# Institute for Public Policy and Business Research The University of Kansas

# U.S. AND KANSAS ECONOMIC FORECASTS FOR 1993 MIDYEAR UPDATE

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Funding for the Kansas Economic Modeling Program at the Institute is provided by the state of Kansas

July 1993

Report No. 208

#### **Preface**

The Institute for Public Policy and Business Research is pleased to present this midyear update of its 1993 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 1993 and 1994, and an appendix with detailed quarter by quarter forecasts for each sector. Although the Institute's official forecast for 1994 will be released in December of this year, this midyear update contains preliminary forecasts of some of the major economic variables for both Kansas and the nation.

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

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# U.S. AND KANSAS ECONOMIC FORECASTS FOR 1993

# MIDYEAR UPDATE

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#### **Executive Summary**

#### The National Economy

The national economy will continue to recover in 1993 and 1994, but at a rate that is disappointing by historical standards for recoveries. The burst of growth at well above the long-run average that we are accustomed to seeing early on in a recovery has not occurred so far during this recovery, and there is no such burst present in our economic forecast for 1993 and 1994. On the contrary, so far the economy has not sustained growth that is even nearly equal to the long-run average, and our forecast suggests that the economy will continue to grow at a rate that is at least a percentage point below the long-run average rate of growth for the next two years.

A major reason for the continued sluggish rate of recovery is the absence of aggressive fiscal and monetary policies. The Federal Reserve Board appears to be more concerned about inflation than expansion, and has been less than completely successful at expanding the money stock even when it wished to in recent years. With an expected growth rate of M2 that will continue to be slow for at least another year, there would appear to be little monetary stimulus on the horizon. Furthermore, a direct attack on weak aggregate demand through increases in Federal government spending has been made impossible by the last decade of budget excesses at the national level. In fact, we expect that defense cuts will lead to decreases in real Federal government spending of 4.7 percent in 1993 and 2.3 percent in 1994. Nor can we look abroad for stimulus in the near future. With major trading partners who on average have deeper economic woes than we do, we expect real exports to grow at only about a 3 percent annual rate over the forecast period. With imports growing more quickly, the U.S. should see a widening of its trade deficit in 1993 and 1994.

With no help from the public and foreign sectors, the only source of growth in the U.S. over the next two years will be the private domestic sector, namely consumers and firms. The biggest source of growth for the national economy will be increases in consumer spending. Although nominal personal income growth will only be in the 5 percent range, and tax increases will cause disposable personal

income growth to be even more modest, consumers are expected increase real spending at 2 percent a year in the 1993-1994 period. Consumer spending will be led by growth in purchases of durable goods, which should increase about 5 percent per year in real terms. Real consumer spending on services is expected to increase at above 2 percent per year, but consumer purchases of nondurable goods are expected to grow less than one percent per year. The fastest growing source of demand will be real spending by businesses in new plant and equipment, which is expected to grow 8.7 percent in 1993 and 4.1 percent in 1994.

The continued moderate pace of the recovery means that inflationary pressures should remain subdued. Our forecast for the inflation rate, as measured by the rate of change of the consumer price index, is 3.4 percent in 1993 and 3.8 percent in 1994. Price increases will be led by increases in medical costs, expected to grow 6.2 percent in 1993 and 5.7 percent in 1994, but even these rates of increase are below what we have witnessed in this area in recent years.

Another aspect of the long, slow recovery is the fact that the growth rate of the economy, while sufficient to create some new jobs, will not be sufficient to create jobs at a rate faster than the increase in the size of the labor force. Thus, we predict no decline in the unemployment rate, and in fact, expect it to increase slightly to about 7.2 percent by the end of 1994.

Although inflationary pressures would appear to be of secondary concern over the forecast period, the Federal Reserve Board seams to have renewed its battle against increasing prices, and it is expected that short-term interest rates have reached their bottom in the second quarter of 1993, with the three month Treasury bill rate at just below 3 percent. We expect that rate to begin to climb slightly during the second half of 1993, and to reach about 3.3 percent at the end of 1994. The prime rate, however, is expected to continue to fall, from 6 percent in the second quarter of 1993 to just under 5 percent at the end of 1994. Long-run rates will also drop, as concerns about inflation recede in the public mind. We predict that the Moody AAA bond rate will fall by nearly a full percentage point to 6.5 percent at the end of 1994.

