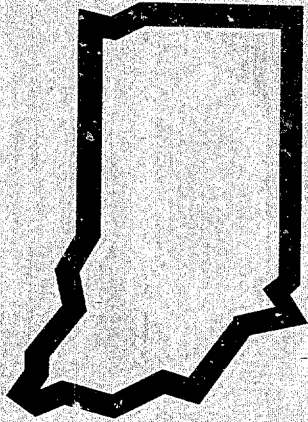
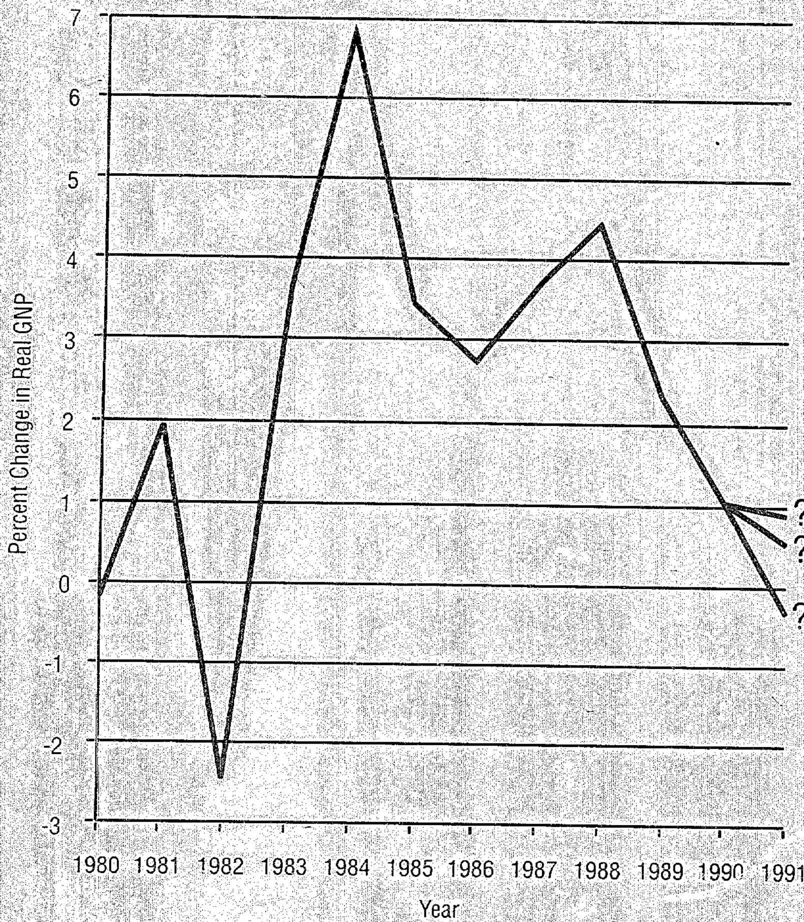


Indiana Business Review



The Outlook for 1991

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29 Fay Ross Greckel
Jeffersonville-New Albany (Louisville Area)

Bruce L. Jaffee

Professor and Chairperson, Business Economics and Public Policy, Indiana University School of Business

Last year we predicted that the economy in 1990 would grow more slowly than in 1989, but that a recession would be avoided. We thought then that the year-to-year change in real GNP between 1989 and 1990 would be no more than 2%. Our forecast was on target until the third quarter, when Iraq's invasion of Kuwait and the subsequent rapid rise in oil prices, combined with military actions by the U.S. and other countries, proved to be the exogenous shock that makes all forecasts so risky. We now project that the economy in 1990 will grow at approximately a 1% overall rate. While the preliminary data for third quarter 1990 showed 1.7% real GNP growth, we expect that period will be followed by at least two quarters of negative real GNP growth. Following the shorthand definition of a recession, then, these two consecutive declines in real GNP equal the first recession since the severe downturn in 1981-82.

We do not think that this 1990-91 recession will be as long or as severe as the previous one. Movement into the recession has been gradual, albeit from a position of sluggish growth. On the other hand, we expect the recovery, which should begin in the latter half of 1991, to also be relatively slow. We do not expect the strong quarterly growth rates of real GNP we saw when recovering from the 1981-82 recession. Unemployment in 1991 should peak at a 6.5% rate. The downturn we are currently experiencing—and expect to continue—is in one sense a "classic" oil shock. However, we believe that the severity of the recession will be attenuated by the fact that oil supplies are currently adequate, other countries plan to make up the production deficits caused by the interruption of supplies from Kuwait and Iraq, and our energy intensity (energy/GNP) has declined by about 25% since the first oil shock in 1973. In addition, stocks of crude oil and most petroleum products are at the same levels they were last year. Although there is great uncertainty in predicting oil prices, and our forecast is dependent on the particular path of oil prices in the next year, our basic forecast is that oil prices will peak at an average of $30-35 per barrel in fourth quarter 1990 and gradually decline through 1991 to end the year at approximately the $24 level. However, to the extent that the oil market is driven by psychological factors, such as apprehension about oil supplies, we expect oil prices to remain volatile until the situation in Iraq and Kuwait has been settled. The Gulf crisis will revive the energy and defense sectors of the U.S. economy, both of which have been in a "sectoral recession" for the last few years.

In addition to oil prices and supplies, another critical factor affecting the 1991 outlook will be the slow and gradual erosion of consumer assets that has occurred this year. While the impact of wealth effects on consumption and consumer confidence are difficult to estimate, and sometimes have been exaggerated, we think that the significant declines in equity prices in 1990 and the declines, or at best stagnation, in home values in much of the country in the last year or two are likely to spill over into reduced personal consumption expenditures. Counteracting that to some extent is the significant increase in social security payments due to the 5.4% inflation adjustment for 1991 and increased "safety net" spending as growth of the economy slows and unemployment increases.

One positive part of the outlook for 1991 is our trade balance. We expect to see continuing improvement in our current account balance, as in the last few years. The slowdown in the economy and the weakness in the value of the dollar are both likely to improve that figure, even in spite of the increases in the value of petroleum imports.

As the economy slows we expect a slow decline in interest rates. If inflationary expectations decrease, both short- and long-term rates will likely decline and the yield curve will become more steeply sloped.

We expect inflation to increase in 1991 if, as expected, the Federal Reserve follows an easier monetary policy strategy, import competition is reduced due to declines in the value of the dollar, and higher energy prices wind their way through the economy. We expect to see the CPI rise about 5.5-6.0% in 1991. The broader GNP deflator will rise about 1% less, partly because it includes the weak investment sector and higher imported oil prices are netted out.

The budget compromise is expected to modestly reduce both consumer spending and federal government spending in the next year. However, because of the timing of some of the tax increases, most of the effects will not occur until the second half of the year. The federal budget deficit is expected, nonetheless, to be significantly higher in fiscal year 1991 compared to the recently ended fiscal year 1990.

Table 1
GNP and its Components

	1989 (\$ bil. 1982)	*% Change from Previous Year (est.)**	
		1990	*1991*
GNP	4118	1.0	0.5
Personal Consumption Expenditures	2657	0.9	0.4
Gross Private Domestic Investment	717	-2.2	-2.6
Nonresidential Fixed	506	1.0	0.0
Resident Fixed	187	-4.0	-7.0
Change in Business Inventories	24	10.0	5.0
Net Exports	-54	-38.0	-18.0
Exports	593	6.0	4.7
Imports	648	3.0	1.5
Federal Government Spending	335	1.5	1.0
State and Local Govt. Spending	463	3.0	1.0

**Except for Change in Business Inventories and Net Exports, both of which are in billion of 1982 dollars.*

Figure 1
Annual Growth in GNP

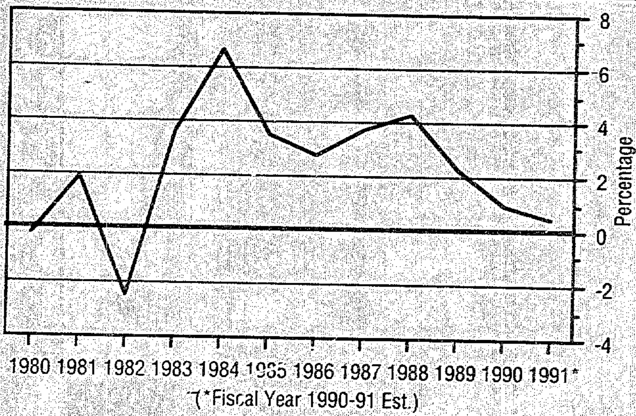


Figure 2
Annual Change in CPI

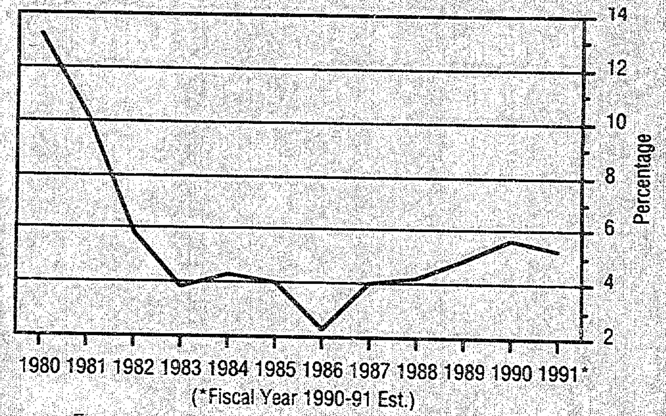


Figure 3
Federal Budget Deficit (includes on-budget and off-budget items)

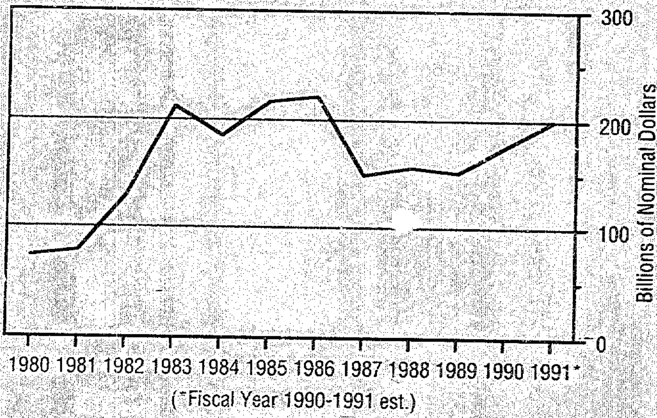


Figure 4
Real Net Exports

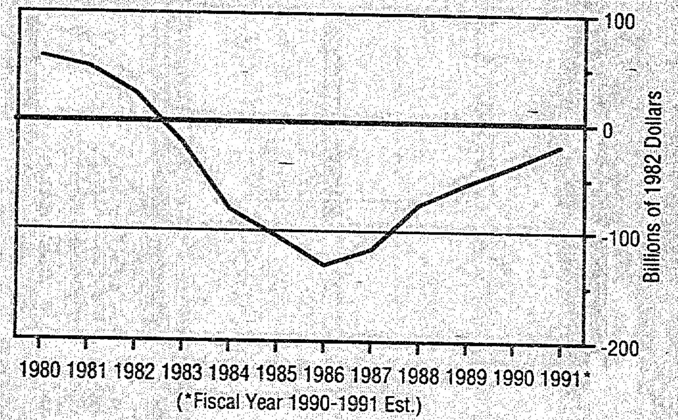


Figure 5
Unemployment Rate, All Civilian Workers

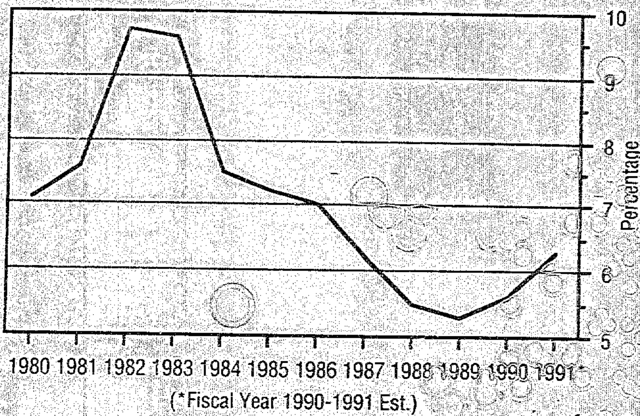
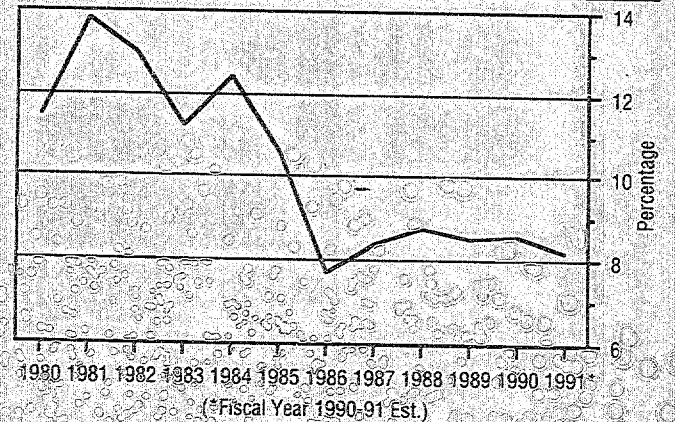


Figure 6
U.S. Government 10-Year Bond Yields



Consumer Spending and Income

R. Jeffery Green

Professor of Business Administration and Economics and Co-Director, Indiana Center for Econometric Model Research, Indiana University

Before trying to determine the likely course of consumer spending over the coming year, it is instructive to look at the historical pattern of consumer spending and its major determinants. The fundamental determinant of consumer spending is income. If the ratio of consumer spending to disposable personal income remains constant, then only income changes matter for determining changes in consumer spending. Since all income is either spent or saved, if the ratio of consumption to income remains constant, so does the saving rate (the ratio of saving to income). In fact, the saving rate has fluctuated, but only within a narrow range. Between 1980 and 1989 this ratio reached a high of 7.5% in 1981 and a low of 2.9% in 1987. The ratio was 4.2 in 1989, the last year for which complete data are available. One minus this ratio is the ratio of consumption to income, so as the saving rate rises the ratio of consumption to income falls.

The saving rate tends to rise during a recession as consumers try to save more income in the face of uncertainty. Because the saving rate was lower at the end of the decade than at the beginning, real consumer spending increased more (32.8%) than real disposable income (29.6%) during the 1980s. Of the total increase in real consumer spending, 21.6% was the result of an increase in real per capita expenditures, while 11.2% was due to the increase in population. It really was the decade of the consumer.

Not only has the size of consumer expenditures increased over the last several decades in both aggregate and per capita terms; the composition of personal expenditures has also changed. **Table 1** shows several of these trends in the composition of consumer spending. The first trend to notice is that durable spending has remained fairly constant as a percentage of total spending, whereas spending for nondurable goods has fallen sharply and spending for services has increased.

Table 1
Percentage Composition of Consumer Expenditures Selected Items and Selected Years

Component	*Year*			
	1959	*1969*	*1979*	*1989*
Durable Goods	0.135	0.144	0.140	0.138
New Autos	0.025	0.033	0.029	0.031
Nondurable Goods	0.469	0.422	0.391	0.328
Food	0.257	0.223	0.192	0.174
Gasoline	0.050	0.052	0.048	0.036
Services	0.395	0.434	0.469	0.535
Health Care	0.065	0.078	0.096	0.108

The decline in the proportion of spending for nondurable goods is largely explained by declines in the share of spending for food and gasoline. This reflects the common tendency for the share of total spending on necessities to fall as income rises. Both food and gasoline are necessities, but the decline in the share of real consumption going to gasoline is also heavily influenced by the increased fuel efficiency of autos—itself largely a result of government-mandated mileage for new cars. For services, health care has been rising rapidly, both in the aggregate and in its share of budget, but it does not explain a large portion of the increase in the services share of total expenditures.

