Institute for Public Policy and Business Research The University of Kansas

The 1992 Outlook for Kansas and the Nation

by Norm Clifford Director of Forecasting

Anthony L. Redwood, Professor of Business and Executive Director

December 1991 Report No. 197

Funding for the Kansas Econometric Modeling Program at the Institute is provided by the State of Kansas.

The 1992 Outlook for Kansas and the Nation

by Norman Clifford Director of Forecasting

Institute for Public Policy and Business Research
University of Kansas
Anthony Redwood
Professor of Business
Executive Director

December 1991

Funding for the Kansas Econometric Modeling Program at the Institute is provided by the State of Kansas.

Introduction

A recessionary phase of the U.S. economy began sometime during the third quarter of 1990, and appears to have ended late in the second quarter or early in the third quarter of 1991. The recession was characterized by weak spending by consumers and a significant episode of inventory reductions by firms. Consumers, whose confidence was eroded by uncertainty about the situation in the Middle East during the early part of the recession, and uncertainty about the faltering economy during the latter stage, reduced their real spending in the last quarter of 1990 and again in the first quarter of 1991. A small increase in the second quarter of 1991 still left consumer spending below the level that it had attained before the recession began. Consumption of durable goods was particularly hard hit by the recession; real consumer spending on durable goods during the second quarter of 1991 was 6.5 percent below its pre-recession peak. During the same quarter, real consumer spending on nondurable goods was 1.5 percent below its pre-recession peak, while real consumer spending on services was just 2.0 percent above its pre-recession peak.

The inventory reductions by firms were at least as dramatic as the weakness in consumer spending. During the three quarters beginning with the last quarter of 1990, nonfarm firms reduced their inventories by over \$21 billion. By the third quarter of 1991, the inventory to sales ratio of firms had dropped below 1.5. Investment spending by firms was also weak during the recession. Firms spending on equipment was 3.0 percent less in the second quarter of 1991 than before the recession began, while firms spending on new plant was 10.5 percent less. Residential investment was 16.4 percent less than it was before the recession.

The poor performance of the consumption and investment sectors of the economy during the recession was at least partly offset by the foreign sector; for the half year beginning with the fourth quarter of 1990, exports grew at a 5.6 percent annual rate while imports declined at a 10.4 percent annual rate. Thus the gap between exports and imports measured on the national income and products accounts basis grew at nearly a \$54 billion annual rate. Furthermore, government spending grew moderately during the recession, spurred by a 12 percent increase in defense spending in the last quarter of 1990.

The recovery should begin sometime during the third quarter of 1991 and continue through 1992, with GNP growing 2.0 percent for the year. The recovery will not be strong, however, as the rate of output of the economy does not reach its pre-recession level until sometime in the first quarter of 1992. The recovery will be led ny stronger consumption spending and a movement by firms to replenish the inventories that they drew down during the recession. Increased investment by firms in new plant and equipment will contribute to the recovery to a lesser extent. On the other hand, the recovery will see the return of strong import growth, which, coupled with moderate growth in exports, will lead to a worsening of the deficit in net exports and weaken the recovery. Government spending will also decline in 1992, providing no direct stimulus to the recovery. However, large increases in transfer payments coupled with small increases in tax receipts will cause the budget deficit to increase, providing some indirect stimulus on the income side of the economy.

The recovery will also be seen in stronger personal income growth in 1992. One important component of personal income, dividends, will increase significantly as corporate profits rebound both because of the recovery and the fact that firms pared down their organizations during the recession. The recovery will not be strong enough to unleash inflation,

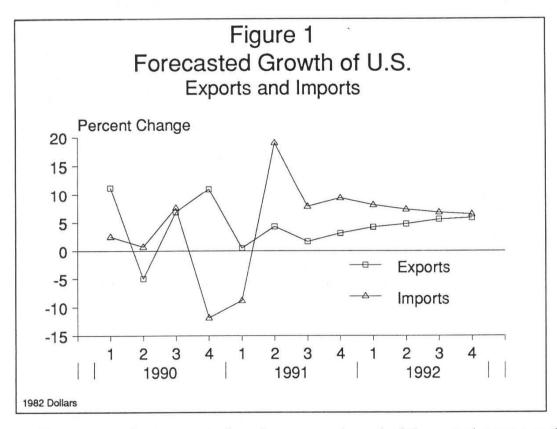
as the inflation rate as measured by the Consumer Price Index is expected to be about 4.0 percent in 1992 lower than its 1990 and 1991 rates. The recovery also will not be strong enough to reduce the unemployment rate, as employment growth just about keeps up with growth in the labor force. The recovery will cause short-term interest rates to rise slightly throughout 1992, but long-term rates should remain relatively flat.

The Kansas economy appears at this point to have avoided many of the worst effects of the recession. Employment growth in 1990 was greater in Kansas than it was in the U.S. and the same is forecasted for 1991 and 1992. In 1991, Kansas employment is forecasted to increase 0.9 percent compared to a 0.9 percent drop in U.S. employment. By the time the recovery is well underway in 1992, however, the difference between the two economies will be much less pronounced. Personal income in Kansas will also grow more in 1992. Kansas personal income net of farm proprietors' income and adjusted for inflation will grow 1.2 percent, more than it grew in either 1990 or 1991.

The National Outlook

The national forecast presented below is based on the following major assumptions¹:

- 1. Imported oil prices will increase sharply in the third quarter of 1991 (at an 18 percent annual rate) from their very low levels during the spring. Thereafter they will increase gradually at about a one percent annual rate throughout the forecast period.
- 2. No new tax or spending initiatives are foreseen. There will, however, be a so-called peace dividend; real federal defense expenditures will decline sharply over the last three quarters of 1991, and will then level out in 1992. Federal defense expenditures will be 3.9 percent lower in 1992 than they were in 1991. Federal nondefense expenditures will decline sharply in the third quarter of 1991 as crop purchases fall, and then increase at a one percent annual rate over the forecast period. State and local government spending will remain level throughout 1991 and increase only slightly in 1992.
- 3. The growth rate of M2 will be right in the middle of the Fed's 2.5 percent to 6.5 percent target range during the second half of 1991, and increase slightly to 5.0 percent in 1992. Although the Fed appears willing finally to relax its staunch anti-inflationary stance, lingering concerns about inflation coupled with banks' cautious lending policies and a lack of enthusiasm by borrowers means that a more liberal Federal Reserve Board will have a smaller effect on the recovery, at least in the early stages, than policy makers expect.
- 4. The dollar has appreciated sharply since February, in spite of lower interest rates in the U.S. and higher rates in may foreign economies. This reflects, in part, a feeling that there is a great deal of uncertainty about the near future in many of these economies and that the dollar represents a relatively safe haven. The assumption is that the exchange rate² of the dollar will remain constant over the forecast period. The stronger dollar and expected poor performance of the economies of many of the U.S.'s major trading partners, leads to an assumption of slow export growth (less than three percent) during the last half of 1991, with only modest improvement throughout 1992, as illustrated in Figure 1.

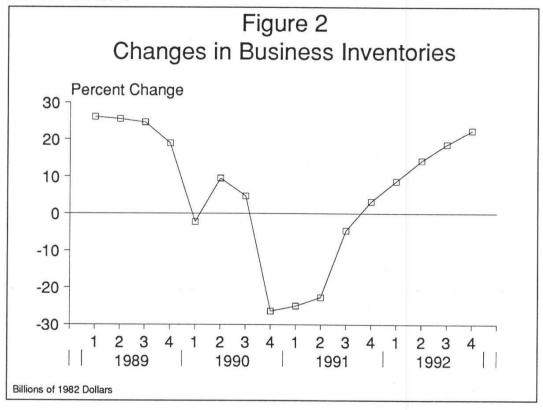


The recovery that appears to have begun near the end of the second quarter or the beginning of the third quarter of 1991 will in some ways be the mirror image of the recession. Just as the recession was not especially deep, the recovery will not be especially strong. Just as slow consumer spending and a rapid rate of inventory reduction by firms were the weak links in the economy during the recession, so an increase in consumer spending and a reduction in the rate of inventory reduction will be the main forces for recovery. Just as a strong performance by the foreign sector and a modest increase in government spending tended to mitigate the decline during the recession, so a weaker foreign sector and a reduction in the rate of government spending will detract from the strength of the recovery.

The contribution of the consumer sector to the recovery can be seen from the forecasted 2.8 percent increase in real consumer spending over the last three quarters of 1991 and 2.3 percent increase in 1992. The weakness of the recovery is illustrated by the fact that consumer spending will not return to its pre-recession peak until the third quarter of 1991, and even by the third quarter of 1992 will be only 2.4 percent above what it was two years before, representing an average annual growth rate of only 1.1 percent over the two year period. Spending on consumer durables will make the strongest rebound among the major consumption categories. Real consumer spending on durable goods is expected to fall 5 percent for all of 1991, due to large drops at the end of 1990 and the first half of 1991; much of the decline was due to a large decline in consumer auto purchases. However, consumer purchases of durables are expected to increase substantially in the third quarter of 1991 and 2.5 percent for all of 1992. Much of the

increase is due to an increase in automobile purchases, although 1992's 11.5 percent increase will still leave spending on autos well below its 1990 level.