Table 1
The National Forecast--Summary

	1990	1991	1992	1993	1994
Real GDP (billions) Growth Rate	4877.5 .8	4821.0 -1.2	4922.6 2.1	5033.7 2.3	5111.0 1.5
Rate of Inflation	5.4	4.2	3.0	3.4	3.8
Civilian Employment (millions) Growth Rate	117.9 .5	116.9 9	117.6 .6	119.2 1.3	121.1 1.6
Unemployment Rate	5.5	6.8	7.4	7.0	7.2
3-Month T-Bill Rate	7.5	5.4	3.5	3.0	3.2
Nominal Personal Income (billions) Growth Rate	4664.2 6.5	4828.3 3.5	5058.1 4.8	5335.2 5.5	5614.4 5.2

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

1. Money supply growth as measured by M2 was very low by historical standards in both 1991 and 1992, reaching just 3.1 percent and 2.0 percent in those two years. M1, which had for many years grown more slowly than M2, grew faster during the period, 6.0 and 12.4 percent. Since for most of the period the Fed's announced targets involved M2, and since 1991 in particular was an immediately post recessionary period, it is difficult to know what to make of the behavior of the monetary aggregates. It appears that the Fed has been moving away from money supply targets and toward interest rate targets in the period since the recession. With this in mind, we characterize our assumptions about monetary policy in terms of interest rate levels rather than money supply growth. We assume that even though the growth of the economy will be very modest in 1993 and 1994, the Fed will have inflation as its primary focus. Thus, the appearance of even mild inflationary pressures should cause short-term interest rates to increase somewhat. As a result, we expect to see short term rates begin to increase slightly in the second half of 1993, and to continue to increase very gradually in 1994. Corresponding to this interest rate behavior

will be a cooling down of M1 growth, to 9.4 percent in 1993 and 5.0 percent in 1994. M2 growth will remain very low at 1.5 percent in 1993 and increase to 5.4 percent in 1994.

- 2. Our fiscal policy assumptions are roughly compatible with the House of Representatives version of the Clinton plan. This corresponds to a 4.7 percent decrease in real Federal government purchases of goods and services in 1993 and a further 2.3 decrease in 1994. These reductions will be accomplished through a 7.6 percent reduction in real Federal defense expenditures in 1993 and a further 5.3 percent reduction in 1994. Real nondefense purchases of goods and services are expected to increase 2.3 percent in 1993 and 4.2 percent on 1994. These real spending cuts will be one point of budget reduction in the plan. Other aspects will be 7.2 percent and 9.9 percent increase in federal personal tax collections, and a reduction in the rate of increase of transfer payments.
- 3. After reaching a high in the first quarter of 1993, the exchange rate<sup>2</sup> of the U.S. dollar is expected to drop during the second quarter and remain relatively stable throughout the forecast period. The stable exchange rate and lackluster performance of our major trading partners, are expected to lead to modest increases in real exports of 2.6 percent in 1993 and 3.5 in 1994.
- 4. Finally, imported oil prices took a big dip in the first quarter of 1993, but are expected to remain stable during the rest of 1993 and increase at a 1 percent annual rate during 1994.

#### The Kansas Economy

The Kansas forecast is summarized in Table 2, below. The run during which the Kansas economy has outperformed the national economy appears to be over. Partly because of developments in the durable goods manufacturing sector, the Kansas economy appears headed for a slow-down in 1993 and 1994. Although nonfarm wage and salary employment will continue to grow, at 1.4 percent in 1993 and 1.1 percent in 1994, overall Kansas employment growth will not keep up with the growth of the labor force, and the state is expected to see a significant increase in its unemployment rate. Personal income growth will also be sluggish over the next two years, growing even more slowly than in the U.S. as a whole. Real personal income growth for the state over the next two years is expected to be only 1.1 percent per year.

Employment in the mining sector is expected to decline over the forecast period, while employment in construction is expected to continue to grow, 3.6 percent in 1993 and 1.6 percent in 1994. Durable goods manufacturing will be the fastest declining sector of employment, shrinking 3.8 percent in 1993 and 2.2 percent in 1994. Most of this decline will come from decreases in employment in the transportation equipment subsector, where employment will decline 8.8 percent in 1993 and a further 2.6

percent in 1994, primarily because of layoffs at Boeing. Employment in the nondurable goods manufacturing sector is expected to grow 1.1 percent in 1993 and 0.7 percent in 1994.