Given these trends, what is the outlook for consumer spending in late 1990 and through 1991? To predict consumer expenditures, we first need to predict real disposable income, and here the outlook is not bright. Disposable income growth has already begun to fall; real disposable personal income in the third quarter was 0.1% below its level six months earlier. Employment has been declining since July and will depress consumer income. Likewise, the large increases in consumer prices since August will also depress real income. A federal budget deficit agreement that includes increases in taxes will deliver a third blow. Our forecast of a mild recession in 1991 coupled with somewhat higher inflation will reinforce these downward forces. We expect real disposable personal income to decline through the end of 1990 and the early months of 1991, then by late spring it should reach its cyclical trough and start to grow again. We expect real disposable income for all of 1991 to be only about 0.4% above the level for 1990.

The saving rate fell in third quarter 1990, but it should begin to rise as consumers retrench. Later, as the economy begins to recover, the saving rate may decline. For all of 1991, we think the saving rate will be near its 1990 level. So real consumer expenditures should grow by only about 0.4% in 1991. The pattern of consumer spending will mirror that of real disposable income: declines in late 1990 and early 1991, followed by growth later in 1991 (see **Table 2**). The recovery in consumer spending will be slow though. Income growth will be held back by tax increases, and excise tax increases will keep prices high. Problems in the banking sector may make credit harder to obtain and thus limit growth in spending on big-ticket items.

The composition of consumer spending should also change. Increases in energy prices, both from

Table 2
Actual and Forecast Values, Real Personal Consumption Expenditures (billions of 1982 dollars)

Time Period	PCE	Annualized Growth Rate (%)
1990:3	2700	3.2
1990:4	2695	-0.7
1991:1	2690	-0.7
1991:2	2690	0.0
1991:3	2702	1.8
1991:4	2714	1.8

the Mideast turmoil and from the increased gasoline tax, should cause spending for gasoline and home heating to increase. Durable goods purchases should also be hurt, as will housing-related expenditures such as furniture and appliances. Increases in excise taxes should also depress purchases of alcohol and cigarettes.

Nonresidential Investment and Inventory Change

Lawrence S. Davidson

Professor of Business Economics and Public Policy and Director, Indiana Center for Global Business, Indiana University School of Business

Managers operating in the recessionary 1991 environment will find themselves with few good options when deciding on capital spending. The timing factor is the essence of capital expenditure decisions. Managers plan, decide, then order today for the equipment and structures they will put in place tomorrow. If the future looks dim or uncertain, it is easy to postpone these purchases. Of course, if present profits and liquidity reduce the pool of available funds, then even if expectations are modestly favorable, firms may be constrained in the capital purchases.

It is this situation that makes the investment picture so gloomy for 1991. Even before the invasion of Kuwait, the prospects of a slower economy had slowed capital spending and nipped new prospects or plans for future spending. After growing at an average annual rate of more than 5% per year from 1987-1989, real nonresidential fixed investment (NRI) will grow by only about 1% in 1990. As the reality of capital spending slowed this year, so did future plans (the Commerce Department's survey of future spending plans shows retrenchment). In real terms, spending on plants and equipment is expected to be flat for the second half of 1990. Just a year ago, firms were planning to increase spending by around 11%. We believe that a negative growth in real output bracketing fourth quarter 1990 and first quarter 1991 will not do much to improve managerial expectations and that NRI will average around $512 billion in 1991. This means zero real growth for that year.

A quick study of NRI in the four most recent recessions suggests that its share of GNP is roughly unchanged in the first four quarters after the start of the recession. The study also reveals that NRI's share of GNP typically falls until sometime after the recession ends. Thus it often takes some time for the full impact of the recession to affect capital spending (spending falls more slowly than GNP) and the effects last longer (spending grows more slowly than GNP). If it acts as a lagging indicator in 1991, then we should expect the worst behavior to be over by the third quarter and a full recovery in progress by the end of the year.

Since 1986 the structures component of NRI has been flat while equipment spending has gone from about 8% of GNP to almost 10%. In 1991 things should change. Firms have already been postponing the big projects in 1990. For example, construction spending in August 1990 was below the level of August 1989. Should interest rates slide in early 1991, we could see an early reversal of this very depressed sector. On the other hand, equipment spending may take longer to recover. Presently firms are strapped with rising interest payments, manufacturing activity is dormant, profits are in a vise between rising energy costs and slowing demand, and already low stock prices promise to fall even further.

There are a few bright spots in the picture for equipment, however. First, world growth promises that demand for capital exports will remain at least stable. For example, worldwide capital spending by chemical-related industries is expected to remain strong in 1991. And it is clear that the demands for capital investment in Germany, Central Europe, Asia, and Latin America will present opportunities for globally minded capital goods producers. As the dollar remains low or falls further, the competitiveness of these firms should increase if they do not raise domestic prices. Second, firms are generally in better shape now as compared with 1982 and are expected to be better able to compete. Third, most of the uncertainty surrounding the federal government's 1991 budget has been resolved. Although this package may affect bottom lines in multiple ways, it remains to be seen how higher tax rates on the wealthier taxpayers

will filter through to the saving and investment linkage. Some managers, expecting the worst from the package, may be more willing to commit resources now with the diminished uncertainty.

Another bright spot concerns the behavior of inventories in 1990. Presently, large structural imbalances have not surfaced; firms should have less need to finance excessive stocks. By historical standards, inventory-to-sales ratios are still benign. Although retail inventories have been growing lately, they are still reasonable and are largely confined to the auto sector. Firms have been anticipating a slowdown for some time. We predict that most of the unwanted buildup will occur toward the end of 1990; inventory accumulation in 1991 will be nil.

What happens if we increase the probability of war in the Middle East and keep the price of oil at or above $40 per barrel for a more extended period? Capital spending would contract much more than we forecast above. Under such a scenario, inflation would be higher and more variable. The recession would be larger, more pronounced, and more uncertain. More than likely, the ill effects would also extend to our major trading partners. All this would put a greater stress on the U.S. banking and financial system and make getting credit even more difficult than in the present environment. In such a case, it is conceivable that NRI could contract as much as 10%; inventories might swell by $30-50 billion.

Unemployment, Inflation, Interest Rates, and Fiscal and Monetary Policies

George W. Wilson

Distinguished Professor of Business Economics and Public Policy and Professor of Economics, and Director of the Transportation Research Center, Indiana University

The aggregate scenario for 1990 and calendar year 1991 depends critically upon the outcome of the Gulf crisis. If U.S. troops at present and projected levels in Saudi Arabia are still deemed necessary through most of 1991, the results will be oil prices in the $30-40 per barrel range, continuing anxiety and uncertainty in both the political and economic spheres, overall real GNP growth rate of less than 1% in both 1990 and 1991, and negative growth in fourth quarter 1990 and first quarter 1991—a technical recession. This is not to argue that the slow growth and likely recession are caused by the Gulf situation. The economy was starting to contract prior to August 2. Rather, it means that despite the economic stimulus of the additional U.S. military outlays, the oil price impact and increased fear and uncertainty will, along with the contractionary budget deficit cuts, slightly aggravate the underlying weakness of the economy and bring the long but faltering growth to a halt. I call this Scenario A.

Scenario B would have most U.S. forces out of Saudi Arabia for most of 1991 and probably by the end of the first quarter. The Gulf crisis will have ended and oil prices dropped to the $20-25 per barrel range over most of the year. Real GNP growth in 1991 will be above 3% over the 1990 level under the assumption of a rapid and peaceful resolution of the Middle East conflict. I do not consider a third scenario involving actual warfare, destruction of oil facilities in the Gulf, and hence vastly higher oil prices beyond $40 per barrel, even though such probabilities are perhaps as high as 10-15%. At this time I choose not to think the unthinkable, or even the least probable.

Unemployment

The civilian labor force should average 126,422,000 under Scenario A and 126,547,000 under Scenario B. The relatively larger civilian labor force in Scenario B results from both a smaller reserve call-up (in fact, a release of many reservists from active duty) and a sharply higher real GNP growth rate that offers more and better job prospects, thereby attracting more prospective workers into the labor force. Real annual output per worker rises to only $35,958 under Scenario A and $36,136 under Scenario B, implying an unemployment rate of more than 8% for A and less than 6% for B.

Inflation

Under Scenario A, oil prices will remain high, as noted above, but will not increase much more because the loss of Iraqi and Kuwaiti oil supplies will be compensated for by increased production elsewhere, along with obvious short-run conservation measures and stockpiles stimulated by the previous oil crises in 1973-74 (when oil prices quadrupled) and 1979 (when they tripled). Further inflationary pressures from this source are unlikely. On the contrary, oil prices can be expected to decline somewhat even with a Gulf stalemate throughout 1991, as the fear of future severe scarcity due to military destruction of Gulf oil facilities diminishes along with a slowdown in growth of oil demand due to sluggish output growth, conservation, and greater supply from other regions.

Inflationary pressures in the U.S. will be held back by the sluggish economy and low growth of ag-

gregate spending (further influenced negatively by the federal government's contractionary fiscal policies). The resultant excess labor and capital capacity represent powerful anti-inflationary pressures.

The only offsetting inflationary pressures likely are associated with the expected devaluation of the dollar and the resultant higher import prices, and the excise tax increases in the federal budget package. However, higher import prices will be less inflationary because import quantities will shrink from last year as a result of expected slower real GNP growth.

On balance, if oil prices are contained throughout 1991 at present levels or decline slightly, the overall inflation rates should decline from those anticipated during fourth quarter 1990 (5.6% for the GNP deflator and 6.1% for consumer prices) to a range of 3.5-4.5%.

Under Scenario B, with the economy operating closer to capacity levels, anticipated inflation would be expected to range somewhat higher, in the 4.5-5.5% range, but still down from the rates expected during fourth quarter 1990.

Interest Rates

Nominal rates should decrease with the rate of inflation but probably not as much, depending upon the actions of the Federal Reserve. These actions will be discussed in more detail below.

Fiscal Policy

Enough has already been said about the process whereby the budget was finally approved. Its impact upon the economy during calendar year 1991 needs to be assessed. Aside from the inconsistency of a contractionary fiscal policy amid a rapidly contracting economy, and the perpetuation of the myth that all federal government deficits represent national dissavings (which implies that all federal government expenditures are consumption whether or not they are used to finance sorely needed infrastructure, health and education facilities, or other capital-like assets), the present package widely billed as reducing the deficit by almost $40 billion below what it would have been in fiscal year 1991 is something of a mouse in a $5,500 billion economy. Even then it excludes estimates for U.S. military expenditures in the Persian Gulf that, with the additional 100,000 troops, probably will amount to close to $2 billion per month. The deficit reduction is much less than the estimates imply.

Furthermore, the attempt to simplify taxation in 1986, never too successful in the first place but at least a useful attempt, has been emasculated with the present budget as we march sharply back to pre-1986. Reintroducing tax rate disparities between capital gains and ordinary income provides incentives to convert as much of the latter to the former as possible, with all the associated gamesmanship (if not outright fraud) that the 1986 act sought to eliminate. Many new complications are added, so simplification has once again yielded to complexity and higher incomes for firms that prepare tax returns.

The net effects of the budget on the economy will be mildly contractionary and will somewhat worsen or prolong recession, but not significantly. It may make many people happier to believe that a "real" deficit reduction process has begun. It hasn't, but if the economy begins to grow more rapidly beginning, say, in 1992, this package extending over five years should lead to greater deficit reductions than would otherwise be expected. It is also nice to see equity and fairness at least partially reintroduced into U.S. tax policy through somewhat higher progressivity.

Monetary Policy

The Fed is likely to accept the budget package, at least in the sense of its being a *fait accompli* and probably as not unduly restrictive. It will therefore "support" it by easing monetary policy once the oil-induced inflation bubble has rippled through the system. If no further inflationary surprises arise, the Fed is likely to attempt to reduce interest rates and be generally more accommodating to ease the recessionary pains. Within the constraints of a legitimate concern for the quality of credit, the Fed should facilitate the processes noted under Scenario A. Even under Scenario B it will be accommodating, only less so because of the higher inflationary potential in Scenario B.

In either case, the U.S. economy is likely to come through 1991, mild recession and all, poised for more rapid growth in a more stable and promising political and economic world.

The International Economy

Jürgen von Hagen

Assistant Professor of Business Economics and Public Policy, Indiana University School of Business

The world economy in 1990 is gradually slowing down from a period of rapid expansion in the late 1980s (see **Table 1**). Overall, there is no indication of a world recession, but the outlook for the OECD countries carries more uncertainty than in previous years. The Middle East crisis and the political changes in

Table 1
World Economic Data

	1988	*1989*	*1990*	*1991*
Real GNP Growth (% per year)				
OECD	4.4	3.6	2.5	2.1
U.S.	4.4	3.0	1.0	0.4
Japan	5.7	4.9	4.9	3.8
Germany	3.6	4.0	3.9	3.8
Inflation (GNP Deflator, % per year)				
OECD	3.5	4.3	4.6	4.5
U.S.	3.3	4.1	4.6	4.6
Japan	0.6	1.5	2.9	3.1
Germany	1.5	2.5	3.3	3.8
Unemployment (%)				
OECD	6.9	6.4	6.4	6.5
U.S.	5.5	5.3	5.4	5.6
Japan	2.5	2.3	2.3	2.4
Germany	9.2	8.6	7.0	6.5
Current Account ($ U.S. billion)				
U.S.	-126	-104	-100	-96
Japan	80	57	49	54
Germany	51	56	57	40

1990 figures are estimates; 1991 figures are predicted.

Eastern Europe have added further uncertainty to the world economy. By and large, these events are unlikely to change the general heading toward a recession, but they may worsen the picture somewhat over what we expected a few months ago.

Rising Interest Rates and the Changing Distribution of Economic Activity

Real GNP growth in the OECD slowed from an average of 3.6% in 1989 to an estimated 2.5% in 1990. With most OECD economies still operating at full capacity levels, this slowdown is actually a healthy one, relieving the inflationary pressures built up during the late 1980s when central banks frivolously—and unsuccessfully—attempted to reverse the long-run downward trend of the dollar in international currency markets. Tighter monetary policies are now in place in most OECD countries, and the days of celebrated international policy coordination are over; inflation is likely to peak in 1991 at an average of about 5%, up from an estimated 4.6% in 1990. The recent Middle East crisis adds new inflation potential; however, its severity is unclear as long as the duration of that crisis remains uncertain. Unemployment is expected to remain steady at around 6.6% in the OECD area, reflecting structural adjustment problems more than a cyclical downturn.

Several characteristics of the current situation are noticeable. First, there is a rare lack of international synchronization in the cyclical movements of the economies. Japan's and Germany's economies are expected to grow at a much faster pace than the U.S. economy, which is currently at the weak end of the OECD group. Little synchronization means that the world economy is less vulnerable to global shocks like the recent hike in oil prices, giving reason to expect that the stronger countries will help stimulate the weaker economies, thus relieving recession fears in the latter.

Second, interest rates have increased in the OECD, especially at the long end of the markets. Coming at a time when monetary policies remained fairly stable, this rise must be due to other factors. Among them are the perceived new investment opportunities and requirements in Eastern Europe following the political changes in this region, as well as the increased risk premium associated with the added political uncertainty. Both push up real interest rates. Increased inflation fears may have added to these factors, as some central banks have signalled their readiness to loosen monetary policy.

Third, international interest rate relations have turned around. For the first time in many years, German long-term rates exceed U.S. rates. Japanese rates, traditionally fairly low relative to those of other countries, now are close to U.S. rates. As a result, the dollar has depreciated some 18% against the yen and 11% against the German deutsche mark since May. In Japan, high rates are primarily a consequence of tight monetary policy, which since late spring has managed to turn around the weakening trend of the yen that lasted for much of 1989 and early 1990. After its recent entry into the European Monetary system, the British pound is expected to see a recovery as well. Interest rates in Britain should come down gradually as inflation expectations recede.

