

Institute for Public Policy and Business Research  
The University of Kansas

**U.S. AND KANSAS ECONOMIC FORECASTS FOR 1990**

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## Preface

The Institute for Public Policy and Business Research is pleased to present this economic forecast for 1990 for the United States and Kansas. The forecast was generated with the Kansas Econometric Model and the Indiana University Econometric Model of the United States. This report includes an executive summary, an explanation of the assumptions used in making the forecasts, forecasts for the U.S. and Kansas economies for 1990, and an appendix with detailed quarter by quarter forecasts for each sector.

The forecast and this report were prepared by Professor Norman Clifford, director of the Kansas Econometric Model. The Kansas Econometric Model is a long-term project of the Institute; Professor Clifford, Professor Mohamed El-Hodiri, Dr. Gary Albrecht and Robert Glass, among others, have been instrumental in its development. Professor Donald Lien and David Rearden have been responsible for the development of a supporting ARIMA model.

## Executive Summary

### The National Economy

The rate of growth of the national economy will slow considerably in 1990. Just as the 4.4 percent growth of GNP in 1988 surprised most forecasters with its strength, the 3.0 percent GNP growth in 1989, boosted by an unexpectedly strong third quarter, was greater than most forecasters were predicting even as late as midyear. Nevertheless, the less than one percent growth during the final quarter of the year was the beginning of a growth slowdown that will be felt in 1990. We are forecasting less than one percent growth for the first quarter of the year, with the economy picking up some strength as time goes on, but we still expect GNP to grow only 1.5 percent for the year.

The main reasons for slower growth in GNP in 1990 are significant reductions in the rate of growth of two sectors that contributed strongly to output growth in both 1988 and 1989, exports and investment in producers' durable equipment. Although forecasted to grow 7.1 percent and 3.1 percent respectively, in 1990, these rates are less than half of the growth rates of these two sectors during 1988 and the first half of 1989. Growth of the major category of spending on GNP, consumption spending, will decline much less than growth in exports and investment in producers' durable equipment, falling from 2.8 percent in 1989 to 2.1 percent in 1990. Among the major categories of consumption spending, growth of spending on durable goods will fall from 2.8 percent in 1989 to 2.1 percent in 1990, growth in spending on nondurable goods will fall from 1.4 percent in 1989 to 0.7 percent in 1990, and growth of spending on services will fall from 3.6 percent growth in 1989 to 2.9 percent in 1990.

Growth of spending on imports will be reduced sufficiently to keep import growth slightly below export growth, and there will therefore be a continued (but very slight) improvement in the trade deficit.

Increases in the cost of federal government purchases, transfer payments, and federal net interest payments, coupled with reduced growth in personal and corporate income tax receipts will

cause an increase in the federal government's budget deficit.

Inflationary pressures will be reduced but not removed by the slowdown in the economy in 1990. Driven by upward pressures on wages, the rate of inflation as measured by the consumer price index will be 5.3 percent, an increase from 1989's 4.6 percent rate of inflation. The weakening of the economy predicted for 1990 will also be seen in an increase in the unemployment rate, from 5.2 percent in 1989 to 5.7 percent in 1990.

More liberal money growth by the Federal Reserve Board will lead to lower interest rates in 1990 than in 1989. However, most of the difference will be due to reductions in rates that took place in the second half of 1989. On average, short-term rates will be only slightly below the level that they achieved at the end of 1989, as the Fed walks the fine line between recession and increased inflation.

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**Table 1**  
**The National Forecast--Summary**

	1986	1987	1988	1989	1990
Real GNP (billions)	3717.9	3853.7	4024.4	4143.2	4206.1
Growth Rate	2.3	3.7	4.4	3.0	1.5
Rate of Inflation	1.9	3.7	4.1	4.6	5.3
Civilian Employment (millions)	109.7	112.5	115.1	117.5	118.7
Growth Rate	2.3	2.6	2.2	2.1	1.0
Unemployment Rate	6.9	6.1	5.4	5.2	5.7
3-Month T-Bill Rate	6.0	5.8	6.7	8.1	7.3
Nominal Personal Income (billions)	3526.2	3777.6	4064.5	4426.5	4704.6
Growth Rate	6.0	7.1	7.6	8.9	6.3

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Slower growth in labor income, interest income, and proprietors' income will push the rate of growth of nominal personal income down to 6.3 percent in 1990 from 8.9 percent in 1989. Corrected for inflation, personal income will grow only 1.6 percent in 1990, compared to 4.5 percent in 1989.

The national economic forecast, which is summarized in Table 1, above, is based on the Indiana University Econometric Model of the United States. To arrive at the preceding forecast, the following major assumptions were imposed on that model:

1. The Federal Reserve board will continue to follow the more liberal course that it began in mid 1989. During the third quarter of 1989, the Fed reacted to signs of a downturn in economic growth by relaxing its constraint on money supply growth, and M2 grew at an annual rate of 7.5 percent. The forecast assumes that the new attitude will continue throughout the forecast period, with M2 growth averaging 6.1 percent during the second half of 1989, and 7.6 percent for all of 1990. The 1990 growth will be stronger during the first half of the year, with the Fed slowing money growth slightly during the second half of the year as inflationary pressures reappear.
2. Fiscal policy will be characterized by modest restraint in government spending. Real federal purchases will fall slightly, about 1.2 percent, in 1990. This will come about because of a 1.9 percent decrease in federal defense purchases, which will be partly offset by a 1.1 percent increase in nondefense spending.
3. The value of the dollar will weaken throughout the forecast period. A trade weighted average of the exchange rate of the dollar will decline at a 3 percent annual rate.
4. Real gross national product of our major trading partners in the OECD will grow at a 3 percent annual rate.
5. Imported oil prices will increase modestly at a 1.5 percent annual rate.

### **The Kansas Economy**

The Kansas forecast is summarized in Table 2, below. It is based on the national forecast and the Kansas econometric model.

Reduced growth of the national economy in 1990 will be reflected in slower growth of the Kansas economy. Total employment will grow only 0.2 percent in 1990 after growing 0.9 percent in 1989. Since the labor force will continue to grow at its 0.4 percent rate of 1989, there will be a small increase in the unemployment rate, from 4.3 percent in 1989 to 4.5 percent in 1990.

**Table 2**  
**The Kansas Forecast--Summary**

	1986	1987	1988	1989	1990
Civilian Labor Force (thousands)	1236.0	1267.0	1277.0	1281.7	1286.4
Growth Rate	-0.2	2.5	0.8	0.4	0.4
Total Employment (thousands)	1169.0	1205.0	1216.0	1226.4	1229.0
Growth Rate	-0.6	3.1	0.9	0.9	0.2
Wage and Salary Employment (thousands)	984.7	1005.0	1033.2	1054.5	1062.8
Growth Rate	1.7	2.1	2.8	2.1	0.8
Unemployment Rate	5.4	4.9	4.8	4.3	4.5
Nominal Personal Income (millions)	35600.5	37340.5	39320.0	41716.7	43999.2
Growth Rate	5.3	4.9	5.3	6.1	5.5

Nonfarm wage and salary employment, which does not include farm employment, self-employed persons, or adjustments for residence, and which we feel that we can forecast more reliably than total employment, is predicted to grow only 0.8 percent in 1990, compared to 2.1 percent in 1989.

In 1990, mining employment will continue to decrease, although at a slower rate than in 1989. Lower interest rates and highway construction activity will lead to an increase in construction employment for the first time in two years, although it will not return to its 1987 level. Manufacturing employment, led by growth in employment in printing and publishing and the manufacture of machinery, will grow slightly faster than employment in the state as a whole, about 1.3 percent. A reduction in railroad employment will be more than offset by growth in employment in trucking and warehousing, leading to a 1.0 increase in employment in transportation, communications, and public utilities. Slower growth of personal income will be felt in the wholesale and retail trade sectors. Employment growth in these two sectors combined will be only

0.3 percent in 1990, compared to 1.7 percent in 1989. Employment in finance insurance and real estate will grow 1.8 percent, while employment in services will grow 3.1 percent. Federal government employment will fall 2.9 percent, while state and local government employment will fall 2.1 percent.

Reduction in the growth of property income, due to lower interest rates, and reduced growth of labor income, due to the economic slowdown, will reduce the rate of growth of personal income from 6.1 in 1990 to 5.5 percent in 1989. Corrected for inflation, Kansas personal income will grow 0.7 percent in 1990, compared to 1.6 percent in 1989.

## Introduction

After showing somewhat surprising strength in 1989, the national economy will weaken in 1990; although a recession appears unlikely, real GNP will grow only about 1.5 percent. Major factors in the slowdown will be weaker growth of both exports and investment in producers' durable equipment. Growth of consumer spending will be strong relative to income growth, and will be an important factor in keeping the economy moving ahead. Slower growth will reduce inflationary pressures, and the Federal Reserve Board will respond by relaxing its constraints on money supply growth; as a result, interest rates will be lower during 1990 than they were during 1989. Slower economic growth will mean slower growth of personal income and a slight increase in the unemployment rate.

During the 1980's the overall Kansas economic performance has reflected the national economic experience, although on average the Kansas economy has grown more slowly than the U.S. economy. The Kansas forecast for 1990 exhibits the same trend, with economic growth in the state being smaller relative to both the state's 1989 growth and the 1990 forecast for the nation. An important factor in the Kansas employment level will be growth in the manufacturing sector, which will actually be stronger than total employment growth in 1990, driven by growth in the printing and publishing and machinery subsectors. Growth in employment in services will also be above average, following recent trends. Although construction employment will end its decline in response to lower interest rates and an increase in highway construction activity in Kansas, it will not return to its 1987 level. Slow growth in employment in trade will be the result of slower growth in personal income. Personal income growth in Kansas will slow, as lower employment growth will lead to a lower rate of growth of income to labor, while lower interest rates will be felt in a reduced rate of growth of dividend, interest, and rental income.

These are the highlights of the national and Kansas forecasts developed at the Institute for Public Policy and Business Research and presented below.<sup>1</sup>



## The National Economy

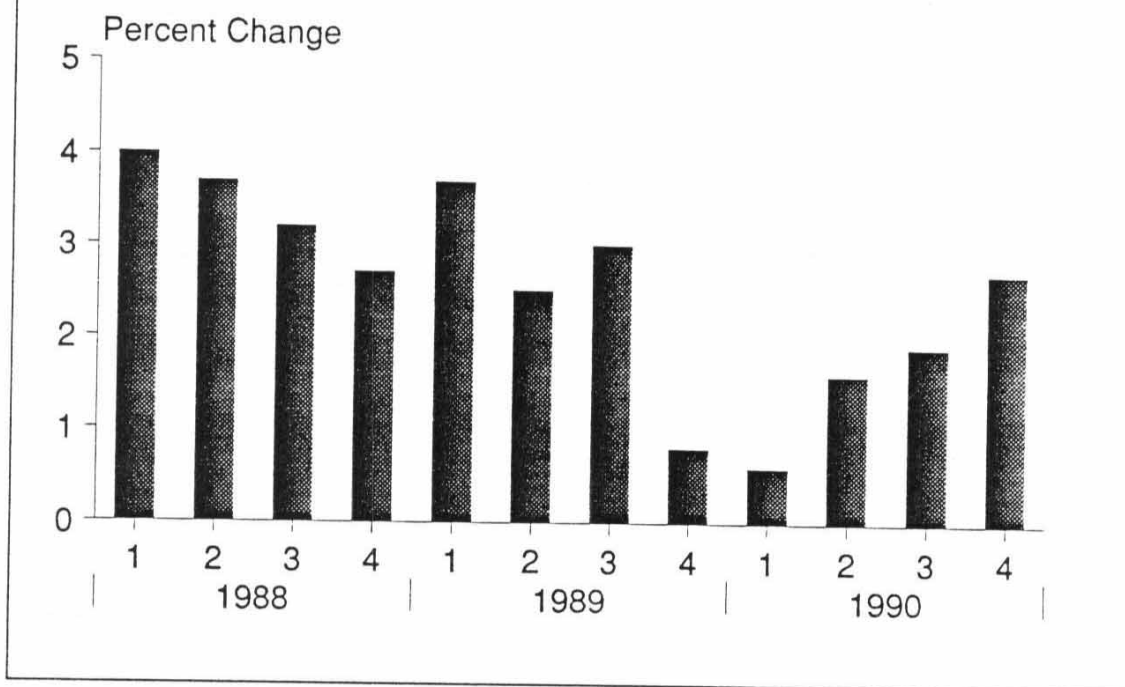
The 1990 forecast is based on the following assumptions:

1. The Federal Reserve board will continue to follow the more liberal course that it began in mid 1989. In 1987 the M2 measure of the money supply grew 6.6 percent and during the first half of 1988 it grew at a 6.2 percent annual rate. The Fed began to react to signs of impending inflation, however, during the second half of 1988 when the growth rate of M2 was only 4.6 percent. The first half of 1989 was a period of even stricter control, with money supply growth averaging only 1.6 percent and interest rates rising sharply. However, during the third quarter of 1989, the Fed reacted to signs of a downturn in economic growth by relaxing its constraint on money supply growth, and M2 grew at an annual rate of 7.5 percent. The forecast assumes that the new attitude will continue throughout the forecast period, with M2 growth averaging 6.1 percent during the second half of 1989, and 7.6 percent for all of 1990. The 1990 growth will be stronger during the first half of the year, with the Fed slowing money growth slightly during the second half of the year as inflationary pressures reappear.
2. Fiscal policy will be characterized by modest restraint in government spending. Real federal purchases will fall slightly, about 1.2 percent, in 1990. This will come about because of a 1.9 percent decrease in federal defense purchases, which will be partly offset by a 1.1 percent increase in nondefense spending.
3. The value of the dollar will weaken throughout the forecast period. A trade weighted average of the exchange rate of the dollar will decline at a 3 percent annual rate.
4. Real gross national product of our major trading partners in the OECD will grow at a 3 percent annual rate.<sup>2</sup>
5. Imported oil prices will increase modestly at a 1.5 percent annual rate.

