

No Relief in Sight for the U.S. Economy

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Last year we predicted that the first year of the current U.S. recovery would be unusually weak because consumers were pessimistic about their long-run economic prospects (Runkle 1991). We were right. Consumer spending has been exceptionally low in 1992, and after the weakest start to any recovery since World War II, overall economic growth has remained below its postwar average.

Now we predict that slow economic growth will continue for at least the next two years because consumers are still pessimistic and nearly all other areas of the economy are weak. This slow-growth prediction seems quite reasonable. It comes from the forecasting model that predicted so well a year ago, and it is consistent with evidence which suggests that the economic problems we stressed a year ago are unlikely to be solved soon.

Continuing Weakness

The current recovery has been weaker than the previous eight recoveries by almost every measure.

Table 1 compares the performance of some key economic indicators during the first year of the current recovery with their average performance during the first year of other recoveries since 1948. From the beginning of the third quarter of 1991 to the end of the second quarter of 1992, the total value of goods and services produced in the United States, adjusted for inflation—known as *real gross domestic product*, or *real GDP*—grew only 1.6 percent, about one-fourth of its first-year average growth during other recoveries. Note that this weakness was widespread: every indicator in Table 1 grew less in the first year of this recovery than in the typical recovery. Investment grew at less than half its average rate; consumption, at less than one-third its average rate; employment, at less than one-twentieth its average rate. And instead of growing substantially, government spending actually declined.

Comparing this recovery to the average recovery doesn't fully reveal the current poor performance of the economy, however. Not only has this recovery been far below average; by most measures, it has been weaker than any other recovery in the postwar period. While real GDP grew only 1.6 percent in the first year of this recovery, it has never grown less than 3.5 percent in the first year of any other postwar recovery. Consumption, investment, and employment also grew much less in this first year of recovery than in any other.

The current recovery seems weaker still when compared to average economic growth over all phases of the business cycle. Economic growth is typically fastest at the beginning of a recovery. But this time, growth in the first year of the recovery was below its average during the postwar era. During 1948–91, real GDP has grown at an average rate of 3.1 percent. However, real GDP has not grown faster than average in any quarter since the end of 1988. This means that the current recovery is most appropriately viewed as a continuation of a long period of below-average growth.

Length is one common measure of periods of below-average growth, and the current slow period has been the longest since the end of World War II. Real GDP growth has been below average for 15 consecutive quarters—nearly twice as long as the previous record of 8 quarters.

Another common measure of periods of below-average growth is the size of their shortfall from the average growth rate. Real GDP in the second quarter of 1992 was 8.8 percent below what it would have been had it contin-

ued to grow at its postwar average rate in each quarter since the beginning of 1989. That is the second-largest shortfall for any period of slow growth during the past 45 years.

A Model Prediction

How long will this below-average growth last? A statistical model developed and used by researchers at the Minneapolis Fed predicts it will continue until at least the end of 1994. Another recession is not predicted during that time, but real GDP growth is predicted to remain well below the postwar average.

Table 2 shows what our Bayesian vector autoregression model expects in 1993 and 1994 for the key economic variables.¹ For comparison, the table also shows the average values for those variables during 1948–91.²

The model predicts that real GDP will grow at an annual rate of 2.3 percent in both 1993 and 1994, substantially below its average growth since 1948. It also predicts below-average growth over the next two years for the three major components of GDP: consumption, business fixed investment (that is, investment in equipment and buildings), and government purchases of goods and services. Only residential investment—that is, spending on the construction of new houses—is predicted to grow substantially faster than its average growth rate.

The outlook for inflation is much better than that for growth. In each of the next two years, both the consumer price index and the GDP deflator are predicted to grow only about 3 percent, well below their average annual growth of about 4 percent.

A Quite Accurate Forecast . . .

Last year at this time, the model predicted that the first year of the current recovery would be much weaker than normal. That forecast turned out to be fairly close to the mark, and that fact gives credence to the model's current forecast that below-average growth will continue for another two years.³

Table 3 adds the forecast that the model made last year about the economy's performance in the first year of this recovery to the data already displayed in Table 1. With a few exceptions, the model's predictions were on target.