Finally, the large current account imbalances among the three major economies have started to improve and can be expected to improve further in 1991. The 1980s have taught us that current account imbalances are driven primarily by international interest rate differentials, not by exchange rate movements. The U.S. started to build up large current account deficits when the yield on dollar assets was higher than the yield on alternative assets elsewhere in the world. The current interest rate developments signal that the U.S. will not be able to attract as much foreign investment in 1991 as in previous years, with the consequence of further improvement in the current account.

High rates in Germany reflect primarily a buoyant investment demand. After the recent unification of the country, Germany will now have to attract foreign capital and direct more of its own savings into rebuilding what used to be the East German economy. This will add to the strengthening of the deutsche mark, and the other currencies in the European Mon-

etary System with it, and reduce Germany's current account surpluses. In addition, greater uncertainty about inflation and the fiscal policy consequences of unification have caused German long-term rates to rise. Earlier this year, conventional wisdom had it that German unification would send East Germans on a consumption binge, spending their newly acquired deutsche marks, refueling inflation in Germany. The fact that this did not happen can be attributed to two reasons. One, unification has left many East Germans with unknown economic uncertainty about their jobs. Second, the socialist economy not only restricted consumption, it also left no choice for saving and investment. East Germans are now discovering the attractiveness of modern financial instruments. The result has been sustained savings rather than excessive spending.

A Third Oil Shock?

The crisis in the Middle East has nurtured fears of a third oil shock, a repetition of the worldwide stagflations of the 1970s. There are good reasons to believe that the current crisis will not have such severe consequences. The current oil price hike hit at a moment when the international economy showed healthy real growth and declining inflation. In contrast, the two hikes of the 1970s hit a recessionary world economy with already accelerating inflation. Furthermore, most industrial nations have, through tax policies and conservation measures, reduced their dependency on oil imports. With the exception of Spain, all OECD countries use less energy per dollar of GNP produced than in 1973. Energy consumption per dollar of GNP is down by one-fourth in the U.S. and France, by one-third in Germany and Italy, and by about 40% in Japan and Britain. All countries have reduced the share of oil in total energy consumption since the 1970s. As a result, the supply-side effects of rising oil prices—rising costs and lower demand for labor—are less powerful today. In a rough estimate, an average oil price of $35 per barrel over the next two years would cost the G7 countries approximately half a percentage point of real GNP growth and add an extra inflation of 1%, compared with a price of $22. In the international comparison, the U.S. appears to be more vulnerable to oil price increases than Europe and Japan.

Still, higher oil prices cause a redistribution of world income from oil consumers to oil producers. Today's international financial system is better prepared today to recycle higher oil revenues back to the industrial economies, which will help keep world demand at a high level despite higher oil prices. But domestic consumers and households will feel the impact as disposable income will grow less. Among the OECD countries, those with strong export ties to the oil producers are likely to be hurt the least, as they will recover a larger share of the extra oil revenues. The distributive impacts will hurt the oil-dependent developing countries most of all, and in this way add additional uncertainty and strain to the LDC debt problem. Another group of countries most adversely affected by higher oil prices are the East European nations. For decades, these economies could rely on highly subsidized oil imports from the Soviet Union, which disconnected them completely from worldwide changes in energy prices. The result is an extremely low degree of energy efficiency and a high degree of vulnerability as Soviet subsidies are phased out. If oil prices are to remain high for some time, the economic and political reforms of these countries will be in severe jeopardy. Realistically, the West will come to the relief of these countries to safeguard the political changes toward democracy. But such politically motivated action would increase the burden borne by the industrial economies.

In sum, if it is to last, the current oil price hike will likely contribute to the changing direction of world economic activity and specifically to the gap in economic performance between the U.S., Western Europe, and Japan.

The Outlook for 1991

The forecast for the U.S. international sector is for a weaker dollar and an improved trade and current account balance reflecting the reduced inflow of foreign capital (see **Table 2**). The weaker dollar will stimulate export growth and hold down imports. The reduction in import growth would be larger, however, with reduced prices of oil imports.

Table 2
U.S. International Outlook 1991

Current Account (billion U.S. dollars)	-96
Net Exports (billion U.S. dollars)	-21
Yen/US$	135
Deutsche mark/US$	1.49
Real Export Growth (percent)	4.7
Real Import Growth (percent)	1.5

Housing

Jeffrey D. Fisher

Associate Professor of Finance and Real Estate and Director, Center for Real Estate Studies, Indiana University School of Business

There is a great deal of uncertainty as to the outlook for housing. Sales of new homes fell 2.3% in July for a seasonally adjusted annual rate of 548,000 units. Existing home sales dropped 8% in September (from August) to the slowest rate since January 1988. Existing home sales are currently running at a seasonally adjusted pace of 3.22 million units. The number of unsold homes on the market has been rising, and there is 9.4 months' worth of supply on the market.

The median home price has been dropping nationally. It was $94,300 in September, and in Indiana is currently $60,000. Median home prices in Indiana and the rest of the Midwest have been steady relative to the rest of the country. Although many areas of the nation are now experiencing a decrease in home prices (even California), Indiana has held steady so far. If this trend continues, Indiana may not experience as much of a drop in home prices as the rest of the nation if we move further into a recession.

Housing starts in July were at a seasonally adjusted annual rate of 1.148 million units, the lowest level since September 1982. Housing starts peaked at 1.972 million units in January 1972 and reached a low of 837,000 units in November 1981. Housing starts in 1989 were 1.38 million. The National Association of Homebuilders has forecast that housing starts for 1990 will be about 1.2 million (900,000 single-family units and 300,000 multifamily units). A continuation of the Persian Gulf crisis and an upturn in oil prices coupled with slower economic growth would result in low housing starts in the second half of 1990 and early 1991. Total housing starts during 1991 are likely to reach about 1.1 million units. If the economy moves further toward a recession, it is quite possible that housing starts will fall below 1 million units during 1991.

Rates for mortgages have remained fairly steady in recent months, although there has been a widening of the spread between fixed-rate mortgages and adjustable-rate mortgages (currently at 125 basis points with fixed-rate mortgages at 10.5% and adjustable-rate mortgages at 9.25%). This reflects the uncertainty as to the direction of mortgage interest rates over the next year.

Corporate Earnings and Capital Markets

Michael Simkowitz and George Hettenhouse

Professor of Finance and Director, Alumni Programs; and Associate Dean, Research and Operations, and Professor of Finance, Indiana University School of Business

The forecast for corporate earnings at the end of 1990 requires more specifics than generalities. To forecast earnings in aggregate is to miss important industry and geographic influences. The U.S. economy is now sufficiently diversified and integrated with the world economy to make the earnings of U.S. companies quite dependent on exchange rates. In many industries the value of the dollar will be a more important determinant of earnings than the status of the U.S. economy. The job of the forecaster, therefore, is to choose those industries and sectors where the confluence of world events seems to help the prospects for growth and earnings.

Regardless of the duration of the Persian Gulf crisis, corporate earnings are vulnerable to both the uncertainty involved and the rate at which producers incorporate these higher energy costs into their decisions. With the uncertainty surrounding current energy prices and the weak demand in the economy, producers are likely to be less aggressive in incorporating higher energy costs into prices so consumers will not postpone purchase decisions. The immediate consequence for 1991 is a likely squeeze on corporate earnings of manufacturers as costs rise more rapidly than prices. This pattern was common during the inflationary periods of the 1970s.

The weakening of the U.S. dollar is similarly an important factor in projecting corporate earnings. Many U.S. multinationals are now earning more than half their profits outside the United States. When these profits are converted back to a dollar basis, the companies involved will show strong earnings growth. Similarly, domestic industries, particularly capital goods industries, that export a significant portion of their output will be helped by a weaker dollar. At the other extreme, companies that have shifted production operations overseas or have chosen to buy components produced elsewhere will be hurt by the deteriorating exchange rate of the dollar.

While the collapse of the savings and loan industry is clearly unprecedented, the financial system is further weakened by problems in the commercial banking industry and excessive debt positions in many large companies. Although these factors are not

in themselves recessionary, they point to general weakness on the financial side. Credit standards are quite high; the banks and financial markets do not appear poised to assist businesses under pressure from slippage in demand. Companies with high debt positions are excessively focused on managing for cash flow to meet their debt service. They are very vulnerable not only to rapid earnings declines but also to cash shortfalls if demand slackens in their industry.

In general, we expect corporate earnings to be weak among the Standard & Poors 400 industrials. Areas of relative strength will be those corporations whose revenues are export driven and those companies that are relatively liquid compared with their competitors. In November intermediate and long-term interest rates finally began to decline. Whether this decline will continue is problematic. In addition to the concerns in the Gulf, high interest rates overseas prevent the Federal Reserve from moving to bring long-term rates down significantly. Any such move would undoubtedly cause a flight from the dollar, putting it into free-fall. The aforementioned high overseas rates are a direct result of political events in Central and Eastern Europe over the last few years. All of Europe from Berlin to the Urals is short of capital. To attract capital into Germany for the rebuilding of the eastern portion of the new, united Deutschland, German interest rates must remain high. This will tend to prevent the decline of interest rates worldwide to any greater extent in the near future.

As for short-term interest rates, we may see a further drop of about 10-30 basis points in the first part of 1991 from the current 7.3% yield on Treasury bills and an additional 15-35 basis point drop toward the end of 1991.

The equity markets could have a difficult time in the next 12 months. There is some evidence that earnings expectations for individual companies are still too high relative to the weakness of the economy. This should result in a continuing process of downward revisions on earnings expectations. If the past is any guide, an environment that is characterized by downward revisions of expectations in corporate earnings has been one in which the stock market tends to struggle.

Dividend growth during the last six years or so has outstripped earnings growth. Without a significant increase in earnings, which we do not expect, dividend growth during 1991 should have difficulty matching the inflation rate (5-6%). Put another way, there should be a decline in the real value of the dividends paid by American corporations. As shown in the **Table**, this will mark the second year in a row that the real dividend growth has been less than the prior year. Over the past 40 years, when real dividend growth has been less than in the prior year, the total return on the market has averaged approximately 4% per annum. In the years where the real dividend growth has been greater than the prior year, the total return on the market has averaged 18%. There is evidence that this negative momentum in real dividend growth may by reversed in 1992, but 1991's dividend momentum will not be a source of strength for the market—at least for the first part of the year.

One of the real sources of strength in the stock market over the past six years has been the demand for equities exhibited by the corporate sector. This demand has taken the form of leveraged buyouts and stock repurchases; it ran at an annual rate of $186 billion during first quarter 1989. There is evidence that this demand has diminished substantially. It ran at the level of approximately $94 billion in first quarter 1990, and at a level of $66 billion in the second quarter. There is no reason to believe that this demand will return to its prior strength in the foreseeable future. This, coupled with what appears to be net selling of U.S. equities by the foreign sector, means that any support for the stock market must be found in the domestic institutional and private sources.

To put the equity markets in their final perspective, it is worthwhile to look at the valuation models that Wall Street firms use to value the stock market. Most of these valuation models at this writing (with the S&P 500 in the 315-320 range and the Dow Jones 30 Industrials at approximately 2550) are saying that the market is still 5-15% overvalued. Bear markets have rarely ended with the market overvalued relative to these models; they usually end with the market 10-30% undervalued with respect to these models. If the verdict is that we are in a bear market, then either the market will need to drop another 15-25%, or the seven-year government bond rate will need to drop 60-80 basis points, or some combination of the two, before the market will turn around.

This pessimistic scenario for the stock market is based on the following factors: there will be a decrease in corporate demand for equities; current valu-

Table
S&P 500 Real Dividend Growth

Year	*Growth (%)*
1985	1.1
1986	3.7
1987	2.0
1988	6.0
1989	9.0
1990	3.0
1991	-1.0

1990 and 1991 figures are estimates.
Source: Goldman, Sachs & Co.

ation models still indicate that the market is 10-15% overvalued; real dividend growth will be negative and the momentum of real dividend growth is negative; long-term rates will be hard to reduce; and the environment will be one of downward earnings revisions in 1991.

What should investors do? If we divide investors into three groups—short-term (those with investment horizons of less than five years), intermediate (those with investment horizons of five to ten years), and long-term (those with investment horizons of longer than ten years)—the advice comes down to something like this: Short-term investors would be wise to maintain their speculative balances in short-term money market instruments while putting some of their money into 10- to 20-year bonds, using the remainder to pick up selected equities at distress bargain prices. These selected equities will most likely be found among the very strong companies in weak industries, such as casualty insurance, life insurance, money center banks, and the financial services industry. Intermediate investors should not abandon the stock market totally, but should keep about one-third of their money in equities, one-third in intermediate to long-term bonds, and one-third in money market instruments. Since 1926 there have been only a few months where equities did not beat all other alternatives over a 20-year horizon.

The quicker and further the intermediate and long-term interest rates decline, the less vulnerable is the market. If these interest rates start to rapidly decline now, then we may very well have seen the lows for this market. But if the substantial decline is postponed beyond first quarter 1991, then we would expect that we have not seen the lows from the market, and that the final lows may very well be in the 2200 range or below.

Morton J. Marcus

Director, Indiana Business Research Center, Indiana University School of Business

Indiana led the nation into the current recession. The Hoosier state entered a downturn more than a year before the rest of the country. Toward an understanding of the dynamics of recessions in Indiana, this article traces the path of this downturn and those of its predecessors.

In October 1990 total establishment employment reported by the Indiana Department of Employment and Training Services stood at an all-time record level of 2,550,600. How strange, then, for us to be talking about a recession. But the facts are that other indicators showed Indiana's economy had been faltering for more than a year, and the peak employment numbers of October would be misleading if taken alone.

Establishment employment data, shown in **Table 1**, are not seasonally adjusted, but the rise, year-over-year, is not illusory. Employment in October 1990 stood 45,800 above a year earlier. But this was the latest in a succession of decreasing gains. Although growth has been continuing in Indiana for the past three years, it has been at a decreasing rate (**Figure 1**). Perhaps it does not mean we are coming to a full stop at this economic intersection, but we are slowing to one of those sliding stops so familiar at busy Hoosier crossroads.

Table 1
Employment Gains, October to October

	Number	*Percent*
1985-1986	57,700	2.6
1986-1987	96,700	4.3
1987-1988	84,300	3.6
1988-1989	60,200	2.5
1989-1990	45,800	1.8

Manufacturing employment (**Figure 2**) does not offer the clear rising parallel lines of all establishments. Whereas 1988 was a year of rising manufacturing employment, 1989 saw more declines than gains. After a peak of 648,300 employed in November 1988, manufacturing lost 12,900 by the next November. Much of 1990 was spent recouping that loss, and the gap was narrowing until employment flattened in the summer months and began to fall once the higher prices of petroleum were felt after the invasion of Kuwait. By October 1990, Indiana's manufacturing employment was only 800 below 1989, but still 10,800 off the 1988 pace.

