted to be below average for the beginning of a recovery.

Government spending, meanwhile, though typically a significant recovery booster, is actually predicted to fall during the first year of this recovery. Of course, that prediction won't surprise anyone who has paid attention to the fiscal plight of governments at every level. States and localities are cutting spending across the board because revenues have fallen so much faster than projected.

It is difficult to look at Table 2 and come up with a convincing argument that this recovery will begin with a bang. The absence of strong stimulus from the usual sources suggests that we should not expect an end to slow economic growth anytime soon. Thus, consumers' unwillingness to spend and their gloom in sentiment surveys seem justified.

In fact, this poor short-run outlook may actually be too optimistic. Recent economic data show considerable weakness, and enough uncertainty remains about the model's forecast that there is a significant chance that the economy could head back into recession during the fourth quarter of 1991. That is, we may have a double-dip recession.

Although real growth in the third quarter of 1991 was moderately strong, much of the economic data for October and November show renewed weakness. Employment fell sharply in November, after lackluster growth in September and October, and initial claims for unemployment insurance in November hit their highest level since May. Retail sales fell in October, and sales of new cars and trucks fell sharply throughout October and into early November. Industrial production did not grow at all in October and fell sharply in November. Growth in M2, the most-watched monetary aggregate, has been extremely low since July. And most measures of consumer confidence have fallen rapidly between September and December; these sorts of declines have never happened during a recovery. All of these indicators suggest that the recession may not be over yet.

A *double-dip* recession—continued recession after one quarter of growth in real GNP—would not be unusual. five of the past eight recessions have paused for just one quarter of positive real GNP growth. So the fact that there was positive real GNP growth in the third quarter of 1991 does not ensure that the recession is over.

The BVAR model can help us estimate the probability of continued recession. One of the model's important features is that it can objectively quantify the amount of uncertainty in its own forecast using the record of its past errors. In this way, the model can simulate the likely range of its future errors. And since the model can quantify the amount of uncertainty in its forecast, it can also compute the probability that a quantifiable economic event will occur. For example, the model can compute the probability of at least one quarter of declining real GNP during the next year. Given all it knows now, the model estimates the probability of that event as 46 percent.

Unjustified Optimism

Of course, if there is enough uncertainty about growth being much worse than predicted, growth could also be much better than predicted. And the stock market rally at the end of 1991 suggests that quite a few people are now betting on faster growth. However, identifying potential sources of rapid growth is difficult.

Some think a boost will come from the labor force. These analysts claim that the slow productivity growth of the 1970s and 1980s was caused by the entry of inexperienced workers into the labor force, so productivity will soon rise as the labor force gets more job experience. That productivity growth would cause faster growth in real GNP. But there is little firm evidence to support this view. So our best guess must be that slow economic growth will continue for some time to come.

The Editorial Board for this paper was Preston J. Miller, Kathleen S. Rolfe, Martha L. Starr, Richard M. Todd, and Warren E. Weber.

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[1]Of course, this comparison is not meant to imply that the current slowdown is anywhere near as serious as the Great Depression. Recall that in this slowdown, real GNP has fallen only 6.8 percent below its average growth; during the Great Depression, it fell 37.4 percent.

[2]Foreign capital ownership, both here and abroad, needs to be taken into account in computing the difference between the amount of GNP produced in the United States and the value of all income received by people in the United States. Payments to foreigners for ownership of U.S. capital are subtracted from GNP and payments to people in the United States for ownership of capital abroad are added to GNP to determine the value of all income received by people in the United States. However, this adjustment should have little effect on the relationship between the rate of growth of GNP and the rate of growth of income.

[3]These data are from a survey by the Russell–National Council of Real Estate Investment Fiduciaries. The survey is based on rents and appraised values of about 350 office properties owned by major institutional investors.

[4]Note that even if faster population growth from immigration causes GNP to rise faster, immigration would not affect per capita GNP.

[5]For background on BVAR models like this one, see Litterman 1984 and Todd 1984.

[6]Some economists would prefer to compare the forecast that the model would have made at the beginning of other recoveries to its current forecast, instead of comparing actual recoveries to the current forecast. But data limitations in the model prevent such a comparison before 1970. However, the model's forecast of real GNP growth for the first year of this recovery is below the average forecast it would have made at the beginning of the last four recoveries: 4.6 percent growth.

References

Barro, Robert J. 1990. *Macroeconomics.* 3rd ed. New York: Wiley.

Litterman, Robert B. 1984. Above-average national growth in 1985 and 1986. *Federal Reserve Bank of Minneapolis Quarterly Review* 8 (Fall): 3–7.

Todd, Richard M. 1984. Improving economic forecasting with Bayesian vector autoregression. *Federal Reserve Bank of Minneapolis Quarterly Review* 8 (Fall): 18–29.