The model was certainly correct in its overall prediction of weakness in the recovery. It predicted that most key economic indicators, except investment in residential housing, would grow less than they have in the first year of an average recovery. The model's overall prediction of real GDP growth in the first four quarters of the recovery was off by just 1.2 percentage point. In predicting real growth during the first four quarters of the five preceding recoveries, other professional forecasters were off by 2.7 percentage points.⁴ So our model did quite well.

Not only was the model's forecast close on overall real GDP growth; its success in predicting specific variables was remarkable. The model predicted that employment would grow only 0.3 percent during the first year of the recovery, far below its average growth of 4.2 percent; employment actually grew 0.2 percent. The model also predicted the relatively slow growth in industrial production and real personal income quite accurately. It successfully predicted that the real value of government purchases of goods and services would decline in the first year of this recovery, that investment spending would grow at about half its rate in an average recovery, and that the consump-

tion of durable goods would grow at about one-third its average rate.

The model's only major error was overoptimism about growth in the consumption of nondurable goods and services. It predicted that this consumption would grow 2.6 percent during the first year of this recovery—well below the average growth of 3.4 percent for the first year of a recovery, but well above the actual growth of 1.1 percent.

This error is easily explained by looking at how our model works. The model bases its predictions on the historical relationships among various economic variables. Since such low growth in the consumption of nondurables and services had previously only occurred when the economy was in the midst of a severe recession, the model could not have foreseen that growth in this variable could be so low during a recovery.

The model's error on this consumption component was the principal cause of its overestimate of total real GDP growth. If the model had been correct about its forecast of growth in nondurable goods and services consumption, its real GDP growth forecast for the first year of the recovery would have been within 0.3 percentage point of what actually happened.

... Echoed by Long-Term Economic Problems

The model's prediction of continued slow growth is also supported by the evidence on several long-term problems facing the economy.

Consumption

Perhaps the biggest of these problems is constrained consumption growth. Consumer spending usually provides a large percentage of the boost to the economy in any recovery. In the United States, consumption accounts for about two-thirds of real GDP. Growth in that fraction can be split into growth in the amount of consumption spending per employee and growth in the number of people employed. A closer look at the consumer sector strongly suggests that both of these parts will remain low in the United States for the next two years. Of course, slow consumption growth—about 2 percent per year—is exactly what our model predicts.

□ *Pessimism*

We first suggested a year ago that consumer pessimism about economic conditions would restrain economic growth (Runkle 1991). Since then, consumer behavior has not changed much.

One indicator of how consumers view the future comes from the University of Michigan's index of consumer sentiment, a monthly poll taken to find out consumer attitudes toward making different kinds of purchases. That index was lower in October 1992 than it had been during most of the recent recession.

But the best indicator of consumer pessimism, as we argued last year, is how much consumers actually spend. Economists express this relationship in what we call the *permanent income hypothesis*. This theory suggests that people base their current consumption decisions on their expectations about their long-run income, not their current income. If consumers are optimistic about the long run, the theory suggests, they will be willing to spend today even if their incomes are growing slowly today. If consumers are pessimistic about the long run, however, not only will they be unwilling to increase spending much now, but they may also want to act now to reduce the

amount of debt they hold. That is because they think future income increases will not be large enough to let them reduce debt later without also reducing consumption.

If we judge their behavior against this theory, U.S. consumers appear persistently pessimistic. Real consumption has increased at an annual rate of only 0.7 percent since the beginning of 1989—by far the longest period of slow consumption growth in the last 30 years. And real consumption spending per employee has grown at a rate of only 0.5 percent since the beginning of 1989. Consumers' willingness to take on debt is consistent with pessimism. As Chart 1 shows, although consumers rapidly built up their installment debt in the 1980s, they have drastically cut back that debt since 1989.⁵

Clearly, consumers are pessimistic. But is their pessimism reasonable? At least two factors suggest that it is.

One factor is employment and income growth, which has been very low during the first year of this recovery. Employment increased only 0.2 percent during that time. Not only is this the lowest employment growth during the first year of a recovery in the last 45 years; it is far below the next-worst performance of 1.7 percent growth. And since 1989, the average annual growth in employment has been only 0.2 percent. At the same time, income growth has also been very low. Real disposable personal income grew only 2 percent in the first year of this recovery, far below its lowest growth in the first year of other recent recoveries. And since 1989, real disposable personal income has grown at an average annual rate of only 0.9 percent. Per employee, it has grown at an average annual rate of only 0.7 percent.