Within manufacturing the hit was taken by the workers in durable goods production, led by workers manufacturing transportation equipment. Durable goods accounted for nearly 72% of all manufacturing employment in November 1988, with about one-fifth of that total in the production of transportation equipment. In May 1989, employment in transportation equipment had fallen below its level of a year earlier (see **Figure 3**). By August all durable goods employment was below the level of the same month in the previous year. From that date forward, employment continued to lag but was tending to make gains. Transportation equipment actually moved slightly ahead in September

Figure 1
Indiana Establishment Employment
(Monthly data, not seasonally adjusted)

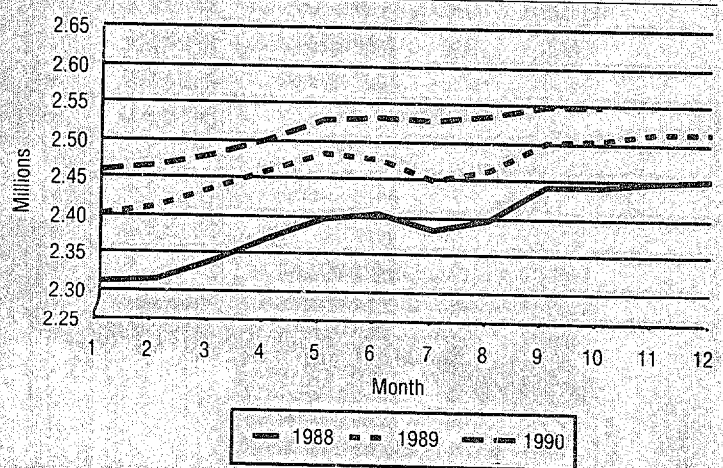
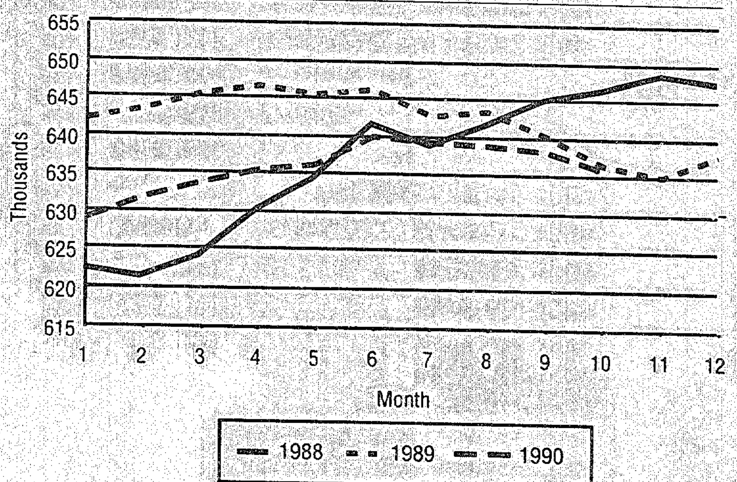


Figure 2
Indiana Manufacturing Emploment
(Monthly data, not seasonally adjusted)



1990, perhaps foretelling a recovery for the durable goods sector.

The distressing aspect of these manufacturing employment declines was accentuated by the ongoing toll taken by inflation. The average earnings of Indiana manufacturing workers advanced from $10.62 per hour in January 1985 to $12.23 by October 1990. This was a nominal increase of 15.2%. When inflation is brought into the picture, as in **Figure 4**, workers are seen to have had a real decline of 9.3%. Declines in the real wages of manufacturing workers affect all Indiana professionals, shopkeepers, and public employees. This decrease in buying power reduces the ability of Hoosiers to buy goods and services and to support government services.

Retail sales (adjusted for inflation) began to fall behind year-earlier levels in October 1989. **Figure 5** shows that 1988 and 1989 were almost identical years in real terms. Complete stagnation for Indiana retail sales was evident in March, April, and May of 1990. The narrowing of the gap between 1990 and the two preceding years that occurred in the summer of

Figure 3
Indiana Manufacturing Employment Gains
(Change from same month one year earlier)

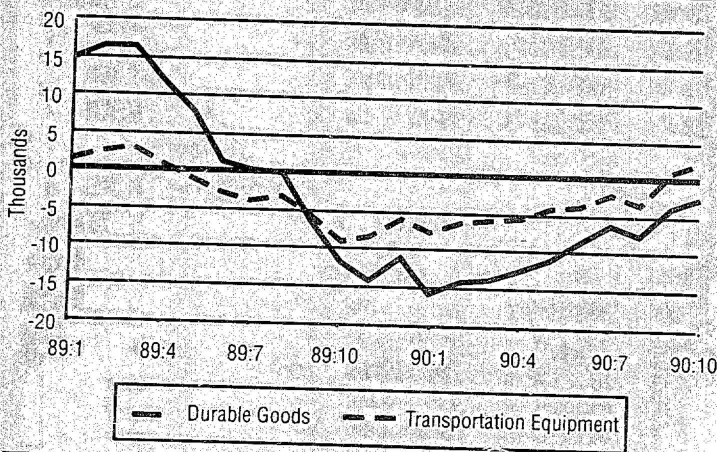


Figure 4
Average Hourly Earnings
Indiana Manufacturing Workers (monthly data)

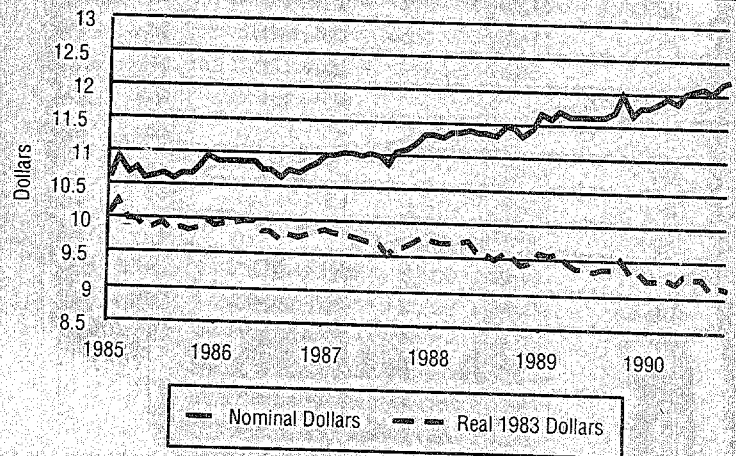


Figure 5
Real Retail Trade—Indiana
(Monthly data, not seasonally adjusted)

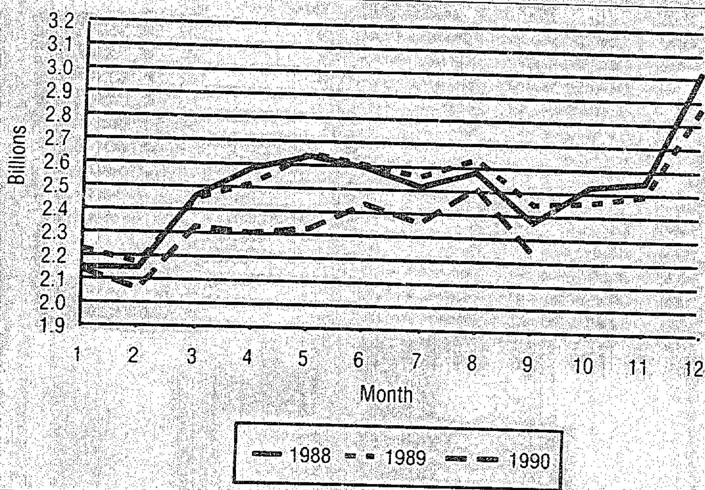


Figure 6
Real Retail Trade—Indiana
(Monthly data, percent change from same month one year ago)

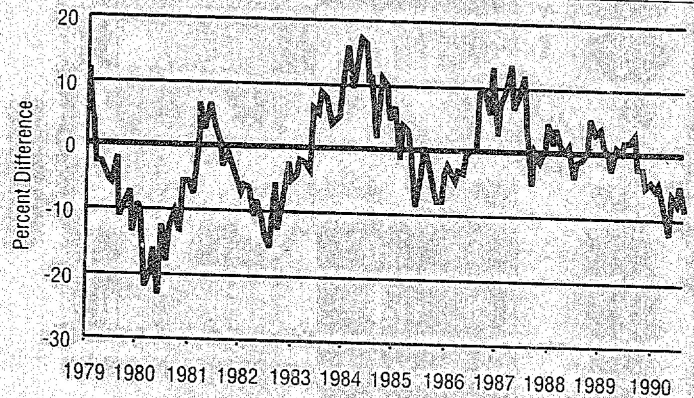


Figure 7
Real Retail Trade—Percent Change
(By region, first 9 months of 1990 vs. 1989)

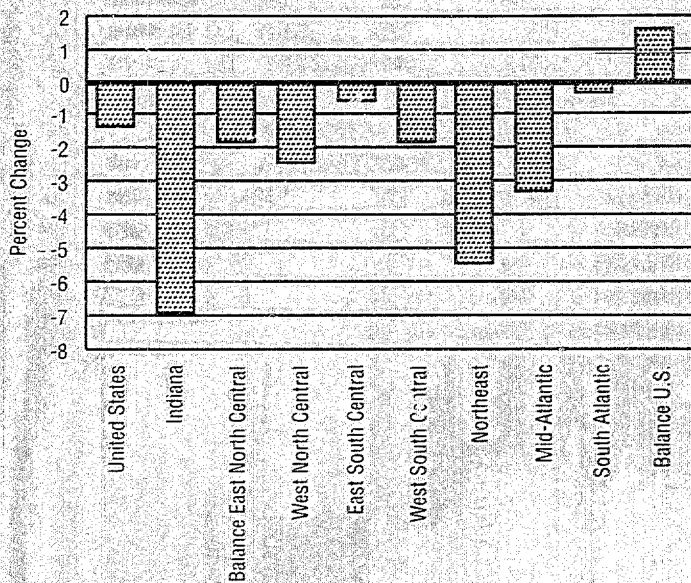


Figure 8
Manufacturing as a Percent of Non-farm Earnings
(Quarterly data, based on seasonally adjusted earnings)

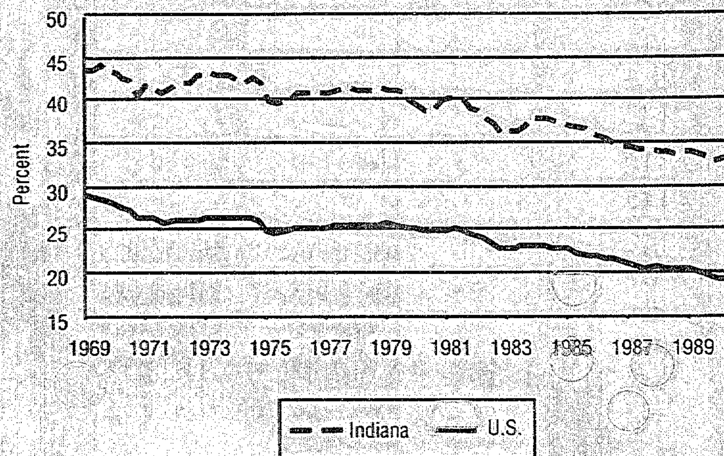


Figure 9
Real Non-farm Earnings—Indiana
(Quarterly data, seasonally adjusted, annual rate)

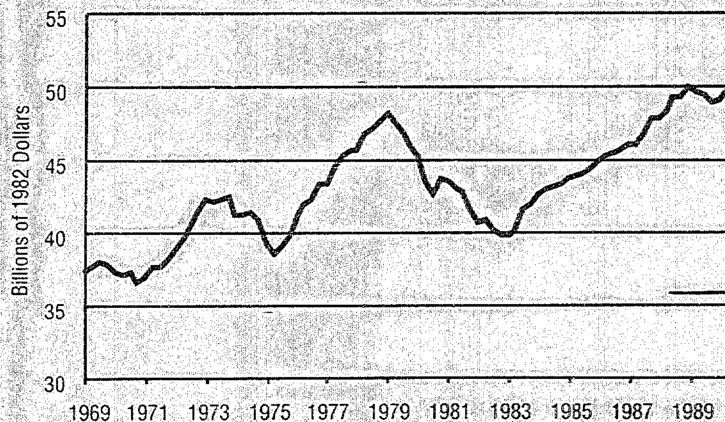
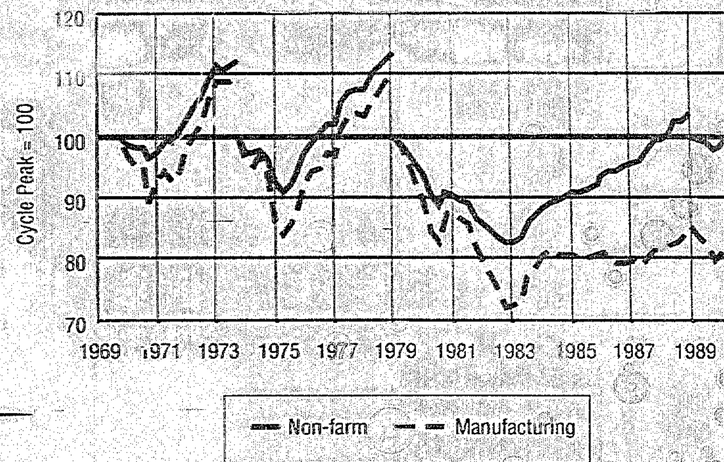


Figure 10
Manufacturing and Non-farm Earnings—Indiana
(By economic cycles, 1969-1990)



1990 was caused by the decline of the earlier years rather than significant improvement in 1990. The advance of September was entirely lost in October after the Persian Gulf crisis took effect.

The differences in real monthly retail sales from year-earlier levels tell the story of the economy. In **Figure 6** these changes are shown back to 1979. The recession that began that year led to a decline in Indiana's real retail sales that hit bottom in June 1981. For 23 consecutive months, sales were below the same month of a year earlier after adjustment for inflation. There was a short (six-month) improvement before sales once again fell short of year-earlier levels for another 21 months. Hence, for 44 of 50 months, 1979 to 1983, real retail sales in Indiana lagged on a year-to-year comparison basis. As Figure 6 shows, we started another such run in October 1989, a year be-

fore most Hoosiers could name the leader of Iraq.

Every newscast has carried the story of how poorly the New England economy fared in 1990. The major networks did not interview Hoosier retailers. For the first nine months of 1990, real retail sales in the nation were down 1.4% from the same period for 1989; New England was lagging by 5.5%. Indiana can take pride in its leadership role: we were off by 7% (see **Figure 7**).

The other East North Central states (Illinois, Michigan, Ohio, and Wisconsin) had a decline of just 1.8%. The Midwestern states on the other side of the Mississippi River (the West North Central region) were down 2.5%. The South Atlantic region and the two South Central regions were each down less than 2%. New York, New Jersey, and Pennsylvania (the Mid-Atlantic region) fell by more than 3%. The only places where gains were made were in the balance of the U.S. (the Mountain and Pacific regions). Hence, it is no surprise that our Revenue Department reports shortfalls in sales tax revenues and we find retailers in Indiana suffering reduced profit margins. These in turn are part of the decreased corporate income tax receipts of the state.

Problems in manufacturing are at the heart of our state's economic difficulties. Although this sector does not represent as great a portion of non-farm earnings as it did 20 years ago, it still dominates Indiana's economy. As late as second quarter 1973, manufacturing accounted for 42.7% of non-farm earnings in Indiana. By second quarter 1990, this share had fallen to 33%. Nationally, the decline is similar (see **Figure 8**). It is this continued reliance on highly cyclical manufacturing employment and earnings that gives rise to Indiana's somewhat volatile economy. (We cannot conclude, however, that we would do better with less manufacturing . . . but that is a story for another time.)

Figure 9 shows that since 1969, Indiana has had four episodes of declining real non-farm earnings. (For clarification: earnings are the sum of wages and salaries, proprietors' income, and other labor income, including health, pension, and other employee benefits.) From the national perspective, the recession Indiana experienced in 1969-70 was a non-event. The recession of 1989 in Indiana was not recorded nationally either.

Manufacturing has taken even stronger declines during these downturns than the state's economy in general. This is seen in **Figure 10**, where each Indiana business cycle is shown in relation to the previous peak. The recession of 1969-70 resulted in a 4% decline in non-farm earnings from the peak in third quarter 1969. In a five-quarter period, manufacturing earnings dropped 11.2%. The recession in non-farm earnings (peak to trough) was six quarters in duration, followed by a three-quarter recovery (trough to the same level as the previous peak) and then an eight-quarter expansion (level to the next peak). **Table 2** traces each of the recessions depicted in Figure 10.