Given these assumptions, the forecast for the national economy in 1990 is for slower growth. Real gross national product will grow 1.5 percent, compared to 3.0 percent in 1989 and 4.4 percent in 1988. Although this is by no means a recession, it is a significant slowdown. Figure 1 shows the quarterly pattern of the forecast for GNP growth. GNP growth will be slowest during 1990's first quarter, and will increase gradually during the rest of the year.

The reasons for slower 1990 growth can be found in the performance of the economy in 1989. In fact, in terms of the performance of the national economy, the first half of 1989 closely resembles 1988; GNP growth averaged 3.2 percent compared to 1988's 4.4 percent. We find a more important resemblance, however, if we look at the reasons for 1988 growth: growth in real

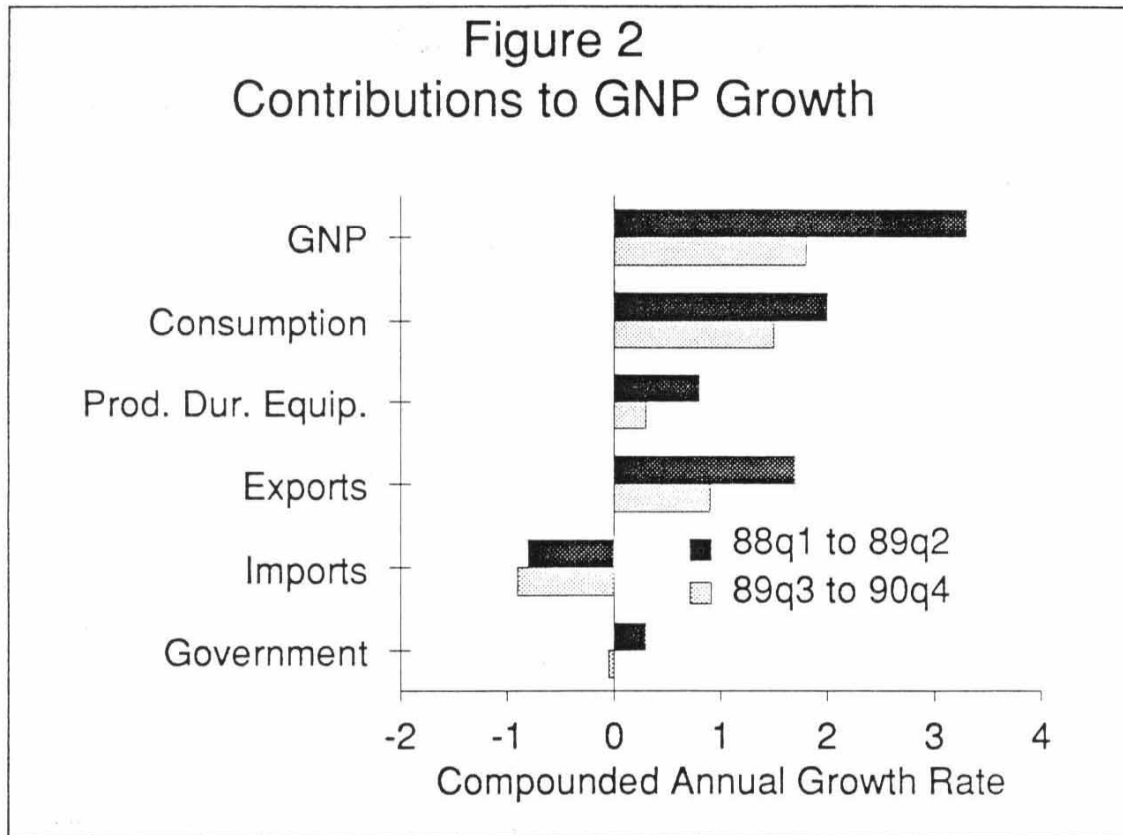
Figure 1  
Real GNP Growth 1988-1990



exports and growth in investment in producers' durable equipment. In 1988, real exports grew 17.6 percent; during the first half of 1989 they grew at a 14.1 percent annual rate. In 1988, investment in producers' durable equipment grew 11.5 percent; during the first half of 1989, it grew 6.5 percent. During the third quarter of 1989, however, exports grew only 3.9 percent, and investment in producers' durable equipment grew 4.6 percent. Our forecast calls for a continuation of curtailed growth in these two categories. Real exports are forecasted to grow 7.1 percent in 1990, and investment in producers' durable equipment is forecasted to grow 3.1 percent.

Figure 2 attempts to capture the magnitude of the effects of slower growth of exports and investment in producers' durable equipment on the growth of the economy. The data are divided into two time periods: the first period is the six quarters beginning with the first quarter of 1988, and the second period is the six quarters beginning with the third quarter of 1989. The first

**Figure 2**  
**Contributions to GNP Growth**



category is GNP growth; for each of the other expenditure categories, the growth rate associated with that category is the rate at which GNP would have grown if the category had grown at its actual historical (first period) or forecasted (second period) rate and no other expenditure component had grown. Thus, export growth alone directly contributed 1.7 percentage points to GNP growth during the earlier period, but is forecasted to contribute only 0.9 percentage points to GNP growth during the later period. Similarly, growth of investment in producers' durable equipment alone directly accounted for 0.8 percentage points of GNP growth in the earlier period, and is forecasted to account for only 0.3 percentage points of growth in GNP in the later period. Together, these two categories are forecasted to contribute only 1.2 percentage points to GNP growth compared to 2.5 percentage points during the period from the beginning of 1988 to the middle of 1989. Furthermore, the magnitude of the effects of the slowdown in growth of exports and investment in

producers' durable equipment is understated by these results. Reduced growth of spending on exports and producers' durable equipment means that firms that produce these goods will experience slower growth; therefore, incomes that depend on these firms will grow more slowly. Slower growth of incomes means slower growth in consumption spending; thus, there is an indirect effect in the form of reduced growth of consumption spending that is not accounted for in Figure 2.

The major category of demand for gross national product, consumption spending, will not experience such an extreme slowdown in growth in 1990. Real consumption spending will increase 2.1 percent in 1990, compared to 2.8 percent in 1989. Here again one can see the shift in strength away from investment in producers' durables and exports; the 1989 growth rate of consumer spending was slower than the overall rate of growth of the economy, indicating that the strength of the economy was coming from other sectors, whereas the forecasted 1990 growth rate of consumption spending is greater than the overall rate of growth of the economy, indicating that the non-consumption sectors will no longer be the main force driving the economy.

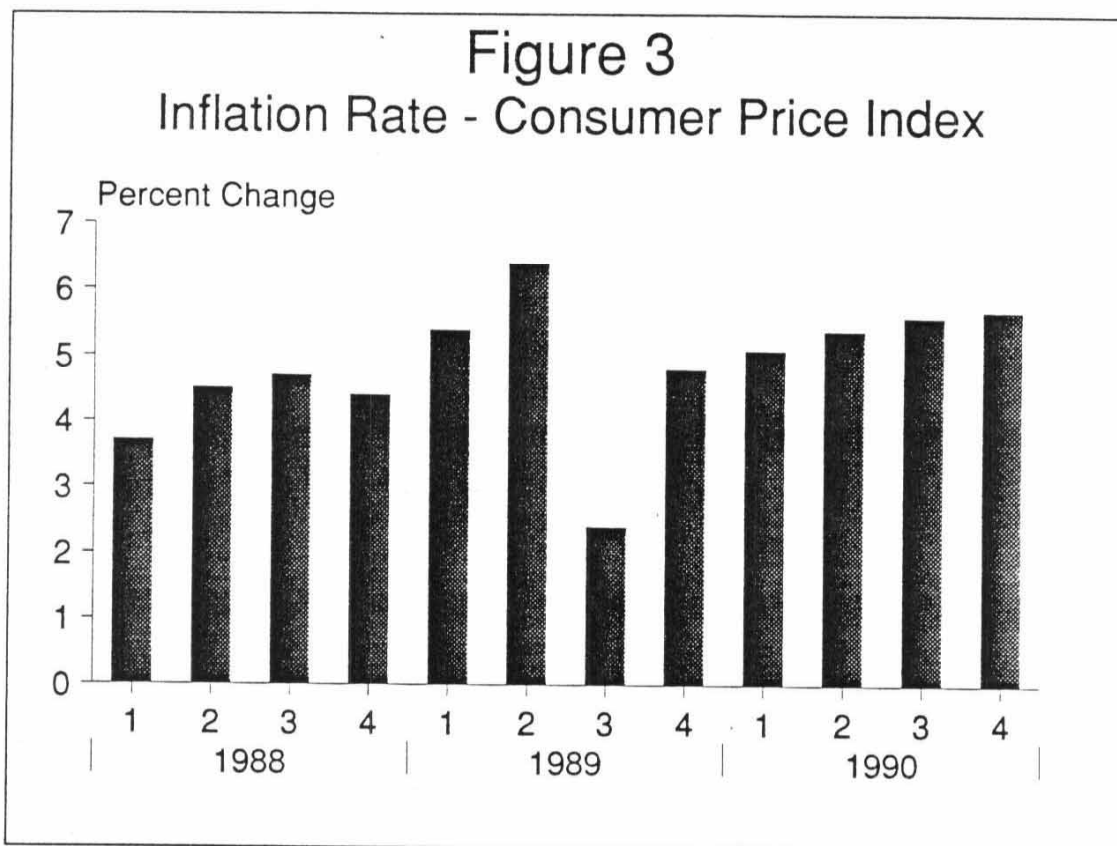
Among the consumption categories, growth in consumer spending on durable goods will decline from 2.8 percent in 1989 to 2.1 percent in 1990. Spending on motor vehicles and parts will grow 1.2 percent, compared to 0.6 percent in 1989, but growth in spending on furniture and household equipment will continue the trend begun during the third quarter of 1989, and grow only 3.2 percent in 1990 compared to 7.7 percent for all of 1989. Consumption of all other categories of durable goods will grow 5.6 percent, compared to 0.6 percent in 1989.

Consumer expenditures on nondurable goods will grow 0.7 percent in 1990, down from 1.4 percent in the previous year. Consumption of food will grow 0.7 percent, compared to 0.8 percent in 1989, while consumer expenditures on apparel will grow 3.2 percent compared to 5.0 percent in 1989. Consumption of gasoline and oil will fall 0.9 percent, after falling 0.4 percent in 1989, and consumer spending on fuel oil and coal will decline 0.4 percent following a decline of 3.6 percent last year. Consumer expenditures on services, which amount to more than half of total spending by consumers, will grow 2.9 percent, down slightly from 1989's 3.6 percent growth rate.

Growth of spending on imports will decline due to reduced growth of consumer spending and a continued modest fall in the value of the dollar. This reduction in the growth of imports will be great enough that export growth will continue to exceed import growth, resulting in some improvement in the trade deficit. Measured on the national income and products account basis, the real trade deficit will fall from \$55 billion in 1989 to \$53 billion in 1990.

Government purchases of goods and services will increase 0.4 percent in 1990, compared to 2.7 percent in 1989. The 1.2 percent decrease in federal purchases will be more than offset by a 1.5 percent increase in purchases by state and local governments. In nominal terms, however, total federal government outlays will grow 6.4 percent, compared to 7.3 percent in 1989. The main reasons for this growth are a 3.5 percent increase in the average price level of government purchases, a 10.3 percent increase in transfer payments, at least part of which is attributable to the slowdown in economic growth, and an 8.4 percent increase in federal net interest payments. On the other hand, total federal government receipts will grow only 5.0 percent in 1990, compared to 7.9 percent in 1989. The reasons for this reduced growth are slower growth of personal income tax receipts attributable to reduced growth of personal income, and a significant reduction in corporate profits tax accruals attributable to reduced corporate profits associated with the slowing economy. Since outlays will grow a bit more rapidly than receipts, there will be an increase in the federal government's budget deficit.