Employment in transportation and utilities is expected to grow at more than 1 percent per year, while wholesale and retail trade are also predicted to experience healthy employment growth. Wholesale trade employment is expected to grow at about a 1.5 percent annual rate, while employment in retail trade is expected to grow 2.9 percent in 1993 and 1.2 percent in 1994. Employment in finance, insurance and real estate should be relatively flat over the forecast period, while service sector employment will grow about 2.3 percent per year. Federal government employment will remain stable on average, while state and local government employment will increase 2.2 percent in 1993 and 1.8 percent in 1994.

	1990	1991	1992	1993	1994
Civilian Labor					
Force (thousands)	1300.0	1295.0	1330.0	1340.2	1350.3
Growth Rate	1.2	-0.4	-2.7	0.8	0.8
Total Employment				ē	
(thousands)	1243.0	1238.0	1274.0	1272.1	1277.
Growth Rate	0.8	-0.4	2.9	-0.1	0.
Wage and Salary					
Employment (thousands)	1088.5	1095.4	1115.1	1131.2	1142.
Growth Rate	2.8	1.9	1.0	1.8	1.
Unemployment Rate	4.4	4.4	4.2	5.1	5.
Nominal Personal					
Income (millions)	44071.5	45674.5	48876.8	50888.5	53195.
Growth Rate	7.9	3.6	7.0	4.1	4.
Real Personal					
Income (millions)	38329.2	38071.3	39546.1	39978.9	40422.
Growth Rate	2.6	-0.7	3.9	1.1	1.

#### Introduction

The national economy is expected to continue to grow in a very modest way in 1993 and 1994. The recovery, which has proceeded for over two years, has never exhibited the far above average growth rates that have traditionally been associated with the periods following recessions. In fact, during the current recovery, the economy has not sustained a year of growth that was near the long-run average rate of growth of the economy, let alone significantly above it. Our forecasted annual rate of growth over the 1993-1994 period of roughly 2 percent suggests that economic growth will remain nearly a percentage point below the long-run average over the forecast period.

One reason that the forecasted rate of growth of the national economy is so low is that the traditional government stimulus to the economy is much weaker than during many past recoveries. The traditional governmental stimuli are of two types, fiscal and monetary. Unfortunately, the usefulness of the fiscal policy tool has been greatly restricted due to the build-up of large fiscal deficits over the past decade, while monetary policy has lost much of its force both because the Federal Reserve Board is at least as concerned about inflation as it is about the recovery, and because the tools for controlling the size of the money stock seem to have lost much of their precision. Nor can the economy hope for the happy circumstance that the recovery will be stimulated by demand from abroad; the economic strength of our trading partners appears to be exhibiting an anemia at least the equivalent of our own.

Thus, the sources of growth over the next year or two must be found within the domestic private sector, that is to say, from consumers and business firms. Our forecast of growth is premised on a modest if not spectacular growth in consumer spending, driven especially by a strong rate of growth in consumer spending on durable goods that was postponed during the recession and its immediate aftermath, and a very strong increase in spending on new equipment by business firms. As one might expect, the bootstrapping effect of increased consumer spending is somewhat limited by the fact that the slow growing economy roughly equates to slow growth in disposable personal income, which is the foundation upon which sustained increases in consumer spending are built.

The rate of growth that we are forecasting will be insufficient to lower the national unemployment rate over the forecast period; on the contrary, it will probably increase slightly. On the other hand, the

half-hearted growth of aggregate demand over the period means that inflationary pressures will be very small, and we expect inflation, as measured by the rate of change of the consumer price index, to increase only slightly over the forecast period. Even a modest increase in inflation seems to signal trouble for the Federal Reserve Board, however, and we expect to see short-term interest rates ease upward over the period. Long-run rates, on the other hand will continue to fall, as concerns about inflation continue to ease in the general public.