In each case, manufacturing went down further than did non-farm earnings in general and the recovery for manufacturing took at least two quarters longer than the general recovery. In the expansion of the business cycle, the recovery of manufacturing was less than the general recovery, resulting in a decline in the share of total earnings held by manufacturing shown in Figure 8.

It should be noted that real earnings from manufacturing in Indiana had not regained the pre-recession peak of 1979 when the new recession of 1989 hit. Since the decline of the last three quarters in 1989, there has been some improvement, but we consider this a temporary remission. A two-step decline is the clear pattern established in the three preceding recessions shown in Figure 10. The third and fourth quarters of 1990 should give us the second step down.

The question is, how far down will the Indiana economy go in this recession? The mild nature of the forecast for the national economy suggests that the recession of 1969-70 might be a good model. A recovery in the second or third quarter of 1991 would make this a downturn of eight or nine quarters. If that model is followed, the decline already experienced

Table 2
Indiana's Recessions

Cycle (year and quarter)	*Peak to trough*	*Trough to level*	*Level to peak*
1969:3 to 1973:4			
Percent change in			
Non-farm earnings	4.0 (6 qtrs)	3 qtrs	11.9 (8 qtrs)
Manufacturing earnings	11.2 (5 qtrs)	6 qtrs	9.4 (6 qtrs)
1973:4 to 1979:1			
Percent change in			
Non-farm earnings	9.3 (6 qtrs)	6 qtrs	13.4 (9 qtrs)
Manufacturing earnings	16.4 (6 qtrs)	8 qtrs	9.6 (7 qtrs)
1979:1 to 1989:1			
Percent change in			
Non-farm earnings	17.6 (15 qtrs)	22 qtrs	3.7 (3 qtrs)
Manufacturing earnings	28.2 (15 qtrs)	30 qtrs*	
1989:1 to 1990:2*			
Percent change in			
Non-farm earnings	2.4 (3 qtrs)		
Manufacturing earnings	6.6 (3 qtrs)		

** still in progress*

would account for to one-half of total expected fall. This is the optimistic scenario. A less rosy view would set the 1974-75 decline as a model, in which case the recession thus far is but one-third of the full decline to be expected.

The critical question for Indiana is the nature of the economic recovery. Many national analysts anticipate a return to the sluggish performance of the late 1980s. This would suggest continued hardship for Indiana and its manufacturing-based economy with slow growth and continuing fiscal problems for state and local governments into 1992.

The following articles on individual areas indicate the diverse expectations prevalent around the state.

Indianapolis

Robert Kirk

Professor of Economics, Indiana University-Purdue University at Indianapolis; data assistance from the Statistical Services Divisions of the Indiana Department of Employment and Training Services

The Indianapolis economy will have a weak first quarter, followed by slow growth as 1991 progresses. The annual employment growth rate for 1991 will be 1%, compared with a 4% annual average for the rapid growth period, 1985-89. Similarly, the growth rate in personal income, after adjusting for expected inflation, will be 0-1%. Nonmanufacturing employment will increase, while manufacturing employment will decline slightly. The net effect (because manufacturing employment has declined to 16% of total employment) is that total employment will increase.

What kind of recession—and, more important, what kind of recovery—will Indianapolis have? Historically, the diversification of the Indianapolis economy has meant less volatility than in the rest of the state. Durable goods employment, such as in auto and truck parts, has been a source of volatility, but it makes up a smaller proportion of total Indianapolis employment in 1991 than in 1979. The relatively large federal, state, and local government sector was countercyclical in the recession of 1974-75 but procyclical (declined with the rest of the economy) in the 1980-82 recession. The government revenue forecasts, as well as the public statements of fiscal conservatism by government officials, indicate that the government sector will be a stabilizing factor in 1991.

A reason for predicting slow recovery is that the financial position of some firms and households is fragile. Lenders are cautious. When real estate markets are soft, there tends to be a gap between historical cost and market value as reported by financial institutions. Recession could raise the national bank failure rate at a time when the ratio of the Bank Insurance Fund's balance to insured deposits has fallen to a very low level. Corporations became highly leveraged in the 1980s and in a recession may have difficulty making interest payments on their debt. In recent years, households obtained loans of longer maturity to finance their cars. Now when households consider buying a new car, in some cases they find they owe more on the old car than the car's market value. These financial constraints could increase the severity of the recession or postpone the recovery.

Comparative Economic Performance

Comparative metropolitan economic performance is provided in the Table, which shows employment change (January 1983=100) during the 1983-90 expansion, as well as the peak in manufacturing employment for Indianapolis and selected metropolitan areas in the region. With the exception of Cincinnati, the recovery in manufacturing employment was of fairly short duration. Although employment growth has been weak, manufacturing output growth has been stronger because of the growth in labor productivity. The strength of Indianapolis's total employment growth has been in the nonmanufacturing sector, as a couple of major plant shutdowns dampened the manufacturing sector's recovery. The major contributors to the employment growth were construction, retail trade, and services.

Table
Per Capita Personal Income for Selected Metropolitan Areas, 1983-88

Metropolitan Area	*% of National Average 1983*	*1988*	*Rank 1983*	*1988*	*% Change 1983-88*
United States	100.0	100.0	---	---	36.3
INDIANAPOLIS	**100.0**	**103.0**	**106**	**75**	**40.4**
Chicago	115.9	115.6	34	34	35.9
Cincinnati	100.8	100.9	102	92	36.4
Cleveland	111.0	110.2	44	51	35.3
Columbus	97.5	98.6	137	110	37.7
Dayton	97.3	97.7	138	114	36.9
Detroit	106.8	112.5	65	45	43.5
Kansas City	106.9	103.6	64	70	32.1
Louisville	95.5	95.1	155	129	35.7
Memphis	90.6	93.7	192	137	40.9
Nashville	93.6	98.6	170	109	43.6
St. Louis	108.7	108.0	53	57	35.4

Source: U.S. Department of Commerce

How will these industries be affected in a slow-growth period? Construction is a mixed picture. On the positive side, major construction projects are in progress or are expected to begin in 1991. These include projects by Eli Lilly, IUPUI, Farm Bureau Insurance, the State of Indiana, and Veterans Hospitals. However, when state office workers move into their new building, there will be more vacancies in an already soft office market. It is hoped that the Circle Centre Mall will begin to take shape. When the future of this project becomes clearer, uncertainty will be reduced and construction downtown stimulated, although it will be a few more years before the returns on the investment of both the private and government sectors will be realized. In 1991 downtown convention-serving businesses can expect a 5% increase in room night bookings from conventions and an increase in multiple facilities conventions (those using more than 1,000 rooms) from 20 to 28.

What about residential housing? Typically, housing leads the economy into recession because of upward pressure on interest rates immediately before the peak in the business cycle; it likewise leads the economy out of a recession because of reduced demand for loanable funds and therefore reduced interest rates. However, the economy entered the recession with a large federal budget deficit, and that deficit will be even larger in 1991. Because of the need to attract buyers of U.S. government securities, interest rates may not fall as much as they otherwise would. Therefore, the decline in rates may be dampened compared with "typical" recessions. If this scenario occurs, combined with limited employment and income growth, the consequence would be a moderate housing recovery.

Although new retailers have entered the marketplace, others have exited. Retail employment is not expected to be a source of expansion, as it has been, because of forecasted sluggish income and employment growth. If inflation declines more than expected, then real disposable income growth will increase more than expected and stimulate retail activity.

Services

The strong performance of Indianapolis indicated in Table 1 was due primarily to services. Services are perceived as being relatively stable. However, as manufacturing was forced to make changes to increase labor productivity during the early 1980s, nonmanufacturing may face similar adjustments now. For example, there have been white-collar layoffs in financial services across the country.

In Indianapolis, the two primary contributors to services employment growth have been health services and business services. With its tertiary care centers, Indianapolis's health care delivery system serves not only local residents but also those from outside the city. Employment in health services continues to increase, although cost-containment efforts will slow the rate of increase.

Business services consist of two types of activities, which may be affected differently in recession. First, there are business support services, such as credit reporting and data processing. In recession, with business failures, demand for credit reporting may increase. Second, there are infrastructure-type business services, such as temporary help and building maintenance services. There has been evidence both nationally and locally of a softening in demand for temporary help workers. This industry has been one of the most rapidly growing ones in the 1980s as firms were attracted to the flexibility, as well as lower costs, provided by temporary help. However, it is this flexibility that in a sluggish period results in reduced demand for temporary help. In the past a leading economic indicator has been average hours worked in durable goods manufacturing, because adjustments to unanticipated inventory showed up first in a reduction in hours worked. Change in demand for temporary help may become another leading economic indicator that signals change in market conditions in both the manufacturing and nonmanufacturing sectors. If temporary workers are the first to be laid off as consumer demand declines, they should be the first to be rehired in recovery as firms test the strength of the marketplace.

Government

Government—at federal, state, and local levels—is a major employer in Indianapolis and usually provides stability in recessionary periods. The rainy day fund was established at the state level to stabilize state employment in a serious recession. What about local government? To appreciate the changes in the revenue structure of the City of Indianapolis during the 1980s, it should be noted that intergovernmental grants from the federal government to local and state governments peaked in 1978. Then, as federal government deficits grew in the 1980s, federal revenue sharing with states and local governments was eliminated. Local officials had to cut expenditures or raise revenue to make up for lost federal dollars. State government gave local government the power to impose a county option income tax in 1984. Indianapolis has used the county option income tax revenue for pensions for police and fire fighters. In addition, environmental services, such as tertiary waste water treatment, have resulted in fees for services to pay off bonds issued to finance the required infrastructure. Thus, fees (17% of total 1989 revenue), the income tax (8%), and the property tax (35%) have become more important in the City's revenue structure.

Use of the income tax exposes government revenue to some fluctuation arising from the business cycle. To encourage private sector investment, tax incentives—such as property tax abatement and infrastructure improvements financed by 30-year tax increment bonds—have been used. On the expenditure side, police and fire protection, waste handling, and debt service are the three largest components, representing two-thirds of total expenditures. The City of Indianapolis is examining ways to improve the efficiency of its public service delivery.

Many local issues, such as transportation, extend beyond county boundaries. The Indiana General Assembly gave counties the authority to form multiple-county infrastructure authorities with the power to charge fees and issue bonds. To deal with infrastructure costs of residential development, both local officials and builders will be pursuing state legislation to allow for impact fees on a uniform basis. In contrast to the expansionary 1980s, a slow-growth 1991 economy constrains government revenue growth, making more efficient provision of government services necessary and priority setting more challenging.

Northwest Indiana

Leslie Singer

Professor of Economics, Indiana University Northwest

The recession that gripped Indiana in third quarter 1989 may finally spill over into Lake and Porter counties. It is difficult to find reasonably accurate measures of regional economic activity. We know that beginning in August 1989, steel employment relative to employment in the same month the year before has been falling each month; this is likely to continue to decline through most of 1991.

However, the loss of jobs was very small, ranging from about 100 to 600 jobs per month. Some of this drop was not cyclical but was due to redefinition or reassignment of functions. Seasonally adjusted manufacturing employment, which includes plants other than steel mills (some of which are quite small), did not decline until third quarter 1990.

The decline is expected to continue by relatively small amounts through most of 1991. The loss of jobs, including the losses projected for 1991, must be compared with the steep declines in manufacturing and steel employment of 8,000-10,000 jobs that the local economy experienced for most of 1984, 1985, and 1986. In fact, local manufacturing had only two really good years—1987 and 1988. This occurred in spite of the fact that the rest of the U.S. economy was doing swimmingly. The good news is that the present recession in Northwest Indiana is not going to be a manufacturing recession. We shall experience a shallow downturn—a long cold but not pneumonia. The payrolls are still rising at about a 4.8% rate in nominal dollars, or almost at the rate of inflation.

What are the reasons for a relatively optimistic forecast? First, the work week in manufacturing, as well as in steel, is more than 40 hours. The work week in steel was 43.6 hours in third quarter 1989 and 42.5 hours in third quarter 1990. The work week was 35-36 hours in 1985 and 1986, when the local economy was still fighting its way out of a recession. Thus manufacturing plants have a considerable cushion in average weekly hours before the downturn causes an actual loss of jobs. Moreover, manufacturing firms as well as steel firms will continue to hoard labor if management believes that the present recession will be short and relatively shallow. Steel plants have learned from past mistakes, when they lost much of their hard-to-replace local skilled labor to the auto and other industries.

The domestic nonmanufacturing sector may also be affected by the recession. Northwest Indiana has been undergoing a gradual structural change. Besides the manufacturing payroll, which pumps more than $2 billion into the local economy, we export low-wage labor from the urban regions and high-salaried professionals from the southern suburbs. The latter group is expanding because of the comparative advantage we hold in real estate values. In addition, we have more than 20,000 retirees from the manufacturing sector whose substantial pensions and savings contribute to the domestic economy. A large flow of health care payments, welfare, and social security income round out the external money flows. The local economy is increasingly more immune to national recessions. The banking, financial, and insurance sectors are liquid; thus there will be no repercussions from a credit crunch as is the case in other regions of the U.S.

In Northwest Indiana consumers perceive the upcoming recession as a short downturn, with a temporary reduction in income. They will not scale down their planned consumer purchases. However, this may not be the case in urban areas, with their poorer, more financially constrained households.

Should the downturn continue for most of 1991 and into 1992, which is possible, then consumers may gradually revise their spending plans and we may experience a deeper retail recession. There is some overexpansion of retail outlets, as I have pointed out in previous articles. Small strip shopping centers and

Table
Northwest Indiana

	Historical Data, Third Quarter of Each Year							*Forecast 1990-1991*						
								4Q	*1Q*	*2Q*	*3Q*	*4Q*	*1Q*	*2Q*
	1984	*1985*	*1986*	*1987*	*1988*	*1989*	*1990*	*1990*	*1991*	*1991*	*1991*	*1991*	*1992*	*1992*
Total Employment (in 000s)	209.5	219.0	210.7	216.3	228.8	238.1	240.9	243.1	238.9	236.3	234.9	240.7	242.9	242.5
Non-Manufacturing	146.2	158.4	157.2	160.7	171.9	180.8	183.8	186.7	182.9	180.9	180.7	187.2	188.1	187.3
Manufacturing	63.3	60.6	53.5	55.6	56.9	57.3	57.1	56.4	56.0	55.4	54.2	53.5	54.8	55.2
Steel	41.6	38.6	33.6	35.5	35.2	34.9	35.2	34.7	33.7	34.6	34.8	33.4	34.2	35.0
Non-Steel	21.7	22.0	19.9	20.1	21.8	22.4	21.9	21.7	22.3	20.8	19.4	20.1	20.6	20.2
Non Goods Producing	135.3	145.1	146.0	148.0	157.6	165.6	168.8	169.6	166.7	165.9	165.9	169.4	171.7	170.1
Trade Fin., Health	67.5	71.9	72.4	74.6	79.4	83.3	85.3	80.1	79.4	79.2	80.8	81.4	84.4	83.3
Government	29.5	30.7	30.6	27.8	28.4	29.2	26.4	31.3	31.2	30.3	29.3	31.6	31.2	30.5
Misc. Services	38.3	42.5	43.0	45.6	49.8	53.1	57.1	58.2	56.1	56.4	55.8	56.4	56.1	56.3
Construction	10.9	13.3	11.2	12.7	14.3	15.2	19.0	17.1	16.2	15.0	14.8	17.8	16.4	17.2
	Annualized Payroll in Billions of Dollars													
Manufacturing	1.754	1.869	1.831	1.861	1.889	1.874	2.069	2.001	1.956	2.046	1.987	1.923	2.051	2.099
Steel	1.190	1.232	1.208	1.250	1.287	1.212	1.351	1.313	1.270	1.329	1.305	1.271	1.362	1.388
Non-Steel	0.654	0.637	0.623	0.611	0.602	0.662	0.718	0.688	0.686	0.717	0.682	0.652	0.689	0.711
Non Goods Producing	1.742	1.935	2.041	2.055	2.389	2.542	2.864	2.863	2.723	2.893	2.846	2.794	2.857	2.902
Man. Ave. Weekly HR	39.6	41.7	41.4	43.8	43.9	43.6	42.5	42.0	41.8	40.9	40.2	40.0	40.2	41.1
	Annual Change in Number Employed from Same Quarter One Year Ago (000s)													
Total Employment	-7.0	9.5	-8.3	5.6	12.5	9.3	2.8	3.0	-0.9	-3.1	-6.5	-2.4	-2.0	6.2
Manufacturing	-8.1	-2.7	-7.1	2.1	1.3	0.4	-0.2	-0.3	-2.6	-0.3	-2.5	-2.9	-1.2	-0.2
Steel	-7.5	-3.0	-5.0	1.9	-0.3	-0.3	0.3	0.5	-1.3	0.1	-0.1	-0.3	0.5	0.4

convenience stores that dot U.S. 30, small towns south of U.S. 30, along Central Avenue in Porter County, and in Hobart, are most vulnerable. I expect that a few small stores will exit if the recession progresses. Consequently, we may experience a slight drop in employment in the retail and service sectors. However, employment will decline less than sales, because sales personnel per square foot of selling space is regarded as a fixed cost. A retail recession has a lesser impact on jobs than a manufacturing recession, such as we experienced from 1980-1985.