Consumer spending on nondurable goods declined 6.5 percent in the last quarter of 1990, but made a quicker turnaround than consumer spending on durable goods; for all of 1991, real consumer spending on nondurable goods declined only 0.6 percent. Major areas of weakness in 1991 were spending on clothing and shoes, which declined 1.1 percent, and spending on fuel oil and coal, which declined nearly 7 percent. For 1992, most major categories of spending on consumer durables are expected to go up. Spending on food is expected to increase 2.8 percent, clothing and shoes 1.7 percent, and gasoline and oil 3.0 percent. The main exception is spending on fuel oil and coal, which is expected to decline a further 8.8 percent. The last of the three major categories of consumption spending, consumer spending on services, suffered the least erosion during the recession and will show the smallest improvement during the recovery. Consumer spending on services grew 2.6 percent in 1990, and is predicted to grow 2.8 percent in both 1991 and 1992.



The second factor that will contribute significantly to the recovery is the fact that firms will begin to rebuild inventories. During the recession, firms cut deeply into their inventories. In fact changes in the rate at which firms added to inventories accounted for about 72 percent of the decrease in GNP over the three quarters during which real GNP declined. Similarly, during the last half of 1991, a reduced rate of inventory reduction in the third quarter, and the beginning of a buildup of inventories in the fourth quarter, account for about 76 percent of the increase in

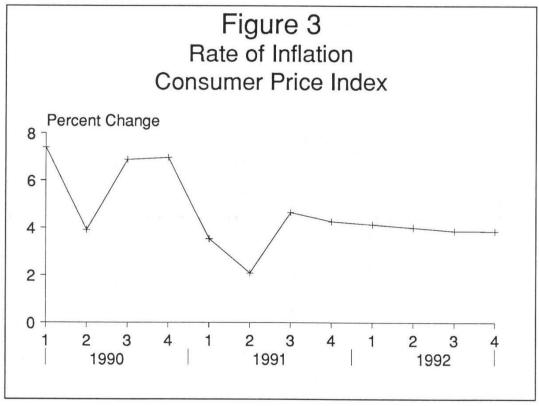
real GNP forecasted for the period. For 1992, further increases in the rate of inventory buildup are forecasted to account for about 34 percent of the forecasted increase in GNP. The forecast and recent history of the change in business inventories is shown in Figure 2.

Increases in firm spending on plant and equipment, although it will not have as big an effect as the first two factors, will also contribute somewhat to the recovery, especially after the initial stages. Firms reduced their spending on plant and equipment by 18.4 percent in the first quarter of 1991, and investment in equipment remained near this new, lower level in the following quarter. Firm spending on structures, however, exhibited double digit drops in all three recessionary quarters. For 1992, firms' spending on equipment is expected to increase 4.5 percent, as they regain some of their confidence about the near future of the economy. Firm spending on structures, however, is expected to increase only 0.4 percent in 1992. Residential investment, which experienced quarterly declines of 11, 20, 21, and 25 percent beginning in the second quarter of 1990, began a modest comeback in the second quarter of 1991, increasing 2.6 percent. Lower mortgage rates and the exercise of some deferred demand lead to a forecast of an average increase of 8 percent in residential investment spending over the forecast period. Even so, the forecasted level of residential investment for 1992 is nearly 18 percent below its 1987 peak level. The forecast for housing starts paints a similar picture. Total housing starts are expected to increase 22 percent in 1992. However, after a long period of decline in new housing starts, which decreased an average 11 percent a year from 1986 until 1991, the level of new housing starts in 1992 will be 32 percent below the level in the peak year of 1986. For new starts of single family dwellings the picture is similar, but not as pronounced; new starts for single family dwellings will increase 21 percent in 1992, but the 1992 level will remain 15 percent below the 1986 peak. The case of new starts for multi-family dwellings is the most extreme, with new starts increasing 27 percent in 1992, but remaining nearly 65 percent below the level of new starts in 1986.

The dramatic reduction in the deficit in net exports that was experienced during the recession will not continue into the recovery. Although exports grew significantly during the recession, the major reason for the decline in the net export deficit was the decline in imports during the period; the decline in imports during the last quarter of 1990 and the first quarter of 1991 accounted for two-thirds of the \$53.6 billion increase in net exports. Another way to see just how dramatically imports fell during the recession is to note that imports actually declined more than total consumer spending declined during the period. However, most of the decline in imports during the fourth quarter was due to a big drop in oil imports, and as the recovery progresses and special factors disappear, import growth will begin to outstrip export growth and the deficit in net exports will worsen. Real imports are expected to grow 8.5 percent in 1992 compared to only 4.1 percent growth of real exports, and thus the deficit in real net exports is expected to climb from \$16.6 billion in 1991 to \$47.4 billion in 1992. The forecasted growth of exports and imports is illustrated in Figure 1.

Surprisingly, given the magnitude of the Desert Shield and Desert Storm operations, government spending did not do much to mitigate the severity of the recession. Although Federal defense spending jumped over 12 percent in the last quarter of 1990, it grew only 2.7 percent in the following quarter, during the actual Desert Storm operation, and fell 8.7 percent in the second quarter of 1991. Furthermore, total Federal purchases of goods and services grew only 4.6 percent during the last quarter of 1990, when the large increase in defense expenditures was partly offset

by a more than 15 percent decrease in non-defense expenditures. During the first quarter of 1991, total federal expenditures fell, as the modest increase in defense expenditures was more than offset by a further 10 percent decrease in nondefense expenditures. Of the three quarters of the recession, only in the second quarter of 1991 did Federal spending increase significantly, growing 8.1 percent as a big increase in nondefense spending offset the large drop in defense spending. Even in this quarter, however, a drop in state and local government spending meant that total government spending increased only 3.0 percent. The forecast is for the realization of a peace dividend from both the end of the war in the Middle East and the end of the Cold War, with Federal defense spending falling 4.0 percent in 1992. Furthermore, Federal nondefense spending is expected to decrease 0.4 percent, so that total Federal spending will decrease 3.1 percent. With state and local government spending increasing only 0.5 percent for the year, total government spending will decrease 1.0 percent, contributing no stimulus to aggregate demand during the year. In spite of this restraint in Federal government purchases of goods and services. large increases in transfer payments and interest payments, coupled with modest increases in tax revenues, mean that the Federal budget deficit will increase in 1992. That deficit, which had been reduced to \$134 billion in 1989, has increased every year since then, and is expected to reach \$230 billion in 1992.

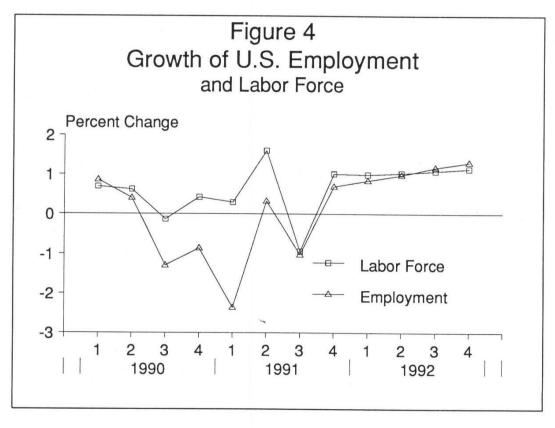


The recovery also means that there will be some increase in the rate of growth of personal income in 1992. As a result of the recession personal income in the U.S. is predicted to grow only 3.6 percent for all of 1991, compared to 7.7 percent in 1989 and 6.0 percent in 1990, but

is forecasted to grow 5.7 percent in 1992. A 5.5 percent growth in wages and salaries, a 5.3 percent growth in other labor income, a 6.4 percent growth in nonfarm proprietors' income, a 3.3 percent increase in interest income and an 8.6 percent increase in transfer payments contribute to the 1992 growth in personal income. In addition, dividend income is expected to increase 7.7 percent after increasing only 2.8 percent in the previous year, reflecting an increase in corporate profits. Corporate before tax profits are expected to increase 20 percent in 1992 after increasing only 1.4 percent in 1991, partly due to the recovery and partly due to the fact that firms trimmed costs in response to the recession. After-tax income of consumers is forecasted to grow 5.8 percent, compared to 3.7 percent in 1991; adjusted for inflation after-tax income of consumers is expected to grow 2.0 percent after declining 0.6 percent in 1991.

Further evidence of the forecasted weakness of the recovery is the fact that the rate of inflation rate is expected to decline further in 1992. The forecast of the inflation rate as measured by the consumer price index for all urban consumers is shown in Figure 3. The rate of inflation is expected to be 4.0 percent in 1992, compared to 5.4 percent in 1989 and 4.5 percent in 1990.

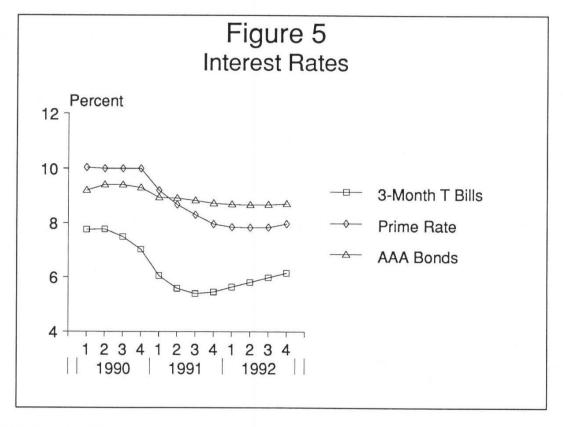
Goods and services that are expected to have reduced rates of price increase in 1992 compared to 1991 are food and beverages (3.4 compared 4.3 percent), new cars (2.3 compared to 3.8



percent) and medical care (6.3 compared to 8.7 percent). Increases in housing costs (4.3

compared to 4.4 percent) are expected to be about the same in 1992 as in 1991, as 1992 price increases in shelter, fuel and utilities, and household furnishings and equipment nearly match the previous year's increases. Motor fuel costs, on the other hand, are expected to increase 2.1 percent in 1992 after declining 0.4 percent in 1991.

