

Institute for Public Policy and Business Research  
The University of Kansas

**U.S. AND KANSAS ECONOMIC FORECASTS FOR 1989**  
**MIDYEAR UPDATE**

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### **Preface**

The Institute for Public Policy and Business Research is pleased to present this midyear update of its 1989 economic forecast 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 1989, 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 Reardon have been responsible for the development of a supporting ARIMA model.

## Executive Summary

### The National Economy

On the whole, 1989 will turn out to be a year of curtailed growth for the national economy. Real GNP will grow only 2.2 percent for the year compared to 3.9 percent during 1988. Furthermore, much of 1989's growth will have taken place in the first quarter of the year, during which real GNP grew at an annual rate of 4.3 percent; more than half of this first quarter growth was due to the rebounding of the national farm economy from the effects of the 1988 drought. During the last three quarters of the year GNP will remain nearly flat, growing at an average annual rate of only 0.4 percent. With the exception of government purchases of goods and services, which will increase slightly this year after no growth in 1988, all major components of GNP will grow more slowly this year than last.

The major force for economic growth will be exports, which will remain an area of strength in spite of a surprisingly strong dollar due to the healthy growth of our major trading partners. Business investment will grow only modestly this year, after being one of the major factors in 1988's economic growth. Weakening consumer confidence and continuing high interest rates will soften consumer spending, although it will still grow 2.2 percent this year. Consumer purchases of durables will be particularly weak due to 1989's high interest rates. Consumer purchases of nondurable goods will actually grow slightly faster in 1989 than they did last year, and growth of consumer spending on services will remain steady.

The sluggish performance of the economy during the latter part of 1989 will cause the Federal Reserve Board to reexamine its inflation fighting strategy. As the economy approaches dangerously close to a no growth configuration, the Fed's emphasis will temporarily shift from fighting inflation to preventing a recession. Thus, interest rates will fall during the latter part of the year. However, underlying inflationary pressures remain strong, and the Fed will be in a position of having very little room to maneuver when selecting from among policies which will prevent a recession and discourage inflation. Thus, we do not expect interest rates to fall very far or for very long, unless the economy actually slips into a recession.

Due to the underlying inflationary pressures mentioned in the last paragraph, the rate of inflation for 1989 as measured by the rate of change of the consumer price index will be 5.3 percent, about 1.2 percentage points higher than it was in 1988. Much of the increase will be due to the higher food and energy prices of 1989, both of which could be considered temporary phenomenon. However, even if the effects of these higher food and energy prices are discounted, the underlying rate of inflation will be higher in 1989 than it was in 1988.

Employment growth will be slower in 1989 than in 1988, especially during the latter part of the year. Nonfarm wage and salary employment growth will fall from 3.5 percent during the first quarter of the year to 1.3 percent during the fourth quarter. The average unemployment rate for the year will be 5.3 percent, again exhibiting a pattern that is consistent with a slowdown during the latter part of the year; the rate will increase from 5.1 percent in the first quarter to 5.6 percent in the fourth quarter of the year. Inflationary pressures will continue to be felt on the cost side, as wage rate increases average 6.4 percent for the year.

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

|                         | 1985   | 1986   | 1987   | 1988   | 1989   |
|-------------------------|--------|--------|--------|--------|--------|
| Real GNP                | 3618.7 | 3721.7 | 3847.0 | 3996.0 | 4082.9 |
| Growth Rate             | 3.4    | 2.8    | 3.4    | 3.9    | 2.2    |
| Rate of Inflation       | 3.5    | 1.9    | 3.7    | 4.1    | 5.3    |
| Civilian Employment     | 107.3  | 109.7  | 112.5  | 115.1  | 117.6  |
| Growth Rate             | 2.0    | 2.3    | 2.6    | 2.2    | 2.2    |
| Unemployment Rate       | 7.1    | 6.9    | 6.1    | 5.4    | 5.3    |
| 3-month T-bill Rate     | 7.5    | 6.0    | 5.8    | 6.7    | 8.1    |
| Nominal Personal Income | 3325.3 | 3531.1 | 3780.0 | 4062.1 | 4439.9 |
| Growth Rate             | 7.0    | 6.2    | 7.0    | 7.5    | 9.3    |
| Real Disposable Income  | 2542.8 | 2640.9 | 2686.3 | 2788.3 | 2900.4 |
| Growth Rate             | 3.0    | 3.9    | 1.7    | 3.8    | 4.0    |

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Nominal personal income will grow 9.3 percent during the year, driven by large increases in interest income, farm proprietor's income, and transfer payments. Personal income growth will slow significantly during the second half of the year, growing 13.4 percent during the first quarter, but averaging only 8.1 percent growth during the last three quarters. Real disposable income, which grew 7.8 percent during the first three quarters, will average only 1.7 percent growth during the last three quarters of the year. The savings rate will be 5.9 percent this year compared to 4.2 percent in 1988.

The national economic forecast, which is summarized in Table I, 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 relax its inflationary fight and allow the M2 measure of the money supply to grow 5.3 percent during the second half of the year, compared with 1.4 percent during the first half of the year.
2. Real federal government purchases will decrease in 1989 due to large reductions in real defense purchases.
3. The dollar will decrease at an annual rate of 2 percent during the second half of the year after growing at an 18.3 percent annual rate during the first half of the year.
4. Growth of the real gross domestic product of our major trading partners will average 3.0 percent.
5. Imported oil prices will increase at only a 4.0 percent annual rate during the second half of the year after growing at a 55 percent annual rate during the first half of the year.

### **The Kansas Economy**

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

The Kansas economy will reflect the slowdown in the national economy during the latter part of 1989. Kansas nominal personal income will grow 5.8 percent this year, compared to the 9.3 percent growth rate of personal income at the national level. In real terms, Kansas personal income will grow only 0.7 percent, down from 1.2 percent on 1988. The drought in Kansas will cause farm proprietor's income to fall by 15 percent, while high interest rates will cause property income to increase by 9.9 percent.

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

|                          | 1985    | 1986    | 1987    | 1988    | 1989    |
|--------------------------|---------|---------|---------|---------|---------|
| Total Employment         | 1176.0  | 1169.0  | 1205.0  | 1216.0  | 1225.8  |
| Growth Rate              | 3.8     | -0.6    | 3.1     | 0.9     | 0.8     |
| Wage & Salary Employment | 967.9   | 984.7   | 1005.0  | 1033.2  | 1050.6  |
| Growth Rate              | 0.7     | 1.7     | 2.1     | 2.8     | 1.7     |
| Unemployment Rate        | 5.0     | 5.4     | 4.9     | 4.8     | 4.7     |
| Nominal Personal Income  | 33818.8 | 35697.0 | 37501.0 | 39561.3 | 41850.0 |
| Growth Rate              | 6.4     | 5.6     | 5.1     | 5.5     | 5.8     |
| Real Personal Income     | 30294.0 | 31217.5 | 31386.8 | 31776.7 | 31983.8 |
| Growth Rate              | 3.0     | 3.0     | 0.5     | 1.2     | 0.7     |

Nonfarm wage and salary employment will grow only 1.7 percent in 1989, after growing 2.8 percent last year. Likewise, manufacturing employment growth will be down to 2.1 percent from 3.0 percent a year ago. Employment in durable goods manufacturing will grow 2.5 percent which is only slightly more than half of 1988's growth rate, reflecting the national slowdown in consumer purchases of durable goods. Employment in nondurable goods manufacturing will increase 1.1 percent, up slightly from last year's 0.6 percent growth rate.

Employment in construction will fall 0.3 percent, mining employment will fall 6.9 percent, and farm employment will fall 7.5 percent. Employment in transportation and utilities will grow 1.5 percent. Employment in wholesale trade will grow 5.4 percent, while employment in retail trade will grow 1.3 percent. Employment in finance, insurance, and real estate will grow 1.3 percent and employment in services will grow 4.1 percent. State and local government employment in Kansas will grow 0.1 percent, while federal government employment in the state will grow 1.4 percent.

## Introduction

The U.S. economy will enter a period of very slow growth coupled with lingering inflationary pressures during the second half of 1989. Of the major sectors of the U.S. economy, only exports will exhibit strong growth during the second half of the year, driven by continued strong economic growth of our major trading partners. The Federal Reserve Board will be put in the precarious position of having to continue its stand against inflation, while trying to cushion the downturn in economic growth; it will have little, if any, room to maneuver. The economy will be very susceptible to even moderate shocks. Thus, outside events as well as policy mistakes on the part of the Federal Reserve board are much more likely to move the economy into a recession than they would be if output were growing significantly. Interest rates will end their fifteen-month rise, and will fall somewhat as the Fed eases credit to avoid pushing the economy into a recession. Inflationary pressures will continue to be felt throughout the second half of the year, inflation for the year averaging about 1.2 percentage points above last year's average. As a result of these continued inflationary pressures and the Fed's belief that it is the only agent which is willing and able to have a significant effect on inflation, the drop in interest rates will be modest.

The sluggish performance of the national economy in 1989 will be mirrored in the performance of the Kansas economy. Employment growth will be significantly slower than in 1988. Manufacturing employment will grow only two-thirds as fast as it did in 1988, with last year's robust growth in durable goods manufacturing nearly cut in half as consumers, businesses, and government all reduce their purchases of big ticket items. Some of the reduced demand for Kansas durable goods will be offset by a shift to demand for nondurable goods, but the shift will not be large enough to keep manufacturing employment growth from slowing. Kansas real personal income growth will also be lower in 1989, as the slow economic growth in general and the effects of the drought on the farm sector work to depress income growth, although property income will grow faster than last year due to the effects of 1989's higher interest rates. 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 remainder of 1989 will be a trying period for the national economy and for national policy makers. Output will grow very slowly, while the price level continues to rise significantly, driven by higher food and energy prices. The Federal Reserve Board will have little room for miscalculation as it attempts to steer a course between a national recession and excessive inflation. The detailed forecast for the U.S. economy, presented below, is based on the following assumptions:

1. Faced with a slowing economy and signs that inflationary pressures continue to be a real concern, the Federal Reserve Board will loosen monetary policy somewhat. M2 will grow much faster during the second half of the year than it did during the first half, 5.3 percent compared to 1.4 percent, but will still average only 3.3 percent for the year. The Fed will feel the constraint imposed by the slow growth of the economy, and will permit interest rates to fall during the rest of the year. At the same time, the Fed's belief that it is the only policy maker that can battle inflation will prevent it from dropping rates dramatically to stimulate the flagging economy.
2. Fiscal policy will be slightly restrictive. Real government purchases will be lower in 1989 than they were in 1988 as a result of large reductions in real defense expenditures.
3. The dollar<sup>2</sup> will weaken slightly during the second half of the year, decreasing at an annual rate of about 2 percent, after increasing at an annual rate of 18.3 percent during the first half of the year.
4. Real GNP growth for the rest of the OECD<sup>3</sup> countries will be 3.0 percent over the forecast period.
5. Imported oil prices will increase at a 4 percent annual rate during the second half of the year, following an annual rate of increase of 55 percent during the first half of the year.

The U.S. economy will slow during the last three quarters of 1989, with the economy growing only 2.2 percent for the year, compared to a healthy 3.9 percent growth during 1988. Much of the 1989 growth will be due to the 4.3 percent growth (annual rate) during the first quarter. A significant portion of the first quarter growth comes from the rebounding of farm output from the effects of the 1988 drought. If this effect is ignored, real GNP grew only 2 percent in the first quarter. During the last three quarters of the year national output will remain nearly flat, growing at only a 0.4 percent annual rate.

The major components of GNP will all grow more slowly in 1989 than they did in 1988. The exception is government purchases of goods and services, which hardly grew at all in 1988 but will



increase slightly this year.

### **Consumption**

Consumer spending, influenced by a weakening of consumer confidence and continuing high interest rates, will grow only 2.2 percent in 1989 compared to 2.8 percent last year. The effects of higher interest rates will be felt particularly in the reduction of demand for durable goods, which will grow only 1.3 percent this year after growing a strong 4.8 percent in 1988. Among durable goods, the big ticket items will be hit the hardest, with new auto sales actually declining 2.7 percent this year, in comparison to a robust 5.4 percent growth last year.

On the other hand, consumption of nondurable goods will grow 1.3 percent in 1989, an increase over 1988's 1.0 percent increase. Contributing factors will be consumption of food and clothing, which will increase 1.4 and 1.7 percent respectively. These two areas grew only 0.6 and 0.3 percent last year. Big price increases will cause consumer purchases of gasoline and oil to grow only 0.9 percent this year, down from last year's 1.4 percent, while consumption of fuel oil and coal will decrease 7.7 percent after growing 6.3 percent in 1988. Consumption of services will increase 3.2 percent, slightly less than last year's 3.5 percent increase.

### **Investment**

Nonresidential investment spending, which was one of the main sources of strength last year, when it grew 9.5 percent, will grow only modestly this year at a rate of 3.1 percent. While investment in equipment will grow 3.5 percent, down from last year's 13.4 percent growth, there will be a modest 2.1 percent increase in investment in nonresidential structures following a 0.4 percent decline in 1988. Similarly, investment in residential structures will increase 1.9 percent in 1989 compared to a 1.7 percent decrease last year.

### **Exports**

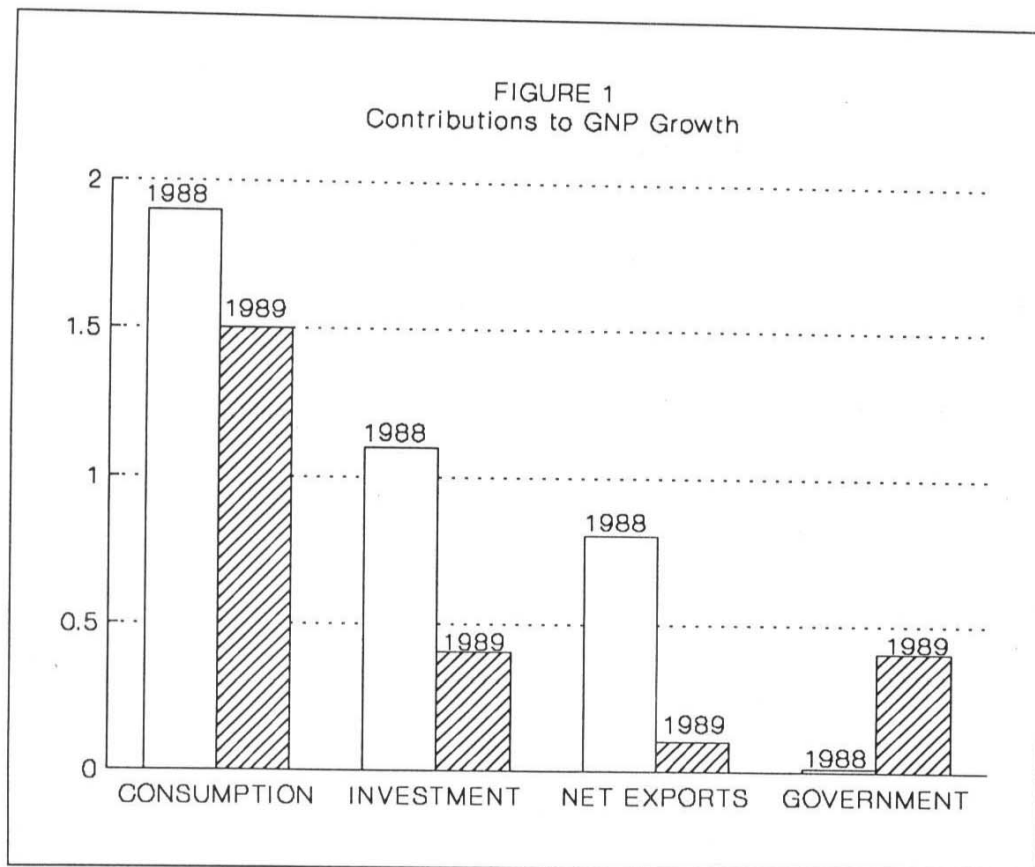
In spite of the surprisingly strong dollar, exports will continue to be an area of strength in 1989, due to the strong economic growth of major trading partners. Although the rate of export growth will be only about half of 1989's 18 percent, this year's 8.7 percent growth is still robust. Furthermore, the slower pace of the U.S. economy will mean that imports will grow more slowly this

year than last, 6.5 percent compared to 8.7 percent. Thus there will continue to be some improvement in the trade balance. The deficit in net exports will decline to \$96 billion in 1982 dollars, from \$100 billion in 1988.