I do not expect any weakness in the local residential real estate market, although growth will slow down. Unlike other parts of the country, Northwest Indiana has not been riding the crest of a speculative real estate boom. There isn't much overextension of office space, such as is the case in Chico, where vacancies are in the 20% range. Unfortunately, the poorer urban regions will be more vulnerable to a slackening real estate market than the southern towns of Lake County or Porter County, where residential and commercial construction will continue for much of 1991.

If the dollar remains at its present exchange level in international markets or even falls slightly, and if interest rates drop 50 basis points or more, then the local manufacturing sectors will rebound from a small loss as 1991 progresses and 1992 unfolds. This will add new confidence to local entrepreneurs as well as consumers. A high pent-up demand for infrastructure exists in the country; this may boost output of local steel mills and fabricating plants. I expect the recession to be over locally by about mid-1992, with relatively little damage done to Northwest Indiana's domestic economy.

There are several possible adverse scenarios. A recession in Europe could impinge upon local steel exports. A rising dollar exchange rate and rising oil prices may cut both exports and local production. Rising tax rates emanating from Congress may discourage both consumption and investment. Finally, a strike or a proxy fight at USX may disorganize and stymie local production, bringing about a much steeper decline in steel than anticipated. The chance of these events occurring, however, is less than 50%.

South Bend/Mishawaka-Elkhart-Goshen

John E. Peck

Professor of Economics and Director, Bureau of Business and Economic Research, Indiana University at South Bend

This year-end assessment of the economic condition of the South Bend/Mishawaka and Elkhart/Goshen communities is based on an analysis of the latest available economic indicators for the area tracked by the Indiana University at South Bend's Bureau of Business and Economic Research (BBER). A look at the indicators—particularly those relating to local employment—suggests that through late summer the area economies of South Bend/Mishawaka and Elkhart/Goshen had performed about as expected in the midyear area forecast (*IBR*, July 1990). On the other hand, these data were yet to reflect the impact of Iraq's invasion of Kuwait and the subsequent rise of oil prices. There is reason to believe that this event could very well have pushed an already sluggish economy into recession in the final months of 1990.

The accompanying **Table** summarizes the various indicators of local economic activity compiled by the BBER. These figures are seasonally adjusted and, with the exception of the unemployment rates and real estate data, are index numbers expressed as a percentage of base year values. Comparative indicators along with percentage changes are given for July and August 1990, as well as for August 1989.

Table
Economic Indicators

	South Bend/Mishawaka					**Elkhart/Goshen**				
	August 1990	*July 1990*	*August 1989*	*% Change July 1990*	*From August 1989*	*August 1990*	*July 1990*	*August 1989*	*% Change July 1990*	*From August 1989*
Employment Data										
Establishment Employment[1]										
Nonagricultural	117.3	117.0	113.6	0.3%	3.3%	119.7	118.9	115.8	0.7%	3.4%
Manufacturing	95.7	94.2	99.4	1.6%	-3.7%	108.1	107.4	115.4	0.7%	-6.3%
Nonmanufacturing	123.6	122.9	117.8	-0.6%	4.9%	133.6	132.4	116.4	0.9%	14.8%
Unemployment Rate	6.6	5.7	4.2	n/a	n/a	6.8	4.7	4.9	n/a	n/a
Help Wanted Advertising[2]	78.7	85.3	96.9	-7.7%	-18.8%	85.8	95.7	86.6	-10.3%	-0.9%
Utilities[3]										
Industrial Electricity Sales	99.6	98.1	102.3	1.5%	-2.6%	104.6	104.3	108.7	0.3%	-3.8%
Commercial Gas Sales	104.4	96.0	95.7	8.8%	9.1%	103.9	104.2	82.6	-0.3%	25.8%
Industrial Gas Sales	66.2	69.9	81.8	-5.3%	-19.1%	54.2	45.4	54.5	19.4%	-0.6%
Retail Car & Truck Sales[1]										
New Passenger Car Sales	43.4	62.0	66.5	-30.0%	-34.7%	62.7	63.4	76.0	-1.1%	-17.5%
New Truck Sales	78.2	72.4	101.6	8.0%	-23.0%	75.5	79.0	90.0	-4.4%	-16.1%
Housing Construction Data[4]										
Estimated Value of Permits	128.9	135.5	159.2	-4.9%	-19.0%	98.8	168.2	133.7	-41.3%	-26.1%
Number of Permits Issued	91.6	109.0	122.5	-16.0%	-25.2%	76.3	116.0	105.3	-34.2%	-27.5%
Average Value Per Permit	141.7	129.5	130.0	9.4%	9.0%	121.3	147.5	119.8	-17.8%	1.3%
Residential Real Estate Data										
Number of Active Listings	1,462	1,441	1,271	1.5%	15.0%	1,751	1,720	1,445	1.8%	21.2%
Closed Sales										
Average Days Listed	83	75	54	10.7%	53.7%	86	86	77	0.0%	11.7%
Average Market Price	$71,636	$70,766	$67,144	1.2%	6.7%	$70,586	$70,386	$66,327	0.3%	6.4%
% of Sale to List Price	94.7	98.0	94.4	-3.4%	0.3%	96.0	96.0	95.0	0.0%	1.1%

All figures except for Unemployment Rate and Residential Real Estate Data are seasonally adjusted index numbers with base year 1986=100.
[1] *St. Joseph and Elkhart Counties.*
[2] *South Bend* Tribune and *Elkhart* Truth.
[3] *Electricity sales are South Bend and Elkhart. Gas sales are St. Joseph and Elkhart Counties.*
[4] *St. Joseph County, excluding cities of South Bend, Mishawaka, Osceola, Walkerton, and New Carlisle. Elkhart County, excluding cities of Elkhart, Goshen, Nappanee, and Millersburg.*

South Bend/Mishawaka

Irrespective of forecasts of impending recession, August was a very good month for South Bend/Mishawaka employment indicators. After seasonal adjustment, manufacturing employment rose 1.6% over July 1990. The 3.7% drop from August 1989 was a significant improvement over the 6% decline that showed in a July year-to-year comparison. The August improvement came in nearly all of the manufacturing sectors reported by the Indiana Employment and Training Services Department, with the most significant gain coming in the transportation equipment industry (an absolute increase of 700 jobs). The overall nonagricultural employment indicator continued to show a year-to-year gain of more than 3%. Construction, services, and government employment registered the largest nonmanufacturing gains. Even with these advances, cautious optimism would be advised, since other indicators such as the unemployment rate and the help wanted advertising index suggest some softness in the local labor market.

Other South Bend/Mishawaka indicators that are especially watched for business cycle swings continue to reflect the softness many feel lies beneath the employment figures. While the number of new housing permits issued remains at a respectable level, that index has come in under the 100 base-year value in four of the last six months reported. Residential real estate indicators have also shown noticeable moderation from activity that was recorded in the previous few years. The new passenger car index reached its lowest level in recent months.

Elkhart/Goshen

Elkhart/Goshen area employment indicators overall were also strong in August. When looking at the county's important manufacturing sector, however, the rise of .7% in August over July needs to be observed in light of the 6.3% deficit from August 1989. An exceptionally strong nonmanufacturing sector, up 14.8% from August 1989, more than offset this large drop in manufacturing employment. The construction, transportation, communications, and utilities industries registered the largest nonmanufacturing subsector gains. Softness in manufacturing came principally from the area's predominant recreational vehicle industry. Numerous reports of temporary layoffs cropped up in late summer.

As in St. Joseph County, the remaining labor market indicators and critical housing and automobile industry statistics suggest that the Elkhart/Goshen economy continues to soften. For example, the area's help wanted advertising index has registered below the 1986 base-year value in nine of the last 12 months, and the number of active residential real estate listings reached its highest level in several years.

Outlook

We remain concerned about the underlying condition of the national economy. With several months of a declining index of leading indicators, low consumer confidence, rising prices, and only moderate consumer expenditure, we continue to expect recession—albeit a mild one—in the immediate future. Such a scenario obviously suggests further softening of our local area economies. Specifically, we expect that the South Bend/Mishawaka area employment picture will at best hold its own over the next year. In Elkhart/Goshen, given the area's predominant manufacturing base, we expect to see a 2-3% decline in employment during the forecast period—which is a recession scenario, but one substantially milder than what occurred in the 1970s.

Kokomo

Dilip Pendse

Associate Professor of Economics

Unlike last year, when Kokomo's economy clicked on all cylinders, this year it has operated in low gear. The year began with hefty temporary layoffs in the auto sector. By the middle of the year, however, most idled workers were called back to work. Through the first three quarters of 1990, the average monthly labor force decreased 4.5% to 39,942, slightly higher than two years ago. On the jobless front, the average number of people out of work was 2,642, compared to 2,467 in 1989 and 2,715 in 1988. Consequently, the average unemployment rate during January-September 1990 remained at 6.6%, almost a point higher than a year ago and almost the same as in 1988. The monthly unemployment rate varied from 5.3% to 9.8% through the first three quarters of 1990, compared with 4.4% to 8.9% in 1989, and 4.9% to 9.9% in 1988.

Howard County's unemployment rate remained above the state level through September 1990. Not only that, except for the month of June, when Howard County's unemployment rate tied with the national rate, the local unemployment rate remained above the national average.

After nearly eight years of continuous growth of varying degrees, the fabric of Kokomo's economy is showing signs of aging. For example, from the yearly high of 14.6% in July 1982, Howard County's unemployment rate improved continuously until it reached a low of 4.4% in June 1989. The lowest unemploy-

ment rate in 1990 has been almost one point above last year's low. Another recent sign of aging is the declining level of industrial output, reflected in the shorter average manufacturing work week. During January-August 1990, the average manufacturing work week stayed at 41.6 hours, the shortest in the past three years.

The Service Sector in the Front Seat

Unlike a year ago, the unemployment statistics portray a shrinking economy, especially with respect to the labor force and the number of jobholders. What has kept the unemployment rate at a respectable pace is the strong growth in the service sector. During the first nine months of 1990 its strength grew by 900. Manufacturing payrolls stayed above the 18,000 level for most of the first nine months of 1990, accounting for 40% of total jobs.

In general, no sector registered massive gains or losses. Job growth in the TCU, FIRE, and state government sectors remained flat. The loss of 200 jobs in the retail trade sector, one of the major service sectors, was offset by gains in such sectors as local government and services. The service and government sectors added 800 and 100 jobs, respectively. Employment in the area schools, colleges, and universities grew by 100.

Pay Levels: Still the Best

For the seventh straight year, Kokomo held its status as the best-paid town in Hoosierland. Based on data released by the U.S. Bureau of Labor, Kokomo's average annual income edged 2.6% higher in 1989 to $27,132, the highest in the state and the 14th best among the nation's metropolitan areas. Last year's average annual pay in Kokomo was 15% higher than the national average.

Another source, *Sales and Marketing Management*, points out that in 1989 the median household spendable income, or effective buying income, in Kokomo was $27,796, the highest in the state and the 90th best among the nation's metropolitan areas. In that category, Kokomo has held the top rank in the state for the past five years.

In terms of the percentage of households earning at least $50,000 a year in spendable income, Kokomo again stands first among the state's 12 metropolitan areas, according to *Sales and Marketing Management*. One out of every five households in Kokomo earned at least $50,000 in 1989. Also in that year, the spendable income of all Kokomoans totaled $1.3 billion, $100 million more than in 1988.

Housing

How good was the housing sector? Given the national slowdown, the local housing market has performed quite well. Kokomo's housing market is neither hot nor cold; it is "squishy." Home sales in the first half of 1990 totaled 503, a modest 5% increase over the comparable 1989 period, according to the Center for Real Estate Studies in Bloomington. However, the sales volume was the second lowest since 1984. Despite a modest improvement, sales certainly remained slow. It is taking almost five months to sell a house. Not only that, a majority of the houses being sold are at the lower end of the price range, less than $70,000. The median price of a house sold in second quarter 1990 was $42,250, compared to $50,000 from the same period a year ago.

The number of building permits issued through the first nine months of 1990, excluding sign permits, totaled 441—12% below a year ago and the lowest since 1984. The decline was registered in all types of permits, residential and nonresidential. While the number of residential building permits slipped 10% from a year ago, non-residential building permits plunged 30%. Building permits for new businesses and offices sank 36% from a year ago.

While the permits issued for single-family dwellings remained steady at 127, the average value of a permit rose 21% to $105,000. It suggests that more expensive and upscale homes are being built to meet the needs of yuppie families. And although the number of permits issued is small, it is still the third highest in 12 years.

The Industrial Giant to Grow More

Delco Electronics, with an annual payroll of about $425 million, is Kokomo's industrial giant. It has grown markedly in the past five years and is going to grow once again. In October, the city was buoyed by Delco's unveiling of a plan to build a $41 million engineering and laboratory complex in Kokomo. The new facility, to be completed by mid-1992, will house 500 engineering, technical, and support personnel. And that's not all: Delco entered into agreements with or negotiated with domestic and overseas firms for the development and manufacturing of automotive electronic products. The domestic firms include Motorola Corporation and Texas Instruments, Inc., and the overseas firms include Sweden's Saab-Scania Combitech AB and the Soviet Union's Volga Auto Works. Many of the projects have already gotten underway, and they could significantly increase Delco's future domestic and overseas non-GM sales. Such projects could also result in additional manpower demand. Moreover, the recent relocation of the U.S. Navy's Electronic Manufacturing Productivity Facility to Indianapolis, and the formation of HE Microwave, a joint subsidiary of Delco Electronics and the Los Angeles-based Hughes Electronic Corp., could boost Delco's product lines, sales, and payrolls.

And there is more. New product lines and higher output levels enabled Delco to finally allow remaining workers in the JOB BANK program to join the active labor force in August 1990. The number of workers in the JOB BANK program, begun in 1984, had swollen to well over 1,000 by 1987. In the past three years, however, all workers have been gradually put back to work. The JOB BANK program has not only given workers income security but also enabled many to sharpen or broaden their work skills and enhance their overall preparedness for future jobs.