The forecast for the labor market also points out the weakness of the recovery. From 1986 until 1990, nonfarm employment³ in the U.S. grew at an average annual rate of 2.5 percent, etotal employment grew at an average annual rate of 1.8 percent, and the unemployment rate declined from 7 percent in 1986 to 5.5 percent in 1990. In 1991, however, nonfarm employment and total employment are expected to decrease by 0.9 percent, and the unemployment rate is expected to jump to 6.8 percent for the year. For 1992, nonfarm employment is expected to grow 1.2 percent and total employment is expected to grow 0.8 percent, but this will not be sufficient employment growth to bring the unemployment rate down; the unemployment rate for 1992 is forecasted to increase slightly to 6.9 percent. The forecasted rates of growth of the civilian labor force and employment are illustrated in Figure 4, which shows that employment growth will not exceed labor force growth until the last half of 1992, and then by only a narrow margin. Private nonfarm manhours, which grew at an average annual rate of 2.3 percent from

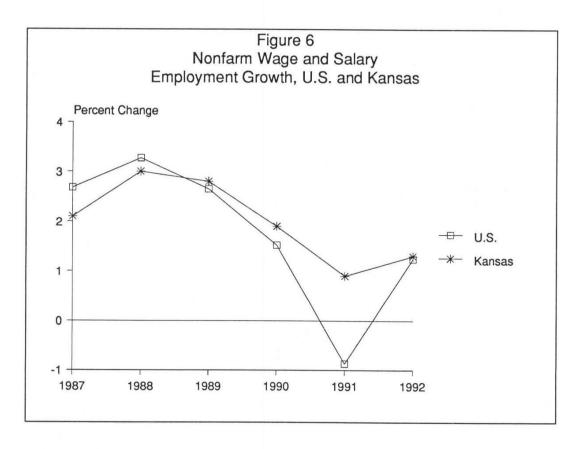


1986 through 1990, are forecasted to fall 1.7 percent in 1991 and to grow 0.6 percent in 1992. Finally the average wage rate in private nonfarm employment, which grew at an average annual

rate of 4.2 percent from 1986 until 1990, is forecasted to increase only 3.5 percent in 1991 and 4.3 percent in 1992, causing only moderate inflationary pressures from the cost side.

On the financial side of the economy, there should be little upward pressure on interest rates throughout the forecast period. The forecast for interest rates is shown in Figure 5. During the year beginning in the third quarter of 1990 and ending with the second quarter of 1991, the M2 measure of the money supply grew at an annual rate of only 3.3 percent. Nevertheless, the interest rate on three-month Treasury bills fell by more than two full percentage points over the period, as one effect of the recession was to substantially reduce the demand for money. Although the growth rate of M2 is expected to increase to 3.9 percent over the last half of 1991 and 4.8 percent in 1992, short-run rates will not decrease further; the three-month Treasury bill rate is expected to bottom out at about 5.4 percent in the third quarter of 1991, and increase gradually to 6.2 percent by the end of 1992 as the recovery strengthens. The prime lending rate charged by banks is expected to get down to 7.8 percent in the second quarter of 1992 and gradually increase to 8.3 percent by the end of the year. Longer term rates, as represented in the forecast by Moody's AAA bond rate, are expected to remain relatively flat over the forecast period.

The Kansas Economy



The Kansas economy appears to have escaped some of the worst effects of the recession. A comparison of U.S. and Kansas employment growth is shown in Figure 6. For 1990, nonfarm wage and salary employment⁴ grew 1.9 percent in Kansas, compared to 1.5 percent in the U.S. In the same year, total employment in Kansas grew 0.8 percent compared to 0.5 percent in the U.S. Thus, by either measure of employment, employment growth appears to have held up better in Kansas than in the nation as a whole over the early part of the recession. Interestingly enough, this pattern did not hold if we look at unemployment rates over the same period, as the unemployment rate in the U.S. and the unemployment rate in Kansas both increased 0.3 of a percentage point in 1990. To compare the U.S. and Kansas over the latter part of the recession and the early stages of the recovery, we can look at employment growth in 1991, for which we have historical data over the first half of the year and a forecast in the second half. We see that nonfarm wage and salary employment in 1991 is expected to grow 0.9 percent in Kansas and decline 0.9 percent in the U.S., whereas total employment is expected to grow 0.8 percent in Kansas and decline 0.9 percent in the U.S. For 1991, a comparison of unemployment rates tells the same story, the unemployment rate in Kansas is expected to increase by a further 0.3 of a percentage point, while the U.S. unemployment rate is expected to increase by 1.2 percentage points. The forecast for 1992 suggests that the discrepancy between the U.S. and Kansas will nearly disappear, with nonfarm wage and salary employment growing 1.3 percent in Kansas compared to 1.2 percent in the U.S., total employment growing 1.0 percent in Kansas compared to 0.6 percent in the U.S., and the unemployment rate falling 0.1 of a percentage point in Kansas and increasing 0.1 of a percentage point in the U.S.

A breakdown of Kansas employment growth by major subsectors is given in Table 1.

Kansas Employment Growth by Sector			
	1990	1991	1992
Mining	5.5	1.0	-67
Construction	3.3	1.3	-01
Durable Goods Manufacturing	-0.1	-1.4	0.3
Nondurable Goods Manufacturing	1.5	1.8	1.0
Transportation and Utilities	-0.1	2.3	1.0
Wholesale and Retail Trade	0.4	0.2	0.9
Finance, Insurance, and Real Estate	0.2	0.4	-12
Services	4.9	2.9	3.5
Government	2.6	0.1	0.8
Farm	-4.6	-3.9	-1.5

Mining employment, which increased during the last half of 1990 and the early part of 1991 because of expectations of higher oil prices due to the situation in the Persian Gulf, is forecasted to decline at the end of 1991 and in 1992, as oil prices level off over the forecast period. Construction employment will remain at about the same level in 1992 as it was in 1991. A trend

of modest increases in construction employment will be interrupted during the last quarter of 1991 and the first quarter of 1992 as the tenuous nature of the early recovery puts a damper on new construction. Employment in nondurable goods manufacturing will increase only 1.0 percent in 1992 compared to 1.8 percent in 1991. Employment increases in the two major areas of nondurable goods manufacturing, food and kindred products and printing and publishing, will be as great in 1992 as they were in 1991. Thus the slower growth in employment in nondurable goods manufacturing will come from some weakness in two smaller areas, chemicals and allied products and petroleum and coal, which together account for about one-fourth of employment in nondurable goods manufacturing.

Employment in durable goods manufacturing is expected to grow slightly in 1992, after declining 1.4 percent in 1991. Most of the subsectors of durable goods manufacturing are expected to continue to exhibit the weakness in 1992 that was shown in 1991. Stone glass and clay, primary metals, fabricated metals, and machinery are among the subsectors of durable goods manufacturing that are expected to experience moderate employment declines. The strength in durable goods manufacturing comes mostly from the transportation equipment subsector, which accounts for nearly half of the employment in durable goods manufacturing. Employment in manufacturing of transportation equipment is expected to increase 3.9 percent in 1992, following a 2.2 percent decline in 1991.

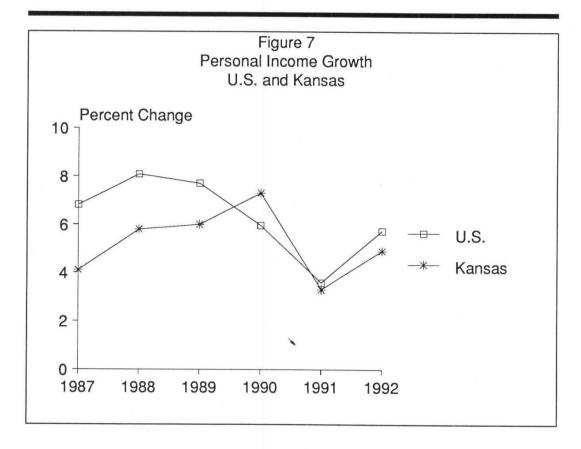
Employment in the transportation, communications, and utilities subsector is expected to grow 1.6 percent in 1992

compared with 2.3 percent in 1991. This growth comes almost completely from a forecast of continued growth in the trucking and warehousing area, as employment in electric, gas and sanitary services is expected to remain flat while railroad employment continues to decline. Employment in wholesale and retail trade is expected to increase moderately, in response to increased consumer spending as the recovery continues. Growth in employment in wholesale and retail trade comes mostly from a forecasted 1992 growth of 1.1 percent in retail trade employment, while employment in wholesale trade is forecasted to grow only 0.2 percent. The biggest growth in employment in retail trade will be in general merchandise stores, where employment is expected to grow 2.9 percent after declining 3.1 percent in 1991, and auto dealers and gas stations, where employment is expected to grow 1.1 percent after declining 1.0 percent in 1991.

The 1.3 percent decrease in employment in finance, insurance and real estate is generated by a forecasted 2.5 percent decrease in banking employment in 1992. Employment in insurance is expected to increase a modest 0.7 percent. Employment in services is forecasted to increase 3.5 percent, after growing 2.9 percent in 1991, with employment in hotels and lodging growing 1.8 percent in 1992 and employment in personal services growing 1.3 percent. Federal government employment is forecasted to decline 0.3 percent in 1992, as decreases in real Federal government spending take hold, while state and local government employment is expected to grow 1.0 percent.