### Government

Government expenditures will grow more in 1989 than they did last year, primarily because of growth in Federal nondefense expenditures. Federal nondefense expenditures will grow 13.4 percent this year, after decreasing 9.7 percent in 1988. This will more than offset the 2.4 percent decrease in Federal defense expenditures, leading to a 1.0 percent increase in total Federal expenditures. State and local government expenditures will increase 2.9 percent, about the same as last year. Government expenditures at all levels will thus increase 2.1 percent this year, compared to last year's 0.3 percent.

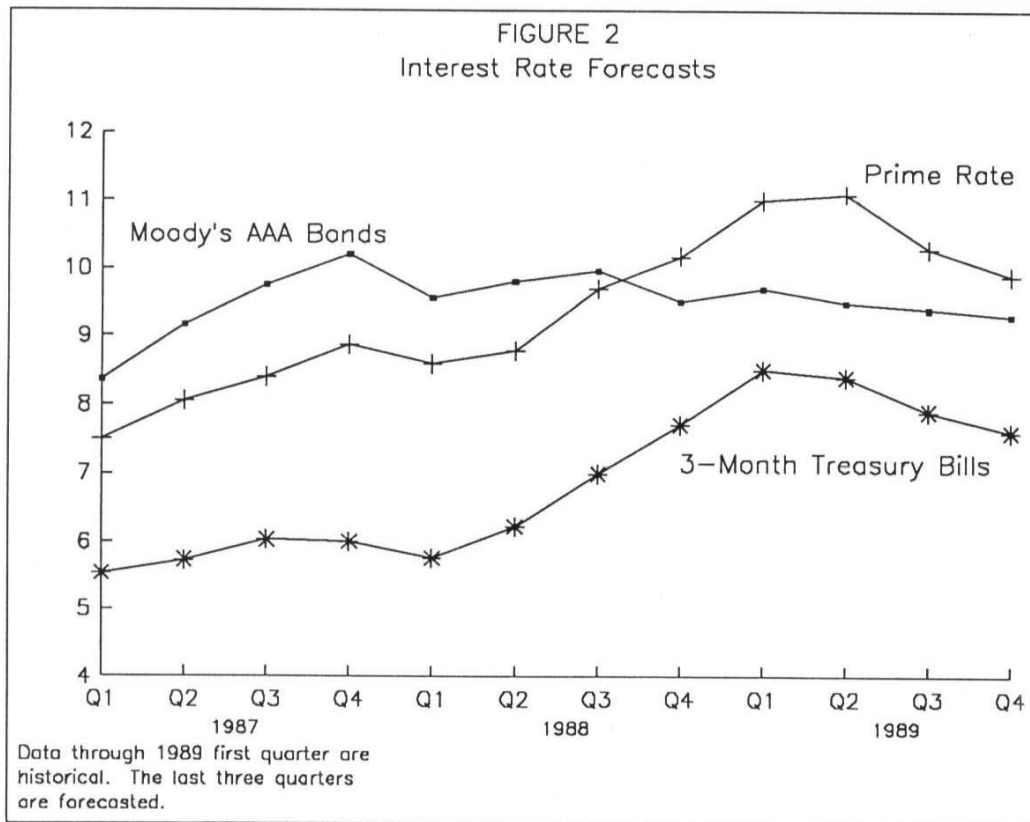
### Sources of GNP Growth



One way to get a picture of how the U.S. economy of 1989 is different from that of 1988 is to examine each sector's contribution to GNP. As Figure 1 shows, only government spending will have a bigger impact this year than it did last year, and it will only account for a 0.4 percent increase in real GNP. In 1989 consumption will account for a 1.5 percent increase in real GNP compared with 1.9 percent last year. Nonresidential fixed investment will account for a 0.4 percent increase in real GNP; last year it accounted for a 1.1 percent increase. The improvement in the deficit in net exports will account for only a 0.1 percent increase in Real GNP this year. Last year it accounted for a 0.8 percent increase.

### Interest Rates

The sluggish performance of the economy during 1989 will eliminate a great deal of the Federal



Reserve's effectiveness in fighting inflation. In an attempt to avoid pushing the economy into a recession, the Fed will have to ease monetary policy somewhat, although it will be reluctant to switch to an all-out expansionary policy in the face of continued inflationary pressures and the inability of the Congress and the administration to check the growth of the federal deficit. The extremely slow 1.4 percent growth of M2 during the first half of the year will be superceded by a more liberal 5.3 percent during the second half of the year. This will end the upward movement in interest rates that saw the three-month treasury bill rate move from 5.8 percent in the first quarter of 1988 to 8.5 percent during the first quarter of 1989. The three-month treasury bill rate will dip slightly to 8.4 percent during the second quarter drop to 7.9 percent in the third quarter, and average 7.6 percent for the last quarter of the year. The average for the year will be 8.1 percent. The prime rate will drop to 11 percent by the end of the second quarter. It will fall further to 10.3 percent in the third quarter and 9.9 percent in the fourth quarter. Moody's AAA bond rate will drop from 9.7 percent in the first quarter to 9.5 percent in the second. It will continue to decline slightly to 9.4 percent and 9.3 percent in the third and fourth quarters, averaging 9.5 percent for the year. The interest rate forecasts for 1989 are illustrated in Figure 2.

**Inflation**

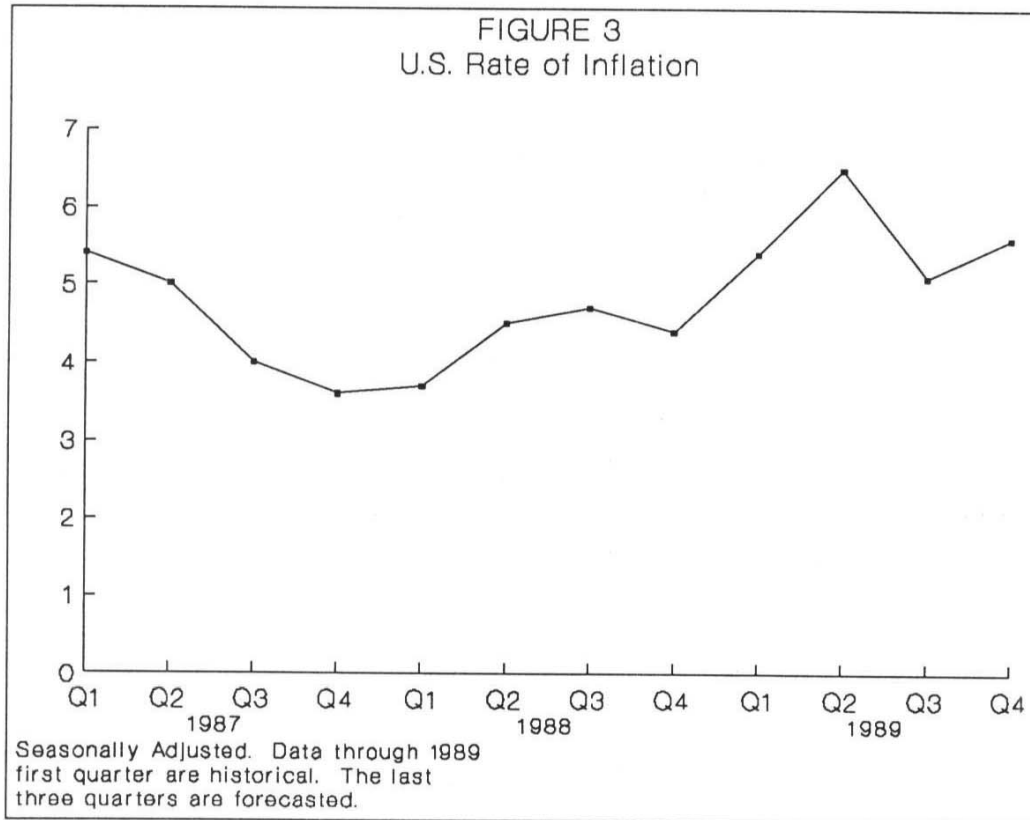
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**Table 3**  
**Change in Prices (Percent)**

| Product             | 1988 | 1989 |
|---------------------|------|------|
| Apparel and upkeep  | 4.3  | 4.2  |
| New cars            | 2.0  | 2.9  |
| Used car prices     | 4.3  | 3.3  |
| Medical care        | 6.6  | 7.1  |
| Medical commodities | 6.9  | 7.6  |
| Medical services    | 6.5  | 7.0  |
| Entertainment       | 4.4  | 4.6  |

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In spite of the Fed's efforts to slow the economy enough to put a brake on inflation, prices will rise significantly faster in 1989 than they did in 1988. Although some of the increase is due to such endogenous factors as a tight labor market and high capacity utilization, which can be influenced by monetary and fiscal policy, a large part is due to such exogenous factors as the last year's drought and the increase in the price of imported oil. Overall, the rate of inflation as measured by the rate of change of the consumer price index for all urban consumers will be 5.3 percent compared to 4.1

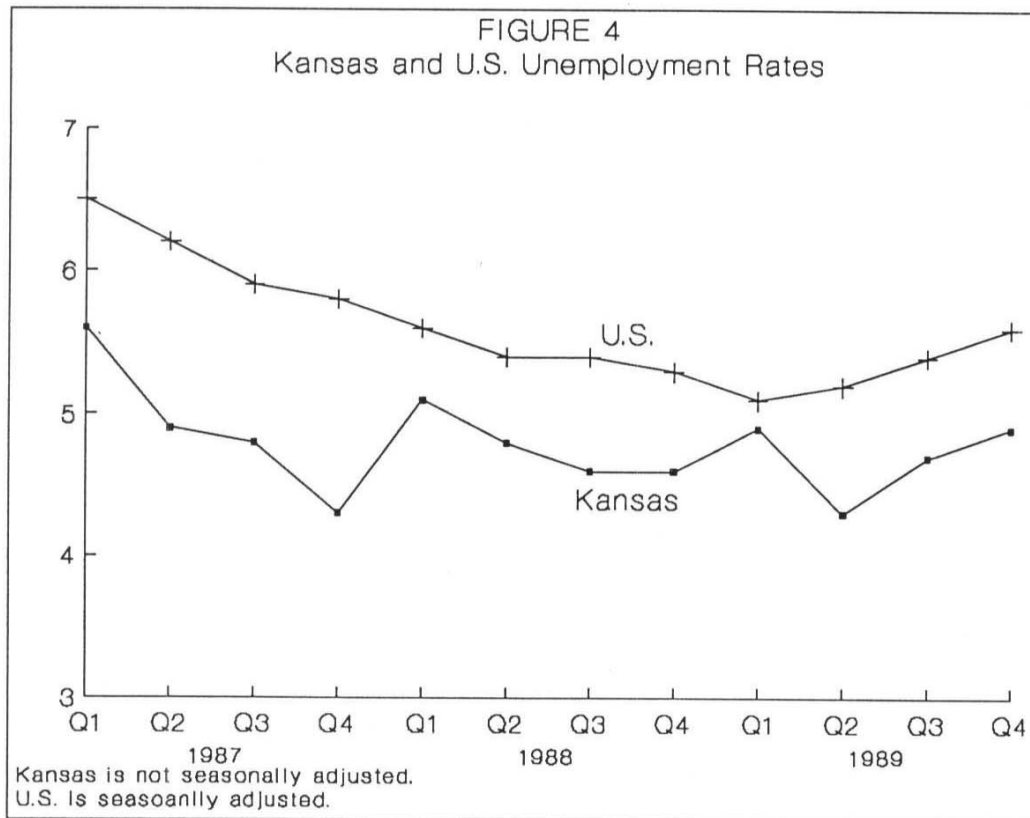


percent last year. Leading the way will be two products that are directly affected by the exogenous factors mentioned above: food prices will increase 6.2 percent, and motor fuel prices will increase 12.9 percent. If we remove the effects of higher food and motor fuel prices, we find that the rate of inflation for 1989 will be 4.9 percent, compared to 4.2 percent in 1988. Thus inflationary pressure will increase even though the economy will have slowed significantly by the second half of the year.

Table 3 shows changes in price for several classes of products. The apparently slight increase in housing costs, 3.6 percent, is the result of much slower increases in the cost of shelter, household furnishings, and operations offset by acceleration in the price of fuel and utilities. Figure 3 shows the quarterly forecast for inflation.

### Employment

Employment growth will slow during the second half of the year as the slowdown in output growth affects the employment decisions of firms. For the year, nonfarm wage and salary employment will grow 2.7 percent compared to 3.5 percent in 1988. During the second half of the year, however, growth will be much slower. Employment growth will diminish from an annual rate of 3.5 percent during the first quarter to an annual rate of 1.3 percent during the fourth quarter.



The labor force will grow 2.1 percent for the year, with total employment growing 2.2 percent, so that the unemployment rate for the year will be 5.3 percent, slightly less than the 5.4 percent rate for all of 1988. Again, however, the pattern over the course of the year reflects the expected cooling of the economy, as the 5.1 percent unemployment rate of the first quarter climbs to 5.6 percent by the fourth quarter.

Although the unemployment rate will increase during the course of the year, inflationary forces on wages will be slow to wane. Past inflation will affect wage demands in two ways. First, workers will attempt to recoup inflation's earlier erosion of real earnings. Second, to avoid future losses in purchasing power, they will expect compensation for inflation at a rate based on recent experience. Wages will increase at annual rate of 7.1 percent during the first quarter and 6.4 percent during the rest of the year. A comparison of U.S. with Kansas unemployment rates is given in Figure 4.

### **Personal Income**

Nominal personal income growth is forecasted to be 9.3 percent for 1989 compared to 7.5 percent in 1988. Nearly all of the difference can be attributed to three factors. First because of higher interest rates, interest income will grow 15 percent this year compared to 9.3 percent in 1988. Second, due to the effects of the drought in 1988 and the nationwide recovery during 1989, farm proprietors' income will increase 36 percent compared to a 16 percent decrease last year. Third, because of the slowdown of the economy, transfer payments will increase faster this year, 10.2 percent, than they did last year, 6.8 percent. Factors other than these three accounted for 5.2 percent of the increase in personal income in 1988 and will account for 5.4 percent of the increase in personal income in 1989.