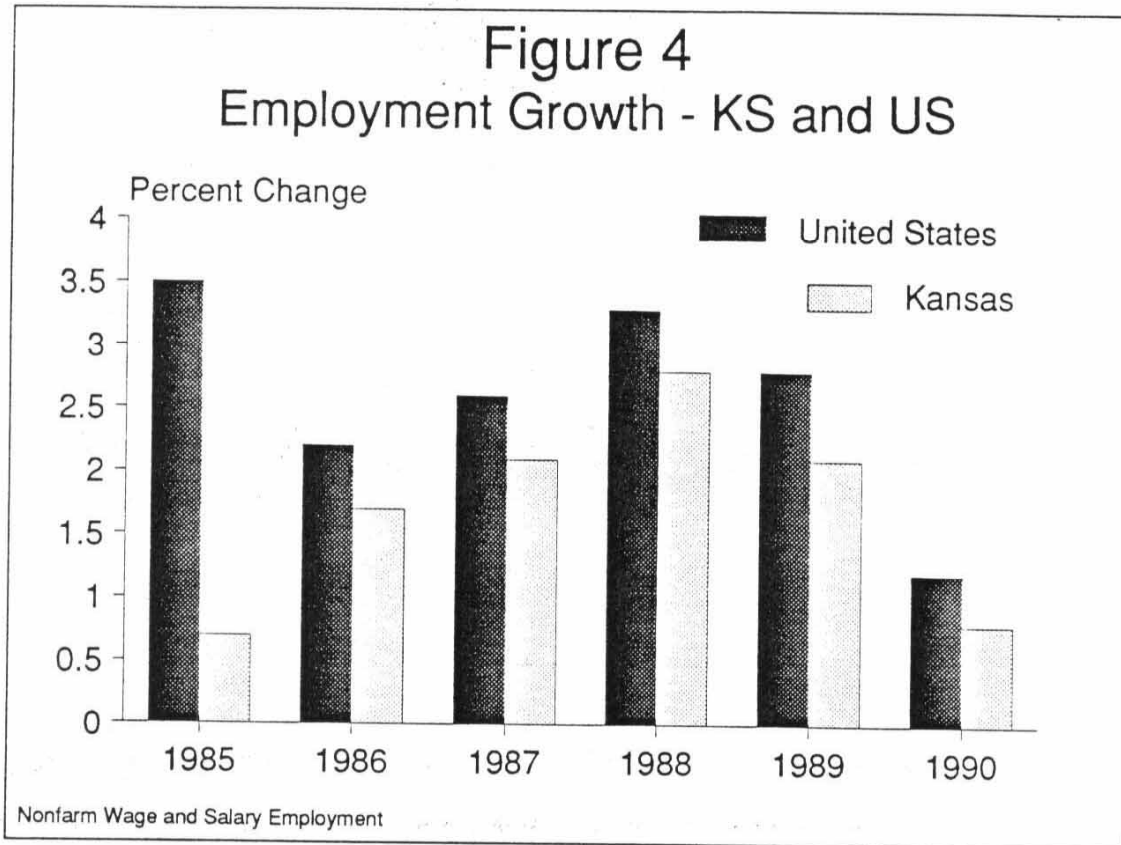
The forecasted dampening of economic growth for 1990 will cause some reduction of inflationary pressures, especially during the first half of the year. The quarterly path of the forecast of the inflation rate as measured by the change in the consumer price index for all urban consumers is shown in Figure 3. One salient feature of Figure 3 is the big drop in the rate of inflation during the third quarter of 1989, a major part of which was due to a large drop in the transportation price index. The price index for motor fuel fell 19 percent, while the prices of new cars fell 4 percent, leading to a 6.8 percent decline in the transportation price index. Even if we look at the rate of inflation excluding transportation prices, however, we find that during that quarter the price level



increased at a modest 3.9 percent annual rate, but as Figure 3 indicates, we do not foresee this relatively low rate as representative of the underlying inflationary pressures in the economy. Our forecast is for the rate of inflation to increase beginning in the last quarter of 1989 and to continue increasing throughout 1990, although never quite returning to the levels reached during the first half of 1989. The inflation rate will average 5.3 percent for the year, compared to 4.6 percent for 1989.

Among items that will have higher than average rates of inflation during 1990 are medical care (9.2 percent), services (9.7 percent), entertainment (6.3 percent), and housing (6.5 percent). Major items that will have lower than average inflation rates during the year are apparel and upkeep (1.3 percent), food and beverages (4.8 percent), and transportation (2.5 percent).

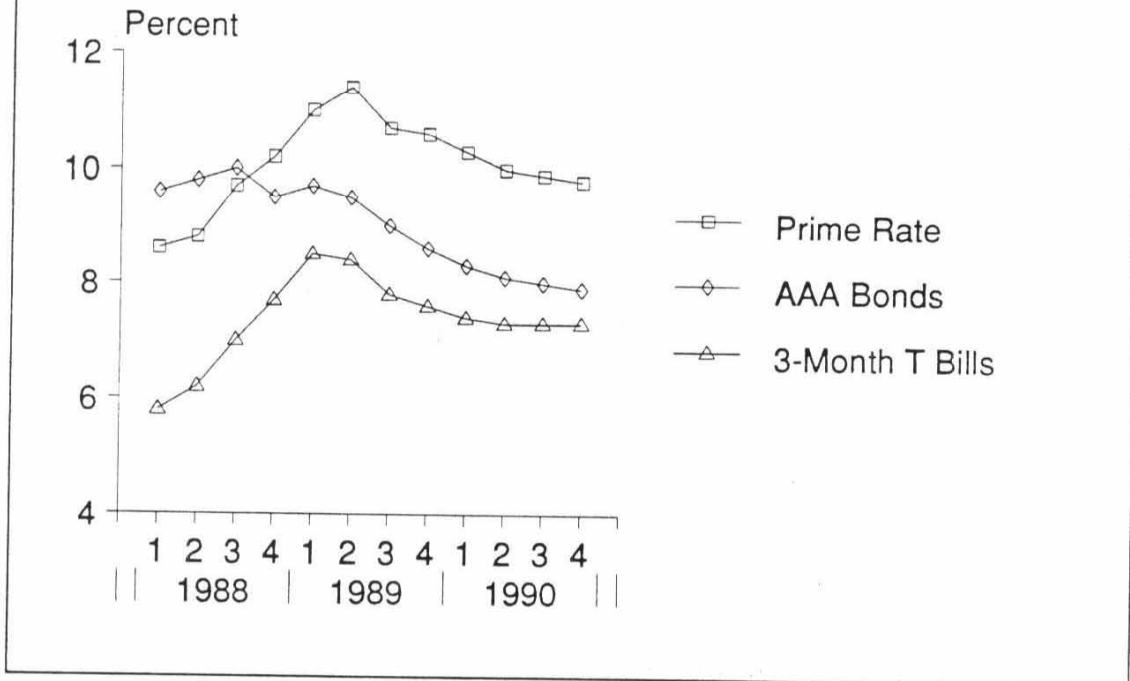
The weakening of the economy predicted for 1990 will also be seen in a modest increase in



the unemployment rate. In 1988 and early 1989 the rate of growth of employment exceeded that of the labor force and there was a gradual decline in the unemployment rate throughout the period. In the second quarter of 1989, although labor force growth was at about the average for the previous five quarters, the growth rate of employment fell below the growth rate of the labor force and the unemployment rate increased. A gradual increase in the unemployment rate is expected to continue throughout 1990, with the unemployment rate for the year expected to average 5.7 percent compared to 5.2 percent during 1989. The recent history and forecast for nonfarm wage and salary employment growth is shown in Figure 4.

A combination of a slowdown in economic growth and signs of reduced inflationary pressures has led the Federal Reserve Board to adjust its policies somewhat, as evidenced by the fact that M2 grew 7.5 percent in the third quarter of 1989, compared to 1.6 percent during the first

## Figure 5 Interest Rates

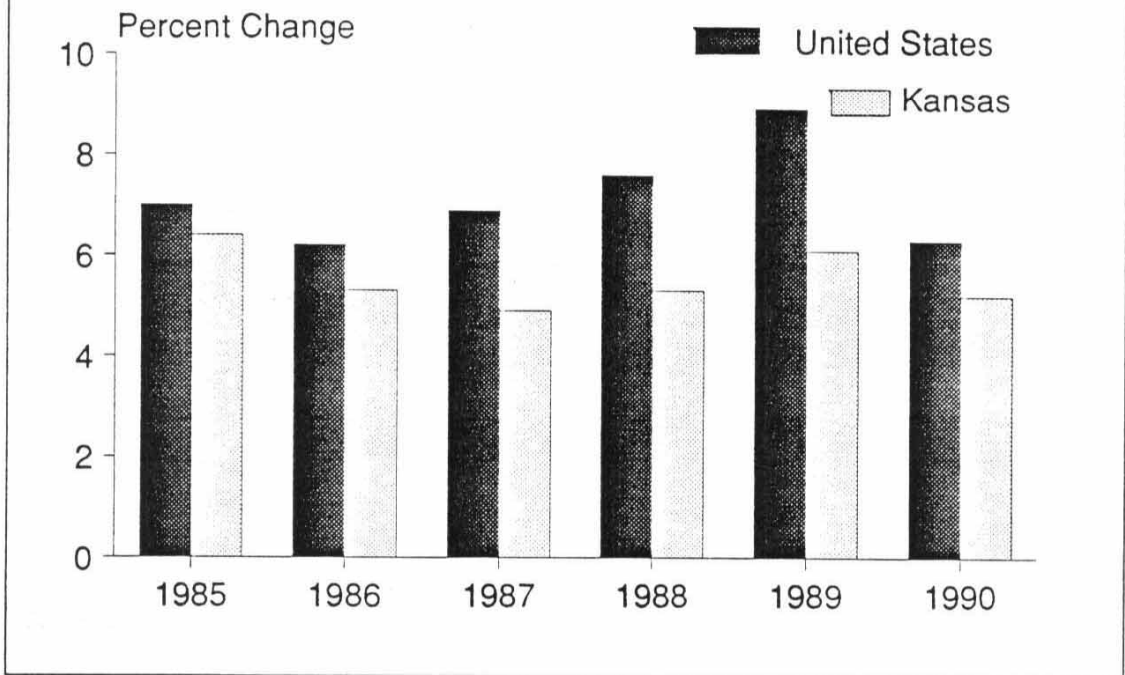


half of the year. As a result, interest rates, which had risen steadily throughout 1988 and early 1989, dropped significantly during that quarter. Since we assume that the Fed will continue to respond to a lessening of inflationary pressures and a weaker economy by relaxing its restraints on money supply growth, we forecast lower interest rates for 1990 than 1989. The three month treasury bill rate, at 7.3 percent, will on average be almost 1 percentage point lower than it was in 1989. The prime rate will be about 0.9 percentage points below 1989's 10.9 percent, while Moody's AAA bond rate will average 8.1 percent compared to 9.2 percent in 1989. Figure 5 illustrates the quarterly path of the interest rate forecasts. As the figure indicates, as the economy begins to gain strength and inflationary pressures intensify toward the end of the year, interest rates are expected to end their decline and even increase slightly.

As economic growth slows, so does the growth of nominal personal income, from 8.9



### Figure 6 Personal Income U.S. and KS



percent in 1989 to 6.3 percent in 1990. This decline is seen mostly in three areas: labor income, both wages and salaries and other labor income, will grow 6.4 percent compared to 8.2 percent in 1989; interest income will grow 6.5 percent compared to 15.2 percent in 1989, because of lower interest rates; and proprietors' income will grow 2.6 percent compared to 7.8 percent in 1989. If we correct for inflation we get real personal income growth of 1.6 percent in 1990, compared to 4.5 percent in 1989. It is notable that real personal income growth in 1989 was significantly greater than the growth rate of real gross national product. This is explained by the fact that corporate profits (the relevant measure of the income to owners of corporations when calculating GNP) fell in 1989 (and are expected to fall again in 1990), while corporations maintained (and are

expected to continue to maintain) dividends (the relevant measure of income to owners of corporations when calculating personal income). The recent history and forecast of personal income growth is presented in Figure 6.