Table 1

A BVAR Model's Forecast for the U.S. Economy in 1992–93*

Indicator	Actual** 1991	Model Forecast 1992	Model Forecast 1993	1948–90 Average
Annual Growth Rates (4th Qtr. % Changes From Year Earlier)				
Real Gross National Product (GNP)	.1%	3.9%	4.0%	3.3%
Consumer Spending	1.2	3.7	2.7	3.4
Durable Goods	–2.2	6.6	1.4	5.1
Nondurable Goods and Services	1.9	3.2	2.9	3.1
Investment	2.7	6.5	6.1	3.8
Business Fixed	–4.0	4.2	8.2	3.6
Residential	3.6	10.8	1.5	3.7
Government Purchases	–1.7	.9	1.9	3.9
GNP Price Deflator	3.4	1.7	1.7	4.2
Consumer Price Index	2.7	2.4	3.1	5.1
4th Quarter Levels				
Change in Business Inventories (1982 $)	3.8 bil.	8.2 bil.	6.7 bil.	16.4 bil
Net Exports (1982 $) (Exports Less Imports)	–33.4 bil.	–22.0 bil.	16.7 bil.	–14.6 bil
Civilian Unemployment Rate (Unemployment as a % of the Civilian Labor Force)	6.8%	6.6%	6.0%	5.6%

* This is the forecast of a Bayesian vector autoregression model using data available on December 12, 1991.
** Actual numbers for 1991 are estimates based on data available on December 12, 1991.
Sources of actual data: U.S. Departments of Commerce and Labor

Table 2

Another Look at the Model's Forecast

% Changes From One Year Earlier at the End of the First Year of Recovery

Indicator	Predicted in This Recovery*	Actual Average in Postwar Recoveries
Real Gross National Product	2.8%	6.1%
Consumer Spending	3.0	4.6
Durable Goods	5.3	14.3
Nondurable Goods and Services	2.6	3.4
Investment	11.4	22.1
Business Fixed	.9	10.4
Residential	17.4	15.7
Government Purchases	–1.7	4.4
Industrial Production	2.2	11.1
Employment	.3	4.2
Real Personal Income	2.5	5.0

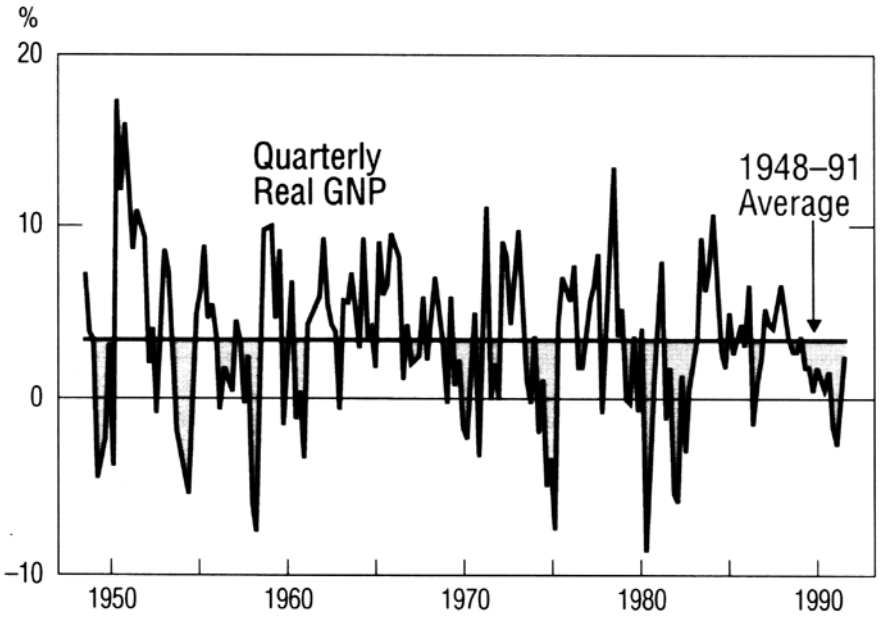
* The first year of this recovery is from the end of the second quarter of 1991 through the second quarter of 1992. The period after the third quarter of 1991 is predicted by a Bayesian vector autoregression model using data available on December 12, 1991.