But slow growth in employment and income is not the only grounds for consumer pessimism. Another is an increase in permanent layoffs. Even as the recovery started, permanent layoffs increased. The percentage of layoffs that were permanent hit a new high of 78 percent in the second quarter of 1992. Obviously, permanent layoffs create hardships that temporary layoffs do not; people must move, switch occupations, or accept lower-paying permanent positions, for example. So if consumers now think a layoff is more likely to be permanent, they are likely to be more pessimistic because of the costs they may face.

Thus, consumers seem to have good reason for their pessimism. Employment and income growth have been extremely low for several years, and the increased incidence of permanent layoffs has made consumers worry about the security of their jobs. These factors will likely contribute to continued consumer caution—and slow consumption growth—over the next two years.

□ *Demography*

Even if consumers weren't pessimistic, though, total consumption growth would remain low over the next few years because, as we discussed last year, fewer people will be entering the work force and finding jobs.

Over the past 20 years, employment grew much more rapidly than did population in the United States. From 1969 to 1989, employment grew at an annual rate of 2 percent, while population grew at an annual rate of only 1 percent.⁶ Of course, employment cannot grow much faster than population forever, and there are reasons to believe that employment growth will be slower over the next 2 years than it was over the last 20.

One reason employment grew so quickly relative to population in the last two decades is that the working-age

population grew more quickly than the population as a whole. As baby boomers reached working age, employment naturally grew faster than population because of the increase in the fraction of the total population who were of working age. While total population grew at an average rate of 1 percent over the past 20 years, the working-age population grew at an average rate of 1.4 percent. However, growth in the working-age population dropped to 0.9 percent in 1991, and it will not rise again in the near future. So employment growth will be much slower than it has been, unless the fraction of the population who are employed grows dramatically.

But that is unlikely to happen because this fraction is already quite high. In 1970, the fraction of the working-age population who were employed in the United States was far below that in Japan, Germany, or the United Kingdom. The dramatic increase in the fraction of U.S. women who are employed has changed that, however. By 1989, a larger fraction of the total working-age population was employed in this country than in Japan, Germany, or the United Kingdom.

The fraction of U.S. women who are employed will probably not continue to rise as rapidly as during the past 20 years because it is already high. In fact, the U.S. Bureau of Labor Statistics (BLS) estimates that the average annual growth in women's employment will drop from 2.8 percent over the past 15 years to 1.6 percent over the next 15 years (Kutscher 1991).

If growth in both the working-age population and the fraction of the population who are employed stay well below their average rates during the past 20 years, then employment growth will certainly be below average. The BLS estimates that total employment will grow at an annual rate of 1.3 percent over the next 15 years, far less than the 2 percent average growth over the past 20 years (Kutscher 1991).

Below-average employment growth will certainly constrain total consumption growth. Even if consumption per employee were to grow at its average rate, total consumption growth would remain below average because employment growth will be slow. And since total consumption is about two-thirds of real GDP, if consumption growth is low, real GDP growth will be too.

Commercial Real Estate

Consumption is not the only component of GDP with a weak long-term outlook. The commercial real estate component of GDP has a serious oversupply problem. However, its influence on real GDP growth will be smaller because it provides a much smaller fraction of total GDP.

A huge commercial real estate spending boom occurred in the United States in the mid-1980s, followed by a bust that continues today. This is clear in Chart 2.

One result of the bust is likely to be little investment in business structures for at least several more years. Real investment in business structures is now about 25 percent below its peak. Such investment dropped 8 percent in the first year of the recovery alone. And the number of square feet of business structures that were completed fell 11 percent during the first year of the recovery, to its lowest level in 30 years. Recent surveys indicate that the vacancy rates for both industrial and downtown office properties

are at historic highs and that net absorption of office space—the change in the total number of occupied square feet—has shrunk to 10 percent of its peak rate, which occurred during the second quarter of 1987 (CB 1992a,b). The dismal prospects for commercial real estate are reflected in the model's low forecast of growth in business fixed investment over the next two years.