Table 2 illustrates the forecast for Kansas personal income growth. As the table shows, Kansas personal income is expected to grow 4.9 percent in 1992 compared to only 3.3 percent for 1991 and 7.3 percent in 1990. As the table also illustrates, there are fairly large fluctuations in farm proprietors' income forecasted over the period. For 1990, the historical data show farm proprietors' income growing more than 71 percent over the previous year's level, while the

Table 2 Kansas Personal Income Breakdown Growth Rates			
	1990	1991	1992
Personal Income	7.3	3.3	4.9
Wages and Salaries	5.8	4.4	49
Nonfarm Proprietors' Income	5.6	4.0	55
Farm Proprietors' Income	71.3	-10.7	1.2
Dividends, Interest, and Rents	5.2	-0.1	4.0
Personal Contributions to Social Insurance	7.8	9.5	8.3
Transfer Payments	8.0	8.9	8.0
Other Labor Income	7.1	6.6	5.5



forecast for 1991 and 1992 has farm proprietors' income declining 10.7 percent and 1.2 percent respectively. Because farm proprietors' income is very difficult to measure, and even more

difficult to forecast, it may be useful to look at the growth rate of Kansas personal income net of farm proprietors' income. After making this adjustment, we find that Kansas personal income grew 5.9 percent in 1990, and is forecasted to grow 3.8 percent in 1991 and 5.0 percent in 1992. Thus, Kansas personal income was probably not hit as hard by the recession as the figures on total personal income in the table might seem to indicate. Adjusted for inflation, Kansas personal income grew 2.2 percent in 1990, and is forecasted to fall 0.9 percent in 1991 and grow 1.1 percent in 1992. Kansas personal income net of farm proprietors' income and adjusted for inflation grew 0.8 percent in 1990 and is forecasted to fall 0.4 percent in 1991 and grow 1.2 percent in 1992. As can be seen from Table 2, the forecast is for a modest increase in the growth of wages and salaries and nonfarm proprietors' income. Dividends, interest, and rents will increase 4.0 percent after falling 0.1 percent, reflecting larger dividend payments and rental income. Growth in transfer payments will be near its 1990 rate, while other labor income will grow more slowly in 1991 and 1992 than it did in 1990. A comparison of U.S. and Kansas personal income growth is shown in Figure 7.

Conclusion

The recession that began during the third quarter of 1990 will be succeeded by a recovery beginning in the third quarter of 1991, but the recovery will be moderate at best. To see that the forecast is far from optimistic, one merely needs to observe that the forecast does not have output returning to its pre-recovery peak until sometime during the first quarter of 1992. What strength the recovery does have will be centered on consumer spending and the buildup of inventories by firms. With employment growth sluggish at best, there is some danger that consumers will simply not have enough disposable income to sustain a recovery. Similarly, if firms find the evidence for a recovery unconvincing, they may well hold off on replenishing inventories. Although the Fed has shown some willingness to lower interest rates in the early fourth quarter of 1991, its recent history of being more concerned about inflation than growth suggests that we should be wary of expected too much in the way of a monetary stimulus to the recovery. Similarly, the reduction in Federal defense spending that one would expect to result from the end of Cold War suggests that there will be no great fiscal stimulus to the recovery.

Although Kansas appears to have weathered the recession better than the nation, the forecast for the recovery period in Kansas is also for rather weak growth. It appears that the differentials by which Kansas outperformed the nation during the recession will have all but disappeared in 1992. There is nothing in the near future for either the U.S. or Kansas that one can point to as being a factor that will generate a shift to rapid growth.

Notes

1. The forecasts for the national economy are produced by the Econometric Model of the United States developed at the Center for Econometric Model Research at the University of Indiana, using assumptions generated at the Institute. The directors of the CEMR are R. Jeffery Green and Morton J. Marcus. 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. Employment by place of work is the same as nonfarm wage and salary employment. See note 4.
- 4. Employment refers to total number of Kansas residents employed in civilian (including nonmilitary government) jobs. Nonfarm wage and salary employment refers to total nonfarm civilian (including nonmilitary government) jobs in Kansas. Thus, to go from nonfarm wage and salary employment to employment, one must correct for farm employment, Kansans who have more than one job, Kansans who work out of state, and non-Kansas residents who work in Kansas.

APPENDIX

NATIONAL TABLES	Page
GNP as Expenditure 1982 Dollars	A1
GNP as Expenditure Current Dollars	A3
Relation of GNP, NNP, National Income & Personal Income	A5
Disposition of Personal Income Current Dollars	A7
National Income Current Dollars	A9
Price Deflators	A11
Employment	A12
Financial and Government Budget Deficit	A13
KANSAS TABLES	
Employment	A14
Hours and Wages	A19
Wage Bills	A20
Personal Income	A22

Institute for Public Policy and Business R	Business Research, University of Kansas	niversity (of Kansas	1991-1992	US Forecast	st			24SEP91	A1
	199101	199102	199103	199104	199201	199202	199203	199204	1991	1992
(AR)	4124.1	4123.0	4146.2	4163.4	4184.0	4209.0	4236.2	4263.9	4139.2	4223.3
(AR)	2663.7	2682.1	2703.6	2718.9	2733.1	2747.7	2762.4	2777.3	2692.1	2755.1
(AR)	402.9	401.6	408.3	411.1	413.4	415.4	417.2	418.8	406.0	416.2 2.5
	997.1	903.1	910.4	913.2	915.6	918.5	921.8	925.3	905.9	920.3 1.6
	1363.7	1377.4	1384.9	1394.7	1404.1	1413.8	1423.5	1433.2	1380.2	1418.7
	496.8	494.5	495.9	502.1	507.8	512.8	518.0	522.8	497.3	515.4
	383.1	385.0	386.5	392.4	397.6	402.4	406.6	410.6	386.8	404.3
	113.7	109.6	109.4	109.7	110.2	110.5	3.2	112.3	110.6	111.1
	151.8	152.8	155.5	158.4	161.8	165.4	168.8	172.1	154.6	167.0 8.0

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 1991-1992 US Forecast

24SEP91

	1992u4 1991 1992 22.3 -13.5 16.0	0.0	20.8 -13.5 14.5	-51.3 -16.8 -47.4 15.1 -50.3 182.3	696.7 655.8 682.6	6.0	672.7	672.7 1.1 825.5	5.2.7 1.1 825.5 0.6 346.0	5.7.7 1.1 1.1 825.5 0.6 3.46.0 0.7 258.5 -0.1	346.0 346.0 346.0 376.0 376.0 376.0 376.0 376.0 376.0 376.0
199203	18.6	1.5	17.1	-49.6	686.8		736.4	736.4 6.8 817.9	736.4 6.8 817.9 1.0 335.6	736.4 6.8 817.9 1.0 335.6 1.0	736.4 6.8 817.9 1.0 335.6 1.0 248.3 1.0
199201 199202		1.5 1.5	7.2 12.7	-42.0 -46.8 104.6 54.8	669.6 677.5 4.2 4.8		711.6 724.3 8.1 7.4	_		- H (4	W N
199104		1.5	1.7	-35.1	662.7		697.8 9.4	697.8 9.4 815.9	697.8 9.4 815.9 -2.2 336.7	697.8 815.9 -2.2 336.7 -5.5 -7.6	697.8 815.9 -2.2 336.7 -5.5 -7.6 86.7
1991a2 1991a3		-6.1 1.5	-21.6 -6.1	-14.5 -24.7 1639.6 743.3	654.9 657.6 4.3 1.7		669.5 682.3 19.0 7.9				
199101	-25.0	3.1	-28.1	7.1	648.0		641.0				
	US: Change in Bus. Inventories	US: Change in Farm Inventories	US: Change in Nonfarm Inv.	US: Net Exports Percent Change From Last Qtr (AR)	US: Total Exports Percent Change From Last Qtr (AR)		US: Total Imports Percent Change From Last Qtr (AR)	US: Total Imports Percent Change From Last Qtr (AR) US: Total Government Purchases Percent Change From Last Qtr (AR)	US: Total Imports Percent Change From Last Qtr (AR) US: Total Government Purchases Percent Change From Last Qtr (AR) US: Fed. Govt. Purchases Percent Change From Last Qtr (AR)	US: Total Imports Percent Change From Last Qtr (AR) US: Total Government Purchases Percent Change From Last Qtr (AR) US: Fed. Govt. Purchases Percent Change From Last Qtr (AR) US: Fed. Defense Purchases Percent Change From Last Qtr (AR) Percent Change From Last Qtr (AR)	US: Total Imports Percent Change From Last Qtr (AR) US: Total Government Purchases Percent Change From Last Qtr (AR) US: Fed. Govt. Purchases Percent Change From Last Qtr (AR) US: Fed. Defense Purchases Percent Change From Last Qtr (AR) US: Fed. Nondefense Purchases US: Fed. Nondefense Purchases

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.

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.