## The Kansas Economy

The slowdown in national economic growth will be reflected in a slowdown in the growth of the Kansas economy. The overall picture for Kansas is shown in Table 3. Employment will grow only 0.2 percent in 1990, compared to its 0.9 percent growth in 1989. Since the labor force will continue to grow at about a 0.4 percent annual rate, the average unemployment rate will increase from 4.3 percent to 4.5 percent. Nonfarm wage and salary employment, which does not

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**Table 3**  
**The Kansas Forecast--Overview**

	1986	1987	1988	1989	1990
Civilian Labor Force (thousands)	1236.0	1267.0	1277.0	1281.7	1286.4
Growth Rate	-0.2	2.5	0.8	0.4	0.4
Total Employment (thousands)	1169.0	1205.0	1216.0	1226.4	1229.0
Growth Rate	-0.6	3.1	0.9	0.9	0.2
Wage and Salary Employment (thousands)	984.7	1005.0	1033.2	1054.5	1062.8
Growth Rate	1.7	2.1	2.8	2.1	0.8
Unemployment Rate	5.4	4.9	4.8	4.3	4.5
Nominal Personal Income (millions)	35600.5	37340.5	39320.0	41716.7	43999.2
Growth Rate	5.3	4.9	5.3	6.1	5.5
Real Personal Income (millions)	31132.3	31177.7	31581.4	32081.7	32303.5
Growth Rate	2.8	0.1	1.3	1.6	0.7

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include farm employment, self-employed persons, or adjustments for those with more than one job, is also forecasted to grow more slowly in 1990 than in 1989, 0.8 percent compared to 2.1 percent. Figure 4 compares the recent history and forecast of nonfarm wage and salary employment for Kansas with that of the nation. Finally, growth of personal income in current dollars is expected to be 5.5 percent compared to 6.1 percent in 1989.

The growth rate of employment in subsectors of the Kansas economy is shown in Table 4. Mining employment will continue to fall, although not as drastically as in the previous two years, as imported oil prices fail to reach a level that will call forth substantial new activity. After falling for two consecutive years, construction employment will grow slightly, as a result of lower interest rates and some increased level of activity in highway construction; the 1990 level of construction employment, however, will still be more than 5 percent below the 1987 level.

Employment growth in the manufacturing sector of the Kansas economy will be slightly stronger than the trend for the rest of the state economy. The growth rates for employment in durable and nondurable goods manufacturing shown in Table 2 translate into a 1.3 percent growth in manufacturing employment in 1990, about the same as the 1989 growth rate for this sector. The forecasted 1990 growth in employment in the durable goods portion of the manufacturing sector is due to growth in the machinery, including electrical, subsector. Employment in manufacturing of machinery, including electrical, is expected to grow 4.9 percent in 1990, compared to 3.4 percent in 1989. The forecasted growth of this subsector contributes the full 1.3 percentage points of the forecasted growth in durable goods employment. Employment in the transportation equipment manufacturing sector is forecasted to grow only 0.6 percent in 1990, compared to 3.4 percent in 1989. Turning to the nondurable goods portion of manufacturing employment we find that two-thirds of the forecasted growth is accounted for by growth in the printing and publishing subsector. Employment in printing and publishing, which is becoming an industry of growing importance for Kansas, is forecasted to grow 3.9 percent in 1990, after growing 2.1 percent in 1989.

The 1.0 percent rate of growth in employment in transportation, communications, and public

**Table 4**  
**Kansas Employment Growth Breakdown**

	1988	1989	1990
Mining	-7.5	-6.2	-1.0
Construction	-7.0	-0.9	3.0
Durable Goods Manufacturing	4.7	2.4	1.3
Nondurable Goods Manufacturing	0.6	0.5	1.4
Transportation and Utilities	3.3	1.3	1.0
Wholesale Trade	-2.9	4.3	0.6
Retail Trade	3.6	0.8	0.2
Finance, Insurance and Real Estate	2.3	0.6	1.8
Services	4.8	4.2	3.1
State and Local Government	3.5	3.3	-2.1
Federal Government	3.4	4.0	-2.9
Farm	1.3	1.3	-2.2

utilities reflects a decrease in railroad employment for the sixth consecutive year. The forecasted 4.9 percent decrease in railroad employment is more than offset by the forecasted 2.6 percent increase in trucking and warehousing employment. The slowdown in economic growth will be felt directly in slow growth of employment in wholesale and retail trade, as personal income growth slows. The forecast calls for growth of only 0.5 percent in employment in general merchandise stores and 2.0 percent in employment in apparel and accessory stores, while employment in

foodstores is unchanged and employment in automobile dealers and gas stations will fall 0.7 percent. The forecasted increase in employment growth in finance, insurance, and real estate will include a 1.1 percent increase in banking employment and a 0.4 percent increase in employment in insurance.

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**Table 5**  
**Kansas Personal Income Growth Breakdown**

	1988	1989	1990
Personal Income	5.3	6.1	5.5
Wages and Salaries	5.9	6.3	5.9
Nonfarm Proprietors' Income	4.5	4.3	3.4
Farm Proprietors' Income	-12.6	-23.5	-5.6
Dividends Interest and Rent	7.8	10.4	3.7
Personal Contributions for Social Insurance	11.0	10.0	7.3
Transfer Payments	6.1	7.3	9.2
Other Labor Income	6.0	8.6	7.0

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Following recent state and national trends, employment in services will continue to grow. Government employment in Kansas is expected to fall 2.2 percent in 1990, as both the federal and state and local governments face tighter budget constraints. Federal government employment will decline 2.9 percent, while state and local employment will decline 2.1 percent.

The detailed breakdown of the Kansas nominal personal income forecast is shown in Table 5. The major factors leading to reduced income growth are reduced growth of income to labor, both wages and salaries and other labor income, and reduced growth in dividends interest and

rents. The reduced growth in total income to labor, from 6.5 percent in 1989 to 6.0 percent in 1990, is due to the slowdown in economic growth in general, and the slowdown in employment growth in particular. The reduction in growth of property income is due almost entirely to the reduction in interest income growth that follows from lower interest rates. Because of inflation, the growth of personal income in real (purchasing power) terms will be much smaller than its growth in nominal terms. There is no price index for Kansas, but we can get some idea of the size of real personal income growth by deflating by the GNP personal consumption deflator for the U.S. When we do so we find that real personal income in Kansas is forecasted to grow only 0.7 percent in 1990, compared to 1.6 percent in 1989. Figure 6 compares the recent history and forecast of personal income growth for Kansas with that of the nation.

## Conclusions

Although growth of both the national and Kansas economies will slow significantly in 1990, the probability of a recession is felt to be relatively low. There are two main ways in which the economy could enter a recession: policy makers could, either intentionally or unintentionally, push the economy into a recession, or some shock to the economy could move it into a recession.

The chances that the economy will move into a policy-induced recession during 1990 seem remote. The presence of extreme inflationary pressures would seem to be the only stimulus that would cause the Fed to intentionally move the economy into a recession, but there is no reason to expect such extreme inflationary pressures to surface in the near future. Internally, such pressures could be a result of strong aggregate demand, or very high expectations of inflation, or both, but aggregate demand appears to be softening, and the recent history of only moderate inflation coupled with what appears to be the Fed's recent successes in limiting inflation suggest that economic agents will expect future inflation to be moderate. Externally, inflationary pressures could be aggravated by, for example, a big increase in imported oil prices, but again, there is no reason to think that the likelihood of such an event is great.

It does not appear likely that an external shock will force the economy into a recession. We must keep in mind, of course, that as growth of the economy slows, it takes less of a shock to push the economy into a recession; however, our forecast of 1.5 percent growth, though not robust, suggests enough strength that moderate shocks will not be sufficient to lead to recession. Thus, although we cannot completely discount the possibility of recession in 1990, we conclude that the likelihood of such an occurrence is small.



## Notes

1. The forecasts of the national economy are produced by the Econometric Model of the United States using assumptions generated at the Institute. This model was developed at the Center for Econometric Model Research at the University of Indiana, R. Jeffery Green and Morton J. Marcus, directors. The Kansas forecasts are produced by the Kansas Econometric Model, which is a product of the Institute for Public Policy and Business Research at the University of Kansas.

2. Organization for Economic Cooperation and Development. Member nations are Australia, Austria, Belgium, Canada, Denmark, Finland, France, West Germany, Greece, Holland, Iceland, Ireland, Italy, Japan, Luxembourg, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

APPENDIX

Institute for Public Policy and Business Research, University of Kansas										
1989-1990 US Forecast										
GNP AS EXPENDITURE - 1982 DOLLARS										
	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1990	
US: Gross National Product	4106.8	4132.5	4162.9	4170.7	4176.7	4193.2	4213.2	4241.4	4143.2	4206.1
Percent Change From Last Qtr (AR)	3.7	2.5	3.0	0.8	0.6	1.6	1.9	2.7	3.0	1.5
US: Personal Consumption Expend.	2641.0	2653.7	2690.1	2695.5	2704.8	2717.6	2732.4	2748.9	2670.1	2725.9
Percent Change From Last Qtr (AR)	2.0	1.9	5.6	0.8	1.4	1.9	2.2	2.4	2.8	2.1
US: Per. Con. Exp.-Durables	419.3	424.9	436.4	430.0	430.7	435.3	442.3	448.7	427.7	439.3
Percent Change From Last Qtr (AR)	-1.1	5.4	11.3	-5.7	0.6	4.4	6.6	5.9	3.4	2.7
US: PCE-Nondurables	915.0	909.7	920.8	921.4	921.2	921.8	923.0	925.3	916.7	922.8
Percent Change From Last Qtr (AR)	1.3	-2.3	5.0	0.3	-0.1	0.3	0.5	1.0	1.3	0.7
US: PCE-Services	1306.7	1319.0	1332.9	1344.1	1352.9	1360.4	1367.1	1374.9	1325.7	1363.8
Percent Change From Last Qtr (AR)	3.6	3.8	4.3	3.4	2.7	2.3	2.0	2.3	3.5	2.9
US: Fixed Nonresidential Invest.	501.0	511.4	517.9	517.9	518.6	523.7	530.1	540.2	512.1	528.1
Percent Change From Last Qtr (AR)	6.9	8.6	5.2	0.0	0.5	4.0	5.0	7.9	3.7	3.1
US: Producers Durable Equipment	379.9	393.2	397.6	397.6	398.0	401.2	405.5	411.9	392.1	404.2
Percent Change From Last Qtr (AR)	9.6	14.8	4.6	-0.0	0.5	3.3	4.3	6.4	5.5	3.1
US: Investment in Structures	121.1	118.1	120.4	120.4	120.6	122.4	124.6	128.4	120.0	124.0
Percent Change From Last Qtr (AR)	-1.0	-9.6	8.0	-0.1	0.7	6.2	7.1	12.8	-1.8	3.3
US: Residential Investment	195.6	189.3	184.8	180.3	177.2	175.1	174.2	173.9	187.5	175.1
Percent Change From Last Qtr (AR)	-5.0	-12.3	-9.2	-9.4	-6.7	-4.6	-2.0	-0.8	-3.4	-6.6

US forecasts were generated using assumptions determined by the Institute for Public Policy and Business Research and operationalized through the Indiana Econometric Model of the United States.

	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
US: Change in Bus. Inventories	24.5	19.1	21.9	24.4	22.0	21.3	20.1	20.0	22.5	20.8
US: Change in Farm Inventories	7.6	-0.5	5.6	0.0	0.0	0.0	0.0	0.0	3.2	0.0
US: Change in Nonfarm Inv.	16.9	19.5	16.2	24.4	22.0	21.3	20.1	20.0	19.3	20.8
US: Net Exports Percent Change From Last Qtr (AR)	-55.0 -69.2	-51.2 -24.9	-57.1 54.7	-56.3 -5.2	-54.7 -11.1	-53.5 -8.7	-52.5 -7.3	-51.7 -5.9	-54.9 -26.7	-53.1 -3.3
US: Total Exports Percent Change From Last Qtr (AR)	569.7 14.0	587.5 13.1	593.1 3.9	604.8 8.1	615.9 7.5	626.2 6.9	635.9 6.3	645.1 5.9	588.8 11.1	630.8 7.1
US: Total Imports Percent Change From Last Qtr (AR)	624.6 -0.4	638.7 9.3	650.2 7.4	661.2 6.9	670.6 5.8	679.7 5.5	688.4 5.2	696.8 5.0	643.7 6.4	683.8 6.2
US: Total Government Purchases Percent Change From Last Qtr (AR)	799.7 -3.3	810.3 5.4	805.3 -2.4	808.9 1.8	808.8 -0.0	809.0 0.1	808.9 -0.0	810.1 0.6	806.1 2.7	809.2 0.4
US: Fed. Govt. Purchases Percent Change From Last Qtr (AR)	335.5 -9.4	343.6 10.0	336.1 -8.4	338.0 2.2	336.4 -1.9	334.8 -1.9	333.2 -1.9	332.7 -0.7	338.3 2.9	334.3 -1.2
US: Fed. Defense Purchases Percent Change From Last Qtr (AR)	254.4 -10.6	255.8 2.2	260.1 6.9	256.0 -6.2	254.0 -3.1	252.0 -3.1	250.0 -3.1	249.0 -1.6	256.6 -1.9	251.3 -2.1
US: Fed. Nondefense Purchases Percent Change From Last Qtr (AR)	81.1 -5.7	87.8 37.4	76.0 -43.9	81.9 35.2	82.4 2.1	82.8 2.1	83.2 2.1	83.7 2.1	81.7 21.3	83.0 1.6
US: State and Local Govt. Purch. Percent Change From Last Qtr (AR)	464.2 1.5	466.7 2.2	469.2 2.2	471.0 1.5	472.5 1.3	474.2 1.5	475.7 1.2	477.5 1.5	467.8 2.5	475.0 1.5

US forecasts were generated using assumptions determined by the Institute for Public Policy and Business Research and operationalized through the Indiana Econometric Model of the United States.