Government Spending

Government spending also will be weak for some time. Like consumer spending, this sector typically provides a boost to the economy at the start of a recovery. But with fiscal problems at all levels, government purchases of goods and services will not provide any boost this time. Indeed, the model predicts that real government purchases will increase only 0.6 percent in each of the next two years, well below the postwar average of 3.3 percent per year.

The budget problems at the federal level are well known. The federal deficit is likely to constrain any major federal spending initiatives. Further weakness in this sector could come from planned reductions in defense spending.

But the big constraint on government spending will come from the state and local levels. Over the past eight years, real state and local government spending has grown at an annual rate of 3.5 percent, far faster than either real GDP or real personal income. Since most state budget plans were based on the assumption that tax revenues would continue to grow at a high rate, most states are now experiencing financial crises. Most state budget surpluses are at their lowest level in 15 years, and the National Governors' Association predicts that in 1993 state spending will grow slower than the price level, only about one-third as fast as state spending grew in the 1980s (Pear 1992). The governors' group also predicts that, by the end of 1993, states will trim government employment nearly 2 percent.

Other Problems

Along with the three major long-term problems afflicting the U.S. economy, other components of real GDP worsen the outlook for growth, at least in the near term. Although our forecasting model predicts export growth will be well below its level of the late 1980s, export growth could be even lower because of world economic conditions. Many major trading partners of the United States have had slower real GDP growth in recent quarters than this country has. Since their growth is the major determinant of U.S. export growth, that could be quite low in the near future.

Recall that one of the few bright spots in our model's forecast is residential construction. In each of the next two years, spending on new homes is predicted to grow about 4 percentage points more than the historical average. Demographic trends may well dilute these predicted increases, however; the potential first-time home-buying population—mostly those 25–35 years old—is much smaller than it used to be.

Conclusion

Both the model's predictions and the U.S. economy's problems clearly signal slow growth for at least the next two years, and there appears to be no relief in sight. Certainly there could be strong growth in an isolated quarter or two; such strong growth can always happen because of special factors. But we should not expect an extended period of strong growth anytime soon.

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¹For background on models like this one, see Litterman 1984 and Todd 1984.

²Data for all variables except GDP are available back to 1948. For that, data are available only back to 1959. For 1948–58, we substituted data for gross national product.

³The model used last year is basically the same as that used this year, but there are two slight differences. We are now predicting gross *domestic* product instead of gross *national* product, and we are now using data on both car and light truck sales, instead of just car sales, to interpolate inventories.

⁴This is a comparison to the consensus prediction of professional forecasters surveyed by the American Statistical Association (ASA) and the National Bureau of Economic Research (NBER). Since last year's model prediction was made after the first quarterly GDP data of the recovery were available, we base this comparison on the predictions of growth for the first year of recovery that were made by the ASA-NBER forecasters at comparable times in the previous recoveries (roughly after the first quarter of each recovery). For background on the ASA-NBER survey, see Keane and Runkle 1989.

⁵Stricter regulation and higher capital standards for lenders may be contributing to the decrease in installment debt. Note, also, that installment debt does not include first- or second-mortgage debt.

⁶Data end in 1989 to allow international comparisons. All data in this section come from OECD 1991.

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Table 1

A Weak U.S. Recovery . . .

Indicator	% Changes From Year Earlier at End of First Year of	
	Current Recovery*	Average Postwar Recovery**
Real Gross Domestic Product	1.6%	6.1%
Consumption	1.5	4.6
Durable Goods	4.5	14.3
Nondurables and Services	1.1	3.4
Investment	9.8	22.1
Business Fixed	2.3	10.4
Residential	14.5	15.7
Government Purchases	-1.2	4.4
Industrial Production	2.0	11.1
Employment	.2	4.2
Real Personal Income	2.0	5.0

*The first year of this recovery started at the start of the third quarter of 1991 and ended at the end of the second quarter of 1992.

**These are averages of data in the first year of the eight U.S. recoveries during 1948-84. Gross domestic product data are not available before 1959, so for 1948-58, these averages use gross national product data.