24SEP91	1991	-16.9	7.0
	199204	31.2	2.4
	199203	26.1	5.4
st	199202	19.9	2.4
US Foreca	199201	12.5	2.4
1991-1992	199104	5.1	2.4
of Kansas	199103	-5.2	2.4
niversity o	199102	-34.2 -33.5	2.9 -4.8
ess Research, Ur	199101	-34.2	2.9
r Public Policy and Business Research, University of Kansas 1991-1992 US Forecast		US: Change in Bus. Inventories	Change in Farm Inventories
Institute for Public		US: Cha	US: Char

	199101	199102	199103	199104	199201	199202	199203	199204	1991	1992
US: Change in Bus. Inventories	-34.2	-33.5	-5.2	5.1	12.5	19.9	26.1	31.2	-16.9	22.4
US: Change in Farm Inventories	5.9	-4.8	2.4	2.4	2.4	2.4	2.4	2.4	0.7	2.4
US: Change in Nonfarm Inv.	-37.1	-28.7	-7.6	2.7	10.1	17.5	23.7	28.8	-17.7	20.0
US: Net Exports Percent Change From Last Qtr (AR)	13.5	14.9	-1.8	-11.3	-15.3	-17.0	-16.6	-15.0	3.8	-16.0
US: Total Exports Percent Change From Last Qtr (AR)	694.5	700.4	705.3	715.2	727.8	741.7	756.9	773.0 8.8	703.9	749.8
US: Total Imports Percent Change From Last Qtr (AR)	681.0 -22.7	685.5	707.1	726.5	743.1	758.7	8.0	7.7	700.0	765.8 9.4
US: Total Government Purchases Percent Change From Last Qtr (AR)	3.1	1152.9	1143.6	1145.3	1152.5	1162.2	1172.8	1184.4	1145.8	1168.0
US: Fed. Govt. Purchases Percent Change From Last Qtr (AR)	443.8 5.8	451.1	438.2	435.3	437.6	441.4	446.3	451.1	442.1	444.1
US: Fed. Defense Purchases Percent Change From Last Qtr (AR)	331.2	327.1	321.6	318.3	318.9	321.5	325.1	328.6	324.6	323.5
US: Fed. Nondefense Purchases Percent Change From Last Qtr (AR)	112.6	124.0	116.5	116.9	118.7	119.9	121.2	122.5	6.5	120.6
US: State and Local Govt. Purch. Percent Change From Last Qtr (AR)	1.7	701.8	2.1	710.0	714.9	720.8	3.2	733.3	703.8	723.9

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.

A5	1992	5986.8	635.5	594.8	-40.7	5351.3	5.7	39.5	0.0	-2.8	4814.4
24SEP91	1991	5660.3	600.8	3.6	-41.1	5059.4	6.3	37.5	5.4	-4.5	4544.0
	199204	6120.0	5.8	608.4	0.0	5470.9	506.0	5.7	0.0	-3.2	4921.4
	199203	6030.2	640.0	599.3	0.0	5390.2	498.2	39.8	0.0	-3.0	4849.2
st	199202	5942.1	631.0	590.3	0.0	5311.1	6.3	39.2	0.0	-2.3	4778.9
US Forecast	1992q1	5854.8	621.9	581.2	-40.7	5232.9	483.1	38.7	0.0	-2.9	4708.2 5.9
1991-1992	199104	5771.6	612.6	571.9	0.0 0.0	5158.9	475.8 5.5	38.2	0.0	-3.6	4641.4
	199103	5696.1	603.9	563.2	-40.7	5092.2	3.5	37.7	0.0	-4.8 -59.0	4580.2
iversity o	199102	5615.8	595.4	555.9	-39.4	5020.4	465.4	37.3	13.5	-6.0 763.6	3.8
search, Un	INCOME 1991q1	5557.7	591.5	548.0	-43.6	4966.2	461.4	36.7	8.2	-3.5	4456.4
Institute for Public Policy and Business Research, University of Kansas	RELATION OF GNP, NNP, NAT. INCOME & PERS.	US: Gross National Product Percent Change From Last Qtr (AR)	US: Cap. Cons. Allow. with Adj. Percent Change From Last Qtr (AR)	US: Cap. Cons. Allow w∕o Adj. Percent Change From Last Qtr (AR)	US: Cap. Cons. Adjustment, Total Percent Change From Last Qtr (AR)	US: Net National Product Percent Change From Last Qtr (AR)	US: Indirect Business Taxes Percent Change From Last Qtr (AR)	US: Business Transfer Payments Percent Change From Last Qtr (AR)	US: Statistical Discrepency	US: Sub. less Cur. Sur. Gov. E. Percent Change From Last Qtr (AR)	US: National Income Percent Change From Last Qtr (AR)

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.

24SEP91

	199101	199102	199103	199104	199201	199202	199203	199204	1991	1992
US: Corp. Prof. w. IVA + CCADJ Percent Change From Last Qtr (AR)	286.2	287.9	329.5	337.7	345.4	356.7 13.8	365.5	373.5	310.3	360.3
US: Net Interest Percent Change From Last Qtr (AR)	460.9	451.7	450.2	452.5	457.1	463.1	469.9	477.5	453.8	466.9
US: Cont. to Soc. InsTotal Percent Change From Last Qtr (AR)	527.6	531.8	537.3	543.7	553.7	560.4	567.5	574.7	535.1	564.1
US: Wage Accruals less Disburs.	0.0	7.0-	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0
US: Govt. Trans. to PersTotal Percent Change From Last Qtr (AR)	708.7	721.6	725.9	744.5	761.8	780.2	798.1	916.1	725.2	789.0
US: Personal Interest Income Percent Change From Last Qtr (AR)	682.0	674.7	673.4	677.9	684.9	5.2	703.8	715.1	677.0	599.4
US: Personal Dividend Income Percent Change From Last Qtr (AR)	126.7	125.5	127.1	129.7	132.5	135.4	138.4	141.6	127.2	137.0
US: Personal Income Percent Change From Last Qtr (AR)	4735.8	4786.3	4827.5	4897.7	6.09	5047.0	5126.1	5208.5	4811.8	5087.8

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.

A7	1992	5087.8	2947.4	285.3	437.9	46.7	391.1	7.4	3.3	137.0	828.6
24SEP91	1991	4811.8	2792.6	270.9	415.8	48.0	367.7	6.4	677.0	127.2	762.7 9.8
	199204	5208.5	3010.8	291.2	446.0	46.5	399.5	7.6	6.5	141.6	9.1
	199203	5126.1	2967.6	287.1	440.5	4.6.6	393.9	5.5	703.8	138.4	9.3
st	199202	5047.0	2925.6	283.3	435.5	3.7	388.3	7.4	693.7	135.4 8.9	819.4
US Forecast	199201	9.6967	2885.6	279.6	429.5	3.5	382.8	7.1	684.9	132.5	800.5
1991-1992	199104	4897.7 6.0	2845.7	275.9	423.9	46.3	377.6	0.0	677.9 2.7	129.7	782.7
	199103	4827.5	2808.0	272.4	417.7	45.4	372.3	7.0	673.4	127.1	763.6
iversity o	199102	4786.3	2774.0	269.2	417.1	51.8	365.2	50.3	674.7	125.5	759.0
search, Un	DOLLARS 1991q1	4735.8	2742.8	266.2	404.4	48.5	355.8	5.6	682.0	126.7	745.4
Institute for Public Policy and Business Research, University of Kansas	DISPOSITION OF PERSONAL INCOME - CURRENT DOLLARS 199101	US: Personal Income Percent Change From Last Qtr (AR)	US: Wage and Salary Disburse. Percent Change From Last Qtr (AR)	US: Other Labor Income Percent Change From Last Qtr (AR)	US: Total Proprietors Inc. Percent Change From Last Qtr (AR)	US: Farm Proprietors Inc. Percent Change From Last Qtr (AR)	US: Nonfarm Proprietors Inc. Percent Change From Last Qtr (AR)	US: Rental Income of Persons Percent Change From Last Qtr (AR)	US: Personal Interest Income Percent Change From Last Qtr (AR)	US: Personal Dividend Income Percent Change From Last Qtr (AR)	US: Total Transfer Payments Percent Change From Last Qtr (AR)

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.

24SEP91

		*						
1992	759.0	4328.8	4064.8	105.6	1.2	157.2	2933.8	3.6
1991	719.7	4092.2	3829.9	107.6	5.6	153.7	2876.6	3.8
199204	778.1	4430.3	4149.6	105.4	1.2	174.1 34.3	2964.9	3.9
199203	765.0	4361.1	4092.8	105.3	1.2	161.7 32.1	2943.2	3.7
199202	752.5	4294.5	8.6 5.8	105.6	1.2	150.9	2922.8	3.5
199201	740.4	4229.2	3979.9	106.1	1.1	142.1	2904.1	3.4
199104	729.2	4168.6	3922.4	106.7	1.0	138.4	2889.5	3.3
199103	718.5	4109.0	3863.2	107.3	0.9	137.5	2875.5	3.3
199102	716.4	6.6904	3791.2 5.3	107.8	0.7	170.2 3.6	2879.3	4.2
199101	714.6	4021.3	3742.8	108.6	1.2	168.7	2861.9	4.2
	US: Tot. Pers. Tax + Nontax Pay Percent Change From Last Qtr (AR)	US: Disposable Personal Income Percent Change From Last Qtr (AR)	US: Personal Consumption Expend. Percent Change From Last Qtr (AR)	US: Int. Paid by Cons. to Bus. Percent Change From Last Qtr (AR)	US: Pers. Trans. Pay. to For. Percent Change From Last Qtr (AR)	US: Personal Saving Percent Change From Last Qtr (AR)	US: Disposable Personal Income Percent Change From Last Qtr (AR)	US: YSAV as a Percent of YPD