Again the pattern for the year is indicative of the direction of the economy, with personal income growth at 13.4 percent during the first quarter and averaging only 8.1 percent during the last three quarters. Real personal income growth will be 4.2 percent for 1989 compared to 3.3 percent in 1988. Real personal income growth was 8.3 percent for the first quarter but will average only 2.3 percent for the rest of the year. Real disposable personal income will grow 4.1 percent this year compared to 3.8 percent last year. Real disposable personal income grew 7.8 percent during the first

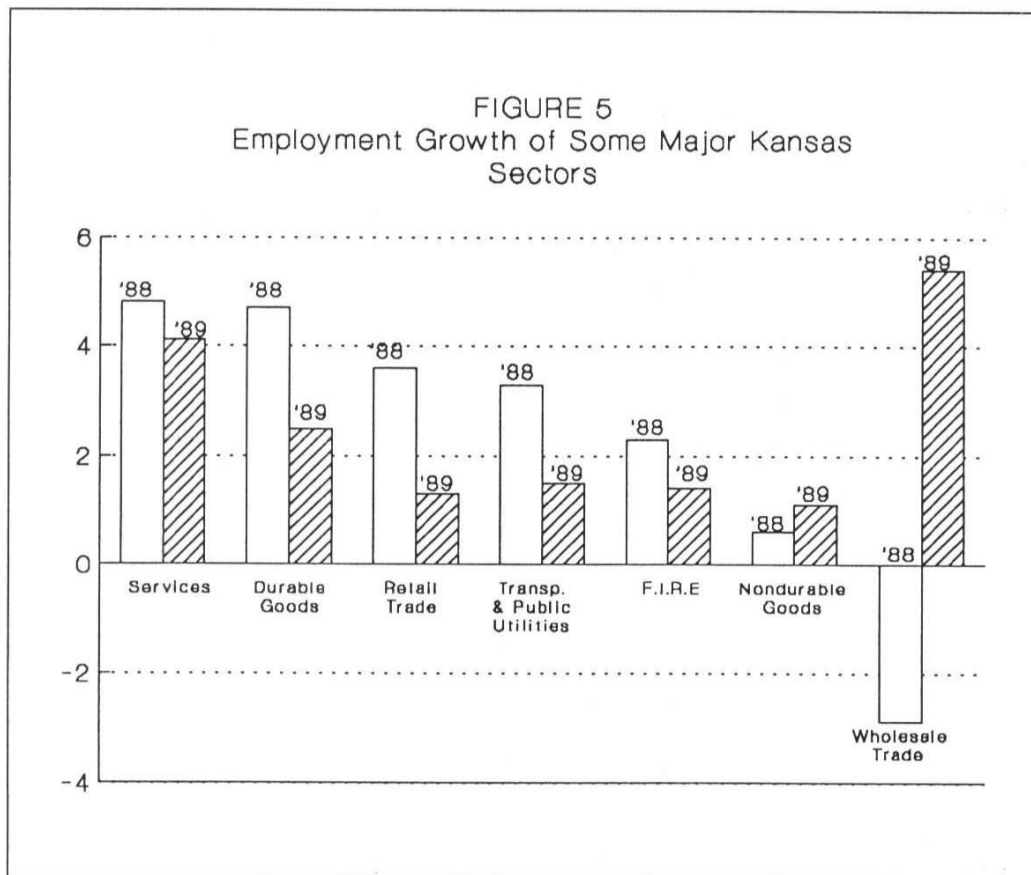
quarter, but will average only 1.7 percent growth during the last three quarters. Consumer concern for the future is reflected in the savings rate, which will be 5.9 percent this year as compared to 4.2 percent in 1988.



## The Kansas Economy

The slowdown in national economic growth during 1989 will be reflected in a slowdown of the Kansas economy. Nonfarm wage and salary employment will grow 1.7 percent in 1989 compared to 2.8 percent in 1988. Manufacturing employment will grow only 2.1 percent this year compared to 3.0 percent in 1988. Table 4 shows Kansas employment growth by sector.

As consumers nationally reduce purchases of big ticket items, Kansas durable goods producers will feel a weakening of demand. The growth rate of durable goods employment will fall from 4.7 percent last year to 2.5 percent for 1989. Employment growth in every major durable goods subsector will be below the sector's overall 4.7 percent growth of last year. Reductions in corporate after-tax profits and government defense spending will cool the demand for transportation equipment, which makes up a substantial 43 percent of percent of durable goods employment in Kansas.



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

|                                      | 1988 | 1989 |
|--------------------------------------|------|------|
| Durable goods manufacturing          | 4.7  | 2.5  |
| Stone, glass, and clay               | 2.2  | -1.6 |
| Fabricated metals                    | 3.3  | 2.3  |
| Machinery<br>(including electrical)  | 6.5  | 2.4  |
| Transportation equipment             | 4.1  | 2.7  |
| Primary metals                       | 14.4 | 9.4  |
| Nondurable goods manufacturing       | 0.6  | 1.1  |
| Food and kindred products            | -3.6 | 1.9  |
| Apparel                              | 9.3  | -5.3 |
| Printing and publishing              | 6.5  | 1.2  |
| Chemicals and allied products        | -2.9 | 0.2  |
| Petroleum and coal products          | 0.0  | 0.6  |
| Mining                               | -7.5 | -6.9 |
| Construction                         | -7.0 | -0.3 |
| Transportation and utilities         | 3.3  | 1.5  |
| Trucking and warehousing             | 4.3  | 4.6  |
| Electric, gas, and sanitary services | 4.0  | 3.5  |
| Wholesale Trade                      | -2.9 | 5.4  |
| Retail                               | 3.6  | 1.3  |
| Food stores                          | 3.1  | 0.4  |
| Auto dealers and gas stations        | 4.1  | 0.8  |
| General merchandise stores           | 7.5  | 1.8  |
| Apparel and accessory stores         | 18.3 | 4.1  |
| Federal government                   | 3.4  | 1.4  |
| State and local government           | 3.5  | 0.1  |
| Services                             | 4.8  | 4.1  |
| Hotels and lodging                   | 1.4  | 3.9  |
| Personal services                    | 2.7  | 1.9  |
| FIRE                                 | 2.3  | 1.3  |
| Banking                              | -1.9 | 0.5  |
| Insurance                            | 3.8  | 1.2  |

Nondurable goods manufacturing employment will grow even more slowly than durable goods employment at 1.1 percent, but will increase faster than last year when it grew only 0.6 percent. The nondurable goods category with the biggest decline in employment, apparel manufacturing, represents only about 5 percent of nondurable goods manufacturing employment in Kansas.

Employment in construction will slow its fall, declining only 0.3 percent after falling 7.0 percent in 1988, as interest rates gradually fall during the last three quarters.

The slowdown in the growth of consumer spending in Kansas will be felt in retail trade as employment grows only 1.3 percent compared to 3.6 percent last year. Four of the five retail subsectors, which make up nearly half of retail trade employment, will grow more slowly this year than last year.

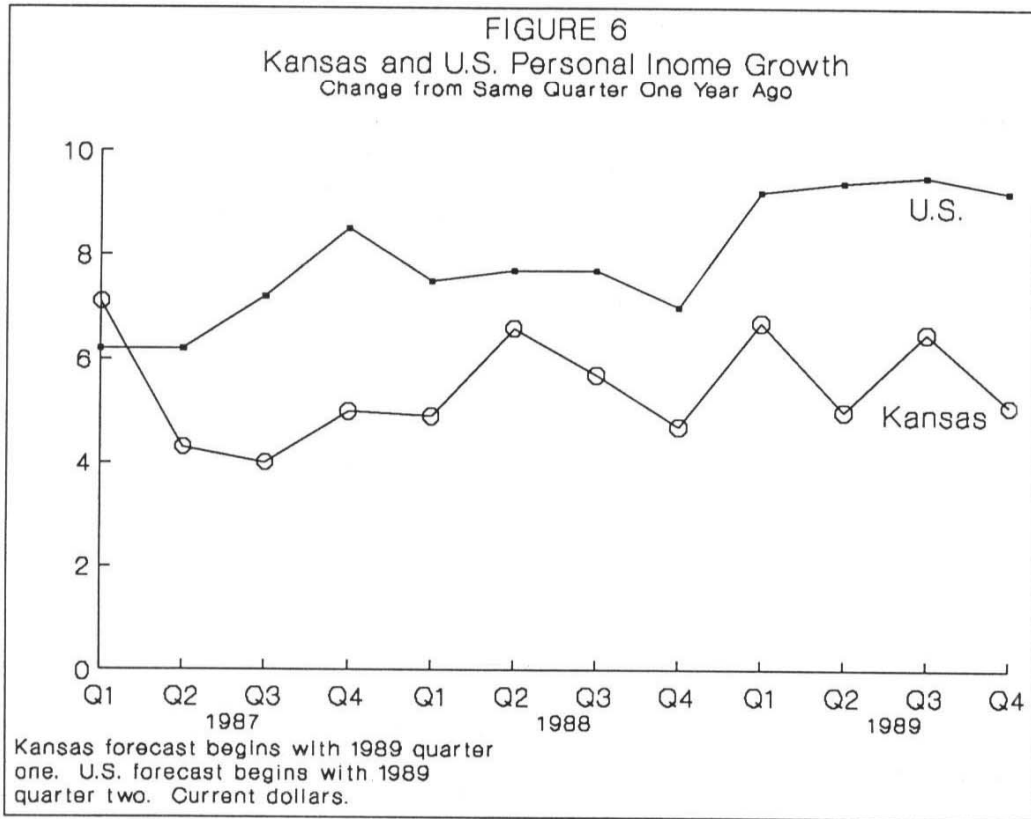
Slower growth of real personal income in Kansas will lead to slower growth of employment in finance, insurance, and real estate (FIRE). Due to the effects of the drought, farm employment will decrease 7.5 percent, more than offsetting last year's 1.3 percent increase. The growth of employment in several major sectors of Kansas is illustrated in Figure 5.

As employment growth slows, the Kansas unemployment rate will begin to move upward during the second half of the year, averaging 4.8 percent for the last two quarters after dipping to 4.3 percent in the second quarter.

Kansas personal income will increase 5.8 percent in 1989 compared to 5.5 percent in 1988. But in real terms, personal income will increase 0.7 percent compared to 1.2 percent last year. Wages and salaries will grow 6.3 percent compared to 6.1 percent a year ago.

Due to the drought, and especially to the low wheat yield, farm proprietors' income will fall 15 percent. The wheat harvest will be less than two-thirds of last year's in spite of nearly 20 percent more acres planted. Higher wheat prices and crop insurance will only partly offset the loss. Although beef production will be severely affected by the drought because of lack of pond water and higher feed grain prices, there will not be a large effect in 1989 because beef producers will realize income from selling off herds, at the same time that they reduce the level of inputs that they must purchase.

Nonfarm proprietors' income will grow 2.3 percent. Dividends, interest and rents will grow 9.9 percent, compared to 7.3 percent in 1988, due to higher interest rates. Personal contributions for social insurance will grow 7.5 percent compared to 11.4 percent in 1988, while transfer payments will grow 7.2 percent compared to 5.5 percent in 1988. A comparison of Kansas personal income



growth with U.S. personal income growth is given in Figure 6.

## Notes

1. The forecasts for the national economy are produced by the Econometric Model of the United States using assumptions generated at the Institute. The 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.
2. Trade-weighted average of the dollar's exchange rate.
3. 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.

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| Institute for Public Policy and Business Research, University of Kansas 1988-1989 US Forecast |        |        |        |        |        |        |        |        |        |        |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| GNP AS EXPENDITURE - 1982 DOLLARS   |        |        |        |        |        |        |        |        |        |        |
|   | 1988Q1 | 1988Q2 | 1988Q3 | 1988Q4 | 1989Q1 | 1989Q2 | 1989Q3 | 1989Q4 | 1988   | 1989   |
| US: Gross National Product  | 3956.1 | 3985.2 | 4009.4 | 4033.4 | 4076.5 | 4083.0 | 4085.4 | 4086.6 | 3996.0 | 4082.9 |
| Percent Change From Last Qtr (AR)   | 3.4    | 3.0    | 2.5    | 2.4    | 4.3    | 0.6    | 0.2    | 0.1    | 3.9    | 2.2    |
| US: Personal Consumption Expend.  | 2559.8 | 2579.0 | 2603.8 | 2626.2 | 2633.6 | 2644.9 | 2655.6 | 2662.5 | 2592.2 | 2649.1 |
| Percent Change From Last Qtr (AR)   | 4.5    | 3.0    | 3.9    | 3.5    | 1.1    | 1.7    | 1.6    | 1.0    | 2.8    | 2.2    |
| US: Per. Con. Exp.-Durables   | 401.1  | 410.6  | 410.4  | 416.5  | 411.9  | 414.9  | 416.3  | 416.2  | 409.7  | 414.8  |
| Percent Change From Last Qtr (AR)   | 14.7   | 9.7    | -0.2   | 6.1    | -4.4   | 2.9    | 1.4    | -0.1   | 4.8    | 1.3    |
| US: PCE-Nondurables   | 892.7  | 893.6  | 904.5  | 907.4  | 911.4  | 911.1  | 911.5  | 911.2  | 899.6  | 911.3  |
| Percent Change From Last Qtr (AR)   | 1.0    | 0.4    | 5.0    | 1.3    | 1.8    | -0.1   | 0.2    | -0.1   | 1.0    | 1.3    |
| US: PCE-Services  | 1265.9 | 1274.8 | 1288.9 | 1302.2 | 1310.3 | 1318.9 | 1327.8 | 1335.1 | 1283.0 | 1323.0 |
| Percent Change From Last Qtr (AR)   | 4.0    | 2.8    | 4.5    | 4.2    | 2.5    | 2.6    | 2.7    | 2.2    | 3.5    | 3.1    |
| US: Fixed Nonresidential Invest.  | 473.4  | 490.2  | 495.0  | 491.4  | 500.5  | 501.3  | 503.7  | 505.6  | 487.5  | 502.8  |
| Percent Change From Last Qtr (AR)   | 7.6    | 15.0   | 4.0    | -2.9   | 7.6    | 0.6    | 2.0    | 1.5    | 9.5    | 3.1    |
| US: Producers Durable Equipment   | 349.4  | 365.1  | 369.2  | 365.9  | 374.2  | 374.1  | 375.7  | 376.7  | 362.4  | 375.1  |
| Percent Change From Last Qtr (AR)   | 21.6   | 19.3   | 4.5    | -3.5   | 9.4    | -0.1   | 1.7    | 1.1    | 13.4   | 3.5    |
| US: Investment in Structures  | 124.0  | 125.0  | 125.8  | 125.5  | 126.3  | 127.2  | 128.1  | 128.9  | 125.1  | 127.6  |
| Percent Change From Last Qtr (AR)   | -22.4  | 3.5    | 2.5    | -1.1   | 2.7    | 3.0    | 2.8    | 2.6    | -0.4   | 2.1    |
| US: Residential Investment  | 189.5  | 189.6  | 191.6  | 196.6  | 193.9  | 194.5  | 195.9  | 197.7  | 191.8  | 195.5  |
| Percent Change From Last Qtr (AR)   | -6.5   | 0.2    | 4.3    | 10.9   | -5.4   | 1.2    | 2.9    | 3.7    | -1.7   | 1.9    |

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.