GNP AS EXPENDITURE - CURRENT DOLLARS

	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
US: Gross National Product Percent Change From Last Qtr (AR)	5113.1 7.9	5201.7 7.1	5281.0 6.2	5344.6 4.9	5410.5 5.0	5492.6 6.2	5579.7 6.5	5678.9 7.3	5235.1 7.3	5540.4 5.8
US: Personal Consumption Expend. Percent Change From Last Qtr (AR)	3381.4 7.1	3444.1 7.6	3508.1 7.6	3554.2 5.4	3610.3 6.5	3676.3 7.5	3745.8 7.8	3819.0 8.1	3472.0 7.3	3712.9 6.9
US: Per. Con. Exp.-Durables Percent Change From Last Qtr (AR)	466.4 -0.8	471.0 4.0	486.1 13.5	480.7 -4.4	483.7 2.5	491.5 6.7	502.3 9.0	512.3 8.2	476.0 4.6	497.4 4.5
US: PCE-Nondurables Percent Change From Last Qtr (AR)	1098.3 7.6	1121.5 8.7	1131.4 3.6	1143.1 4.2	1155.5 4.4	1169.1 4.8	1183.2 4.9	1198.6 5.3	1123.6 6.8	1176.6 4.7
US: PCE-Services Percent Change From Last Qtr (AR)	1816.7 9.0	1851.7 7.9	1890.6 8.7	1930.4 8.7	1971.1 8.7	2015.7 9.3	2060.3 9.2	2108.2 9.6	1872.4 8.4	2038.8 8.9
US: Fixed Nonresidential Invest. Percent Change From Last Qtr (AR)	503.1 6.0	512.5 7.7	519.6 5.7	520.8 0.9	523.6 2.2	531.6 6.3	541.6 7.7	555.9 11.0	514.0 5.5	538.2 4.7
US: Producers Durable Equipment Percent Change From Last Qtr (AR)	358.5 6.0	370.1 13.6	373.4 3.6	373.5 0.1	374.7 1.3	378.9 4.5	384.3 5.9	391.9 8.1	368.9 6.4	382.5 3.7
US: Investment in Structures Percent Change From Last Qtr (AR)	144.7 6.4	142.4 -6.2	146.2 11.1	147.3 3.0	148.9 4.4	152.8 10.8	157.2 12.3	164.0 18.4	145.1 3.4	155.7 7.3
US: Residential Investment Percent Change From Last Qtr (AR)	238.8 0.7	235.1 -6.1	232.1 -5.0	229.8 -4.0	229.1 -1.2	229.5 0.7	231.1 2.9	233.4 4.0	233.9 0.6	230.8 -1.4

US forecasts were generated using assumptions determined by the Institute for Public Policy and Business Research and operationalized through the Indiana Econometric Model of the United States.

Institute for Public Policy and Business Research, University of Kansas 1989-1990 US Forecast										19FEB90	4
	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990	
US: Change in Bus. Inventories	27.7	27.4	27.4	30.3	27.5	26.9	25.8	26.1	28.2	26.6	
US: Change in Farm Inventories	8.6	3.8	7.5	0.0	0.0	0.0	0.0	0.0	5.0	0.0	
US: Change in Nonfarm Inv.	19.1	23.6	19.8	30.3	27.5	26.9	25.8	26.1	23.2	26.6	
US: Net Exports Percent Change From Last Qtr (AR)	-54.0 -66.2	-50.6 -22.9	-45.1 -36.9	-40.1 -37.4	-37.0 -27.5	-35.9 -11.5	-35.7 -2.2	-35.1 -6.3	-47.5 -35.6	-35.9 -24.3	
US: Total Exports Percent Change From Last Qtr (AR)	605.6 19.1	626.1 14.2	628.5 1.5	644.4 10.5	661.8 11.3	679.6 11.2	697.0 10.7	714.3 10.3	626.2 14.3	688.2 9.9	
US: Total Imports Percent Change From Last Qtr (AR)	659.6 5.7	676.6 10.7	673.6 -1.8	684.5 6.6	698.8 8.6	715.5 9.9	732.7 10.0	749.4 9.4	673.6 8.4	724.1 7.5	
US: Total Government Purchases Percent Change From Last Qtr (AR)	1016.0 1.8	1033.2 6.9	1038.9 2.2	1049.7 4.2	1057.0 2.8	1064.2 2.7	1071.1 2.6	1079.6 3.2	1034.4 6.8	1068.0 3.2	
US: Fed. Govt. Purchases Percent Change From Last Qtr (AR)	399.0 -7.1	406.0 7.2	402.7 -3.2	406.9 4.3	409.1 2.2	411.3 2.1	413.7 2.4	417.3 3.5	403.7 5.9	412.8 2.3	
US: Fed. Defense Purchases Percent Change From Last Qtr (AR)	298.7 -2.4	301.3 3.5	307.8 8.9	304.9 -3.7	305.2 0.4	305.7 0.7	306.4 0.9	308.3 2.4	303.2 1.7	306.4 1.1	
US: Fed. Nondefense Purchases Percent Change From Last Qtr (AR)	100.4 -19.2	104.7 18.3	94.9 -32.5	102.0 33.6	103.9 7.7	105.5 6.3	107.3 6.8	109.0 6.7	100.5 20.7	105.5 5.9	
US: State and Local Govt. Purch. Percent Change From Last Qtr (AR)	617.0 8.2	627.2 6.8	636.2 5.9	642.8 4.2	647.9 3.2	652.9 3.1	657.4 2.8	662.3 3.0	630.8 7.3	655.1 3.9	

US forecasts were generated using assumptions determined by the Institute for Public Policy and Business Research and operationalized through the Indiana Econometric Model of the United States.

RELATION OF GNP, NNP, NAT. INCOME & PERS. INCOME

	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
US: Gross National Product	5113.1	5201.7	5281.0	5344.6	5410.5	5492.6	5579.7	5678.9	5235.1	5540.4
Percent Change From Last Qtr (AR)	7.9	7.1	6.2	4.9	5.0	6.2	6.5	7.3	7.3	5.8
US: Cap. Cons. Allow. with Adj.	533.0	541.0	565.2	577.0	589.1	601.4	613.8	626.4	554.0	607.7
Percent Change From Last Qtr (AR)	7.0	6.1	19.1	8.6	8.7	8.6	8.5	8.5	7.9	9.7
US: Cap. Cons. Allow w/o Adj.	533.3	548.9	585.7	597.0	609.1	621.4	633.8	646.4	566.2	627.7
Percent Change From Last Qtr (AR)	13.2	12.2	29.6	7.9	8.4	8.3	8.2	8.2	13.1	10.8
US: Cap. Cons. Adjustment, Total	-0.3	-7.3	-20.5	-20.0	-20.0	-20.0	-20.0	-20.0	-12.0	-20.0
Percent Change From Last Qtr (AR)	-100.035059456.8	56.8	6119.0	-9.4	0.0	0.0	0.0	0.0	-193.8	66.3
US: Net National Product	4580.1	4660.8	4715.7	4767.6	4821.4	4891.3	4966.0	5052.5	4681.1	4932.8
Percent Change From Last Qtr (AR)	8.0	7.2	4.8	4.5	4.6	5.9	6.3	7.1	7.2	5.4
US: Indirect Business Taxes	407.7	413.4	421.5	432.8	444.7	455.6	466.7	478.1	418.8	461.3
Percent Change From Last Qtr (AR)	5.1	5.7	8.1	11.2	11.5	10.2	10.1	10.1	6.4	10.1
US: Business Transfer Payments	30.8	31.5	32.2	32.8	33.4	33.9	34.5	35.2	31.8	34.3
Percent Change From Last Qtr (AR)	9.6	9.4	9.2	7.7	7.1	7.1	7.2	7.7	9.6	7.7
US: Statistical Discrepancy	-24.1	-18.3	-25.5	-25.5	-25.5	-25.5	-25.5	-25.5	-23.3	-25.5
US: Sub. Less Cur. Sur.-Gov. E.	19.5	15.5	-0.3	14.5	14.4	14.3	14.2	14.1	12.3	14.2
Percent Change From Last Qtr (AR)	-16.5	-60.1	-100.0	545741412	-2.7	-2.7	-2.8	-2.8	-33.3	15.9
US: National Income	4185.2	4249.6	4287.3	4342.0	4383.2	4441.5	4504.4	4578.8	4266.0	4477.0
Percent Change From Last Qtr (AR)	8.9	6.3	3.6	5.2	3.8	5.4	5.8	6.8	7.4	4.9

US forecasts were generated using assumptions determined by the Institute for Public Policy and Business Research and operationalized through the Indiana Econometric Model of the United States.

	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
US: Corp. Prof. w. IVA + CCADJ Percent Change From Last Qtr (AR)	316.3 -25.3	307.8 -10.3	295.2 -15.4	286.0 -12.0	265.9 -25.2	265.1 -1.2	264.3 -1.3	268.1 5.9	301.3 -8.3	265.8 -11.8
US: Net Interest Percent Change From Last Qtr (AR)	436.1 21.1	458.4 22.1	471.5 11.9	481.7 9.0	490.6 7.5	498.9 7.0	507.0 6.6	515.0 6.5	461.9 17.6	502.9 8.9
US: Cont. to Soc. Ins.-Total Percent Change From Last Qtr (AR)	469.7 13.4	476.4 5.8	482.0 4.8	486.8 4.0	504.4 15.4	510.3 4.7	517.0 5.3	524.5 5.9	478.7 7.7	514.1 7.4
US: Wage Accruals less Disburs.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
US: Govt. Trans. to Pers.-Total Percent Change From Last Qtr (AR)	585.6 16.5	595.3 6.8	604.2 6.1	620.1 11.0	636.8 11.2	654.6 11.7	672.8 11.5	689.7 10.4	601.3 8.2	663.5 10.3
US: Personal Interest Income Percent Change From Last Qtr (AR)	629.0 21.9	655.1 17.7	667.8 8.0	678.7 6.7	687.9 5.5	696.4 5.0	704.7 4.8	713.0 4.8	657.7 15.2	700.5 6.5
US: Personal Dividend Income Percent Change From Last Qtr (AR)	109.4 11.8	111.4 7.5	113.2 6.6	112.9 -0.9	112.8 -0.5	112.4 -1.5	111.9 -1.5	111.5 -1.4	111.7 9.4	112.1 0.4
US: Personal Income Percent Change From Last Qtr (AR)	4317.8 13.3	4400.3 7.9	4455.9 5.2	4532.0 7.0	4593.2 5.5	4664.6 6.4	4740.2 6.6	4820.3 6.9	4426.5 8.9	4704.6 6.3

US forecasts were generated using assumptions determined by the Institute for Public Policy and Business Research and operationalized through the Indiana Econometric Model of the United States.



DISPOSITION OF PERSONAL INCOME - CURRENT DOLLARS		1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
US: Personal Income		4317.8	4400.3	4455.9	4532.0	4593.2	4664.6	4740.2	4820.3	4426.5	4704.6
Percent Change From Last Qtr (AR)		13.3	7.9	5.2	7.0	5.5	6.4	6.6	6.9	8.9	6.3
US: Wage and Salary Disburse.		2560.7	2608.8	2654.7	2693.4	2730.9	2771.7	2815.9	2865.2	2629.4	2795.9
Percent Change From Last Qtr (AR)		9.2	7.7	7.2	6.0	5.7	6.1	6.5	7.2	8.2	6.3
US: Other Labor Income		241.3	246.0	250.7	254.6	258.4	262.3	266.6	271.3	248.2	264.6
Percent Change From Last Qtr (AR)		8.4	8.0	7.9	6.4	6.0	6.3	6.6	7.2	8.4	6.6
US: Total Proprietors Inc.		359.3	355.5	343.3	354.7	356.3	359.6	364.3	369.5	353.2	362.4
Percent Change From Last Qtr (AR)		43.5	-4.2	-13.0	13.9	1.8	3.8	5.3	5.9	7.8	2.6
US: Farm Proprietors Inc.		59.0	51.3	36.1	44.1	43.0	43.0	44.0	44.8	47.6	43.7
Percent Change From Last Qtr (AR)		1055.6	-42.8	-75.5	123.0	-9.5	0.2	9.1	7.5	19.7	-8.2
US: Nonfarm Proprietors Inc.		300.3	304.2	307.2	310.6	313.3	316.6	320.3	324.7	305.6	318.7
Percent Change From Last Qtr (AR)		5.5	5.3	4.0	4.5	3.5	4.3	4.8	5.7	6.1	4.3
US: Rental Income of Persons		11.8	9.8	5.4	2.4	2.3	2.2	2.1	2.0	7.4	2.2
Percent Change From Last Qtr (AR)		-71.1	-52.4	-90.8	-95.8	-15.6	-18.3	-21.1	-23.7	-53.0	-70.7
US: Personal Interest Income		629.0	655.1	667.8	678.7	687.9	696.4	704.7	713.0	657.7	700.5
Percent Change From Last Qtr (AR)		21.9	17.7	8.0	6.7	5.5	5.0	4.8	4.8	15.2	6.5
US: Personal Dividend Income		109.4	111.4	113.2	112.9	112.8	112.4	111.9	111.5	111.7	112.1
Percent Change From Last Qtr (AR)		11.8	7.5	6.6	-0.9	-0.5	-1.5	-1.5	-1.4	9.4	0.4
US: Total Transfer Payments		616.4	626.8	636.4	652.9	670.2	688.6	707.3	724.8	633.1	697.7
Percent Change From Last Qtr (AR)		16.1	6.9	6.3	10.8	11.0	11.4	11.3	10.3	8.3	10.2

US forecasts were generated using assumptions determined by the Institute for Public Policy and Business Research and operationalized through the Indiana Econometric Model of the United States.