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	Business Research, University of Kansas	iversity o	f Kansas	1991-1992	US Forecast	st			24SEP91	A9
NATIONAL INCOME - CURRENT DOLLARS	199101	199192	199103	199104	199201	199202	199203	199204	1991	1992
US: National Income Percent Change From Last Qtr (AR)	4456.4	4498.2	4580.2 7.5	4641.4	4708.2	4778.9	4849.2	4921.4	4544.0	4814.4
US: Wages and Salaries Percent Change From Last Qtr (AR)	2742.8	2773.6	2808.0	2845.7	2885.6	2925.6	2967.6	3010.8	2792.5	2947.4
US: W. and SGovt. + Govt. Ent. Percent Change From Last Qtr (AR)	529.8	534.5	545.7	552.3	560.4	568.5	577.3	587.1	540.6	573.3 6.1
US: W. and SOther Percent Change From Last Qtr (AR)	2213.0	2239.0	2262.3	2293.4	2325.2	2357.1	2390.3	2423.7	2251.9	2374.1
US: Supplements to w. and s. Percent Change From Last Qtr (AR)	556.5	561.8	567.8	574.6 4.9	583.5	590.7	598.2	606.0	565.2	594.6
US: Emp. Cont. to Soc. Ins. Percent Change From Last Qtr (AR)	290.3	292.6	295.5	298.7	303.9	307.4	311.1	314.8	294.3	309.3
US: Other Labor Income Percent Change From Last dtr (AR)	266.2	269.2	272.4	275.9	279.6	283.3	5.6	291.2	270.9	285.3
US: Total Proprietors Inc. Percent Change From Last atr (AR)	404.4	13.2	417.7	423.9	429.5	435.5	440.5	446.0	415.8	437.9
US: Farm Proprietors Inc. Percent Change From Last Qtr (AR)	48.5	51.8	42.4	46.3	46.7	47.1	4.4-	46.5	48.0	46.7
US: Nonfarm Proprietors Inc. Percent Change From Last Gtr (AR)	355.8	365.2	372.3	377.6	382.8	5.9	393.9	399.5	367.7	391.1

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.

24SEP91

1992	7.4	360.3	466.9	371.2	138.5	232.7	150.1	82.6	-10.2	-0.7	466.9
1991	6.4	310.3	453.8	309.1	122.5	186.6	138.6	48.1	2.3	-1.1	453.8
199204	5.6	373.5	6.6	386.9	142.4	244.4	155.4	18.6	-12.6	-0.8	477.5
199203	7.5	365.5	469.9	377.1 11.5	140.0	13.8	9.7	85.4	-10.8	-0.8	469.9
199202	7.4	356.7 13.8	463.1	367.0	137.4	229.6	148.3	81.3	-9.6 145.2	-0.7	463.1
199201	7.1	345.4	457.1	353.7 14.4	134.0	219.7	145.0	74.8 35.5	-7.7 1712.8	-0.7	457.1
199104	7.0	337.7 10.3	452.5	342.1 16.3	131.0	211.0	9.3	69.3	-3.7	30.0	452.5
199103	7.0	329.5	450.2	329.4	127.9	201.5	138.6	62.9 1553.8	9.99	-0.6 1476.1	450.2
199102	50.3	287.9	451.7	283.5	115.9	167.6	136.4	31.2	4.1	-100.0	451.7
199101	5.6	286.2	460.9	281.5	115.1	166.4	137.5	29.0	88.1	-3.5	460.9
	US: Rental Income of Persons Percent Change From Last Qtr (AR)	US: Corp. Prof. w. IVA + CCADJ Percent Change From Last Qtr (AR)	US: Net Interest Percent Change From Last Qtr (AR)	US: Corp. Prof. before Taxe Percent Change From Last Qtr (AR)	US: Profits Tax Liability Percent Change From Last Qtr (AR)	US: Corp. Prof. after Taxes Percent Change From Last Qtr (AR)	US: Dividends-Total Percent Change From Last Qtr (AR)	US: Undistribured Corp. Prof. Percent Change From Last Qtr (AR)	US: Inventory Valuation Adj. Percent Change From Last Qtr (AR)	US: Corp. Cap. Cons. Adj. Percent Change From Last Qtr (AR)	US: Net Interest Percent Change From Last Qtr (AR)

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.

A11	1992	1.4	3.7	3.7	0.6
24SEP91	1991	1.4	1.4	1.4	0.6
	199204	3.9	3.4	3.4	1.0
	199203	3.9	3.4	3.4	1.0
st	199202	1.4	3.6	3.6	1.1
US Forecast	1992q1	1.4	3.9	3.8	1.0
1991-1992	199104	1.4	3.7	3.9	9.6
	199103	1.4	3.5	1.4	0.6
iversity o	199102	2.1	1.4	1.4	0.5
Business Research, University of Kansas	199101	3.5	1.3	3.5	0.6
Institute for Public Policy and Business	PRICE DEFLATORS	US: CPI-All items Percent Change From Last Qtr (AR)	US: Implicit Deflator - GNP Percent Change From Last Qtr (AR)	US: Implicit Deflator - C Percent Change From Last Qtr (AR)	US: Implicit Deflator - IOIL Percent Change From Last Qtr (AR)

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.

A12	1992	126.3	117.6	3.2	6.9	110.4	18.5	2.9	15.6	19.5
24SEP91	1991	125.3	116.8	8.5	8.8	109.0	18.4	2.9	15.5	1.1
	199204	126.9	118.1	1.1	6.9	1.1.1	18.6	2.9	15.7	19.6
	199203	126.5	117.7	8.8	6.9	110.6	18.5	2.9	15.6	19.5
ř	199202	126.2	117.4	1.7	7.0	1.0.1	18.5	2.9	15.5	19.4
US Forecast	199201	125.8	117.1	3.1	6.9	109.7	18.4	2.9	15.5	19.3
1991-1992	199104	125.5	116.9	8.7 5.4	6.9	109.2	18.4	2.9	15.5	19.3
	199103	125.2	116.7	8.6	6.8	108.8	18.4	2.9	15.5	3.2
iversity of	199102	125.5	117.0	8.6	8.8	108.8	18.4	3.0	15.5	19.1
Business Research, University of Kansas	199101	125.0	116.9	8.1	6.5	109.2	18.4	3.0	15.4	19.0
Institute for Public Policy and Business	EMPLOYMENT	US: Civilian Labor Force Percent Change From Last Qtr (AR)	US: Civilian Employment Percent Change From Last Qtr (AR)	US: Unemployment Percent Change From Last Qtr (AR)	US: Unemployment Rate-Total	US: Tot. Nonfarm Empl. Percent Change From Last Qtr (AR)	US: Total Govt. Empl. Percent Change From Last Qtr (AR)	US: Fed. Govt. Empl. Percent Change From Last Qtr (AR)	US: S & L Govt. Empl. Percent Change From Last Qtr (AR)	US: Output Per Namhour-Pr. Nonag. Percent Change From Last Qtr (AR)

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.

A13	1992	899.7 5.0	3568.5	5.9	7.7-	1.9	-229.4
24SEP91	1991	856.8	3405.6	5.6	8.5	8.8	-185.8
	199204	914.3	3637.5	6.2	6.7	1.3	-240.4
	199203	904.6	3591.1 5.3	6.0	7.8	0.3	-233.0
st	199202	894.9	3545.3	5.8	7.8	8.7 -0.7	-225.8
US Forecast	199201	885.2	3500.1	5.6	7.9	8.7 -1.9	-218.4
1991-1992	199104	875.5	3457.6	5.5	8.0	8.7	-214.8
	199103	865.8	3419.6	5.4	8.3	3.8	-213.8
iversity o	199102	850.7	3392.0	5.6	8.7	-1.0	-187.9
Business Research, University of Kansas	199101	835.4	3353.4	6.1	9.2	8.9	-126.9 -77.5
Institute for Public Policy and Business Re	FINANCIAL AND GOVERNMENT BUDGET DEFECIT	US: M1 Money Supply Percent Change From Last Qtr (AR)	US: M2 Money Supply Percent Change From Last Qtr (AR)	US: 3-Month T-Bill Rate Percent Change From Last Qtr (AR)	US: Prime Rate Charged By Banks Percent Change From Last Qtr (AR)	US: Moodys AAA Corp. Bond Rate Percent Change From Last Qtr (AR)	US: Federal Govt. Surplus Percent Change From Last Qtr (AR)

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	search, Un	iversity o	f Kansas	1991-1992	Kansas Forecast	recast			030CT91	A14
EMPLOYMENT	199101	199102	199103	199104	199201	199202	199203	199204	1991	1992
KS EMP: Civilian Labor Force Percent Change From One Year Ago	1310.6	1318.1	1319.9	1314.0	1308.9	1334.1	1336.5	1328.1	1315.6	1326.9
KS EMP: Employed Percent Change From One Year Ago	1241.4	1257.9	1258.1	1255.2	1239.2	1278.4	1274.9	1271.8	1253.2 0.8	1266.1
KS EMP: Unemployed Percent Change From One Year Ago	69.2	60.2	61.8	58.8	7.0	55.7	61.5	56.2	62.5	60.8
KS EMP: Unemployment Rate Percent Change From One Year Ago	5.3	4.6	5.6	4.5	1.1	4.2	4.6	5.4	8.3	4.6
KS EMP: Adj. for Res. & Self Emp. Percent Change From One Year Ago	110.3	102.1	108.9	100.9	103.4	107.0	109.0	102.7	105.5	105.5
KS EMP: Farm Percent Change From One Year Ago	48.8	56.9	59.8	46.2	42.9	57.0	3.4	1.3	52.9	52.1
KS EMP: Total Non-farm Wage & Salary Percent Change From One Year Ago	1082.3	1099.0	1089.4	1108.2	1092.9	1114.3	1104.1	1122.4	1094.7	1108.4
KS EMP: Mining Percent Change From One Year Ago	10.3	10.1	1.5	7.9-	9.2	9.4	-5.3	-3.3	1.0	9.4