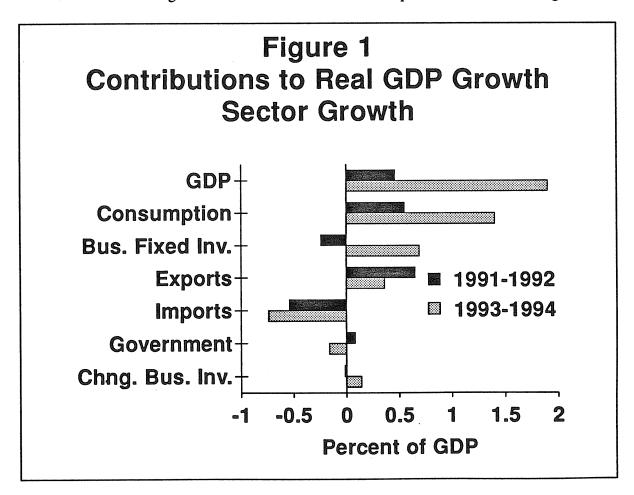
The Kansas economy, which has significantly outperformed the national economy during the recession and the early stages of the recovery, probably will not continue to do so. In 1993, Kansas is expected to just equal the U.S. in net job creation, and by 1994 to be somewhat below the U.S. The major reason for this downturn is will be a loss of jobs in the durable goods manufacturing sector, in particular the transportation equipment subsector, due to large layoffs at Boeing. As a result of this downturn in the rate of growth of employment, the state's unemployment rate will increase significantly, and personal income growth, especially the wages and salaries component, will slow.

#### The. National Outlook

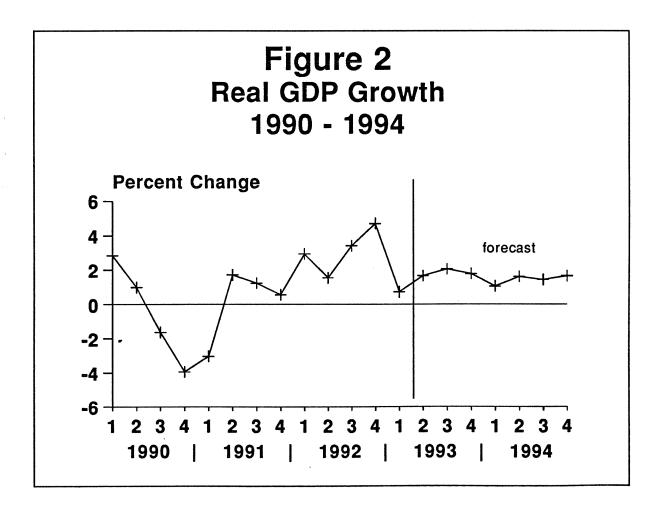
The national forecast presented below is based on the following major assumptions<sup>1</sup>:

1. Money supply growth as measured by M2 was very low by historical standards in both 1991 and 1992, reaching just 3.1 percent and 2.0 percent in those two years. M1, which had for many years grown more slowly than M2, grew faster during the period, 6.0 and 12.4 percent. Since for most of the period the Fed's announced targets involved M2, and since 1991 in particular was an immediately post recessionary period, it is difficult to know what to make of the behavior of the monetary aggregates. One possibility is that the Fed may have found itself with a great deal less control over the money supply, especially M2, than it would have liked. At any rate, it appears that the Fed has been moving away from money supply targets and toward interest rate targets in the period since the recession. With this in mind, we characterize our assumptions about monetary policy in terms of interest rate levels rather than money supply growth. assume that even though the growth of the economy will be very modest in 1993 and 1994, the Fed will have inflation as its primary focus. Thus, the appearance of even mild inflationary pressures should cause short-term interest rates to increase somewhat. As a result, we expect to see short term rates begin to increase slightly in the second half of 1993, and to continue to increase very gradually in 1994. Under this process, the three month Treasury bill rate, starting from a low of just under 3 percent in the second quarter of 1993, should reach 3.3 percent by the end of 1994. Corresponding to this interest rate behavior will be a cooling down of M1 growth, to 9.4 percent in 1993 and 5.0 percent in 1994. M2 growth will remain very low at 1.5 percent in 1993 and increase to 5.4 percent in 1994.

- 2. Our fiscal policy assumptions are roughly compatible with the House of Representatives version of the Clinton plan. This corresponds to a 4.7 percent decrease in real Federal government purchases of goods and services in 1993 and a further 2.3 decrease in 1994. These reductions will be accomplished through a 7.6 percent reduction in real Federal defense expenditures in 1993 and a further 5.3 percent reduction in 1994. Real nondefense purchases of goods and services are expected to increase 2.3 percent in 1993 and 4.2 percent on 1994. These real spending cuts will be one point of budget reduction in the plan. Other aspects will be 7.2 percent and 9.9 percent increase in federal personal tax collections, and a reduction in the rate of increase of transfer payments.
- 3. After reaching a high in the first quarter of 1993, the exchange rate<sup>2</sup> of the U.S. dollar is expected to drop during the second quarter and remain relatively stable throughout the forecast period. The stable exchange rate and lackluster performance of our major trading partners, are expected to lead to modest increases in real exports of 2.6 percent in 1993 and 3.5 in 1994.
- 4. Finally, imported oil prices took a big dip in the first quarter of 1993, but are expected to remain stable during the rest of 1993 and increase at a 1 percent annual rate during 1994.