| Institute for Public Policy and Business Research, University of Kansas |                                   | 1988-1989 US Forecast |        |        |        |        |        |        |        |        |       | 24JUL89 | 2 |
|---|-----------------------------------|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|---------|---|
|   |                                   | 1988Q1                | 1988Q2 | 1988Q3 | 1988Q4 | 1989Q1 | 1989Q2 | 1989Q3 | 1989Q4 | 1988   | 1989  |         |   |
| US:   | Change in Bus. Inventories        | 65.9                  | 35.3   | 39.5   | 29.1   | 38.0   | 39.4   | 30.1   | 22.7   | 42.5   | 32.5  |         |   |
| US:   | Change in Farm Inventories        | 14.1                  | 5.3    | -0.8   | -8.5   | 12.6   | 8.0    | 4.0    | 0.0    | 2.5    | 6.1   |         |   |
| US:   | Change in Nonfarm Inv.            | 51.9                  | 30.1   | 40.4   | 37.6   | 29.1   | 31.4   | 26.1   | 22.7   | 40.0   | 27.3  |         |   |
| US:   | Net Exports                       | -109.0                | -92.6  | -93.9  | -105.4 | -87.8  | -92.8  | -99.5  | -103.3 | -100.2 | -95.9 |         |   |
|   | Percent Change From Last Qtr (AR) | -44.0                 | -47.9  | 5.7    | 58.7   | -51.8  | 24.8   | 32.2   | 16.1   | -22.2  | -4.4  |         |   |
| US:   | Total Exports                     | 486.2                 | 496.9  | 514.0  | 522.1  | 541.0  | 545.8  | 551.0  | 556.6  | 504.8  | 548.6 |         |   |
|   | Percent Change From Last Qtr (AR) | 25.7                  | 9.1    | 14.5   | 6.5    | 15.3   | 3.6    | 3.8    | 4.2    | 18.0   | 8.7   |         |   |
| US:   | Total Imports                     | 595.1                 | 589.5  | 607.9  | 627.4  | 628.8  | 638.6  | 650.5  | 659.9  | 605.0  | 644.4 |         |   |
|   | Percent Change From Last Qtr (AR) | 6.9                   | -3.7   | 13.1   | 13.5   | 0.9    | 6.4    | 7.6    | 5.9    | 8.7    | 6.5   |         |   |
| US:   | Total Government Purchases        | 776.4                 | 783.8  | 773.5  | 795.5  | 798.3  | 795.8  | 799.6  | 801.4  | 782.3  | 798.8 |         |   |
|   | Percent Change From Last Qtr (AR) | -7.9                  | 3.9    | -5.2   | 11.9   | 1.4    | -1.2   | 1.9    | 0.9    | 0.3    | 2.1   |         |   |
| US:   | Fed. Govt. Purchases              | 327.8                 | 331.6  | 320.1  | 335.5  | 335.8  | 330.6  | 331.6  | 330.6  | 328.7  | 332.1 |         |   |
|   | Percent Change From Last Qtr (AR) | -21.0                 | 4.7    | -13.2  | 20.7   | 0.4    | -6.1   | 1.2    | -1.2   | -3.0   | 1.0   |         |   |
| US:   | Fed. Defense Purchases            | 264.6                 | 263.6  | 256.4  | 262.5  | 255.9  | 256.0  | 256.0  | 254.5  | 261.8  | 255.6 |         |   |
|   | Percent Change From Last Qtr (AR) | -5.3                  | -1.5   | -10.5  | 9.9    | -9.7   | 0.2    | 0.0    | -2.3   | -1.2   | -2.4  |         |   |
| US:   | Fed. Nondefense Purchases         | 63.2                  | 67.9   | 63.7   | 72.9   | 77.3   | 74.6   | 75.6   | 76.1   | 66.9   | 75.9  |         |   |
|   | Percent Change From Last Qtr (AR) | -60.1                 | 33.2   | -22.5  | 71.5   | 26.4   | -13.3  | 5.5    | 2.7    | -9.7   | 13.4  |         |   |
| US:   | State and Local Govt. Purch.      | 448.7                 | 452.2  | 453.4  | 460.0  | 462.4  | 465.2  | 468.0  | 470.8  | 453.6  | 466.6 |         |   |
|   | Percent Change From Last Qtr (AR) | 3.5                   | 3.2    | 1.1    | 6.0    | 2.1    | 2.5    | 2.4    | 2.4    | 2.8    | 2.9   |         |   |

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.



Institute for Public Policy and Business Research, University of Kansas 1988-1989 US Forecast

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GNP AS EXPENDITURE - CURRENT DOLLARS

|                                   | 1988Q1 | 1988Q2 | 1988Q3 | 1988Q4 | 1989Q1 | 1989Q2 | 1989Q3 | 1989Q4 | 1988   | 1989   |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| US: Gross National Product        | 4724.5 | 4823.8 | 4909.0 | 4999.7 | 5105.0 | 5190.5 | 5262.7 | 5338.2 | 4864.2 | 5224.1 |
| Percent Change From Last Qtr (AR) | 5.4    | 8.7    | 7.3    | 7.6    | 8.7    | 6.9    | 5.7    | 5.9    | 7.5    | 7.4    |
| US: Personal Consumption Expend.  | 3128.1 | 3194.6 | 3261.2 | 3326.4 | 3377.2 | 3437.4 | 3496.3 | 3556.0 | 3227.5 | 3466.7 |
| Percent Change From Last Qtr (AR) | 6.9    | 8.8    | 8.6    | 8.2    | 6.3    | 7.3    | 7.0    | 7.0    | 7.2    | 7.4    |
| US: Per. Con. Exp.-Durables       | 437.8  | 449.8  | 452.9  | 464.0  | 459.4  | 462.8  | 466.6  | 469.5  | 451.1  | 464.6  |
| Percent Change From Last Qtr (AR) | 15.9   | 11.4   | 2.8    | 10.2   | -3.9   | 3.0    | 3.3    | 2.6    | 6.9    | 3.0    |
| US: PCE-Nondurables               | 1016.2 | 1036.6 | 1060.8 | 1073.9 | 1093.0 | 1117.3 | 1136.7 | 1155.2 | 1046.9 | 1125.5 |
| Percent Change From Last Qtr (AR) | 1.5    | 8.3    | 9.7    | 5.0    | 7.3    | 9.2    | 7.1    | 6.7    | 4.9    | 7.5    |
| US: PCE-Services                  | 1674.1 | 1708.2 | 1747.5 | 1788.5 | 1824.8 | 1857.3 | 1893.1 | 1931.3 | 1729.6 | 1876.6 |
| Percent Change From Last Qtr (AR) | 8.1    | 8.4    | 9.5    | 9.7    | 8.4    | 7.3    | 7.9    | 8.3    | 8.6    | 8.5    |
| US: Fixed Nonresidential Invest.  | 471.5  | 487.8  | 493.7  | 500.6  | 512.9  | 517.7  | 524.8  | 532.6  | 488.4  | 522.0  |
| Percent Change From Last Qtr (AR) | 6.5    | 14.6   | 4.9    | 5.7    | 10.2   | 3.8    | 5.6    | 6.1    | 9.3    | 6.9    |
| US: Producers Durable Equipment   | 331.3  | 345.5  | 349.9  | 355.6  | 364.4  | 365.6  | 369.1  | 373.2  | 345.6  | 368.1  |
| Percent Change From Last Qtr (AR) | 20.4   | 18.2   | 5.2    | 6.7    | 10.3   | 1.3    | 3.9    | 4.5    | 12.4   | 6.5    |
| US: Investment in Structures      | 140.1  | 142.3  | 143.9  | 145.0  | 148.5  | 152.1  | 155.7  | 159.4  | 142.8  | 153.9  |
| Percent Change From Last Qtr (AR) | -19.0  | 6.4    | 4.3    | 3.2    | 10.1   | 10.1   | 9.8    | 9.9    | 2.4    | 7.8    |
| US: Residential Investment        | 226.6  | 226.5  | 229.1  | 236.6  | 237.1  | 239.5  | 243.7  | 249.0  | 229.7  | 242.3  |
| Percent Change From Last Qtr (AR) | -3.8   | -0.2   | 4.7    | 13.8   | 0.8    | 4.1    | 7.2    | 8.9    | 1.2    | 5.5    |

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.

|   | 1988Q1          | 1988Q2         | 1988Q3         | 1988Q4         | 1989Q1         | 1989Q2        | 1989Q3        | 1989Q4        | 1988           | 1989           |
|---|-----------------|----------------|----------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|
| US: Change in Bus. Inventories  | 65.3            | 43.7           | 49.7           | 34.7           | 43.5           | 50.5          | 36.8          | 27.1          | 48.3           | 39.5           |
| US: Change in Farm Inventories  | 15.9            | 10.6           | 7.8            | -9.8           | 18.5           | 13.5          | 6.5           | 0.0           | 6.1            | 9.6            |
| US: Change in Nonfarm Inv.  | 49.4            | 33.1           | 41.9           | 44.6           | 29.3           | 37.0          | 30.3          | 27.1          | 42.2           | 30.9           |
| US: Net Exports<br>Percent Change From Last Qtr (AR)                  | -112.1<br>-36.7 | -90.4<br>-57.7 | -80.0<br>-38.7 | -96.1<br>108.2 | -77.5<br>-57.7 | -76.2<br>-6.5 | -77.8<br>8.8  | -81.8<br>22.3 | -94.6<br>-23.1 | -78.3<br>-17.2 |
| US: Total Exports<br>Percent Change From Last Qtr (AR)                | 487.8<br>26.8   | 507.1<br>16.8  | 536.1<br>24.9  | 548.0<br>9.2   | 577.8<br>23.6  | 586.3<br>6.0  | 596.4<br>7.1  | 609.0<br>8.7  | 519.7<br>21.4  | 592.4<br>14.0  |
| US: Total Imports<br>Percent Change From Last Qtr (AR)                | 599.9<br>10.3   | 597.5<br>-1.6  | 616.0<br>13.0  | 644.0<br>19.5  | 655.2<br>7.1   | 662.5<br>4.5  | 674.2<br>7.3  | 690.8<br>10.2 | 614.3<br>11.5  | 670.7<br>9.2   |
| US: Total Government Purchases<br>Percent Change From Last Qtr (AR)   | 945.2<br>-0.9   | 961.6<br>7.1   | 955.3<br>-2.6  | 997.5<br>18.9  | 1011.8<br>5.9  | 1021.6<br>3.9 | 1038.9<br>6.9 | 1055.4<br>6.5 | 964.9<br>4.3   | 1031.9<br>6.9  |
| US: Fed. Govt. Purchases<br>Percent Change From Last Qtr (AR)         | 377.7<br>-13.3  | 382.2<br>4.9   | 367.7<br>-14.3 | 396.3<br>34.9  | 397.8<br>1.5   | 395.8<br>-2.0 | 401.7<br>6.1  | 406.3<br>4.7  | 381.0<br>-0.3  | 400.4<br>5.1   |
| US: Fed. Defense Purchases<br>Percent Change From Last Qtr (AR)       | 298.4<br>-1.1   | 298.8<br>0.5   | 294.3<br>-5.9  | 301.9<br>10.7  | 299.8<br>-2.8  | 300.1<br>0.5  | 303.9<br>5.1  | 305.8<br>2.5  | 298.3<br>1.0   | 302.4<br>1.4   |
| US: Fed. Nondefense Purchases<br>Percent Change From Last Qtr (AR)    | 79.3<br>-45.3   | 83.4<br>22.3   | 73.4<br>-40.0  | 94.3<br>172.4  | 98.1<br>17.1   | 95.6<br>-9.7  | 97.7<br>9.0   | 100.5<br>11.7 | 82.6<br>-4.7   | 98.0<br>18.6   |
| US: State and Local Govt. Purch.<br>Percent Change From Last Qtr (AR) | 567.5<br>8.6    | 579.4<br>8.7   | 587.6<br>5.8   | 601.2<br>9.6   | 613.9<br>8.7   | 625.8<br>8.0  | 637.2<br>7.5  | 649.1<br>7.7  | 583.9<br>7.6   | 631.5<br>8.1   |

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.

| Institute for Public Policy and Business Research, University of Kansas |        | 1988-1989 |        |        |        | US Forecast |        |        |        |
|---|--------|-----------|--------|--------|--------|-------------|--------|--------|--------|
|   |        | 1988Q2    | 1988Q3 | 1988Q4 | 1989Q1 | 1989Q2      | 1989Q3 | 1989Q4 | 1988   |
| RELATION OF GNP, NNP, NAT. INCOME & PERS. INCOME                        |        |           |        |        |        |             |        |        |        |
| 1988Q1  |        |           |        |        |        |             |        |        |        |
| US: Gross National Product  | 4724.5 | 4823.8    | 4909.0 | 4999.7 | 5105.0 | 5190.5      | 5338.2 | 4864.2 | 5224.1 |
| Percent Change From Last Qtr (AR)                                       | 5.4    | 8.7       | 7.3    | 7.6    | 8.7    | 6.9         | 5.9    | 7.5    | 7.4    |
| US: Cap. Cons. Allow. with Adj.   | 498.3  | 503.2     | 507.7  | 516.2  | 524.7  | 535.1       | 554.7  | 506.3  | 539.8  |
| Percent Change From Last Qtr (AR)                                       | 7.4    | 4.0       | 3.6    | 6.9    | 6.8    | 8.1         | 7.6    | 5.5    | 6.6    |
| US: Cap. Cons. Allow w/o Adj.   | 475.8  | 482.3     | 489.5  | 505.3  | 522.5  | 535.1       | 554.7  | 488.2  | 539.2  |
| Percent Change From Last Qtr (AR)                                       | 11.9   | 5.6       | 6.1    | 13.5   | 14.3   | 10.0        | 7.6    | 7.9    | 10.4   |
| US: Cap. Cons. Adjustment, Total  | 22.5   | 20.9      | 18.2   | 10.9   | 2.1    | 0.0         | 0.0    | 18.1   | 0.5    |
| Percent Change From Last Qtr (AR)                                       | -51.1  | -25.6     | -42.5  | -87.1  | -99.9  | -100.0      | .      | -34.4  | -97.1  |
| US: Net National Product  | 4226.2 | 4320.5    | 4401.3 | 4483.6 | 4580.3 | 4655.5      | 4783.5 | 4357.9 | 4684.4 |
| Percent Change From Last Qtr (AR)                                       | 9.2    | 9.2       | 7.7    | 7.7    | 8.9    | 6.7         | 5.7    | 7.7    | 7.5    |
| US: Indirect Business Taxes   | 379.4  | 385.8     | 392.3  | 398.7  | 403.9  | 414.9       | 442.0  | 389.0  | 421.9  |
| Percent Change From Last Qtr (AR)                                       | 5.7    | 6.9       | 6.9    | 6.7    | 5.3    | 11.3        | 15.1   | 6.2    | 8.4    |
| US: Business Transfer Payments  | 29.6   | 30.3      | 31.1   | 31.8   | 32.6   | 33.2        | 34.4   | 30.7   | 33.5   |
| Percent Change From Last Qtr (AR)                                       | 8.5    | 9.8       | 11.0   | 9.3    | 10.4   | 8.2         | 7.1    | 9.1    | 9.2    |
| US: Statistical Discrepancy   | -15.0  | -5.1      | -14.0  | -23.2  | -23.2  | -20.0       | -10.0  | -14.3  | -17.0  |
| US: Sub. less Cur. Sur.-Gov. E.   | 18.6   | 19.2      | 8.8    | 17.1   | 19.4   | 19.2        | 18.0   | 15.9   | 18.8   |
| Percent Change From Last Qtr (AR)                                       | -72.1  | 13.5      | -95.6  | 1325.8 | 65.7   | -4.1        | -12.3  | -13.0  | 18.1   |
| US: National Income   | 3850.8 | 3928.8    | 4000.7 | 4093.4 | 4187.1 | 4246.5      | 4335.0 | 3968.4 | 4265.0 |
| Percent Change From Last Qtr (AR)                                       | 5.2    | 8.4       | 7.5    | 9.6    | 9.5    | 5.8         | 4.1    | 7.9    | 7.5    |

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.