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

KS EMP: Oil & Gase Extraction KS EMP: Oil & Gase Extraction RS EMP: Winning Residual RS EMP: Obstruction RS EMP: Winning Residual RS EMP: Winning Residual	1992	8.0	1.4	41.9	1.0	28.4	2.0	20.6	7.4	12.2	5.9
1991a1 1991a2 1991a3 1991a4 1992a1 1992a2 1992a3 199 Oil & Gas Extraction Change From One Year Ago S. 5	1991	1.0	1.4	42.0	77.9	27.6	3.9	20.4	7.6	12.3	6.0
1991a1 1991a2 1991a3 1991a4 1992a1 1992a2 19 Change From One Year Ago 8.5 3.1 1.4 1.5 8.6 8.3 7.9 7.9 Change From One Year Ago 3.0 42.9 44.8 42.2 36.4 43.2 Change From One Year Ago 77.7 78.0 78.2 77.7 77.8 78.0 Change From One Year Ago 27.3 27.4 27.9 28.0 27.6 28.2 Change From One Year Ago 27.3 27.4 27.9 28.0 27.6 28.2 Change From One Year Ago 27.3 27.4 27.9 28.0 27.6 28.2 Change From One Year Ago 27.3 27.4 27.9 28.0 27.6 28.2 Change From One Year Ago 27.3 27.4 27.9 28.0 27.6 28.2 Change From One Year Ago 27.5 3.1 2.3 2.2 1.4 3.2 Change From One Year Ago 27.5 3.1 2.3 2.1 2.0 1.4 3.2 Change From One Year Ago 27.7 7.7 7 7.7 7.7 7.7 7.7 7.7 7.7 7.7	199204	8.0	1.4	42.7	78.6	3.5	4.0	20.3	7.3	12.1	5.9
Oil & Gas Extraction Oil & Gas	199203	8.1	1.5	1.3	79.2	3.6	4.1	20.4	7.5	12.4	5.9
Oil & Gas Extraction Oil & Gas	199202	7.9	5.3	43.2	79.0	28.2	2.9	21.0	7.5	12.4	5.9
1991a1 1991a2 1991a3 19 Change From One Year Ago 8.5 3.1 1.4 Change From One Year Ago 8.5 3.1 1.4 Change From One Year Ago 3.0 42.9 44.8 Change From One Year Ago 77.7 78.0 78.2 Change From One Year Ago 27.3 27.4 27.9 Change From One Year Ago 27.3 27.4 27.9 Change From One Year Ago 27.3 3.9 4.1 Change From One Year Ago 20.8 20.8 Change From One Year Ago 6.7 13.5 15.5 Change From One Year Ago 6.7 7.7 7 7.7 Change From One Year Ago 6.7 7.7 7.7 Change From One Year Ago 7.7 7.7 7.7 Change From One Year Ago 3.3 1.6 -0.0 Change From One Year Ago 3.3 1.6 -0.0 Change From One Year Ago 20.4 0.9 -0.8 Change From One Year Ago 20.4 0.9 -0.8 Change From One Year Ago 20.4 0.9 -0.3 2.6 Change From One Year Ago 1.2.2 12.3 12.6 Change From One Year Ago 20.4 0.9 2.6	199201	7.9	1.3	36.4	0.1	27.6	4.0	20.7	7.4	12.1	5.9
1991q1 1991q2 19 Change From One Year Ago 8.5 3.1 Change From One Year Ago 8.5 3.1 Change From One Year Ago 3.0 42.9 Change From One Year Ago 2.4 2.1 Change From One Year Ago 2.5 3.1 Apparel Change From One Year Ago 2.5 3.1 Change From One Year Ago 2.5 3.1 Change From One Year Ago 2.0.8 Change From One Year Ago 2.0.8 Change From One Year Ago 3.7 3.9 Change From One Year Ago 6.7 13.5 Change From One Year Ago 3.3 1.6 Chemicals & Allied Prod. 7.7 7.7 Change From One Year Ago 12.3 Change From One Year Ago 12.3 Change From One Year Ago 1.4 0.9	199104	8.3	3.6	42.2	7.77	28.0	4.0	20.0	7.5	12.2	5.9
Oil & Gas Extraction Change From One Year Ago Wining Residual Change From One Year Ago Construction Change From One Year Ago S.6 Change From One Year Ago Chemicals & Allied Prod. Chemicals & Allied Prod. Chemicals & Change From One Year Ago Change From One Year Ago Chemicals & Allied Prod. Change From One Year Ago T.7 Change From One Year Ago	199103	1.2	3.5	1.9	78.2	27.9	4.1	20.1	7.6	12.6	6.0
Oil & Gas Extraction Change From One Year Ago Mining Residual Change From One Year Ago Construction Change From One Year Ago Non-durable Goods Change From One Year Ago Food & Kindred Change From One Year Ago Chemicals & Allied Prod. Chemicals & Allied Prod. Chemicals & Allied Prod. Chemicals & Allied Prod. Change From One Year Ago	199102	3.1	1.4	42.9	78.0	3.1	3.9	20.8	7.7	12.3	5.9
Oil & Gas Extractichange From One Yenning Residual Change From One Yenner From One Yenner From One Yenner From One Yenner From One Yenning & Publish Change From One Yenning & Publish Change From One Yenning & Publish Change From One Yenner From One Yenning & Publish Change From One Yenning & Potroleum & Coal	199101	8.5	1.3	38.0	77.7	27.3	3.7	20.8	7.7	12.2	6.0
		Oil & Gas Extracti Change From One Ye	e Year	Construction Change From One Ye	Non-durable Goods Change From One Ye	e Ye	Apparel Change From One Ye	Printing & Publish Change From One Ye	Chemicals & Alliec Change From One Ye		KS EMP: Non-durables Residual Percent Change From One Year Ago

030CT91

Institute for Public Policy and Business Research, University of Kansas 1991-1992 Kansas Forecast

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

Institute for Public Policy and Business Research, University of Kansas	earch, Uni	versity of	f Kansas	1991-1992	Kansas Forecast	recast			030CT91	A16
	199101	199102	199103	199104	199201	199202	199203	199204	1991	1992
KS EMP: Durable Goods Percent Change From One Year Ago	105.5	106.9	108.2	109.0	107.9	1.1	107.3	107.9	107.4	107.8
KS EMP: Stone Glass Clay Percent Change From One Year Ago	5.9	6.6	6.8	6.6	6.2	6.5	6.5	-3.1	-3.4	6.4
KS EMP: Primary Metals Percent Change From One Year Ago	2.8	2.8	3.0	2.9	2.8	-3.7	-10.6	2.6	2.9	2.7
KS EMP: Fabricated Metals Percent Change From One Year Ago	10.5	10.6	10.9	3.7	10.4	10.5	10.4	10.2	3.9	10.4
KS EMP: Machinery, Incl. Electrical Percent Change From One Year Ago	28.7	28.9	29.0	29.1	29.0	28.5	27.9	27.5	28.9	28.2
KS EMP: Transportation Equipment Percent Change From One Year Ago	47.4	-3.8	47.9	49.4	4.6	49.6	3.5	3.6	48.1	3.9
KS EMP: Durables Residual Percent Change From One Year Ago	10.2	10.2	1.3	10.3	9.9	10.3	10.3	10.0	10.4	10.1
KS EMP: Transportation & Utilities Percent Change From One Year Ago	67.6	67.9	68.3	68.7	67.8	69.2	2.1	70.2	2.3	69.2
KS EMP: Railroads Percent Change From One Year Ago	7.2	7.4	7.3	7.2	7.0	6.9	6.9	6.8	7.3	6.9
KS EMP: Trucking & Warehousing Percent Change From One Year Ago	22.5	23.0	23.4	23.3	22.7	23.8	24.4	24.4	23.1	23.8

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

A17	1992	12.5	26.0	70.5	199.4	26.6	29.6	23.7	10.3	109.2	57.5
0300191	1991	12.5	5.3	70.3	197.2	25.9	29.4	23.4	10.2	108.3	58.3
	199204	12.5	26.5	70.0	203.4	1.7	30.1	23.7	10.7	110.5	57.0
	199203	12.7	25.7	71.2	200.2	26.3	1.6	23.9	10.1	110.2	58.0
ecast	199202	12.5	3.6	70.9	199.0	5.3	29.4	23.8	1.01	109.8	57.9
Kansas Forecast	199201	12.4	1.8	0.0	195.0	25.9	29.3	23.3	10.2	106.3	57.2
1991-1992	199104	12.4	25.7	6.69	201.0	27.9	29.7	23.7	10.7	109.1	57.7 -0.5
	199103	12.6	25.0	71.0	197.8	25.7	29.2	23.9	10.1	108.8	58.7 0.7
versity of	199102	12.5	25.0	70.6	196.0	24.6	29.1	23.3	9.9	109.1	58.8
earch, Uni	199101	12.5	25.3	1.1	194.1	25.2	29.4	22.9	10.2	106.3	58.0
Institute for Public Policy and Business Research, University of Kansas		KS EMP: Electric Gas & Sanitary Serv Percent Change From One Year Ago	KS EMP: Trans. & Utilities Residual Percent Change From One Year Ago	KS EMP: Wholesale Trade Percent Change From One Year Ago	KS EMP: Retail Trade Percent Change From One Year Ago	KS EMP: Gen. Merchandise Stores Percent Change From One Year Ago	KS EMP: Food Stores Percent Change From One Year Ago	KS EMP: Auto. Dealers & Gas Stations Percent Change From One Year Ago	KS EMP: Apparel & Accessory Stores Percent Change From One Year Ago	KS EMP: Retail Trade Residual Percent Change From One Year Ago	KS EMP: Finance, Insurance, R.E. Percent Change From One Year Ago