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

Table 2

. . . That Our Model Expects to Continue

Indicator	Model Forecast*		1948–91 Average**
	1993	1994	
Annual Growth Rates (4th Qtr. % Changes From Year Earlier)			
Real Gross Domestic Product (GDP)	2.3%	2.3%	3.1%
Consumer Spending	2.1	2.0	3.2
Durable Goods	3.6	2.7	4.4
Nondurable Goods and Services	1.9	1.9	3.1
Investment	3.8	2.7	3.5
Business Fixed	1.0	1.3	3.3
Residential	6.9	7.3	3.0
Government Purchases	.6	.6	3.3
GDP Price Deflator	3.1	3.2	4.3
Consumer Price Index	2.8	3.0	4.2
4th Quarter Levels			
Change in Business Inventories (1987 \$)	14.5 bil.	11.9 bil.	14.2 bil.
Net Exports (1987 \$) (Exports Less Imports)	-33.7 bil.	-12.9 bil.	-28.4 bil.
Civilian Unemployment Rate (Unemployment as a % of Civilian Labor Force)	7.4%	7.2%	5.8%

*These are the forecasts of a Bayesian vector autoregression model using data available on October 2, 1992.

**Gross domestic product data are not available before 1959, so for 1948–58, these averages use gross national product data.

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

Table 3

A Pretty Good Forecast

Indicator	% Changes From Year Earlier at End of First Year of		
	Current Recovery*		Average Postwar Recovery**
	Model Forecast†	Actual	
Real Gross Domestic Product	2.8%	1.6%	6.1%
Consumption	3.0	1.5	4.6
Durable Goods	5.3	4.5	14.3
Nondurables and Services	2.6	1.1	3.4
Investment	11.4	9.8	22.1
Business Fixed	.9	2.3	10.4
Residential	17.4	14.5	15.7
Government Purchases	-1.7	-1.2	4.4
Industrial Production	2.2	2.0	11.1
Employment	.3	.2	4.2
Real Personal Income	2.5	2.0	5.0

*The first year of this recovery started at the start of the third quarter of 1991 and ended at the end of the second quarter of 1992.

**These are averages of data in the first year of the eight U.S. recoveries during 1948-84. Gross domestic product data are not available before 1959, so for 1948-58, these averages use gross national product data.

†This is the forecast of a Bayesian vector autogression model using data available on December 12, 1991.

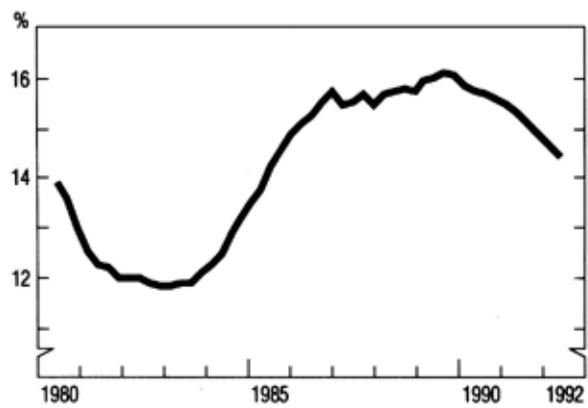
Sources: U.S. Departments of Commerce and Labor, Federal Reserve Board of Governors

Chart 1

Consumers' View of Their Income Outlook

Outstanding U.S. Consumer Installment Debt
as % of Total U.S. Personal Income

Quarterly, 1980:1-1992:2



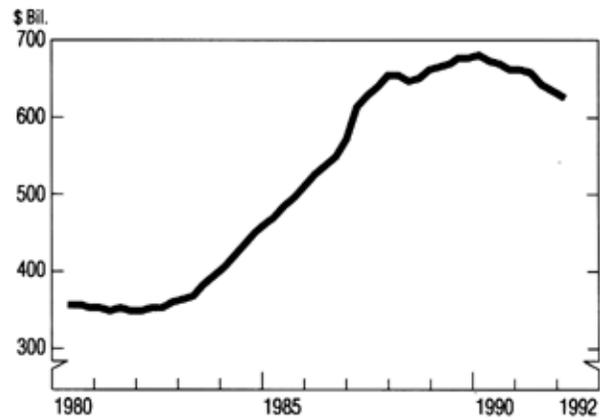
Source: Federal Reserve Board of Governors

Chart 2

The Commercial Real Estate Boom and Bust

Value of Commercial Mortgages Outstanding at U.S. Financial Institutions,
Adjusted for Inflation by Gross Domestic Product Deflator

Quarterly, 1980:1–1992:1



Sources: Federal Reserve Board of Governors, U.S. Department of Commerce