|  | 1988Q1        | 1988Q2        | 1988Q3        | 1988Q4        | 1989Q1         | 1989Q2         | 1989Q3         | 1989Q4         | 1988          | 1989           |
|--|---------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|---------------|----------------|
| US: Corp. Prof. w. IVA + CCADJ<br>Percent Change From Last Qtr (AR)  | 316.2<br>0.1  | 326.5<br>13.7 | 330.0<br>4.4  | 340.9<br>13.9 | 319.3<br>-23.0 | 309.2<br>-12.1 | 286.7<br>-26.0 | 264.7<br>-27.4 | 328.4<br>5.8  | 295.0<br>-10.2 |
| US: Net Interest<br>Percent Change From Last Qtr (AR)                | 373.9<br>4.8  | 380.6<br>7.4  | 396.2<br>17.4 | 415.4<br>20.8 | 435.3<br>20.6  | 454.7<br>19.0  | 470.0<br>14.2  | 486.1<br>14.4  | 391.5<br>10.7 | 461.5<br>17.9  |
| US: Cont. to Soc. Ins.-Total<br>Percent Change From Last Qtr (AR)    | 433.3<br>26.5 | 440.9<br>7.2  | 448.4<br>7.0  | 456.1<br>7.0  | 471.0<br>13.7  | 478.5<br>6.5   | 485.8<br>6.2   | 492.8<br>5.9   | 444.7<br>11.4 | 482.0<br>8.4   |
| 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<br>Percent Change From Last Qtr (AR) | 546.7<br>15.1 | 552.5<br>4.3  | 557.6<br>3.7  | 564.5<br>5.0  | 584.4<br>14.9  | 602.7<br>13.1  | 621.2<br>12.9  | 641.5<br>13.7  | 555.3<br>6.7  | 612.4<br>10.3  |
| US: Personal Interest Income<br>Percent Change From Last Qtr (AR)    | 554.2<br>3.1  | 563.7<br>7.0  | 581.9<br>13.6 | 603.7<br>15.8 | 632.9<br>20.8  | 656.3<br>15.6  | 673.3<br>10.8  | 691.5<br>11.2  | 575.9<br>9.3  | 663.5<br>15.2  |
| US: Personal Dividend Income<br>Percent Change From Last Qtr (AR)    | 93.5<br>7.1   | 95.0<br>6.6   | 97.3<br>10.0  | 99.4<br>8.9   | 102.1<br>11.3  | 103.8<br>6.8   | 104.7<br>3.4   | 105.2<br>2.1   | 96.3<br>8.7   | 103.9<br>7.9   |
| US: Personal Income<br>Percent Change From Last Qtr (AR)             | 3951.4<br>4.6 | 4022.4<br>7.4 | 4094.0<br>7.3 | 4180.5<br>8.7 | 4313.6<br>13.4 | 4400.2<br>8.3  | 4481.8<br>7.6  | 4564.1<br>7.6  | 4062.1<br>7.5 | 4439.9<br>9.3  |

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.

| Institute for Public Policy and Business Research, University of Kansas |  | 1988-1989 |        |        |        | US Forecast |        | 24JUL89 | 7      |        |        |
|---|--|-----------|--------|--------|--------|-------------|--------|---------|--------|--------|--------|
| DISPOSITION OF PERSONAL INCOME - CURRENT DOLLARS                        |  | 1988Q1    | 1988Q2 | 1988Q3 | 1988Q4 | 1989Q1      | 1989Q2 | 1989Q3  | 1989Q4 | 1988   | 1989   |
| US: Personal Income   |  | 3951.4    | 4022.4 | 4094.0 | 4180.5 | 4313.6      | 4400.2 | 4481.8  | 4564.1 | 4062.1 | 4439.9 |
| Percent Change From Last Qtr (AR)                                       |  | 4.6       | 7.4    | 7.3    | 8.7    | 13.4        | 8.3    | 7.6     | 7.6    | 7.5    | 9.3    |
| US: Wage and Salary Disburse.   |  | 2358.7    | 2410.0 | 2462.0 | 2516.8 | 2574.3      | 2623.4 | 2670.0  | 2714.2 | 2436.9 | 2645.5 |
| Percent Change From Last Qtr (AR)                                       |  | 5.9       | 9.0    | 8.9    | 9.2    | 9.5         | 7.8    | 7.3     | 6.8    | 8.4    | 8.6    |
| US: Other Labor Income  |  | 214.6     | 216.5  | 219.5  | 222.5  | 225.4       | 228.0  | 230.4   | 232.5  | 218.3  | 229.1  |
| Percent Change From Last Qtr (AR)                                       |  | 4.2       | 3.6    | 5.7    | 5.6    | 5.3         | 4.7    | 4.2     | 3.7    | 5.0    | 4.9    |
| US: Total Proprietors Inc.  |  | 323.9     | 328.8  | 321.6  | 323.8  | 358.1       | 354.0  | 354.0   | 354.2  | 324.5  | 355.1  |
| Percent Change From Last Qtr (AR)                                       |  | -2.6      | 6.2    | -8.5   | 2.8    | 49.6        | -4.5   | -0.0    | 0.3    | 3.7    | 9.4    |
| US: Farm Proprietors Inc.   |  | 44.7      | 43.4   | 30.9   | 26.0   | 57.2        | 49.6   | 46.6    | 44.0   | 36.2   | 49.3   |
| Percent Change From Last Qtr (AR)                                       |  | -18.2     | -11.1  | -74.3  | -49.9  | 2242.6      | -43.6  | -22.2   | -20.4  | -15.6  | 36.1   |
| US: Nonfarm Proprietors Inc.  |  | 279.2     | 285.3  | 290.7  | 297.7  | 300.9       | 304.5  | 307.4   | 310.2  | 288.2  | 305.8  |
| Percent Change From Last Qtr (AR)                                       |  | 0.3       | 9.0    | 7.8    | 10.0   | 4.4         | 4.8    | 4.0     | 3.7    | 6.8    | 6.1    |
| US: Rental Income of Persons  |  | 20.5      | 19.1   | 19.7   | 18.1   | 14.0        | 13.9   | 13.8    | 13.7   | 19.3   | 13.8   |
| Percent Change From Last Qtr (AR)                                       |  | 0.0       | -24.6  | 13.2   | -28.7  | -64.2       | -3.5   | -2.9    | -2.7   | 4.9    | -28.5  |
| US: Personal Interest Income  |  | 554.2     | 563.7  | 581.9  | 603.7  | 632.9       | 656.3  | 673.3   | 691.5  | 575.9  | 663.5  |
| Percent Change From Last Qtr (AR)                                       |  | 3.1       | 7.0    | 13.6   | 15.8   | 20.8        | 15.6   | 10.8    | 11.2   | 9.3    | 15.2   |
| US: Personal Dividend Income  |  | 93.5      | 95.0   | 97.3   | 99.4   | 102.1       | 103.8  | 104.7   | 105.2  | 96.3   | 103.9  |
| Percent Change From Last Qtr (AR)                                       |  | 7.1       | 6.6    | 10.0   | 8.9    | 11.3        | 6.8    | 3.4     | 2.1    | 8.7    | 7.9    |
| US: Total Transfer Payments   |  | 576.3     | 582.8  | 588.6  | 596.4  | 617.0       | 635.9  | 655.0   | 675.9  | 586.0  | 646.0  |
| Percent Change From Last Qtr (AR)                                       |  | 14.8      | 4.6    | 4.0    | 5.4    | 14.5        | 12.8   | 12.6    | 13.4   | 6.8    | 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.

|   | 1988Q1        | 1988Q2         | 1988Q3         | 1988Q4        | 1989Q1         | 1989Q2        | 1989Q3        | 1989Q4        | 1988          | 1989          |
|---|---------------|----------------|----------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|
| US: Tot. Pers. Tax + Montax Pay<br>Percent Change From Last Qtr (AR)  | 575.8<br>-9.9 | 601.0<br>18.7  | 586.5<br>-9.3  | 598.0<br>8.1  | 617.5<br>13.7  | 641.0<br>16.1 | 653.2<br>7.8  | 665.3<br>7.6  | 590.3<br>3.5  | 644.3<br>9.1  |
| US: Disposable Personal Income<br>Percent Change From Last Qtr (AR)   | 3375.6<br>7.4 | 3421.5<br>5.6  | 3507.5<br>10.4 | 3582.5<br>8.8 | 3696.0<br>13.3 | 3759.2<br>7.0 | 3828.6<br>7.6 | 3898.9<br>7.6 | 3471.8<br>8.2 | 3795.7<br>9.3 |
| US: Personal Consumption Expend.<br>Percent Change From Last Qtr (AR) | 3128.1<br>6.9 | 3194.6<br>8.8  | 3261.2<br>8.6  | 3326.4<br>8.2 | 3377.2<br>6.3  | 3437.4<br>7.3 | 3496.3<br>7.0 | 3556.0<br>7.0 | 3227.5<br>7.2 | 3466.7<br>7.4 |
| US: Int. Paid by Cons. to Bus.<br>Percent Change From Last Qtr (AR)   | 96.4<br>8.7   | 98.2<br>7.7    | 99.8<br>6.7    | 101.2<br>5.7  | 103.3<br>8.6   | 104.3<br>3.8  | 104.8<br>2.1  | 105.2<br>1.5  | 98.9<br>7.4   | 104.4<br>5.6  |
| US: Pers. Trans. Pay. to For.<br>Percent Change From Last Qtr (AR)    | 1.2<br>0.0    | 0.8<br>-80.2   | 0.8<br>0.0     | 1.1<br>257.4  | 1.1<br>0.0     | 1.0<br>-31.7  | 1.0<br>0.0    | 1.0<br>0.0    | 1.0<br>-26.4  | 1.0<br>5.1    |
| US: Personal Saving<br>Percent Change From Last Qtr (AR)              | 149.9<br>17.4 | 127.8<br>-47.2 | 145.7<br>68.9  | 153.8<br>24.2 | 214.5<br>278.3 | 216.5<br>3.7  | 226.3<br>19.5 | 236.7<br>19.5 | 144.3<br>38.5 | 223.5<br>54.9 |
| US: Disposable Personal Income<br>Percent Change From Last Qtr (AR)   | 2762.3<br>5.0 | 2762.2<br>-0.0 | 2800.4<br>5.6  | 2828.4<br>4.1 | 2882.2<br>7.8  | 2892.5<br>1.4 | 2907.9<br>2.1 | 2919.2<br>1.6 | 2788.3<br>3.8 | 2900.4<br>4.0 |
| US: YSAV as a Percent of YPD  | 4.4           | 3.7            | 4.2            | 4.3           | 5.8            | 5.8           | 5.9           | 6.1           | 4.1           | 5.9           |

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.

| Institute for Public Policy and Business Research, University of Kansas |  | 1988-1989 |        |        |        | US Forecast | 24JUL89 | 9      |        |        |        |
|---|--|-----------|--------|--------|--------|-------------|---------|--------|--------|--------|--------|
| NATIONAL INCOME - CURRENT DOLLARS                                       |  | 1988Q1    | 1988Q2 | 1988Q3 | 1988Q4 | 1989Q1      | 1989Q2  | 1989Q3 | 1989Q4 | 1988   | 1989   |
| US: National Income   |  | 3850.8    | 3928.8 | 4000.7 | 4093.4 | 4187.1      | 4246.5  | 4291.2 | 4335.0 | 3968.4 | 4265.0 |
| Percent Change From Last Qtr (AR)                                       |  | 5.2       | 8.4    | 7.5    | 9.6    | 9.5         | 5.8     | 4.3    | 4.1    | 7.9    | 7.5    |
| US: Wages and Salaries  |  | 2358.7    | 2410.0 | 2462.0 | 2516.8 | 2574.3      | 2623.4  | 2670.0 | 2714.2 | 2436.9 | 2645.5 |
| Percent Change From Last Qtr (AR)                                       |  | 6.0       | 9.0    | 8.9    | 9.2    | 9.5         | 7.8     | 7.3    | 6.8    | 8.4    | 8.6    |
| US: W. and S.-Govt. + Govt. Ent.  |  | 437.1     | 442.9  | 449.1  | 455.4  | 465.9       | 472.7   | 479.5  | 486.4  | 446.1  | 476.2  |
| Percent Change From Last Qtr (AR)                                       |  | 7.6       | 5.4    | 5.7    | 5.7    | 9.5         | 6.0     | 5.9    | 5.9    | 6.2    | 6.7    |
| US: W. and S.-Other   |  | 1921.6    | 1967.1 | 2012.9 | 2061.4 | 2108.4      | 2150.5  | 2190.4 | 2227.8 | 1990.7 | 2169.3 |
| Percent Change From Last Qtr (AR)                                       |  | 5.6       | 9.8    | 9.6    | 10.0   | 9.4         | 8.3     | 7.6    | 7.0    | 8.9    | 9.0    |
| US: Supplements to w. and s.  |  | 457.7     | 464.0  | 471.1  | 478.5  | 486.2       | 491.5   | 496.8  | 502.2  | 467.8  | 494.2  |
| Percent Change From Last Qtr (AR)                                       |  | 11.8      | 5.6    | 6.3    | 6.4    | 6.6         | 4.4     | 4.4    | 4.4    | 7.6    | 5.6    |
| US: Emp. Cont. to Soc. Ins.   |  | 243.1     | 247.5  | 251.7  | 256.0  | 260.8       | 263.5   | 266.5  | 269.7  | 249.6  | 265.1  |
| Percent Change From Last Qtr (AR)                                       |  | 19.1      | 7.4    | 7.0    | 7.0    | 7.7         | 4.1     | 4.6    | 5.0    | 9.9    | 6.2    |
| US: Other Labor Income  |  | 214.6     | 216.5  | 219.5  | 222.5  | 225.4       | 228.0   | 230.4  | 232.5  | 218.3  | 229.1  |
| Percent Change From Last Qtr (AR)                                       |  | 4.2       | 3.6    | 5.7    | 5.6    | 5.3         | 4.7     | 4.2    | 3.7    | 5.0    | 4.9    |
| US: Total Proprietors Inc.  |  | 323.9     | 328.8  | 321.6  | 323.8  | 358.1       | 354.0   | 354.0  | 354.2  | 324.5  | 355.1  |
| Percent Change From Last Qtr (AR)                                       |  | -2.6      | 6.2    | -8.5   | 2.8    | 49.6        | -4.5    | -0.0   | 0.3    | 3.7    | 9.4    |
| US: Farm Proprietors Inc.   |  | 44.7      | 43.4   | 30.9   | 26.0   | 57.2        | 49.6    | 46.6   | 44.0   | 36.2   | 49.3   |
| Percent Change From Last Qtr (AR)                                       |  | -18.2     | -11.1  | -74.3  | -49.9  | 2242.6      | -43.6   | -22.2  | -20.4  | -15.6  | 36.1   |
| US: Nonfarm Proprietors Inc.  |  | 279.2     | 285.3  | 290.7  | 297.7  | 300.9       | 304.5   | 307.4  | 310.2  | 288.2  | 305.8  |
| Percent Change From Last Qtr (AR)                                       |  | 0.3       | 9.0    | 7.8    | 10.0   | 4.4         | 4.8     | 4.0    | 3.7    | 6.8    | 6.1    |

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.