	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
US: Tot. Pers. Tax + Montax Pay Percent Change From Last Qtr (AR)	628.3 22.0	652.6 16.4	649.1 -2.1	676.1 17.7	689.3 8.0	704.1 8.9	719.9 9.2	736.4 9.5	651.5 11.1	712.4 9.3
US: Disposable Personal Income Percent Change From Last Qtr (AR)	3689.5 11.9	3747.7 6.5	3806.8 6.5	3855.9 5.3	3903.9 5.1	3960.4 5.9	4020.3 6.2	4083.9 6.5	3775.0 8.5	3992.2 5.8
US: Personal Consumption Expend. Percent Change From Last Qtr (AR)	3381.4 7.1	3444.1 7.6	3508.1 7.6	3554.2 5.4	3610.3 6.5	3676.3 7.5	3745.8 7.8	3819.0 8.1	3472.0 7.3	3712.9 6.9
US: Int. Paid by Cons. to Bus. Percent Change From Last Qtr (AR)	100.1 8.4	101.5 5.7	102.0 2.0	102.3 1.3	102.4 0.2	102.2 -0.5	102.1 -0.5	102.1 -0.1	101.5 5.5	102.2 0.7
US: Pers. Trans. Pay. to For. Percent Change From Last Qtr (AR)	2.2 79.8	1.4 -83.6	1.6 70.6	2.0 144.1	2.0 0.0	2.0 0.0	2.0 0.0	2.0 0.0	1.8 -2.7	2.0 11.1
US: Personal Saving Percent Change From Last Qtr (AR)	205.7 151.1	200.7 -9.4	195.1 -10.7	197.4 4.7	189.2 -15.5	179.9 -18.4	170.4 -19.4	160.8 -20.7	199.7 38.0	175.1 -12.3
US: Disposable Personal Income Percent Change From Last Qtr (AR)	2881.7 6.6	2887.6 0.8	2919.2 4.4	2924.2 0.7	2924.7 0.1	2927.7 0.4	2932.7 0.7	2939.4 0.9	2903.2 3.9	2931.1 1.0
US: YSAV as a Percent of YPD	5.6	5.4	5.1	5.1	4.8	4.5	4.2	3.9	5.3	4.4

US forecasts were generated using assumptions determined by the Institute for Public Policy and Business Research and operationalized through the Indiana Econometric Model of the United States.

NATIONAL INCOME - CURRENT DOLLARS

	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
US: National Income	4185.2	4249.6	4287.3	4342.0	4383.2	4441.5	4504.4	4578.8	4266.0	4477.0
Percent Change From Last Qtr (AR)	8.9	6.3	3.6	5.2	3.8	5.4	5.8	6.8	7.4	4.9
US: Wages and Salaries	2560.7	2608.8	2654.7	2693.4	2730.9	2771.7	2815.9	2865.2	2629.4	2795.9
Percent Change From Last Qtr (AR)	9.2	7.7	7.2	6.0	5.7	6.1	6.5	7.2	8.2	6.3
US: W. and S.-Govt. + Govt. Ent.	466.9	473.5	480.2	487.3	493.2	499.2	504.9	511.2	477.0	502.1
Percent Change From Last Qtr (AR)	9.6	5.8	5.8	6.1	4.9	4.9	4.7	5.1	6.8	5.3
US: W. and S.-Other	2093.8	2135.3	2174.5	2206.1	2237.7	2272.5	2310.9	2354.0	2152.4	2293.8
Percent Change From Last Qtr (AR)	9.1	8.2	7.5	5.9	5.8	6.4	6.9	7.7	8.6	6.6
US: Supplements to w. and s.	501.0	509.4	517.2	523.8	537.2	543.9	550.9	559.0	512.9	547.7
Percent Change From Last Qtr (AR)	7.5	6.9	6.3	5.2	10.6	5.1	5.3	6.0	7.2	6.8
US: Emp. Cont. to Soc. Ins.	259.7	263.4	266.6	269.2	278.8	281.5	284.4	287.7	264.7	283.1
Percent Change From Last Qtr (AR)	6.6	5.8	4.9	4.0	15.1	3.9	4.1	4.8	6.0	6.9
US: Other Labor Income	241.3	246.0	250.7	254.6	258.4	262.3	266.6	271.3	248.2	264.6
Percent Change From Last Qtr (AR)	8.4	8.0	7.9	6.4	6.0	6.3	6.6	7.2	8.4	6.6
US: Total Proprietors Inc.	359.3	355.5	343.3	354.7	356.3	359.6	364.3	369.5	353.2	362.4
Percent Change From Last Qtr (AR)	43.5	-4.2	-13.0	13.9	1.8	3.8	5.3	5.9	7.8	2.6
US: Farm Proprietors Inc.	59.0	51.3	36.1	44.1	43.0	43.0	44.0	44.8	47.6	43.7
Percent Change From Last Qtr (AR)	1055.6	-42.8	-75.5	123.0	-9.5	0.2	9.1	7.5	19.7	-8.2
US: Nonfarm Proprietors Inc.	300.3	304.2	307.2	310.6	313.3	316.6	320.3	324.7	305.6	318.7
Percent Change From Last Qtr (AR)	5.5	5.3	4.0	4.5	3.5	4.3	4.8	5.7	6.1	4.3

US forecasts were generated using assumptions determined by the Institute for Public Policy and Business Research and operationalized through the Indiana Econometric Model of the United States.

	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
US: Rental Income of Persons Percent Change From Last Qtr (AR)	11.8 -71.1	9.8 -52.4	5.4 -90.8	2.4 -95.8	2.3 -15.6	2.2 -18.3	2.1 -21.1	2.0 -23.7	7.4 -53.0	2.2 -70.7
US: Corp. Prof. w. IVA + CCADJ Percent Change From Last Qtr (AR)	316.3 -25.3	307.8 -10.3	295.2 -15.4	286.0 -12.0	265.9 -25.2	265.1 -1.2	264.3 -1.3	268.1 5.9	301.3 -8.3	265.8 -11.8
US: Net Interest Percent Change From Last Qtr (AR)	436.1 21.1	458.4 22.1	471.5 11.9	481.7 9.0	490.6 7.5	498.9 7.0	507.0 6.6	515.0 6.5	461.9 17.6	502.9 8.9
US: Corp. Prof. before Tax Percent Change From Last Qtr (AR)	318.0 -1.0	296.0 -24.9	275.0 -25.5	266.1 -12.4	245.1 -28.0	246.0 1.5	247.1 1.8	252.8 9.6	288.8 -5.9	247.8 -14.2
US: Profits Tax Liability Percent Change From Last Qtr (AR)	144.4 3.4	134.9 -23.8	122.6 -31.8	114.7 -23.4	105.6 -28.1	102.7 -10.5	101.4 -5.1	101.1 -1.1	129.1 -6.4	102.7 -20.5
US: Corp. Prof. after Taxes Percent Change From Last Qtr (AR)	173.6 -4.5	161.1 -25.8	152.4 -19.9	151.4 -2.6	139.5 -27.9	143.3 11.3	145.8 7.0	151.7 17.5	159.6 -5.5	145.1 -9.1
US: Dividends-Total Percent Change From Last Qtr (AR)	118.5 12.0	120.9 8.4	123.3 8.2	123.3 0.1	123.2 -0.2	123.2 -0.1	123.2 -0.1	123.2 0.1	121.5 10.0	123.2 1.4
US: Undistributed Corp. Prof. Percent Change From Last Qtr (AR)	55.1 -30.7	40.2 -71.7	29.1 -72.5	28.1 -13.4	16.3 -88.7	20.1 132.8	22.6 59.4	28.5 155.4	38.1 -34.8	21.9 -42.6
US: Inventory Valuation Adj. Percent Change From Last Qtr (AR)	-38.3 1218.3	-20.5 -91.8	-6.3 -99.1	-4.1 -81.5	-1.2 -99.3	-0.9 -72.0	-2.9 12215.9	-4.8 666.6	-17.3 -30.8	-2.4 -86.0
US: Corp. Cap. Cons. Adj. Percent Change From Last Qtr (AR)	36.6 -39.5	32.3 -39.3	26.5 -54.7	24.0 -32.7	22.0 -29.4	20.0 -31.7	20.0 0.0	20.0 0.0	29.8 -36.2	20.5 -31.3
US: Net Interest Percent Change From Last Qtr (AR)	436.1 21.1	458.4 22.1	471.5 11.9	481.7 9.0	490.6 7.5	498.9 7.0	507.0 6.6	515.0 6.5	461.9 17.6	502.9 8.9

US forecasts were generated using assumptions determined by the Institute for Public Policy and Business Research and operationalized through the Indiana Econometric Model of the United States.

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PRICE DEFLATORS

	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
US: CPI-All items Percent Change From Last Qtr (AR)	1.2 5.4	1.2 6.4	1.2 2.4	1.3 4.8	1.3 5.1	1.3 5.4	1.3 5.6	1.3 5.7	1.2 4.6	1.3 5.3
US: Implicit Deflator - GNP Percent Change From Last Qtr (AR)	1.2 4.0	1.3 4.5	1.3 3.2	1.3 4.1	1.3 4.4	1.3 4.5	1.3 4.5	1.3 4.5	1.3 4.2	1.3 4.2
US: Implicit Deflator - C Percent Change From Last Qtr (AR)	1.3 4.9	1.3 5.6	1.3 1.9	1.3 4.5	1.3 5.0	1.4 5.5	1.4 5.5	1.4 5.5	1.3 4.4	1.4 4.7
US: Implicit Deflator - IOIL Percent Change From Last Qtr (AR)	0.5 113.1	0.6 100.3	0.5 -30.7	0.5 3.9	0.5 1.5	0.5 1.6	0.5 1.5	0.5 1.5	0.5 18.0	0.5 1.2

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EMPLOYMENT

	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
US: Civilian Labor Force Percent Change From Last Qtr (AR)	123.3 3.0	123.8 1.6	124.0 0.7	124.6 1.9	125.1 1.6	125.6 1.5	126.0 1.5	126.5 1.5	123.9 1.9	125.8 1.5
US: Civilian Employment Percent Change From Last Qtr (AR)	117.0 3.7	117.4 1.5	117.6 0.7	118.0 1.2	118.2 0.8	118.5 0.9	118.8 1.1	119.2 1.4	117.5 2.1	118.7 1.0
US: Unemployment Percent Change From Last Qtr (AR)	6.3 -9.4	6.4 4.3	6.4 0.7	6.6 15.3	6.9 15.4	7.1 12.5	7.2 8.4	7.3 2.1	6.4 -2.4	7.1 10.5
US: Unemployment Rate-Total	5.1	5.2	5.2	5.3	5.5	5.6	5.7	5.7	5.2	5.7
US: Tot. Nonfarm Empl. Percent Change From Last Qtr (AR)	107.7 3.3	108.3 2.5	108.9 2.1	109.2 1.2	109.4 0.8	109.7 0.9	110.0 1.1	110.3 1.4	108.5 2.8	109.9 1.2
US: Total Govt. Empl. Percent Change From Last Qtr (AR)	17.6 1.5	17.7 2.3	17.8 2.8	17.8 0.6	17.9 0.9	17.9 0.9	17.9 0.7	18.0 0.9	17.7 2.0	17.9 1.1
US: Fed. Govt. Empl. Percent Change From Last Qtr (AR)	3.0 -0.3	3.0 1.5	3.0 1.1	3.0 -1.3	3.0 1.3	3.0 0.0	3.0 0.0	3.0 0.0	3.0 0.7	3.0 0.3
US: S & L Govt. Empl. Percent Change From Last Qtr (AR)	14.6 1.9	14.7 2.5	14.8 3.1	14.8 1.1	14.9 0.8	14.9 1.1	14.9 0.8	15.0 1.1	14.7 2.3	14.9 1.3
US: Output Per Manhour-Pr. Nonag. Percent Change From Last Qtr (AR)	19.0 1.0	19.1 0.5	19.1 1.2	19.1 -0.2	19.1 0.1	19.2 0.9	19.2 1.0	19.3 1.3	19.1 0.5	19.2 0.6