Other Upbeat Developments

Many capital expenditure plans that were announced or begun in 1990 will be completed in 1991. They include: United Presidential Life Insurance Co.'s new $11 million office complex, a $9 million Rehabilitation Hospital, local hospitals' expansion projects worth $1.3 million, and DuPont Photomask's $500,000 addition to its existing facility. Other small business capital expenditure plans that got underway totaled $8.6 million. In addition, in early November Grissom Air Force Base announced that it has been allotted $4.5 million in construction money for 1991.

The fall enrollment in the area public schools registered the smallest decline in several years. It appears that the enrollment slide that began in 1968 is finally leveling off or poised for an upturn.

On the manufacturing front, after a four-month struggle including a lock-out, demonstrations, and intermittent court battles, workers at Milbank Manufacturing Company in Kokomo settled their differences and reported to work in September. Milbank, employing more than 100 workers, manufactures metal electrical enclosures, meter trough sockets, and other metering devices. With no fuss, however, manufacturing workers at the local auto plants overwhelmingly ratified a new three-year labor contract hammered out in Detroit. The contract includes both modestly higher wages and income security.

In the surrounding area, Logansport Machine Company entered into a joint venture with Matsumoto Machine Company of Japan. Service Merchandise Inc. announced plans for a $17 million distribution center near Frankfort in Clinton County that could create 300 new jobs. Total Signs Company of Indiana, a maker of signs for retail distribution, selected Tipton as the site for its operation. Starting with a low number of ten, the company's work force is expected to rise to 150 when running in full swing. If and when it materializes, it could revitalize Tipton's economy.

Some Discomforting News

Not all news was positive. After rising continuously since 1980, retail sales in Kokomo dipped 1% in 1989 to $786.2 million, according to *Sales and Marketing Management*. Consequently, Kokomo's state and national rankings worsened. For example, in terms of retail sales per household, Kokomo's state ranking, which had continuously improved from tenth in 1982 to second in 1988, slipped five places to seventh. At the same time, Kokomo's national ranking, which had improved six years in a row since 1981, skidded several places to 87th in 1990.

Apparently, total retail sales declined due to a whopping 94% drop in apparel and accessories store sales. Also, service station sales declined 28%. Sales at local food stores and drugstores declined nearly 20% each. Among gainers, automotive dealers registered a hefty 20% improvement. General merchandise stores' sales increased 19%, while furniture/home furnishings/appliance stores' sales jumped 9%.

The 1990 preliminary census statistics confirmed the downtrend in local population projected by the Indiana Business Research Center. The preliminary data indicates that both the city and the county lost populations by almost 8% in the 1980s. Of course, the City of Kokomo and Howard County were not alone in the downtrend, according to the preliminary figures. Without exception, the neighboring counties and cities also lost population, some with even larger declines than Kokomo and Howard County.

Sea Nymph, a manufacturer of boats, ceased its Peru operation of less than two years. Just a year ago its work force had reached a level of 100. In November, Tipton's J.C. Penney Store, after doing business for 62 years, announced plans to permanently close its doors in January 1991.

Finally, although a year ago a 2.3 square-mile economically depressed area in Kokomo was awarded the enterprise zone status, it has not reaped the benefits expected. The enterprise zone did not bag any new businesses in 1990.

Economic Outlook

What's in store for Kokomo's economy in 1991? Is it teetering on the brink of a classic recession? Is it going to be staggered by the one-two punches of a slump in the auto industry and a downtrend in the national economy? The outlook is as muddy as the water of the Wildcat Creek. Much depends on at least three factors: (1) the intensity and duration of the downturn in the national economy, (2) the magnitude of the slump in the auto industry, and (3) the state of the European economy.

From all accounts, it appears that the U.S. economy has slid into a recessionary phase, perhaps a mild one. The national economy, to some extent, will adversely affect the economy of Kokomo. A slump in the auto industry, the mainstay of the local economy, is the one Kokomoans will have to carefully watch. It could take the economy on the down path, though not

as much as in the early 1980s. The local economy is healthier today because inefficient operations have closed, employment levels have been trimmed, and the major employers have greatly modernized and expanded the existing plants.

Kokomo industries are increasingly learning to grab a bigger bite of the European economic pie. Haynes International, for example, exports around 30% of its products overseas. Delco's European business now accounts for almost 3% of its total sales. DuPont Photomask is gearing itself to exports its products. Nevertheless, an impact of slackness in the overseas market on Kokomo's economy will be nowhere near the national economy's impact.

On the whole, the unemployment rate, which has hung around 6.6% for the past three quarters, will edge higher during 1991. It shouldn't surprise anyone if it hovers around 7% next year. For a month or two the unemployment rate may even vault into double digits.

Auto workers will likely face hefty, short-term, intermittent layoffs, some as long as a month. The pain and suffering on the part of temporarily idled auto workers, however, will not be as severe as in the past, thanks to the JOB BANK program and more income security guaranteed under the new 1990-93 labor contract. Delco's earnings, however, could suffer from reduced auto production.

The overall outlook for new members of the work force and those reentering it is likely to remain weak. The job outlook in the finance, insurance, real estate, and retail trade sectors should remain soft. A retrenchment will likely occur in the service sectors that have prospered in the wake of the thinning of manufacturing jobs. Health care is the only sector where some growth will occur.

The housing sector will likely remain subdued. Home improvement contracts will see little improvement. The volume of houses sold will decline to below 1,000. Building permits for new single-family homes will be down by 5-10% from the 1990 level. Overall, the number of building permits issued, excluding sign permits, will be down to the low 600s.

Although the near-term outlook is tepid, the economic weather in the long run will be sunny and bright. Unlike in the past, there are no dark clouds hanging on the economic horizon. New opportunities are in store for Kokomo's Delco Electronics, Chrysler Corporation's Transmission Plant, and Haynes International. All in all, Kokomoans haven't seen the best times yet.

Lafayette

Gerald J. Lynch

Associate Professor of Economics, Purdue University

When macroeconomists discuss what causes ups and downs in the economy, they often focus on what are known as macroeconomic shocks. Shocks are unanticipated events that alter the direction of economic growth either up or down. Some research published a few years ago by James Hamilton of the University of Virginia suggests that every major downturn in the post-war era, except one, has been caused by an oil price shock. Obviously, the economy is facing that same outlook today as the uncertainty in the Middle East leads many to wonder what the price of oil will be over the next six months or year.

Although I have mentioned before that Lafayette, because of its diversified economy and the presence of a stable employer in Purdue University, is less prone to recession than the state as a whole, this may not be true with regard to oil price shocks. A statistical analysis of local and state unemployment rates in response to changes in the price of oil shows that over the last 15 years the Lafayette unemployment rate has been more responsive to changes in the price of oil than has the economy of the state as a whole. A 1% change in the price of oil leads to approximately a .5% change in the unemployment rate in Lafayette and approximately a .3% change in unemployment rates for Indiana. These data suggest that a rise in the price of oil, if sustained over the entire year, could influence a downturn in the Lafayette economy.

It is also interesting to view the impact of changing exchange rates on the local area. If interest rates continue to decline, the dollar will fall even further as investors sell their dollars to buy foreign currency and invest overseas in the hope of earning a better return. If the dollar is cheap, U.S. goods are cheaper to foreigners and exports typically rise. Would a falling exchange rate benefit the local economy? In a statistical analysis of data over the last 15 years, I find little or no impact of a change in exchange rates on local unemployment. Thiswould indicate that the local economy is not internationally driven and is therefore not subject to variation with exchange rate fluctuations. Of course, some local firms will benefit from a falling dollar, but in general the effect is negligible.

That is not the case for Indiana as a whole. There is a positive and significant relationship between exchange rates and Indiana unemployment. If the dollar rises in international markets, making Indiana goods more expensive, then the unemployment rate rises. On the other hand, if the dollar falls, as it is expected

to do this year, there is a decline in Indiana unemployment. This relationship is statistically significant.

Previous analysis of the Lafayette economy reveals that the local unemployment rate rises about .7% for every 1% rise in the national rate. Given that the national economy appears headed for a downturn, and given the responsiveness of the local economy to the price of oil, I expect the economy in Lafayette to be worse in six months than it is now. Two areas that may experience difficulty include the retail area and housing sales. The University of Michigan's survey of consumer confidence showed the largest monthly drop in the last 25 years occurring in August. This uncertainty often reveals itself in falling retail sales. In addition, there appears to be softness nationally in the housing market, some of which will be felt in Lafayette. As with the national economy, though, this downturn should not be too steep or too long.

Columbus

Patrick M. Rooney

Assistant Professor, Department of Economics, IUPUI Columbus

The local labor market is leaking primarily negative signals (see **Table 1**). The number of persons employed is down 2% from last quarter and 5% from a year ago. While the number of unemployed is down 13% from last quarter, it is 6% above the third quarter of last year. More ominously, the unemployment rate averaged 5.2% in third quarter 1990, which is 11% above a year ago. Also, new unemployment insurance claims are up 79% from last year. Finally, our Help Wanted Advertising Index is 8% lower than it was last year at this time and 8% below its level for the previous quarter this year.

Housing construction data indicate a large degree of variability. The decline in the estimated number of permits issued (-2%) and in the average value per

Table 1
Columbus Area Data

	3Q 1990	*2Q 1990*	*% Change 2Q-3Q*	*3Q 1989*	*% Change 3Q 89-90*
Employment Data:					
Number of Persons Employed	28,637	29,217	-2	30,123	-5
Number of Persons Unemployed	1,560	1,797	-13	1,470	6
Unemployment Rate	5.2%	5.8%	-10	4.7%	11
Continued Unemployment Insurance Claims—Columbus	2,439	4,169	-42	1,863	30
New Unemployment Insurance Claims—Columbus	439	462	-5	245	79
Help Wanted Advertising (1987=100)	179	195	-8	194	-8
Housing Construction Data:					
Estimated Value of Permits Issued (000s)	1,870.2	1,635.7	14	1,901.0	-2
Number of Permits Issued	21	22	-5	17	24
Average Value per Permit	89.1	74.4	20	112	-20
Residential Real Estate Data:					
Sold	260	258	1	246	6
Average Days Listed	114	117	-3	109	5
Average Market Price	$77,391	$76,215	2	$77,541	0
Sales Data:					
New Car Sales	604	450	34	517	17
Used Car Sales	2,495	2,700	-8	2,643	-6

Sources: Indiana Business Research Center, Indiana University; The Republic; *Department of Technical Code Enforcement; Indiana Bureau of Motor Vehicles; Multiple Listing Service; Indiana Department of Revenue; Indiana Bureau of Economic Analysis.*

Table 2
Sales and Profitability Data

CRITERIA			*INDUSTRY OR FIRM*		
	All	*Auto*	*Parts*	*Arvin*	*Cummins*
% Change in 3Q Sales from 1989	9	6	6	14	3
% Change in Sales from 1989 1st 9 months	7	-2	1	11	-4
% Change in 3Q Profit from 1989	7	N.M.	-8	121	N.M.
% Change in Profit from 1989 1st 9 months	-6	-83	-26	-6	N.M.
Return on Common Equity (year ending 9/30/90)	11.3	2.6	8.7	5.7	-15.6
12 mos. Earnings per Share	1.82	0.82	1.66	1.10	-5.79

permit (-20% from third quarter 1989) suggest pessimism in the minds of buyers and builders. While the housing market is far from collapsing, the average market price is essentially unchanged from a year ago. This type of stagnation makes it a good time for buyers; unfortunately, most would-be buyers cannot easily sell their current homes—at least not for what they had anticipated.

Given that the average existing home price nationally fell 3.3% in September, the fact that local housing prices did not fall suggests that the local market may be stronger. This could be explained by the fact that both coasts experienced rapid appreciation (exceeding 50% in some areas) over the past few years. Since we did not have that same type of speculative bubble, we should not have the same type of bursting.

Housing in Columbus remains quite affordable, especially compared with the rest of the nation. In third quarter 1990, the median home price in the Columbus area was $58,000, versus $60,000 in the state and $94,800 nationally. Our housing affordability index hit 162 in the third quarter, compared with 154 for the state and 106 nationally. As interest rates fall, we expect to see the affordability index increase.

Commercial construction also indicates a softening market. Although the number of permits for the first ten months of this year is up 28% from the same period last year (59 compared to 46), the value of those permits fell from almost $55 million last year to $33 million this year. The average value per permit has thus fallen 52%. The volatility of commercial construction makes short-term dollar and unit changes more difficult to weight in their effect on the economy.

One of the few pieces of good news locally is that new car registrations for the county are up 34% from second quarter 1990 and up 17% from a year ago. Even this relatively good news must be tempered; for the month of October, new and used car registrations were each more than 50% below their respective averages for the last two Octobers and more than 50% below the August 1990 level.

Recently, *Business Week* (November 19, 1990) released sales and profitability data for industrial firms overall, by industry, sub-industry, and firm. We can use this information to evaluate both the trends of the industrial economy and our local *Fortune* 500 firms. The data (see **Table 2**) clearly indicate that the auto and auto parts industries are performing far worse than the all-industry composite. Arvin is generally outperforming the auto and auto parts industries; it is also outperforming the all-industry composite in most measures—except two of the more important, return on equity and earnings per share. Cummins, on the other hand, is below the auto industry, auto parts industry, and overall composite in nearly all measures. The negative earnings is especially troubling, as firms—even very large firms—cannot operate at a loss indefinitely.

Local Forecast

The declining value of the dollar will help our manufacturing firms by sheltering them to some degree from foreign competition and increasing foreign demand for U.S.-produced goods. If the Fed acts to push down interest rates further, as it should, we can anticipate the dollar's falling below 120 yen per dollar, which should boost exports dramatically.

Unfortunately, this is unlikely to be sufficient to offset the decline in domestic demand as the economy slows or recesses. Given the procyclical nature of the durable goods industry, which constitutes the backbone of the local economy, even a moderate slowdown can be expected to trigger fairly serious layoffs or postponements of additional capital expenditures and hirings. This will have an adverse direct effect on the local economy as well as a negative multiplier effect, as supply firms and the service sector suffer when incomes in the primary sector fall.

Terre Haute

Marvin Fischbaum

Professor of Economics, Indiana State University

Local economies can and do go their own way. For the decade of the 1980s, fighting stubbornly against the tide of a protracted expansion in the U.S. economy, Terre Haute managed to experience a net decline in its level of employment despite a modest recovery near the end of the decade. Conversely, in 1990 Terre Haute exhibited few signs of falling into recession, as economic activity was supported by a substantial increase in construction activity. The question is: can a second sluggish year for the United States lead to another good year for Terre Haute?

In September 1990 the estimated unemployment rate for the Terre Haute MSA stood at a healthy 4.1%, essentially unchanged from the 4.3% level of the previous September. For most of 1990 the local unemployment rate had been moderately higher than for the corresponding month in 1989, but below state and national levels.

The Labor Department provides two measures of employment. Compared with 12 months earlier, September employment either fell by 1,300 or 2.3%, according to household survey data, or rose by 900 or 1.6%, according to the estimate based on employer reports. Reversing the trend of the 1980s, manufacturing employment increased by 2.8%, while service employment actually decreased by 1.4%. The net increase in establishment employment was more than accounted for by a 1,300 or 46% increase in construction.

At its present level Terre Haute construction has a location quotient relative to Indiana of 1.31. That is, the percentage of the labor force engaged in construction is 31% higher than for the state as a whole. Perhaps more to the point, construction employment is approximately twice as high as the average of metropolitan areas with similar overall levels of employment—Bloomington, Kokomo, and Muncie. Single-family construction permits have been about even with 1989; apartment permits increased sharply, but entirely because of a 136-unit complex registered in October. Nonresidential construction is the focus of activity, with permits up 125% over the past year and up eightfold from the level of the mid-1980s.