|   | 1988-1989 US Forecast |                |               |                |                |                |                |                |               |                | 24JUL89 | 10 |
|---|-----------------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|---------|----|
|   | 1988Q1                | 1988Q2         | 1988Q3        | 1988Q4         | 1989Q1         | 1989Q2         | 1989Q3         | 1989Q4         | 1988          | 1989           |         |    |
| US: Rental Income of Persons<br>Percent Change From Last Qtr (AR)   | 20.5<br>0.0           | 19.1<br>-24.6  | 19.7<br>13.2  | 18.1<br>-28.7  | 14.0<br>-64.2  | 13.9<br>-3.5   | 13.8<br>-2.9   | 13.7<br>-2.7   | 19.3<br>4.9   | 13.8<br>-28.5  |         |    |
| US: Corp. Prof. w. IVA + CCADJ<br>Percent Change From Last Qtr (AR) | 316.2<br>0.1          | 326.5<br>13.7  | 330.0<br>4.4  | 340.9<br>13.9  | 319.3<br>-23.0 | 309.2<br>-12.1 | 286.7<br>-26.0 | 264.7<br>-27.4 | 328.4<br>5.8  | 295.0<br>-10.2 |         |    |
| US: Net Interest<br>Percent Change From Last Qtr (AR)               | 373.9<br>4.8          | 380.6<br>7.4   | 396.2<br>17.4 | 415.4<br>20.8  | 435.3<br>20.6  | 454.7<br>19.0  | 470.0<br>14.2  | 486.1<br>14.4  | 391.5<br>10.7 | 461.5<br>17.9  |         |    |
| US: Corp. Prof. before Tax<br>Percent Change From Last Qtr (AR)     | 286.2<br>6.2          | 305.9<br>30.5  | 313.9<br>10.9 | 320.6<br>8.8   | 319.9<br>-0.9  | 318.1<br>-2.2  | 301.0<br>-19.9 | 284.4<br>-20.2 | 306.6<br>10.8 | 305.9<br>-0.3  |         |    |
| US: Profits Tax Liability<br>Percent Change From Last Qtr (AR)      | 136.9<br>2.1          | 143.2<br>19.7  | 144.8<br>4.5  | 146.1<br>3.6   | 148.3<br>6.2   | 147.9<br>-1.1  | 143.1<br>-12.3 | 138.6<br>-11.9 | 142.7<br>6.7  | 144.5<br>1.2   |         |    |
| US: Corp. Prof. after Taxes<br>Percent Change From Last Qtr (AR)    | 149.4<br>10.6         | 162.7<br>40.7  | 169.1<br>16.7 | 174.5<br>13.4  | 171.6<br>-6.5  | 170.2<br>-3.1  | 157.9<br>-26.1 | 145.8<br>-27.2 | 163.9<br>14.7 | 161.4<br>-1.6  |         |    |
| US: Dividends-Total<br>Percent Change From Last Qtr (AR)            | 101.3<br>8.3          | 103.1<br>7.3   | 105.7<br>10.5 | 108.0<br>9.0   | 111.1<br>12.0  | 113.2<br>7.6   | 114.6<br>5.1   | 115.6<br>3.6   | 104.5<br>9.5  | 113.6<br>8.7   |         |    |
| US: Undistributed Corp. Prof.<br>Percent Change From Last Qtr (AR)  | 48.1<br>15.5          | 59.6<br>135.7  | 63.4<br>28.0  | 66.4<br>20.3   | 60.5<br>-31.1  | 57.1<br>-20.8  | 43.3<br>-67.0  | 30.2<br>-76.3  | 59.4<br>25.3  | 47.8<br>-19.6  |         |    |
| US: Inventory Valuation Adj.<br>Percent Change From Last Qtr (AR)   | -19.4<br>29.1         | -27.4<br>297.9 | -29.3<br>30.8 | -19.2<br>-81.6 | -33.9<br>871.8 | -37.7<br>53.5  | -40.0<br>26.6  | -42.5<br>27.4  | -23.8<br>32.2 | -38.5<br>61.8  |         |    |
| US: Corp. Cap. Cons. Adj.<br>Percent Change From Last Qtr (AR)      | 49.4<br>-21.0         | 48.0<br>-10.9  | 45.4<br>-20.0 | 39.6<br>-42.1  | 33.3<br>-50.0  | 28.8<br>-44.4  | 25.8<br>-35.7  | 22.8<br>-39.1  | 45.6<br>-11.8 | 27.6<br>-39.4  |         |    |
| US: Net Interest<br>Percent Change From Last Qtr (AR)               | 373.9<br>4.8          | 380.6<br>7.4   | 396.2<br>17.4 | 415.4<br>20.8  | 435.3<br>20.6  | 454.7<br>19.0  | 470.0<br>14.2  | 486.1<br>14.4  | 391.5<br>10.7 | 461.5<br>17.9  |         |    |

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.



PRICE DEFLATORS

|   | 1988Q1       | 1988Q2      | 1988Q3       | 1988Q4       | 1989Q1       | 1989Q2     | 1989Q3     | 1989Q4     | 1988         | 1989        |
|---|--------------|-------------|--------------|--------------|--------------|------------|------------|------------|--------------|-------------|
| US: CPI-All items<br>Percent Change From Last Qtr (AR)            | 1.2<br>3.7   | 1.2<br>4.5  | 1.2<br>4.7   | 1.2<br>4.4   | 1.2<br>5.4   | 1.2<br>6.5 | 1.3<br>5.1 | 1.3<br>5.6 | 1.2<br>4.1   | 1.2<br>5.3  |
| US: Implicit Deflator - GNP<br>Percent Change From Last Qtr (AR)  | 1.2<br>1.9   | 1.2<br>5.5  | 1.2<br>4.7   | 1.2<br>5.1   | 1.3<br>4.2   | 1.3<br>6.2 | 1.3<br>5.5 | 1.3<br>5.7 | 1.2<br>3.4   | 1.3<br>5.1  |
| US: Implicit Deflator - C<br>Percent Change From Last Qtr (AR)    | 1.2<br>2.3   | 1.2<br>5.6  | 1.3<br>4.5   | 1.3<br>4.6   | 1.3<br>5.1   | 1.3<br>5.5 | 1.3<br>5.3 | 1.3<br>5.9 | 1.2<br>4.2   | 1.3<br>5.1  |
| US: Implicit Deflator - IOIL<br>Percent Change From Last Qtr (AR) | 0.5<br>-42.2 | 0.5<br>-2.4 | 0.5<br>-21.9 | 0.4<br>-32.5 | 0.5<br>117.4 | 0.5<br>5.7 | 0.5<br>6.1 | 0.5<br>2.0 | 0.5<br>-16.6 | 0.5<br>11.1 |

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

|  | 1988Q1       | 1988Q2       | 1988Q3       | 1988Q4       | 1989Q1       | 1989Q2       | 1989Q3       | 1989Q4       | 1988         | 1989         |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| US: Civilian Labor Force<br>Percent Change From Last Qtr (AR)          | 121.0<br>1.6 | 121.4<br>1.0 | 121.9<br>1.8 | 122.4<br>1.7 | 123.3<br>3.0 | 124.0<br>2.2 | 124.6<br>2.0 | 125.1<br>1.7 | 121.7<br>1.5 | 124.2<br>2.1 |
| US: Civilian Employment<br>Percent Change From Last Qtr (AR)           | 114.3<br>2.5 | 114.8<br>1.9 | 115.3<br>1.8 | 115.9<br>2.1 | 117.0<br>3.7 | 117.5<br>1.8 | 117.9<br>1.3 | 118.1<br>1.0 | 115.1<br>2.2 | 117.6<br>2.2 |
| US: Unemployment<br>Percent Change From Last Qtr (AR)                  | 6.8<br>-11.7 | 6.6<br>-12.7 | 6.6<br>1.8   | 6.5<br>-5.6  | 6.3<br>-9.4  | 6.5<br>10.9  | 6.7<br>13.6  | 7.0<br>15.4  | 6.6<br>-9.7  | 6.6<br>0.3   |
| US: Unemployment Rate-Total  | 5.6          | 5.4          | 5.4          | 5.3          | 5.1          | 5.2          | 5.4          | 5.6          | 5.4          | 5.3          |
| US: Tot. Nonfarm Empl.<br>Percent Change From Last Qtr (AR)            | 104.7<br>3.9 | 105.6<br>3.6 | 106.5<br>3.3 | 107.3<br>3.3 | 108.3<br>3.7 | 108.9<br>2.3 | 109.4<br>1.9 | 109.8<br>1.5 | 106.0<br>3.6 | 109.1<br>2.9 |
| US: Agricultural Employment<br>Percent Change From Last Qtr (AR)       | 3.2<br>2.4   | 3.1<br>-8.8  | 3.1<br>-1.7  | 3.2<br>13.0  | 3.2<br>2.5   | 3.3<br>5.4   | 3.3<br>2.6   | 3.3<br>0.7   | 3.2<br>-1.0  | 3.3<br>3.5   |
| US: Total Govt. Empl.<br>Percent Change From Last Qtr (AR)             | 17.3<br>2.3  | 17.3<br>1.9  | 17.4<br>1.4  | 17.5<br>2.9  | 17.6<br>1.7  | 17.6<br>0.8  | 17.7<br>1.8  | 17.8<br>1.8  | 17.4<br>2.2  | 17.7<br>1.7  |
| US: Fed. Govt. Empl.<br>Percent Change From Last Qtr (AR)              | 3.0<br>-0.2  | 3.0<br>-2.0  | 3.0<br>1.1   | 3.0<br>3.3   | 3.0<br>1.4   | 3.0<br>-3.9  | 3.0<br>1.4   | 3.0<br>1.3   | 3.0<br>0.9   | 3.0<br>0.5   |
| US: S & L Govt. Empl.<br>Percent Change From Last Qtr (AR)             | 14.3<br>2.9  | 14.4<br>2.7  | 14.4<br>1.5  | 14.5<br>2.8  | 14.6<br>1.6  | 14.7<br>1.9  | 14.7<br>1.9  | 14.8<br>1.9  | 14.4<br>2.5  | 14.7<br>2.0  |
| US: Tot. Priv. Nonfarm Empl.<br>Percent Change From Last Qtr (AR)      | 101.5<br>3.9 | 102.5<br>4.0 | 103.4<br>3.5 | 104.1<br>3.0 | 105.1<br>3.7 | 105.6<br>2.2 | 106.1<br>1.9 | 106.5<br>1.5 | 102.9<br>3.8 | 105.8<br>2.9 |
| US: Wage Rate Per Hour-Pr. Nonag.<br>Percent Change From Last Qtr (AR) | 10.4<br>2.4  | 10.5<br>5.0  | 10.7<br>6.4  | 10.8<br>5.8  | 11.0<br>7.1  | 11.2<br>6.4  | 11.4<br>6.4  | 11.5<br>6.4  | 10.6<br>5.0  | 11.3<br>6.4  |
| US: Output Per Manhour-Pr. Nonag.<br>Percent Change From Last Qtr (AR) | 19.0<br>1.4  | 19.0<br>0.0  | 19.0<br>-0.4 | 19.0<br>-0.1 | 19.1<br>1.4  | 18.9<br>-2.3 | 18.9<br>-1.1 | 18.9<br>-0.5 | 19.0<br>1.0  | 18.9<br>-0.3 |

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FINANCIAL AND GOVERNMENT BUDGET DEFECIT

|                                   | 1988Q1 | 1988Q2 | 1988Q3 | 1988Q4 | 1989Q1 | 1989Q2 | 1989Q3 | 1989Q4 | 1988   | 1989   |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| US: M1 Money Supply               | 760.8  | 772.9  | 782.9  | 787.4  | 786.6  | 780.8  | 796.6  | 804.7  | 776.0  | 792.2  |
| Percent Change From Last Qtr (AR) | 3.2    | 6.6    | 5.2    | 2.4    | -0.4   | -2.9   | 8.4    | 4.1    | 4.3    | 2.1    |
| US: M2 Money Supply               | 2950.2 | 3001.1 | 3029.5 | 3056.9 | 3071.6 | 3077.4 | 3124.4 | 3157.5 | 3009.4 | 3107.7 |
| Percent Change From Last Qtr (AR) | 6.3    | 7.1    | 3.8    | 3.7    | 1.9    | 0.7    | 6.3    | 4.3    | 5.1    | 3.3    |
| US: 3-Month T-Bill Rate           | 5.8    | 6.2    | 7.0    | 7.7    | 8.5    | 8.4    | 7.9    | 7.6    | 6.7    | 8.1    |
| Percent Change From Last Qtr (AR) | -15.3  | 36.9   | 58.8   | 47.2   | 50.6   | -5.4   | -23.1  | -12.3  | 14.5   | 21.6   |
| US: Prime Rate Charged By Banks   | 8.6    | 8.8    | 9.7    | 10.2   | 11.0   | 11.1   | 10.3   | 9.9    | 9.3    | 10.6   |
| Percent Change From Last Qtr (AR) | -12.0  | 9.3    | 49.6   | 21.0   | 35.0   | 6.4    | -27.8  | -14.6  | 13.6   | 13.5   |
| US: Moodys AAA Corp. Bond Rate    | 9.6    | 9.8    | 10.0   | 9.5    | 9.7    | 9.5    | 9.4    | 9.3    | 9.7    | 9.5    |
| Percent Change From Last Qtr (AR) | -23.3  | 11.0   | 6.4    | -17.0  | 7.6    | -5.9   | -6.7   | -3.6   | 3.6    | -2.4   |
| US: Federal Govt. Surplus         | -155.1 | -133.3 | -123.5 | -157.5 | -158.5 | -147.6 | -160.6 | -170.5 | -142.3 | -159.3 |
| Percent Change From Last Qtr (AR) | -12.6  | -45.4  | -26.3  | 164.5  | 2.6    | -24.7  | 40.1   | 26.9   | -9.8   | 11.9   |

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.

EMPLOYMENT

|  | 1988Q1        | 1988Q2         | 1988Q3         | 1988Q4         | 1989Q1        | 1989Q2        | 1989Q3        | 1989Q4        | 1988           | 1989          |
|--|---------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|
| KS EMP: Civilian Labor Force<br>Percent Change From One Year Ago         | 1273.4<br>1.4 | 1279.3<br>0.4  | 1276.2<br>0.8  | 1279.1<br>0.6  | 1282.9<br>0.7 | 1289.9<br>0.8 | 1285.6<br>0.7 | 1288.8<br>0.8 | 1277.0<br>0.8  | 1286.8<br>0.8 |
| KS EMP: Employed<br>Percent Change From One Year Ago                     | 1208.8<br>2.0 | 1217.6<br>0.5  | 1217.3<br>0.9  | 1220.2<br>0.3  | 1219.4<br>0.9 | 1233.9<br>1.3 | 1224.6<br>0.6 | 1225.4<br>0.4 | 1216.0<br>0.9  | 1225.8<br>0.8 |
| KS EMP: Unemployed<br>Percent Change From One Year Ago                   | 64.6<br>-7.8  | 61.7<br>-1.3   | 58.9<br>-1.9   | 58.9<br>6.3    | 63.5<br>-1.8  | 56.0<br>-9.2  | 60.9<br>3.5   | 63.4<br>7.7   | 61.0<br>-1.6   | 60.9<br>-0.1  |
| KS EMP: Unemployment Rate<br>Percent Change From One Year Ago            | 5.1<br>-9.5   | 4.8<br>-1.4    | 4.6<br>-2.8    | 4.6<br>6.2     | 4.9<br>-2.6   | 4.3<br>-9.6   | 4.7<br>2.3    | 4.9<br>7.0    | 4.8<br>-2.4    | 4.7<br>-0.9   |
| KS EMP: Adj. for Res. & Self Emp.<br>Percent Change From One Year Ago    | 146.1<br>-4.9 | 119.2<br>-17.3 | 121.2<br>-13.2 | 113.9<br>-15.4 | 133.6<br>-8.6 | 119.8<br>0.5  | 119.3<br>-1.6 | 114.7<br>0.7  | 125.1<br>-12.5 | 121.8<br>-2.6 |
| KS EMP: Farm<br>Percent Change From One Year Ago                         | 50.3<br>-3.5  | 62.5<br>7.0    | 63.9<br>2.7    | 54.0<br>-1.7   | 48.0<br>-4.7  | 57.6<br>-7.8  | 58.6<br>-8.3  | 49.2<br>-8.9  | 57.7<br>1.3    | 53.3<br>-7.5  |
| KS EMP: Total Non-farm Wage & Salary<br>Percent Change From One Year Ago | 1012.4<br>3.3 | 1035.9<br>2.6  | 1032.2<br>2.8  | 1052.4<br>2.5  | 1037.8<br>2.5 | 1056.4<br>2.0 | 1046.7<br>1.4 | 1061.5<br>0.9 | 1033.2<br>2.8  | 1050.6<br>1.7 |
| KS EMP: Mining<br>Percent Change From One Year Ago                       | 10.7<br>-1.2  | 10.7<br>-4.2   | 10.5<br>-10.3  | 10.0<br>-13.8  | 9.6<br>-10.3  | 9.7<br>-8.9   | 10.0<br>-5.1  | 9.7<br>-3.1   | 10.5<br>-7.5   | 9.8<br>-6.9   |