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FINANCIAL AND GOVERNMENT BUDGET DEFECIT

	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
US: M1 Money Supply Percent Change From Last Qtr (AR)	786.7 -0.4	775.6 -5.5	778.8 1.7	785.9 3.7	793.0 3.7	801.0 4.1	807.6 3.3	814.3 3.4	781.7 0.7	804.0 2.8
US: M2 Money Supply Percent Change From Last Qtr (AR)	3071.2 1.9	3080.3 1.2	3136.7 7.5	3199.6 -8.3	3263.0 8.2	3328.6 8.3	3392.3 7.9	3457.1 7.9	3122.0 3.7	3360.3 7.6
US: 3-Month T-Bill Rate Percent Change From Last Qtr (AR)	8.5 50.6	8.4 -4.3	7.8 -25.2	7.6 -9.8	7.4 -10.1	7.3 -5.6	7.3 -2.8	7.3 1.2	8.1 21.7	7.3 -9.5
US: Prime Rate Charged By Banks Percent Change From Last Qtr (AR)	11.0 35.0	11.4 14.6	10.7 -22.4	10.6 -3.1	10.3 -10.0	10.0 -9.6	9.9 -7.4	9.8 -3.8	10.9 16.9	10.0 -8.3
US: Moodys AAA Corp. Bond Rate Percent Change From Last Qtr (AR)	9.7 7.6	9.5 -8.0	9.0 -20.2	8.6 -14.4	8.3 -12.7	8.1 -9.9	8.0 -7.0	7.9 -5.9	9.2 -5.3	8.1 -12.2
US: Federal Govt. Surplus Percent Change From Last Qtr (AR)	-147.5 -40.0	-145.4 -5.6	-144.7 -1.9	-164.6 67.5	-166.8 5.4	-171.5 11.6	-178.3 17.0	-182.7 10.3	-150.6 3.2	-174.8 16.1

US forecasts were generated using assumptions determined by the Institute for Public Policy and Business Research and operationalized through the Indiana Econometric Model of the United States.

EMPLOYMENT

	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
KS EMP: Civilian Labor Force Percent Change From One Year Ago	1282.9 0.7	1297.7 1.4	1281.3 0.4	1265.1 -1.1	1266.3 -1.3	1295.7 -0.1	1295.2 1.1	1288.6 1.9	1281.7 0.4	1286.4 0.4
KS EMP: Employed Percent Change From One Year Ago	1219.4 0.9	1241.8 2.0	1228.9 0.9	1215.4 -0.4	1205.1 -1.2	1239.5 -0.2	1236.5 0.6	1234.8 1.6	1226.4 -0.9	1229.0 0.2
KS EMP: Unemployed Percent Change From One Year Ago	63.5 -1.8	55.8 -9.5	52.5 -10.8	49.7 -15.6	61.2 -3.6	56.3 0.8	58.6 11.7	53.8 8.2	55.4 -9.2	57.5 3.8
KS EMP: Unemployment Rate Percent Change From One Year Ago	4.9 -2.6	4.3 -10.4	4.1 -11.5	3.9 -14.5	4.8 -2.1	4.3 1.0	4.5 10.4	4.2 6.1	4.3 -9.6	4.5 3.5
KS EMP: Adj. for Res. & Self Emp. Percent Change From One Year Ago	133.5 -8.6	122.9 3.1	113.1 -6.7	84.3 -26.0	106.1 -20.5	108.0 -12.1	111.4 -1.5	110.7 31.3	113.4 -9.3	109.0 -3.9
KS EMP: Farm Percent Change From One Year Ago	48.0 -4.7	59.3 -5.1	66.4 3.8	60.0 11.2	50.5 5.3	63.3 6.7	66.0 -0.5	48.7 -18.9	58.4 1.3	57.1 -2.2
KS EMP: Total Non-farm Wage & Salary Percent Change From One Year Ago	1038.0 2.5	1059.6 2.3	1049.4 1.7	1071.1 1.8	1048.5 1.0	1068.2 0.8	1059.1 0.9	1075.5 0.4	1054.5 2.1	1062.8 0.8
KS EMP: Mining Percent Change From One Year Ago	9.6 -10.0	9.9 -6.9	10.0 -5.1	9.8 -2.7	9.4 -2.6	9.7 -2.6	10.0 0.5	9.8 0.6	9.8 -6.2	9.7 -1.0

Kansas forecasts were generated using assumptions determined by the Institute for Public Policy and Business Research and operationalized through the Kansas Econometric Model.



	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
KS EMP: Oil & Gas Extraction Percent Change From One Year Ago	8.4 -10.3	8.6 -6.2	8.6 -3.7	8.5 -0.8	8.4 -0.9	8.5 -1.4	8.9 2.6	8.8 2.9	8.6 -5.3	8.6 0.8
KS EMP: Mining Residual Percent Change From One Year Ago	1.2 -7.7	1.3 -11.4	1.3 -13.0	1.2 -14.0	1.0 -14.8	1.2 -10.7	1.2 -13.3	1.0 -15.5	1.3 -11.6	1.1 -13.5
KS EMP: Construction Percent Change From One Year Ago	36.7 -0.2	42.3 -2.5	45.0 -2.5	43.2 1.8	37.4 1.9	44.3 4.8	46.6 3.5	43.9 1.4	41.8 -0.9	43.0 3.0
KS EMP: Non-durable Goods Percent Change From One Year Ago	73.5 -0.1	74.4 -0.0	74.3 0.7	74.5 1.6	74.5 1.3	75.6 1.6	75.6 1.7	75.1 0.8	74.2 0.5	75.2 1.4
KS EMP: Food & Kindred Percent Change From One Year Ago	26.5 -0.5	26.6 -0.4	26.6 0.3	26.8 0.6	26.2 -1.1	26.7 0.3	27.1 2.2	27.0 1.0	26.6 0.0	26.8 0.6
KS EMP: Apparel Percent Change From One Year Ago	3.5 -7.9	3.5 -7.0	3.6 -4.5	3.6 0.9	3.5 0.5	3.6 0.7	3.6 -0.2	3.5 -3.0	3.5 -4.7	3.5 -0.5
KS EMP: Printing & Publishing Percent Change From One Year Ago	20.3 1.5	20.8 1.0	20.7 2.6	20.7 3.3	21.5 5.7	21.8 4.8	21.2 2.6	21.2 2.6	20.6 2.1	21.4 3.9
KS EMP: Chemicals & Allied Prod. Percent Change From One Year Ago	7.8 -0.4	7.7 -2.1	7.7 -3.0	7.7 -1.3	7.6 -2.1	7.7 -0.6	7.6 -0.4	7.5 -2.7	7.7 -1.7	7.6 -1.4
KS EMP: Petroleum & Coal Percent Change From One Year Ago	3.0 2.3	3.0 1.1	3.0 -1.1	3.0 3.4	3.0 -0.2	3.1 2.1	3.1 3.8	3.1 1.7	3.0 1.4	3.0 1.9
KS EMP: Non-durables Residual Percent Change From One Year Ago	12.5 -0.0	12.8 2.1	12.8 2.9	12.8 2.7	12.7 2.0	12.9 0.5	12.9 0.8	12.8 0.3	12.7 1.9	12.8 0.9

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	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
KS EMP: Durable Goods Percent Change From One Year Ago	109.3 3.3	110.0 2.6	110.7 2.2	110.5 1.3	110.1 0.7	111.3 1.1	111.5 0.7	113.3 2.5	110.1 2.4	111.5 1.3
KS EMP: Stone Glass Clay Percent Change From One Year Ago	6.4 -1.0	7.1 1.9	7.2 0.0	6.8 -1.0	6.5 2.0	6.9 -2.7	7.1 -1.4	6.9 2.1	6.9 0.0	6.9 -0.1
KS EMP: Primary Metals Percent Change From One Year Ago	3.6 15.1	3.6 11.5	3.5 3.9	3.5 -1.9	3.6 -0.2	3.6 1.7	3.7 3.4	3.7 5.9	3.5 6.8	3.6 2.7
KS EMP: Fabricated Metals Percent Change From One Year Ago	11.4 1.8	11.4 0.3	11.0 -4.1	10.7 -7.0	10.6 -6.8	10.9 -4.5	11.0 0.6	11.1 3.6	11.1 -2.3	10.9 -1.9
KS EMP: Machinery, Incl. Electrical Percent Change From One Year Ago	29.9 4.8	30.0 3.3	30.3 3.2	30.4 2.4	31.2 4.2	31.5 4.8	31.7 4.8	32.2 5.9	30.2 3.4	31.6 4.9
KS EMP: Transportation Equipment Percent Change From One Year Ago	47.8 2.8	47.4 2.2	48.6 4.4	49.0 4.0	48.5 1.6	48.3 1.7	47.8 -1.5	49.3 0.7	48.2 3.4	48.5 0.6
KS EMP: Durables Residual Percent Change From One Year Ago	10.3 2.3	10.5 2.9	10.2 -1.9	10.1 -2.3	9.7 -5.8	10.1 -3.8	10.2 0.1	10.0 -1.1	10.3 0.2	10.0 -2.7
KS EMP: Transportation & Utilities Percent Change From One Year Ago	64.5 2.3	65.6 0.0	65.8 1.5	66.1 1.5	65.0 0.7	66.3 1.1	66.6 1.3	66.7 0.8	65.5 1.3	66.1 1.0
KS EMP: Railroads Percent Change From One Year Ago	8.8 -2.2	9.0 -2.9	9.0 -3.2	8.8 -2.9	8.5 -3.0	8.5 -5.5	8.5 -5.7	8.4 -5.3	8.9 -2.8	8.5 -4.9
KS EMP: Trucking & Warehousing Percent Change From One Year Ago	23.3 5.3	24.2 4.5	24.4 4.0	24.7 4.2	23.8 1.9	24.8 2.6	25.3 3.6	25.2 2.0	24.1 4.5	24.8 2.6

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	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
KS EMP: Electric Gas & Sanitary Serv Percent Change From One Year Ago	12.5 3.3	12.6 2.7	12.8 4.1	12.7 3.0	12.7 1.5	12.9 2.3	13.0 2.1	12.8 1.0	12.6 3.3	12.9 1.7
KS EMP: Trans. & Utilities Residual Percent Change From One Year Ago	20.0 0.5	19.9 -5.2	19.6 -0.7	19.9 -0.7	20.0 0.2	20.1 1.3	19.8 1.2	20.3 2.1	19.8 -1.6	20.1 1.2
KS EMP: Wholesale Trade Percent Change From One Year Ago	67.9 19.8	68.7 0.3	68.1 -0.7	68.1 0.5	67.3 -0.9	69.2 0.7	69.5 2.0	68.4 0.4	68.2 4.3	68.6 0.6
KS EMP: Retail Trade Percent Change From One Year Ago	189.2 1.6	191.8 1.1	192.0 0.5	195.8 0.2	189.0 -0.1	192.4 0.3	193.2 0.6	195.9 0.0	192.2 0.8	192.6 0.2
KS EMP: Gen. Merchandise Stores Percent Change From One Year Ago	27.3 4.6	27.3 3.8	27.2 0.9	29.3 0.7	27.3 -0.0	27.2 -0.3	27.6 1.4	29.5 0.8	27.8 2.4	27.9 0.5
KS EMP: Food Stores Percent Change From One Year Ago	27.3 2.0	27.2 0.5	27.2 -1.2	27.6 -0.6	27.1 -0.7	27.2 -0.1	27.3 0.4	27.7 0.2	27.3 0.2	27.3 -0.1
KS EMP: Auto. Dealers & Gas Stations Percent Change From One Year Ago	24.2 0.8	24.2 -0.5	24.1 -0.8	24.0 -0.8	23.6 -2.4	24.1 -0.3	24.2 0.2	23.9 -0.2	24.1 -0.3	24.0 -0.7
KS EMP: Apparel & Accessory Stores Percent Change From One Year Ago	11.5 4.9	11.2 1.2	11.2 3.4	11.9 1.7	11.4 -0.4	11.4 1.9	11.6 3.7	12.2 2.9	11.4 2.8	11.7 2.0
KS EMP: Retail Trade Residual Percent Change From One Year Ago	98.8 0.6	101.9 0.9	102.3 0.9	103.1 0.3	99.5 0.7	102.5 0.5	102.6 0.3	102.5 -0.5	101.5 0.7	101.8 0.2
KS EMP: Finance, Insurance, R.E. Percent Change From One Year Ago	57.7 1.1	58.4 0.2	58.9 0.3	58.7 0.7	58.4 1.3	59.7 2.2	60.3 2.4	59.5 1.4	58.4 0.6	59.5 1.8