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

A18	1992	23.8	13.1	20.5	3.5	10.3	12.0	3.7	29.5	186.9
030CT91	1991	24.4	13.1	20.8	248.8	10.1	11.9	3.0	29.6	185.0
	199204	23.5	13.2	20.3	3.8	10.4	11.8	238.9	29.4	192.8
	199203	23.9	13.2	20.9	3.7	10.7	11.7	237.5	29.7	173.9
recast	199202	23.9	13.1	20.8	3.9	3.0	12.1	235.8	29.8	189.6
Kansas Forecast	199201	23.9	13.0	20.2	251.4	7.0	12.4	229.3	29.2	191.4
1991-1992	199104	24.1	13.1	20.5	3.0	10.2	11.9	3.2	29.5	191.2
	199103	24.5	13.1	21.1	250.6	3.8	11.9	228.3	29.8	171.8
iversity o	199102	24.6	13.1	21.1	248.5	1.3	11.8	226.6	29.8	189.4
Business Research, University of Kansas	199101	24.5	12.9	20.5	244.7	9.6	11.9	223.2	29.2	187.6
Institute for Public Policy and Business		KS EMP: Banking Percent Change From One Year Ago	KS EMP: Insurance Percent Change From One Year Ago	KS EMP: F.I.R.E. Residual Percent Change From One Year Ago	KS EMP: Services Percent Change From One Year Ago	KS EMP: Hotels & Lodging Percent Change From One Year Ago	KS EMP: Personal Services Percent Change From One Year Ago	KS EMP: Services Residual Percent Change From One Year Ago	KS EMP: Federal Gov. Percent Change From One Year Ago	KS EMP: State & Local Gov. Percent Change From One Year Ago

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

Institute for Public Policy and Business Research, University of Kansas	esearch, Un	iversity o	f Kansas	1991-1992	Kansas Forecast	recast			030CT91	A19
HOURS AND WAGES	199101	199102	199103	199104	199201	199202	199203	199204	1991	1992
KS HRS/WK: Food & Kindred Products Percent Change From One Year Ago	41.9	41.3	42.4	41.2	40.8	41.2	41.7	40.8	41.7	41.1
KS HRS/WK: Apparel&Other Fin. Prod. Percent Change From One Year Ago	34.6	33.9	35.1	35.7	3.4	36.5	36.9	3.6	34.8	36.6
KS HRS/WK: Pet. Refining & Rel. Ind. Percent Change From One Year Ago	37.4	38.7	38.2	39.4	39.9	5.5	41.0	41.1	38.5	40.7 5.8
KS HRS/WK: Fabricated Metal Products Percent Change From One Year Ago	37.1	38.9	38.2	38.1	37.1	37.6	37.6	37.6	38.1	37.5
KS HRS/WK: Machinery, Incl. Elec. Percent Change From One Year Ago	39.7	39.3 -1.8	38.9	40.1	0.04	1.9	39.5	40.6	39.5	40.1
KS HRS/WK: Transportation Equipment Percent Change From One Year Ago	40.7	41.9	40.9	41.2	40.1	40.2	40.1	41.0	41.2	40.3
KS WAGE/HR: Food & Kindred Products Percent Change From One Year Ago	9.4	2.1	9.8	9.9	10.0	10.0	3.1	3.1	3.8	10.1
KS WAGE/HR: Apparel&Other Fin. Prod. Percent Change From One Year Ago	3.1	6.0	2.9	6.0	6.1	1.2	3.0	3.0	6.0	6.1
KS WAGE/HR: Pet. Refining & Rel. Ind Percent Change From One Year Ago	11.1	11.0	10.8	10.9	11.1	11.2	4.3	4.1	10.9	11.2
KS WAGE/HR: Fabricated Metal Product Percent Change From One Year Ago	3.3	9.0	9.0	9.1	3.0	3.3	3.4	3.3	9.0	3.3
KS WAGE/HR: Machinery, Incl. Elec. Percent Change From One Year Ago	9.8	9.8	10.1	10.2	10.2	10.3	3.6	3.5	10.0	10.4
KS WAGE/HR: Transportation Equipment Percent Change From One Year Ago	14.1	14.5 5.5	14.4	14.7	14.8	14.8	3.8	3.6	14.4	14.9

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

Institute for Public Policy and Business Research, University of Kansas	ss Research, U	niversity	of Kansas	1991-1992	Kansas Forecast	orecast			030CT91	A20
WAGE BILLS	199101	1991a2	199103	199104	199201	199202	199203	199204	1991	1992
KS WG BILL: Total Wages & Salaries Percent Change From One Year Ago	23843.0	24217.3	24592.9	24862.6	25003.3	25466.7	25786.9	26070.5	24378.9	25581.9
KS WG BILL: Farm Wages & Salaries Percent Change From One Year Ago	161.0	162.7	164.1	165.3	3.7	168.4	3.4	3.3	163.3	169.0
KS WG BILL: Agricultural Services Percent Change From One Year Ago	92.0	93.3	94.6	95.9	97.3	98.6	9.9	5.6	94.0	5.7
KS WG BILL: Mining Percent Change From One Year Ago	286.0	276.5	274.9	272.5	269.3	270.5	273.3	275.7	277.5	272.2
KS WG BILL: Construction Percent Change From One Year Ago	1001.0	1013.7	1037.4	1025.3	982.9	1056.8	1088.0	1070.6	1019.4	1049.6
KS WG BILL: Durable Goods Percent Change From One Year Ago	3010.0	3149.9	3184.1	3239.4	3199.1	3239.8	3250.5	3332.2	3145.9	3255.4
KS WG BILL: Nondurable Goods Percent Change From One Year Ago	1817.0	1830.0	1876.2	1887.4	1911.3	1957.8	1987.5	1992.1	1852.7	1962.2

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

91 A21	1 1992	4 2250.9 7 5.0	5 1961.7	2 2419.3	9 1523.7 1 3.7	8 5260.3 8 8.0	5 5358.4
030CT91	1991	2144.4	1883.5	2356.2	1468.9	4868.8	5104.3
	199204	2297.4	1982.8	2444.5	1540.2	5412.8 7.9	5450.3
	199203	2264.4	1977.3	2429.1	1538.8	5327.1	5381.2
orecast	199202	2239.9	1959.5	2409.4	1519.8 3.5	5216.8 8.7	5329.4
Kansas Forecast	199201	2202.0	1927.2	2394.1	1495.9	5084.6	5272.6
1991-1992	199104	2185.8	1904.9	2380.5	1483.6	5014.5	5207.3
Business Research, University of Kansas	199103	2153.2	1897.0	2363.7	1480.0	4936.6	5131.0
University	199102	2130.7	1874.0	2345.5	1468.8	4800.1	5072.0
Research, L	199101	2108.0	1858.0	2335.0	1443.0	4724.0	5007.0
Institute for Public Policy and Business F		KS WG BILL: Trans. & Public Utilities Percent Change From One Year Ago	KS WG BILL: Wholesale Trade Percent Change From One Year Ago	KS WG BILL: Retail Trade Percent Change From One Year Ago	KS WG BILL: Finance, Insurance, & R.E Percent Change From One Year Ago	KS WG BILL: Services Percent Change From One Year Ago	KS WG BILL: Govt. & Govt. Enterprises Percent Change From One Year Ago

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

Institute for Public Policy and Business Research, University of Kansas	Research, U	niversity	of Kansas	1991-1992	Kansas Forecast	precast			030CT91	A22
PERSONAL INCOME	199101	199102	199103	199104	199201	199202	199203	199204	1991	1992
KS PERS INC: Total Personal Income Percent Change From One Year Ago	45176.0	45866.0	45951.5	47102.7	47176.9	6.7999.6	48493.0	49450.8	46024.1	48280.1
KS PERS INC: Real Personal Income Percent Change From One Year Ago	32151.2 -1.5	32448.1	32157.7 -0.2	32650.2	32395.1	32668.8	32727.3	33093.7	32351.8	32721.2
KS PERS INC: Farm Proprietors Income Percent Change From One Year Ago	1258.0	1481.3	1104.8	1718.5 -28.2	1377.2	1414.2	1256.2	1584.0	1390.7	1407.9
KS PERS INC: Non-farm Proprietors Inc Percent Change From One Year Ago	3663.0	3743.2	3805.2	3852.6	3899.9	3949.2	3998.8	4049.5	3766.0	3974.3
KS PERS INC: Dividends Interest & Ren Percent Change From One Year Ago	8336.0	8257.4	8268.4	8338.4	8438.8	3.7	8692.2	8838.3	8300.1 -0.1	8632.1
KS PERS INC: Adj. For Residence Percent Change From One Year Ago	1026.0	1013.9	1007.1	1006.6	1007.7	1007.0	1005.4	1004.0	1013.4	1006.0
KS PERS INC: Pers. Cont. For Soc. Ins Percent Change From One Year Ago	2182.0	2220.6	2262.7	2306.1	2364.7	2406.2	2448.9	2492.5	2242.9	2428.1
KS PERS INC: Transfer Payments Percent Change From One Year Ago	6789.0	6904.2	6936.3	7097.6 9.0	7247.1	7407.0 7.3	7562.6	7718.8 8.8	6931.8 8.9	7483.9 8.0
KS PERS INC: Other Labor Income Percent Change From One Year Ago	2443.0	2469.2	2499.6	2532.5	2567.7	2602.9	2639.9	2678.2	2486.1	2622.2

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