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

|  | 1988Q1       | 1988Q2       | 1988Q3       | 1988Q4       | 1989Q1       | 1989Q2      | 1989Q3       | 1989Q4      | 1988         | 1989         |
|--|--------------|--------------|--------------|--------------|--------------|-------------|--------------|-------------|--------------|--------------|
| KS EMP: Oil & Gas Extraction<br>Percent Change From One Year Ago     | 9.4<br>-0.0  | 9.2<br>-4.5  | 9.0<br>-11.2 | 8.6<br>-14.9 | 8.4<br>-10.3 | 8.3<br>-9.2 | 8.6<br>-4.4  | 8.4<br>-2.2 | 9.0<br>-7.8  | 8.4<br>-6.6  |
| KS EMP: Mining Residual<br>Percent Change From One Year Ago          | 1.3<br>-9.3  | 1.5<br>-2.2  | 1.5<br>-4.2  | 1.4<br>-6.5  | 1.2<br>-10.3 | 1.4<br>-6.7 | 1.4<br>-9.2  | 1.3<br>-8.4 | 1.4<br>-5.5  | 1.3<br>-8.6  |
| KS EMP: Construction<br>Percent Change From One Year Ago             | 36.8<br>-8.2 | 43.4<br>-8.4 | 46.2<br>-5.3 | 42.5<br>-6.3 | 36.7<br>-0.2 | 43.4<br>0.1 | 45.5<br>-1.4 | 42.7<br>0.5 | 42.2<br>-7.0 | 42.1<br>-0.3 |
| KS EMP: Non-durable Goods<br>Percent Change From One Year Ago        | 73.6<br>2.3  | 74.4<br>1.3  | 73.7<br>-0.5 | 73.3<br>-0.7 | 73.6<br>-0.0 | 75.0<br>0.7 | 75.1<br>1.9  | 74.7<br>1.9 | 73.8<br>0.6  | 74.6<br>1.1  |
| KS EMP: Food & Kindred<br>Percent Change From One Year Ago           | 26.6<br>-2.7 | 26.7<br>-3.1 | 26.5<br>-4.8 | 26.6<br>-3.9 | 26.5<br>-0.5 | 27.0<br>1.1 | 27.5<br>3.8  | 27.4<br>3.1 | 26.6<br>-3.6 | 27.1<br>1.9  |
| KS EMP: Apparel<br>Percent Change From One Year Ago                  | 3.8<br>28.1  | 3.8<br>15.2  | 3.7<br>4.7   | 3.6<br>-6.1  | 3.5<br>-7.9  | 3.6<br>-6.4 | 3.6<br>-4.5  | 3.5<br>-2.1 | 3.7<br>9.3   | 3.5<br>-5.3  |
| KS EMP: Printing & Publishing<br>Percent Change From One Year Ago    | 20.0<br>6.8  | 20.6<br>7.3  | 20.1<br>6.0  | 20.0<br>6.0  | 20.3<br>1.5  | 20.7<br>0.8 | 20.3<br>0.9  | 20.4<br>1.8 | 20.2<br>6.5  | 20.4<br>1.2  |
| KS EMP: Chemicals & Allied Prod.<br>Percent Change From One Year Ago | 7.8<br>-3.7  | 7.9<br>-3.3  | 7.9<br>-2.1  | 7.8<br>-2.5  | 7.8<br>0.0   | 7.9<br>0.5  | 7.9<br>0.3   | 7.8<br>-0.0 | 7.8<br>-2.9  | 7.8<br>0.2   |
| KS EMP: Petroleum & Coal<br>Percent Change From One Year Ago         | 2.9<br>-3.3  | 3.0<br>1.1   | 3.0<br>3.4   | 2.9<br>-1.1  | 3.0<br>2.3   | 3.0<br>1.4  | 3.0<br>-1.0  | 2.9<br>-0.5 | 2.9<br>0.0   | 3.0<br>0.6   |
| KS EMP: Non-durables Residual<br>Percent Change From One Year Ago    | 12.5<br>5.6  | 12.5<br>1.3  | 12.4<br>-1.8 | 12.5<br>-1.1 | 12.5<br>0.3  | 12.8<br>1.8 | 12.8<br>3.3  | 12.7<br>2.2 | 12.5<br>0.9  | 12.7<br>1.9  |

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

|   | 1988Q1       | 1988Q2       | 1988Q3       | 1988Q4       | 1989Q1       | 1989Q2       | 1989Q3       | 1989Q4       | 1988         | 1989         |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| KS EMP: Durable Goods<br>Percent Change From One Year Ago               | 105.8<br>5.3 | 107.2<br>4.3 | 108.3<br>4.9 | 109.1<br>4.2 | 109.3<br>3.3 | 110.6<br>3.2 | 110.3<br>1.9 | 110.9<br>1.6 | 107.6<br>4.7 | 110.3<br>2.5 |
| KS EMP: Stone Glass Clay<br>Percent Change From One Year Ago            | 6.5<br>2.6   | 7.0<br>3.0   | 7.2<br>2.9   | 6.9<br>0.5   | 6.4<br>-1.0  | 6.8<br>-2.3  | 7.0<br>-2.7  | 6.9<br>-0.2  | 6.9<br>2.2   | 6.8<br>-1.6  |
| KS EMP: Primary Metals<br>Percent Change From One Year Ago              | 3.1<br>8.1   | 3.2<br>12.9  | 3.4<br>17.2  | 3.6<br>18.9  | 3.6<br>15.1  | 3.6<br>13.6  | 3.6<br>7.3   | 3.7<br>2.6   | 3.3<br>14.4  | 3.6<br>9.4   |
| KS EMP: Fabricated Metals<br>Percent Change From One Year Ago           | 11.2<br>5.3  | 11.3<br>3.7  | 11.4<br>2.7  | 11.5<br>1.8  | 11.4<br>1.8  | 11.6<br>2.5  | 11.8<br>2.8  | 11.7<br>2.0  | 11.3<br>3.3  | 11.6<br>2.3  |
| KS EMP: Machinery, Incl. Electrical<br>Percent Change From One Year Ago | 28.5<br>6.3  | 29.1<br>6.5  | 29.3<br>6.3  | 29.7<br>7.0  | 29.9<br>4.8  | 30.0<br>3.1  | 29.8<br>1.7  | 29.7<br>0.0  | 29.2<br>6.5  | 29.9<br>2.4  |
| KS EMP: Transportation Equipment<br>Percent Change From One Year Ago    | 46.5<br>5.0  | 46.4<br>3.1  | 46.5<br>4.8  | 47.1<br>3.4  | 47.8<br>2.8  | 47.8<br>3.1  | 47.4<br>1.8  | 48.5<br>3.0  | 46.6<br>4.1  | 47.9<br>2.7  |
| KS EMP: Durables Residual<br>Percent Change From One Year Ago           | 10.1<br>4.5  | 10.2<br>3.0  | 10.4<br>2.3  | 10.4<br>0.6  | 10.3<br>2.6  | 10.7<br>4.8  | 10.7<br>3.1  | 10.4<br>0.5  | 10.3<br>2.6  | 10.6<br>2.8  |
| KS EMP: Transportation & Utilities<br>Percent Change From One Year Ago  | 63.1<br>3.7  | 65.6<br>4.7  | 64.8<br>2.3  | 65.2<br>2.5  | 64.5<br>2.3  | 65.9<br>0.4  | 66.1<br>2.0  | 66.0<br>1.3  | 64.6<br>3.3  | 65.6<br>1.5  |
| KS EMP: Railroads<br>Percent Change From One Year Ago                   | 9.0<br>-4.6  | 9.3<br>-2.5  | 9.3<br>-2.8  | 9.1<br>-2.2  | 8.8<br>-2.2  | 8.8<br>-5.4  | 8.8<br>-5.9  | 8.6<br>-5.3  | 9.2<br>-3.0  | 8.7<br>-4.7  |
| KS EMP: Trucking & Warehousing<br>Percent Change From One Year Ago      | 22.1<br>5.2  | 23.1<br>3.9  | 23.5<br>3.4  | 23.7<br>4.9  | 23.3<br>5.3  | 24.3<br>5.0  | 24.7<br>5.1  | 24.5<br>3.2  | 23.1<br>4.3  | 24.2<br>4.6  |

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

|  | 1988Q1        | 1988Q2       | 1988Q3       | 1988Q4        | 1989Q1       | 1989Q2       | 1989Q3       | 1989Q4       | 1988         | 1989         |
|--|---------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|
| KS EMP: Electric Gas & Sanitary Serv<br>Percent Change From One Year Ago | 12.1<br>4.9   | 12.2<br>4.9  | 12.3<br>3.1  | 12.3<br>3.1   | 12.5<br>3.3  | 12.7<br>3.6  | 12.8<br>4.7  | 12.6<br>2.4  | 12.2<br>4.0  | 12.7<br>3.5  |
| KS EMP: Trans. & Utilities Residual<br>Percent Change From One Year Ago  | 19.9<br>5.3   | 21.0<br>9.0  | 19.7<br>3.0  | 20.0<br>1.7   | 20.0<br>0.5  | 20.1<br>-3.9 | 19.8<br>0.5  | 20.3<br>1.4  | 20.1<br>4.7  | 20.1<br>-0.4 |
| KS EMP: Wholesale Trade<br>Percent Change From One Year Ago              | 56.7<br>-14.7 | 68.5<br>0.4  | 68.6<br>1.1  | 67.7<br>1.5   | 67.9<br>19.8 | 69.6<br>1.7  | 69.8<br>1.7  | 68.4<br>1.0  | 65.4<br>-2.9 | 68.9<br>5.4  |
| KS EMP: Retail Trade<br>Percent Change From One Year Ago                 | 186.2<br>4.5  | 189.8<br>3.8 | 191.0<br>3.9 | 195.5<br>2.4  | 189.0<br>1.5 | 192.7<br>1.5 | 193.9<br>1.5 | 197.0<br>0.8 | 190.6<br>3.6 | 193.2<br>1.3 |
| KS EMP: Gen. Merchandise Stores<br>Percent Change From One Year Ago      | 26.1<br>8.1   | 26.3<br>7.6  | 26.9<br>8.5  | 29.1<br>6.1   | 27.2<br>4.2  | 27.0<br>2.4  | 27.2<br>0.8  | 29.1<br>-0.1 | 27.1<br>7.5  | 27.6<br>1.8  |
| KS EMP: Food Stores<br>Percent Change From One Year Ago                  | 26.8<br>1.0   | 27.1<br>3.6  | 27.6<br>4.6  | 27.8<br>3.5   | 27.1<br>1.1  | 27.2<br>0.6  | 27.5<br>-0.4 | 27.8<br>0.1  | 27.3<br>3.1  | 27.4<br>0.4  |
| KS EMP: Auto. Dealers & Gas Stations<br>Percent Change From One Year Ago | 24.0<br>6.3   | 24.3<br>5.0  | 24.3<br>3.1  | 24.2<br>2.0   | 24.2<br>0.8  | 24.6<br>1.1  | 24.6<br>1.0  | 24.2<br>0.3  | 24.2<br>4.1  | 24.4<br>0.8  |
| KS EMP: Apparel & Accessory Stores<br>Percent Change From One Year Ago   | 10.9<br>20.6  | 11.1<br>20.7 | 10.8<br>15.7 | 11.7<br>16.6  | 11.5<br>4.9  | 11.4<br>2.5  | 11.5<br>6.1  | 12.1<br>3.2  | 11.1<br>18.3 | 11.6<br>4.1  |
| KS EMP: Retail Trade Residual<br>Percent Change From One Year Ago        | 98.3<br>2.6   | 101.0<br>1.0 | 101.4<br>1.6 | 102.7<br>-0.1 | 99.0<br>0.7  | 102.6<br>1.5 | 103.3<br>1.9 | 103.8<br>1.1 | 100.8<br>1.3 | 102.2<br>1.3 |
| KS EMP: Finance, Insurance, R.E.<br>Percent Change From One Year Ago     | 57.1<br>3.2   | 58.3<br>2.5  | 58.7<br>1.9  | 58.3<br>1.7   | 57.7<br>1.1  | 59.1<br>1.3  | 59.8<br>1.8  | 59.0<br>1.2  | 58.1<br>2.3  | 58.9<br>1.3  |

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

|  | 1988Q1       | 1988Q2       | 1988Q3       | 1988Q4       | 1989Q1       | 1989Q2       | 1989Q3        | 1989Q4        | 1988         | 1989         |
|--|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|--------------|--------------|
| KS EMP: Banking<br>Percent Change From One Year Ago            | 15.9<br>-2.9 | 16.0<br>-2.2 | 16.1<br>-1.6 | 16.0<br>-1.0 | 16.1<br>1.5  | 16.1<br>0.9  | 16.1<br>0.4   | 15.8<br>-0.8  | 16.0<br>-1.9 | 16.1<br>0.5  |
| KS EMP: Insurance<br>Percent Change From One Year Ago          | 11.5<br>6.1  | 11.6<br>4.2  | 11.6<br>3.9  | 11.7<br>1.2  | 11.7<br>1.2  | 11.8<br>1.6  | 11.8<br>1.6   | 11.7<br>0.3   | 11.6<br>3.8  | 11.7<br>1.2  |
| KS EMP: F.I.R.E. Residual<br>Percent Change From One Year Ago  | 29.7<br>5.6  | 30.7<br>4.5  | 31.1<br>3.1  | 30.7<br>3.5  | 29.9<br>0.8  | 31.2<br>1.4  | 31.8<br>2.5   | 31.5<br>2.6   | 30.5<br>4.2  | 31.1<br>1.8  |
| KS EMP: Services<br>Percent Change From One Year Ago           | 206.7<br>5.2 | 211.9<br>4.7 | 214.0<br>4.4 | 216.5<br>4.8 | 216.6<br>4.8 | 221.8<br>4.7 | 222.5<br>4.0  | 222.7<br>2.9  | 212.3<br>4.8 | 220.9<br>4.1 |
| KS EMP: Hotels & Lodging<br>Percent Change From One Year Ago   | 9.3<br>4.1   | 9.7<br>3.2   | 9.9<br>-0.3  | 9.6<br>-1.0  | 9.4<br>0.7   | 10.1<br>3.9  | 10.5<br>5.4   | 10.2<br>5.6   | 9.6<br>1.4   | 10.0<br>3.9  |
| KS EMP: Personal Services<br>Percent Change From One Year Ago  | 12.2<br>7.0  | 11.8<br>2.0  | 11.5<br>0.0  | 11.8<br>1.7  | 11.8<br>-3.5 | 11.6<br>-1.7 | 11.4<br>-0.5  | 11.6<br>-1.6  | 11.8<br>2.7  | 11.6<br>-1.9 |
| KS EMP: Services Residual<br>Percent Change From One Year Ago  | 185.1<br>5.1 | 190.4<br>5.0 | 192.6<br>4.9 | 195.1<br>5.3 | 195.4<br>5.5 | 200.1<br>5.1 | 200.5<br>4.1  | 200.9<br>3.0  | 190.8<br>5.1 | 199.3<br>4.4 |
| KS EMP: Federal Gov.<br>Percent Change From One Year Ago       | 28.7<br>4.5  | 29.1<br>3.6  | 29.1<br>3.1  | 29.4<br>2.6  | 29.8<br>3.8  | 29.9<br>2.9  | 29.5<br>1.1   | 28.8<br>-2.0  | 29.1<br>3.4  | 29.5<br>1.4  |
| KS EMP: State & Local Gov.<br>Percent Change From One Year Ago | 177.1<br>3.1 | 178.1<br>2.7 | 167.3<br>4.3 | 184.9<br>3.9 | 183.0<br>3.4 | 178.8<br>0.4 | 164.4<br>-1.7 | 181.6<br>-1.8 | 176.8<br>3.5 | 176.9<br>0.1 |