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	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
KS EMP: Banking Percent Change From One Year Ago	16.1 1.5	16.2 1.5	16.4 1.9	16.3 2.3	16.3 1.3	16.5 1.4	16.6 1.3	16.4 0.3	16.3 1.8	16.4 1.1
KS EMP: Insurance Percent Change From One Year Ago	11.7 1.2	11.6 0.6	11.6 0.3	11.7 0.3	11.6 -0.4	11.7 0.7	11.8 1.1	11.7 0.0	11.7 0.6	11.7 0.4
KS EMP: F.I.R.E. Residual Percent Change From One Year Ago	29.9 0.8	30.5 -0.7	30.9 -0.4	30.7 0.1	30.5 1.9	31.5 3.2	32.0 3.5	31.4 2.4	30.5 -0.1	31.4 2.7
KS EMP: Services Percent Change From One Year Ago	216.5 4.8	221.4 4.5	222.9 4.2	224.2 3.6	223.5 3.2	229.0 3.4	229.8 3.1	230.4 2.8	221.3 4.2	228.2 3.1
KS EMP: Hotels & Lodging Percent Change From One Year Ago	9.4 0.7	9.6 -1.0	9.9 -0.7	9.6 -0.3	9.3 -0.4	10.1 5.2	10.6 7.1	10.3 7.5	9.6 -0.3	10.1 4.9
KS EMP: Personal Services Percent Change From One Year Ago	11.8 -3.3	11.9 0.3	11.7 2.0	12.2 3.7	12.9 9.4	12.6 6.2	12.3 4.7	12.4 1.2	11.9 0.6	12.6 5.3
KS EMP: Services Residual Percent Change From One Year Ago	195.3 5.5	200.0 5.0	201.3 4.5	202.4 3.7	201.2 3.0	206.3 3.2	206.9 2.8	207.7 2.6	199.7 4.7	205.5 2.9
KS EMP: Federal Gov. Percent Change From One Year Ago	29.8 3.8	30.2 3.8	30.4 4.5	30.6 3.9	29.6 -0.9	29.7 -1.4	29.4 -3.5	28.8 -5.9	30.2 4.0	29.4 -2.9
KS EMP: State & Local Gov. Percent Change From One Year Ago	183.1 3.4	186.8 4.9	171.3 2.4	189.5 2.5	184.4 0.7	181.0 -3.1	166.5 -2.8	183.8 -3.0	182.7 3.3	178.9 -2.1

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HOURS AND WAGES

	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
KS HRS/WK: Food & Kindred Products Percent Change From One Year Ago	39.2 -1.4	41.1 1.7	42.2 3.3	41.1 3.1	40.9 4.3	41.2 0.4	41.8 -1.0	40.9 -0.6	40.9 1.7	41.2 0.7
KS HRS/WK: Apparel&Other Fin. Prod. Percent Change From One Year Ago	35.5 -10.5	35.7 -7.3	37.1 -2.5	37.9 3.6	37.4 5.4	37.6 5.3	37.7 1.5	37.5 -1.1	36.5 -4.3	37.5 2.7
KS HRS/WK: Pet. Refining & Rel. Ind. Percent Change From One Year Ago	43.7 -0.5	44.0 -3.4	44.0 -2.7	41.7 -5.6	41.8 -4.4	42.8 -2.7	42.9 -2.4	42.8 2.6	43.3 -3.1	42.6 -1.8
KS HRS/WK: Fabricated Metal Products Percent Change From One Year Ago	37.7 -3.7	37.6 -0.4	37.2 -2.2	38.8 1.0	37.7 -0.2	38.0 0.9	37.8 1.6	37.8 -2.6	37.8 -1.3	37.8 -0.1
KS HRS/WK: Machinery, Incl. Elec. Percent Change From One Year Ago	40.0 -6.4	38.1 -10.7	39.5 -4.7	40.9 -0.6	40.6 1.6	40.5 6.3	39.7 0.6	40.8 -0.2	39.6 -5.7	40.4 2.0
KS HRS/WK: Transportation Equipment Percent Change From One Year Ago	42.0 2.8	41.8 2.8	41.2 2.4	33.9 -19.1	36.5 -13.0	38.3 -8.3	39.2 -4.9	40.9 20.4	39.7 -2.9	38.7 -2.5
KS WAGE/HR: Food & Kindred Products Percent Change From One Year Ago	9.1 3.3	9.0 0.3	9.2 3.1	9.1 1.6	9.2 0.9	9.2 2.1	9.3 0.4	9.3 2.1	9.1 2.1	9.2 1.4
KS WAGE/HR: Apparel&Other Fin. Prod. Percent Change From One Year Ago	5.5 4.4	5.5 4.6	5.6 3.9	5.6 2.9	5.6 2.8	5.7 2.7	5.7 3.3	5.8 4.2	5.5 3.9	5.7 3.2
KS WAGE/HR: Pet. Refining & Rel. Ind Percent Change From One Year Ago	14.4 5.4	14.7 7.8	14.9 10.6	14.9 5.1	15.2 5.5	15.4 4.5	15.5 4.2	15.7 5.5	14.7 7.2	15.4 4.9
KS WAGE/HR: Fabricated Metal Product Percent Change From One Year Ago	8.5 5.4	8.6 5.6	8.5 2.3	8.7 4.6	8.8 3.0	8.9 3.6	9.0 5.2	9.1 4.8	8.6 4.4	8.9 4.1
KS WAGE/HR: Machinery, Incl. Elec. Percent Change From One Year Ago	9.7 1.0	9.6 -0.6	9.6 -0.8	9.7 -1.7	9.7 -0.5	9.6 0.5	9.7 1.2	9.7 0.3	9.6 -0.5	9.7 0.3
KS WAGE/HR: Transportation Equipment Percent Change From One Year Ago	13.0 10.1	13.0 8.2	13.4 8.8	13.2 4.0	13.3 2.2	13.3 2.9	13.5 1.1	13.8 4.3	13.1 7.7	13.5 2.6

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WAGE BILLS

	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
KS WG BILL: Total Wages & Salaries Percent Change From One Year Ago	21722.0 6.6	22216.0 5.7	22781.0 7.7	22717.7 5.2	22977.7 5.8	23515.1 5.8	23912.2 5.0	24281.8 6.9	22359.2 6.3	23671.7 5.9
KS WG BILL: Farm Wages & Salaries Percent Change From One Year Ago	154.0 -1.3	155.0 0.0	157.0 1.9	157.8 2.5	158.9 3.2	160.0 3.2	161.4 2.8	162.5 2.9	156.0 0.8	160.7 3.0
KS WG BILL: Agricultural Services Percent Change From One Year Ago	81.0 5.2	85.0 4.9	87.0 7.4	89.0 2.3	91.0 12.3	93.1 9.5	95.2 9.4	97.3 9.3	85.5 4.9	94.1 10.1
KS WG BILL: Mining Percent Change From One Year Ago	227.0 -7.3	237.0 -6.0	244.0 1.7	244.5 11.1	246.9 8.8	253.9 7.1	259.6 6.4	263.2 7.7	238.1 -0.5	255.9 7.5
KS WG BILL: Construction Percent Change From One Year Ago	924.0 -1.2	934.0 -1.3	964.0 2.2	954.6 -0.9	914.1 -1.1	972.2 4.1	998.1 3.5	989.0 3.6	944.2 -0.3	968.3 2.6
KS WG BILL: Durable Goods Percent Change From One Year Ago	2875.0 5.6	3034.0 5.4	3158.0 10.6	2857.1 -0.8	2939.2 2.2	3058.9 0.8	3125.9 -1.0	3243.2 13.5	2981.0 5.2	3091.8 3.7
KS WG BILL: Nondurable Goods Percent Change From One Year Ago	1771.0 4.9	1795.0 5.3	1823.0 6.6	1830.5 7.4	1868.7 5.5	1907.6 6.3	1928.1 5.8	1941.1 6.0	1804.9 6.0	1911.4 5.9

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	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
KS WG BILL: Trans. & Public Utilities Percent Change From One Year Ago	1907.0 6.7	1978.0 5.9	1990.0 7.7	2033.8 8.7	2048.4 7.4	2082.4 5.3	2109.8 6.0	2144.3 5.4	1977.2 7.3	2096.2 6.0
KS WG BILL: Wholesale Trade Percent Change From One Year Ago	1803.0 10.3	1799.0 7.0	1817.0 7.5	1864.7 8.9	1884.5 4.5	1927.6 7.1	1955.0 7.6	1968.7 5.6	1820.9 8.4	1934.0 6.2
KS WG BILL: Retail Trade Percent Change From One Year Ago	2197.0 6.3	2216.0 4.2	2249.0 4.6	2270.3 3.4	2282.4 3.9	2299.5 3.8	2318.3 3.1	2334.2 2.8	2233.1 4.6	2308.6 3.4
KS WG BILL: Finance, Insurance, & R.E Percent Change From One Year Ago	1328.0 2.4	1368.0 1.0	1424.0 4.9	1451.2 4.3	1472.2 10.9	1514.1 10.7	1548.5 8.7	1561.3 7.6	1392.8 3.2	1524.0 9.4
KS WG BILL: Services Percent Change From One Year Ago	3817.0 10.3	3942.0 10.5	4176.0 11.7	4209.3 8.9	4264.1 11.7	4387.5 11.3	4498.5 7.7	4591.9 9.1	4036.1 10.3	4435.5 9.9
KS WG BILL: Govt. & Govt. Enterprises Percent Change From One Year Ago	4637.0 7.5	4672.0 6.1	4694.0 7.2	4754.8 4.4	4807.1 3.7	4858.4 4.0	4913.9 4.7	4985.1 4.8	4689.5 6.3	4891.1 4.3

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Institute for Public Policy and Business Research, University of Kansas 1989-1990 Kansas Forecast

PERSONAL INCOME	1989Q1	1989Q2	1989Q3	1989Q4	1990Q1	1990Q2	1990Q3	1990Q4	1989	1990
KS PERS INC: Total Personal Income	40628.0	41631.0	41874.0	42733.9	42767.6	43666.7	44318.6	45244.0	41716.7	43999.2
Percent Change From One Year Ago	6.2	5.6	7.5	5.2	5.3	4.9	5.8	5.9	6.1	5.5
KS PERS INC: Real Personal Income	31732.3	32076.9	32110.0	32407.5	32040.7	32279.8	32329.2	32564.4	32081.7	32303.5
Percent Change From One Year Ago	1.6	0.8	3.1	0.9	1.0	0.6	0.7	0.5	1.6	0.7
KS PERS INC: Farm Proprietors Income	950.0	1083.0	500.0	1165.0	733.9	829.2	817.8	1110.0	924.5	872.7
Percent Change From One Year Ago	-22.5	-29.9	-19.6	-19.3	-22.8	-23.4	63.6	-4.7	-23.5	-5.6
KS PERS INC: Non-farm Proprietors Inc	3149.0	3180.0	3219.0	3245.1	3265.3	3291.2	3320.4	3356.2	3198.3	3308.3
Percent Change From One Year Ago	5.2	4.3	4.9	3.1	3.7	3.5	3.2	3.4	4.3	3.4
KS PERS INC: Dividends Interest & Ren	7798.0	8020.0	8131.0	8188.4	8252.7	8305.6	8355.8	8407.1	8034.3	8330.3
Percent Change From One Year Ago	10.6	12.1	10.8	8.4	5.8	3.6	2.8	2.7	10.4	3.7
KS PERS INC: Adj. For Residence	1094.0	1116.0	1130.0	1147.9	1164.4	1182.2	1199.8	1217.8	1122.0	1191.1
Percent Change From One Year Ago	7.6	8.5	4.6	5.7	6.4	5.9	6.2	6.1	6.5	6.2
KS PERS INC: Pers. Cont. For Soc. Ins	1955.0	1986.0	2009.0	2023.6	2100.1	2122.7	2151.0	2183.6	1993.4	2139.4
Percent Change From One Year Ago	10.1	9.1	10.6	10.1	7.4	6.9	7.1	7.9	10.0	7.3
KS PERS INC: Transfer Payments	5724.0	5797.0	5869.0	6006.8	6152.5	6308.3	6467.2	6615.0	5849.2	6385.8
Percent Change From One Year Ago	6.5	7.0	7.3	8.5	7.5	8.8	10.2	10.1	7.3	9.2
KS PERS INC: Other Labor Income	2148.0	2204.0	2252.0	2286.6	2321.2	2357.6	2396.4	2439.6	2222.7	2378.7
Percent Change From One Year Ago	8.2	7.7	9.5	9.1	8.1	7.0	6.4	6.7	8.6	7.0

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