Virtually all the nonresidential construction activity, and indeed most of the value of new building permits, reflect projects announced in 1988 and 1989. In the second half of 1990 the only major new commitment was to a School of Technology building at Indiana State University, funded in part through the efforts of Representative John Myers. However, despite a declining backlog, enough nonresidential construction activity remains in the pipeline to provide continued strength through 1991.

In the second half of the 1980s, a fairly robust level of new home construction seemed out of step with a resale market that remained weak. Gradually the two markets have become more closely aligned as the resale market has improved. That trend continued in 1990. Comparing third quarters, realtors sold 17% more homes this year at an increase in average price of 6.4%. However, there remain 3.5 houses listed for every house sold from July through September. Further, at the high end of the resale market, asking and selling prices have increasingly diverged. Since much of the new home construction has been at the very high end, this may presage weakness in new home construction for the coming year.

The prospects for new industry are not particularly good. The long saga involving BASF finally ended when the company tired of fighting local environmental groups and decided to locate its paint plant elsewhere. Plasma Fusion expressed a strong interest in siting a steel mini-mill in the building that had housed J.I. Case. The mill would employ a similar number of workers to BASF at good wages, but several hurdles stand in the way of its realization. Modern Album permanently closed its doors in the midst of a strike. Workers expressed mixed feelings regarding the loss of 130 jobs, noting that pay had been quite low. The closing of the Pillsbury plant is still in process.

Another possible portent of weakness is that whereas initial claims for unemployment insurance since September have remained generally strong, average weekly hours worked in manufacturing declined sharply in that month, from 41.7 in August to 37.7. On a more positive note, a survey conducted by the Indiana State University Center for Research and Management Services indicates that businesses are about as optimistic as they were 12 months ago. More than three-fifths of the respondents believe that the 1991 outlook is positive, and 55% expect to expand their businesses, a slightly higher number than last year. In 1990 Terre Haute gave up low-paying jobs in construction. When area personal income data become available for 1990, they will probably confirm that Terre Haute experienced its largest increase in real income in more than a decade. That scenario will not be repeated in 1991, but one does not find clear signs of an imminent area recession.

Richmond-Connersville-New Castle

Ashton Veramallay

Director, Center for Economic Education, Indiana University East

The Richmond-Connersville-New Castle (RCNC) economy, like the national economy, is in a recession. More than 75 percent of the firms responding to my survey are experiencing in varying degrees the adverse effects of current economic conditions. For some firms, particularly in manufacturing, the decline in economic activity is more pronounced. The outlook for 1991 is far from rosy. If present trends continue, the recession will last for at least two quarters. However, if war breaks out in the Middle East, the recession would be protracted and deep because of the vital importance of oil to the world's economy. Higher input prices will not only increase production costs but also hurt an already weakened economy.

RCNC's unemployment rate will fluctuate between 7-8%. Employment growth in the manufacturing sector will be sluggish unless it is offset by internal expansion or attraction of new firms. It is important to note that continuing erosion of the manufacturing sector's base, as high-paying jobs are replaced by low-paying jobs, will ultimately affect both regional economic growth and quality of life. Creative diversification, if undertaken efficiently and strategically, can cushion the impact.

Employment growth in the service sector will increase slightly. Improved infrastructure such as roads and bridges will facilitate the movement of goods, services, and people with some positive effect on the local economy in the long run. But it is the social infrastructure that catalyzes economic development. Most firms, pursuing a wait-and-see approach, do not plan activity in 1991 and are very much concerned about the negative impact of recent tax assessments in Richmond.

Furthermore, consumers experiencing declining real disposable income are adopting a similar approach. They are uncertain about the future course of the national economy, their jobs, war in the Middle East, and other things. Consequently, they are not buying big-ticket items. This does not bode well for the retail sector; there will be no robust ringing of the cash registers in the fourth quarter. However, sales promotions, discounts, and other gimmicks could lure reluctant consumers. When economic times are hard, consumers cut spending by postponing consumption. They buy cheaper and fewer gifts and shop at discount stores. Fourth quarter sales for most firms in RCNC represent at least 35% of gross revenues, and the outlook is average to flat.

There is some optimism in this short-term pessimistic forecast. The Fed's expected relaxation of its tight monetary policy will eventually mean lower interest rates for businesses and consumers. Also, the dollar's continuing depreciation will boost sales of local firms engaging in international trade, helping to lessen the trade deficit. Europe 1992 and the emergence of new markets in Eastern Europe, Asia, Africa, and Latin America offer good prospects for an early upturn in economic activity in 1991.

Evansville

Maurice Tsai

Professor of Economics, University of Evansville

In 1990 the Evansville economy was stronger than in 1989. For the first three quarters, the Evansville Area Business Index rose at an average of 1.1% per quarter (see the **Table**). However, growth was dealt a setback in the fourth quarter as the nation and the region fell into a mild recession. Thus, the growth rate in 1990 will be reduced to 2.6%, still the best performance since 1986. The growth was supported by strong trade and services sectors, a revived transportation sector, and continued improvement in area employment. The trade and services index has grown over 3% each year for the last four years. The trade employment and service employment increased 1.8% and 5%, respectively. The transportation sector, which had been sluggish for four years, became active in 1990 after substantial improvement in the area's transportation network. The area employment index rose by 2.7% or better each year during the 1987-90 period. From August 1989 to August 1990 there were large increases in employment in the construction and service sectors. The area unemployment rate was 5.8% in January but fell to 4.9% in August.

In the coming year the impacts of the national recession will prevail, at least in the first quarter. The recovery phase will likely start in the second quarter, and the area economy should resume its growth process. The annual growth rate for 1991 is projected to be below 1%.

No substantial growth will occur in the manufacturing sectors. A slow first half will be followed by an active second half. Overall annual growth for this sector will thus be minimal. In the trade and services

Table
Evansville Area Business Index (1977=100)

	Industrial Production	Trade & Services	Construction	Transportation	Finance	Employment	Composite Index
Quarterly							
3Q 1989	125.12	123.28	109.08	99.78	106.91	115.70	119.75
4Q 1989	123.64	125.67	108.26	99.83	107.47	118.65	120.29
1Q 1990	121.17	128.44	123.48	104.51	106.38	118.44	122.16
2Q 1990	126.00	128.23	123.56	101.85	106.13	118.55	123.43
3Q 1990	127.51	128.03	124.76	102.72	106.87	120.59	124.30
4Q 1990*	124.88	128.00	124.27	103.03	107.50	119.19	123.22
Annual							
1987	120.57	115.24	131.46	98.04	109.98	109.52	116.58
1988	123.76	119.71	115.54	98.58	108.38	112.67	118.22
1989	124.48	124.00	116.41	99.64	107.59	115.82	120.40
1990**	124.90	128.22	124.27	103.03	106.72	119.19	123.53
1991*	125.00	131.00	122.00	104.00	107.00	121.00	124.40
Annual Growth Rates (%)							
1987	3.9	4.1	-24.6	-1.4	0.1	2.0	-0.5
1988	2.6	3.9	-12.1	0.6	-1.5	2.9	1.4
1989	0.6	3.6	0.8	1.0	-0.7	2.7	1.7
1990**	0.3	3.4	6.8	3.4	-0.8	2.9	2.6
1991*	0.1	2.2	-1.8	0.9	0.3	1.5	0.7

** projected*
*** estimated*
Source: School of Business, University of Evansville.

sectors, the growth rate will be about 2%, most of which will occur in the second half of the year. Housing construction will be below the 1990 level, because the mortgage rates will not drop enough to stimulate housing activities. The business and public construction will also taper off from the 1990 level. So the total construction sector should experience negative growth. The transportation sector will continue its growth at a 4% rate. The financial sector will begin to recover after a few years of retreat and consolidation. Lower short-term interest rates will provide stimulus to this sector. In the second half of the coming year, the area employment will resume its expansion, resulting in an annual growth of 1.5% in the employment index.

In summary, the Evansville economy will emerge from the mild 1990-91 recession and grow at less than 1%, which will be slightly better than the national economy. A growth rate of 2-3% is quite probable for the Evansville economy in 1992 and after.

Jeffersonville-New Albany (Louisville Area)

Fay Ross Greckel

Professor of Economics, Indiana University Southeast

The Louisville-area economy showed somewhat greater vigor than expected during the first six or eight months of 1990. While this area is not immune to the economic problems plaguing much of the rest of the nation, local indicators do not yet point clearly to a recession.

Total employment in the seven-county metropolitan area (Clark, Floyd, and Harrison in Indiana, and Jefferson, Oldham, Shelby, and Bullitt in Kentucky) increased by nearly 15,000 jobs in the four quarters that ended in September—the same magnitude of increase that had occurred the previous year (see **Table 1**). Unfortunately, most of the 1989-90 job growth occurred in late 1989 and early 1990, accord-

ing to the currently available statistics. Preliminary October data indicate rather flat employment levels for the fall. (These statistics will be revised by the reporting agencies in early 1991, and the last two years' revisions resulted in significant upward adjustments in the data.)

The following sectors showed the most job growth compared with a year ago: health services, business services, eating and drinking establishments, food stores, and government. Employment also increased in manufacturing and construction.

State government statistics, after adjustment for normal seasonal fluctuations, show that the number of jobs held in the Indiana segment of the metropolitan area reached a peak in first quarter 1990 and declined in the next two quarters. As a result, similar employment levels were recorded in the third quarters of 1989 and 1990. September, the latest month for which data are available, actually showed 700 fewer jobs than the same month a year earlier.

Table 1
Louisville Area Establishment Employment[1], 1987-1990

	Total Nonfarm	*Manufacturing*	*Nonmanufacturing*
Entire Metropolitan Area[2]			
Annual Averages			
1987	437,400	87,100	350,300
1988	454,600	88,500	366,100
1989[3]	469,200	88,400	380,800
Quarterly Averages			
1Q 1989	464,400	89,400	375,000
2Q 1989	466,700	88,500	378,200
3Q 1989	469,000	87,300	381,700
4Q 1989	476,800	88,400	388,400
1Q 1990	483,200	87,900	395,300
2Q 1990	480,400	88,600	391,800
3Q 1990	483,700	88,600	395,100
Clark, Floyd, and Harrison Counties (Indiana) Only			
Annual Averages			
1987	59,300	13,400	46,300
1988	61,100	13,800	47,300
1989[3]	61,400	13,500	47,900
Quarterly Averages[3]			
1Q 1989	61,000	13,600	47,400
2Q 1989	61,100	13,400	47,800
3Q 1989	61,200	13,500	47,700
4Q 1989	62,200	13,500	48,600
1Q 1990	62,600	13,800	48,700
2Q 1990	61,700	13,900	47,800
3Q 1990	61,200	14,000	47,200

[1]Employment in establishments located in the area specified; quarterly data are seasonally adjusted by the author.
[2]Consists of Clark, Floyd and Harrison counties in Indiana, and Jefferson, Oldham, Bullitt, and Shelby counties in Kentucky.
[3]Subject to revision by data sources in 1991.

Sources: Indiana Department of Employment and Training Services; Kentucky Cabinet for Human Resources

Table 1 reveals that southern Indiana employment was far from static during this period. Employment in manufacturing increased noticeably, largely as a result of Jeffboat's resurgence. Employment in nonmanufacturing fell, uncharacteristically, due mainly to a sharp reduction in jobs in the local school systems. Neither the latter decline nor the small employment increases or decreases in other sectors provide much insight into the likelihood of recession locally.

Still pursing the recession question, we might look briefly at unemployment statistics, although these are not particularly reliable at the local level. Although nationally the number of persons unemployed and the unemployment rate are higher than in 1989, state estimates of these statistics for the Louisville area show both the number and the rate to be below the 1989 level in recent months. In fact, the October unemployment rate reported for the metropolitan area was a very low 3.8%.

Economists generally regard both unemployment and employment statistics as "lagging indicators," since firms generally do not lay off workers at the first sign of declining output. Employers are more likely, for example, to cut back on hours worked at first. However, the average length of the work week in Louisville-area factories was a healthy 42.3 hours for both September and October, considerably above the 1989 level.

In the nation as a whole, home sales and new housing starts have been declining—something that normally occurs fairly early in a recession. Here again, the Louisville area appears to be doing better than many other parts of the country. For the first nine months of 1990, residential building permits—an indicator of future construction activity—were 7% higher than the same period of 1989. (As **Table 2** indicates, building permit data refer only to Indiana counties and Jefferson County, Kentucky, which includes Louisville.)

Floyd County was the only jurisdiction where 1990 permits were running behind 1989. However, that difference is due to the unusually large number of apartments built during 1989; single-family home permits were higher in 1990, and the total residential permits issued through September 1990 exceeded the number issued for all of 1989.

Residential building permits in the four-county area declined rather sharply in September. However, it is not at all clear whether that marks the onset of a building slump, since October saw permits increasing again to a level that surpassed both September 1990 and October 1989.

Nonresidential construction will probably not be as strong in 1991 as it has been this year. Several major projects are finished or close to completion, and less highway construction is anticipated. Still,

Table 2
Residential Building Permits, 1987-1990[1] (number of dwelling units)

	Jefferson Co. Kentucky	*Clark Co. Indiana*	*Floyd Co. Indiana*	*Harrison Co.[2] Indiana*	*4-County Total*
Totals for Year					
1987	3,169	224	397	157	3,947
1988	2,686	341	387	148	3,562
1989	2,304	321	548	140	3,313
Totals for first nine months (Jan.-Sept.)					
1987	3,013	186	1295	128	3,622
1988	1,807	254	334	126	2,521
1989	1,925	248	362	107	2,642
1990	2,158	249	389	131	2,927

[1]Number of residential units for which building permits were issued, including single-family dwellings, apartment units, and condominium units.
[2]Excluding Corydon, for which data were not available.

Source: Kentuckiana Regional Planning and Development Agency.

there will be considerable activity. For example, in New Albany, Indiana University Southeast and Key Communication recently broke ground the same day for substantial new buildings; Jeffersonville's extensive riverfront development project should be underway by next spring; and several projects have been announced for Jefferson County, Kentucky.

Jefferson County realtors sold 5% more homes in the first ten months of 1990 than in the same period of 1989. Although sales dipped in September, they rebounded very strongly in October. In Floyd, Clark, and Harrison counties, virtually the same number of homes were sold in the first eight months of 1989 and 1990, but 1990 sales were lower in September and October.

Greater weaknesses appeared elsewhere. New car and light truck sales, which had matched the 1989 levels during the first six months of this year, fell rather sharply behind in the third quarter. Floyd and Clark county dealers actually posted a gain in new car sales for the nine-month period, but that was offset by a drop in sales of light trucks.

Emergency food rations distributed by Dare to Care during the first three quarters of this year increased for the third year in a row, although the 3% rise this year was well below the 16% jump experienced during the first three quarters of 1989.

The local economy is feeling the effects of the national decline in housing construction and automobile sales, as evidenced by lower employment in the wood products and furniture sectors and by the temporary layoffs at Ford and at GE's Appliance Park. But the metropolitan area economy is more diversified than in past decades and less dependent upon industries that are highly vulnerable to business cycle downturns. Health services, for example, provide nearly as many jobs toady as durable goods manufacturers.

In addition, the steady but relatively cautious building of new homes, apartments, and offices in recent years means we are not presently faced with a glut in those areas. In fact, a national survey in the third quarter of this year showed a decline in office vacancy rates in both the downtown and suburban areas—and showed Louisville with the lowest office vacancy rates among the cities surveyed.

It appears, then, that the Louisville area is not at present suffering a recession—although it is certainly not enjoying a boom either. While some signs of weakness were noted above, other data suggested the possibility of continued slow growth. Whether—and to what extent—this area experiences recession conditions depends largely on how deep and prolonged a decline occurs on the national level. Barring international hostilities, there is reason to believe that the national recession will not be terribly long or sharp. In that case, 1991 looks like a sluggish year for the Louisville economy, but not one in which it will suffer a major decline.

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