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



HOURS AND WAGES

|  | 1988Q1       | 1988Q2       | 1988Q3       | 1988Q4       | 1989Q1        | 1989Q2       | 1989Q3       | 1989Q4       | 1988         | 1989         |
|--|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|
| KS HRS/WK: Food & Kindred Products<br>Percent Change From One Year Ago   | 39.8<br>-7.8 | 40.4<br>-8.3 | 40.8<br>-5.4 | 39.9<br>-3.2 | 39.2<br>-1.5  | 40.4<br>0.1  | 41.5<br>1.6  | 40.9<br>2.5  | 40.2<br>-6.2 | 40.5<br>0.7  |
| KS HRS/WK: Apparel&Other Fin. Prod.<br>Percent Change From One Year Ago  | 39.7<br>10.8 | 38.5<br>1.9  | 38.0<br>-1.5 | 36.6<br>-4.7 | 35.6<br>-10.3 | 36.4<br>-5.5 | 36.8<br>-3.2 | 36.6<br>0.1  | 38.2<br>1.5  | 36.3<br>-4.8 |
| KS HRS/WK: Pet. Refining & Rel. Ind.<br>Percent Change From One Year Ago | 44.0<br>7.1  | 45.5<br>8.8  | 45.2<br>5.4  | 44.2<br>-0.6 | 43.4<br>-1.3  | 43.7<br>-4.0 | 43.5<br>-3.7 | 43.2<br>-2.3 | 44.7<br>5.1  | 43.4<br>-2.8 |
| KS HRS/WK: Fabricated Metal Products<br>Percent Change From One Year Ago | 39.2<br>10.1 | 37.8<br>5.6  | 38.1<br>1.8  | 38.4<br>-2.0 | 37.7<br>-3.7  | 38.0<br>0.7  | 37.9<br>-0.5 | 37.7<br>-1.9 | 38.3<br>3.7  | 37.8<br>-1.4 |
| KS HRS/WK: Machinery, Incl. Elec.<br>Percent Change From One Year Ago    | 42.7<br>1.7  | 42.6<br>2.5  | 41.4<br>1.4  | 41.2<br>-2.4 | 40.1<br>-6.2  | 40.1<br>-5.9 | 39.4<br>-4.8 | 40.4<br>-1.9 | 42.0<br>0.8  | 40.0<br>-4.7 |
| KS HRS/WK: Transportation Equipment<br>Percent Change From One Year Ago  | 40.8<br>2.8  | 40.7<br>0.0  | 40.2<br>-1.2 | 42.0<br>2.4  | 42.0<br>2.8   | 41.0<br>0.7  | 40.3<br>0.3  | 41.2<br>-1.9 | 40.9<br>1.0  | 41.1<br>0.5  |
| KS WAGE/HR: Food & Kindred Products<br>Percent Change From One Year Ago  | 8.8<br>0.3   | 9.0<br>1.8   | 9.0<br>1.3   | 9.0<br>1.8   | 9.1<br>3.3    | 9.2<br>2.6   | 9.3<br>4.3   | 9.4<br>5.3   | 8.9<br>1.3   | 9.3<br>3.9   |
| KS WAGE/HR: Apparel&Other Fin. Prod.<br>Percent Change From One Year Ago | 5.3<br>-1.4  | 5.3<br>0.1   | 5.3<br>1.5   | 5.4<br>3.9   | 5.5<br>4.2    | 5.5<br>4.6   | 5.6<br>4.5   | 5.7<br>4.6   | 5.3<br>1.0   | 5.6<br>4.5   |
| KS WAGE/HR: Pet. Refining & Rel. Ind<br>Percent Change From One Year Ago | 13.6<br>1.3  | 13.6<br>2.2  | 13.4<br>-0.5 | 14.2<br>4.5  | 14.3<br>5.2   | 14.5<br>6.6  | 14.6<br>9.0  | 14.9<br>5.0  | 13.7<br>1.9  | 14.6<br>6.4  |
| KS WAGE/HR: Fabricated Metal Product<br>Percent Change From One Year Ago | 8.1<br>-0.7  | 8.1<br>0.5   | 8.3<br>3.6   | 8.3<br>3.0   | 8.5<br>5.2    | 8.6<br>6.1   | 8.7<br>4.4   | 8.8<br>6.5   | 8.2<br>1.6   | 8.7<br>5.6   |
| KS WAGE/HR: Machinery, Incl. Elec.<br>Percent Change From One Year Ago   | 9.6<br>0.5   | 9.7<br>1.9   | 9.6<br>2.1   | 9.9<br>3.2   | 9.7<br>1.0    | 9.8<br>1.7   | 10.0<br>3.3  | 10.1<br>2.5  | 9.7<br>1.9   | 9.9<br>2.1   |
| KS WAGE/HR: Transportation Equipment<br>Percent Change From One Year Ago | 11.8<br>-3.0 | 12.0<br>0.8  | 12.3<br>3.8  | 12.7<br>8.4  | 13.0<br>10.1  | 13.1<br>9.4  | 13.3<br>8.3  | 13.7<br>7.3  | 12.2<br>2.5  | 13.3<br>8.7  |

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WAGE BILLS

|  | 1988Q1         | 1988Q2         | 1988Q3         | 1988Q4         | 1989Q1         | 1989Q2         | 1989Q3         | 1989Q4         | 1988           | 1989           |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| KS WG BILL: Total Wages & Salaries<br>Percent Change From One Year Ago | 20349.0<br>5.5 | 21018.0<br>6.7 | 21207.0<br>6.4 | 21559.0<br>5.7 | 21769.1<br>7.0 | 22255.9<br>5.9 | 22552.7<br>6.3 | 22859.2<br>6.0 | 21033.3<br>6.1 | 22359.2<br>6.3 |
| KS WG BILL: Farm Wages & Salaries<br>Percent Change From One Year Ago  | 162.0<br>5.2   | 164.0<br>5.8   | 166.0<br>5.1   | 168.0<br>4.3   | 170.3<br>5.1   | 172.0<br>4.9   | 173.6<br>4.6   | 174.7<br>4.0   | 165.0<br>5.1   | 172.7<br>4.6   |
| KS WG BILL: Agricultural Services<br>Percent Change From One Year Ago  | 75.0<br>5.6    | 78.0<br>13.0   | 78.0<br>6.8    | 80.0<br>5.3    | 81.1<br>8.2    | 82.3<br>5.5    | 83.4<br>7.0    | 84.6<br>5.8    | 77.8<br>7.6    | 82.9<br>6.6    |
| KS WG BILL: Mining<br>Percent Change From One Year Ago                 | 246.0<br>4.7   | 252.0<br>-0.8  | 242.0<br>-7.3  | 230.0<br>-10.9 | 232.4<br>-5.5  | 235.0<br>-6.7  | 237.6<br>-1.8  | 240.0<br>4.3   | 242.5<br>-3.8  | 236.2<br>-2.6  |
| KS WG BILL: Construction<br>Percent Change From One Year Ago           | 928.0<br>-7.1  | 941.0<br>-4.2  | 950.0<br>-3.0  | 937.0<br>-5.1  | 904.9<br>-2.5  | 966.7<br>2.7   | 986.4<br>3.8   | 972.8<br>3.8   | 939.0<br>-4.8  | 957.7<br>2.0   |
| KS WG BILL: Durable Goods<br>Percent Change From One Year Ago          | 2666.0<br>5.3  | 2873.0<br>6.8  | 2860.0<br>7.4  | 2927.0<br>2.5  | 2964.6<br>11.2 | 3037.0<br>5.7  | 3037.3<br>6.2  | 3110.3<br>6.3  | 2831.5<br>5.4  | 3037.3<br>7.3  |
| KS WG BILL: Nondurable Goods<br>Percent Change From One Year Ago       | 1671.0<br>5.2  | 1681.0<br>3.9  | 1691.0<br>3.4  | 1722.0<br>2.9  | 1744.3<br>4.4  | 1792.4<br>6.6  | 1830.9<br>8.3  | 1858.5<br>7.9  | 1691.3<br>3.8  | 1806.5<br>6.8  |

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|   | 1988Q1         | 1988Q2         | 1988Q3         | 1988Q4         | 1989Q1         | 1989Q2         | 1989Q3        | 1989Q4        | 1988           | 1989          |
|---|----------------|----------------|----------------|----------------|----------------|----------------|---------------|---------------|----------------|---------------|
| KS WG BILL: Trans. & Public Utilities<br>Percent Change From One Year Ago | 1793.0<br>6.3  | 1904.0<br>10.1 | 1894.0<br>7.1  | 1912.0<br>7.5  | 1936.6<br>8.0  | 1974.7<br>3.7  | 1995.9<br>5.4 | 2028.5<br>6.1 | 1875.8<br>7.7  | 1983.9<br>5.8 |
| KS WG BILL: Wholesale Trade<br>Percent Change From One Year Ago           | 1623.0<br>4.8  | 1668.0<br>5.6  | 1690.0<br>6.6  | 1722.0<br>6.7  | 1766.1<br>8.8  | 1799.5<br>7.9  | 1817.9<br>7.6 | 1825.5<br>6.0 | 1675.8<br>5.9  | 1802.2<br>7.5 |
| KS WG BILL: Retail Trade<br>Percent Change From One Year Ago              | 2100.0<br>9.4  | 2152.0<br>10.8 | 2178.0<br>10.9 | 2220.0<br>10.7 | 2240.3<br>6.7  | 2259.1<br>5.0  | 2273.0<br>4.4 | 2290.2<br>3.2 | 2162.5<br>10.5 | 2265.7<br>4.8 |
| KS WG BILL: Finance, Insurance, & R.E<br>Percent Change From One Year Ago | 1263.0<br>3.1  | 1338.0<br>7.3  | 1331.0<br>4.7  | 1371.0<br>6.1  | 1381.6<br>9.4  | 1424.0<br>6.4  | 1456.0<br>9.4 | 1468.9<br>7.1 | 1325.8<br>5.3  | 1432.6<br>8.1 |
| KS WG BILL: Services<br>Percent Change From One Year Ago                  | 3553.0<br>10.2 | 3562.0<br>8.5  | 3778.0<br>11.7 | 3913.0<br>11.6 | 3909.8<br>10.0 | 4009.4<br>12.6 | 4105.6<br>8.7 | 4185.2<br>7.0 | 3701.5<br>10.5 | 4052.5<br>9.5 |
| KS WG BILL: Govt. & Govt. Enterprises<br>Percent Change From One Year Ago | 4271.0<br>4.1  | 4404.0<br>6.4  | 4349.0<br>4.0  | 4358.0<br>4.1  | 4437.3<br>3.9  | 4503.8<br>2.3  | 4555.0<br>4.7 | 4620.0<br>6.0 | 4345.5<br>4.6  | 4529.0<br>4.2 |

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PERSONAL INCOME

|                                       | 1988Q1  | 1988Q2  | 1988Q3  | 1988Q4  | 1989Q1  | 1989Q2  | 1989Q3  | 1989Q4  | 1988    | 1989    |
|---------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| KS PERS INC: Total Personal Income    | 38632.0 | 39795.0 | 39263.0 | 40555.0 | 41215.8 | 41775.2 | 41799.1 | 42610.0 | 39561.3 | 41850.0 |
| Percent Change From One Year Ago      | 4.9     | 6.6     | 5.7     | 4.7     | 6.7     | 5.0     | 6.5     | 5.1     | 5.5     | 5.8     |
| KS PERS INC: Real Personal Income     | 31613.7 | 32126.4 | 31347.7 | 32018.8 | 32139.5 | 32144.6 | 31747.8 | 31903.3 | 31776.7 | 31983.8 |
| Percent Change From One Year Ago      | 0.7     | 2.3     | 1.4     | 0.5     | 1.7     | 0.1     | 1.3     | -0.4    | 1.2     | 0.7     |
| KS PERS INC: Farm Proprietors Income  | 1728.0  | 2036.0  | 1005.0  | 1590.0  | 1651.7  | 1464.7  | 1000.6  | 1285.7  | 1589.8  | 1350.7  |
| Percent Change From One Year Ago      | 0.3     | 23.3    | 3.7     | -11.7   | -4.4    | -28.1   | -0.4    | -19.1   | 3.5     | -15.0   |
| KS PERS INC: Non-farm Proprietors Inc | 2979.0  | 3026.0  | 3070.0  | 3120.0  | 3071.9  | 3107.0  | 3136.9  | 3165.1  | 3048.8  | 3120.2  |
| Percent Change From One Year Ago      | 1.2     | 3.3     | 3.6     | 3.3     | 3.1     | 2.7     | 2.2     | 1.4     | 2.9     | 2.3     |
| KS PERS INC: Dividends Interest & Ren | 7119.0  | 7201.0  | 7390.0  | 7587.0  | 7866.8  | 8023.0  | 8105.5  | 8197.1  | 7324.3  | 8048.1  |
| Percent Change From One Year Ago      | 7.4     | 7.0     | 7.4     | 7.3     | 10.5    | 11.4    | 9.7     | 8.0     | 7.3     | 9.9     |
| KS PERS INC: Adj. For Residence       | 948.0   | 960.0   | 1007.0  | 1052.0  | 1054.4  | 1058.8  | 1071.7  | 1091.4  | 991.8   | 1069.1  |
| Percent Change From One Year Ago      | 0.3     | 4.7     | 7.7     | 11.4    | 11.2    | 10.3    | 6.4     | 3.7     | 6.0     | 7.8     |
| KS PERS INC: Pers. Cont. For Soc. Ins | 1756.0  | 1801.0  | 1804.0  | 1822.0  | 1884.7  | 1915.7  | 1946.7  | 1976.8  | 1795.8  | 1931.0  |
| Percent Change From One Year Ago      | 11.0    | 12.1    | 11.4    | 11.2    | 7.3     | 6.4     | 7.9     | 8.5     | 11.4    | 7.5     |
| KS PERS INC: Transfer Payments        | 5349.0  | 5389.0  | 5435.0  | 5504.0  | 5693.7  | 5768.4  | 5845.3  | 5938.3  | 5419.3  | 5811.4  |
| Percent Change From One Year Ago      | 6.1     | 5.2     | 5.0     | 5.9     | 6.4     | 7.0     | 7.5     | 7.9     | 5.5     | 7.2     |
| KS PERS INC: Other Labor Income       | 1916.0  | 1966.0  | 1953.0  | 1965.0  | 1993.0  | 2013.1  | 2033.1  | 2050.0  | 1950.0  | 2022.3  |
| Percent Change From One Year Ago      | 4.1     | 4.0     | 2.7     | 1.8     | 4.0     | 2.4     | 4.1     | 4.3     | 3.1     | 3.7     |

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