Sources of basic data: U.S. Departments of Commerce and Labor, Federal Reserve Board of Governors

Chart 1

Growth in U.S. Output

Quarterly Percentage Changes at Annual Rates in Gross National Product, Adjusted for Inflation, 1948:2–1991:3

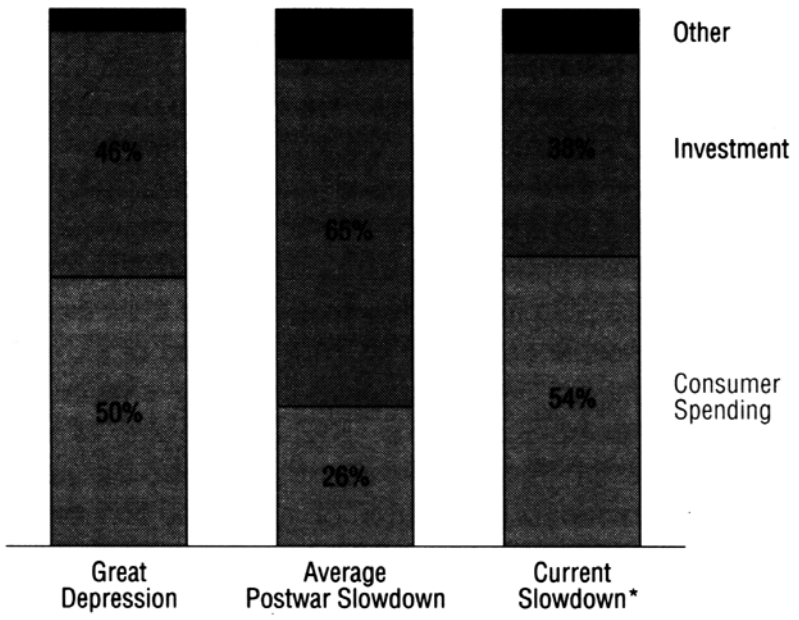


Source: U.S. Department of Commerce

Chart 2

The Composition of U.S. Slowdowns

Percentage of the Drop in Real GNP From Its Average Growth Accounted for by Sectors



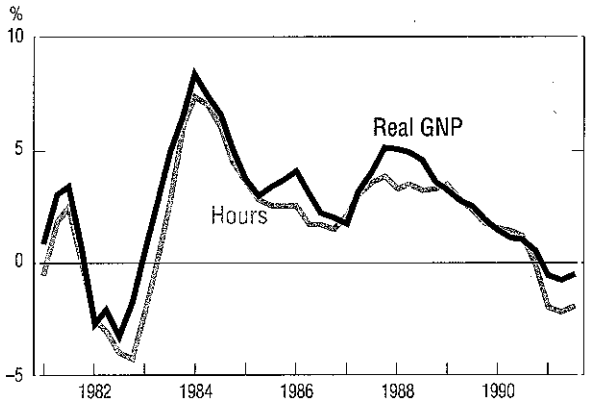
*The current slowdown is measured here from the second quarter of 1989 through the fourth quarter of 1991.

Source: Barro 1990, U.S. Department of Commerce

Chart 3

Growth in U.S. Output and Hours Worked

Percentage Changes From One Year Earlier, Quarterly, 1981:1–1991:3



Sources of basic data: U.S. Departments of Commerce and Labor

Charts 4 and 5

U.S. Labor Force Trends

Quarterly, 1948:1–1991:3

Chart 4 **Percentage of the Population in the Labor Force**

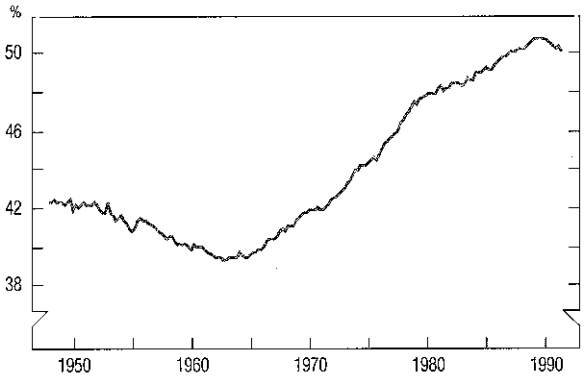
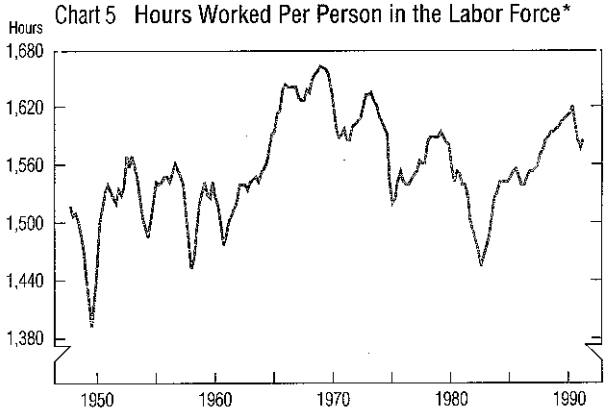


Chart 5 **Hours Worked Per Person in the Labor Force***



*Annualized total hours worked per quarter ÷ Labor force in the quarter.

Sources: U.S. Department of Commerce and Labor