Given these assumptions, the forecast is for U.S. real GDP to grow 2.3 percent in 1993 and 1.5 percent in 1994. Although the average annual growth rate for the two year period is less than two percent, it is still considerably above the average for the 1991-1992 period, as Figure 1 illustrates. Also included in Figure 1 is the contribution of the major components of GDP to overall growth. Then length of each bar in the figure indicates the percentage that GDP would have grown if that component grew (grows) at its historical (forecasted) rate, and every other component of GDP had remained constant. Thus the major components that are expected to drive the increase in GDP growth during 1993-1994 compared to 1991-1992 are consumption expenditures, business fixed investment, and, to a lesser extent, changes in business inventories. Government spending and the difference in growth rates between exports and imports,



however, will contribute less to the growth of GDP during the latter period than they did in the former.

The forecast of the quarterly path of GDP growth is illustrated in Figure 2. From that figure it is clear that much of the growth that is forecasted for 1993 arises because of a large growth in the fourth quarter of 1992. If we look at the average growth rate of GDP forecasted for the four quarters of 1993, 1.6 percent we see that the national economic forecast is for very weak growth, and the forecast for 1994 looks about the same. There is very little on the foreseeable economic horizon that suggests anything but minimal growth.

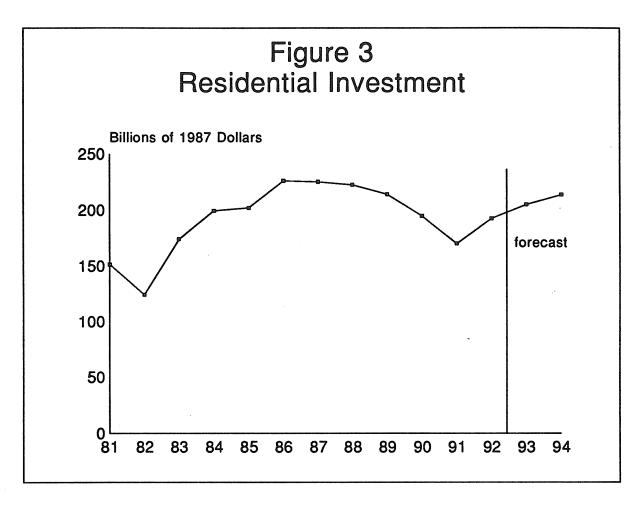
In an unusual turnaround, the forecasted growth in real personal consumption expenditures will be lead by increases in durable goods purchases. Durable goods purchases typically exhibit the most pronounced cyclical swings of all the categories of consumption expenditure, and this pattern continued during the recent recession; real consumer spending on durable goods fell slightly in 1990 as the recession took hold at the end of the year, and then dropped 5.6 percent in 1991 as consumers dealt with added uncertainty about the near-run future by postponing large expenditures. 1991 saw a rebound in consumer purchases of durable goods, as real spending increased 5.9 percent. Our forecast predicts that the process of catching up will continue in 1993 and 1994, with real consumer expenditures on durable goods increasing 5.7 percent and 4.5 percent respectively in those two years.. Much of the increase will come from big jumps in expenditures on new cars and related motor vehicle purchases, which fell 11 percent in 1991. Such spending began to rebound in 1992, growing 6.5 percent, and is expected to increase 5.6 percent in 1993 and 7.3 percent in 1994. Purchases of furniture and other household equipment are also expected to continue a strong rebound in 1993, growing 7.3 percent before tapering off to 2.7 percent growth in 1994.

Real consumer expenditures on nondurable goods is expected to grow much more modestly than expenditures on durable goods, a sign of the slow growth of the national economy. Although expenditures on nondurable goods held up reasonably well during the recession, declining only 1.3 percent in 1991,

the only year when their volume actually fell, they grew only 1.1 percent in 1992, and are expected to grow only 0.9 percent in 1993 and 0.5 percent in 1994. The fastest growing category of nondurable goods spending is expected to be food, increasing 1.2 percent in 1993 and 1.1 percent n 1993.. Spending on clothing and shoes is forecasted to grow 0.2 and 1.1 percent, while purchases of gasoline, fuel oil, and coal are expected to decline slightly over the forecast period.

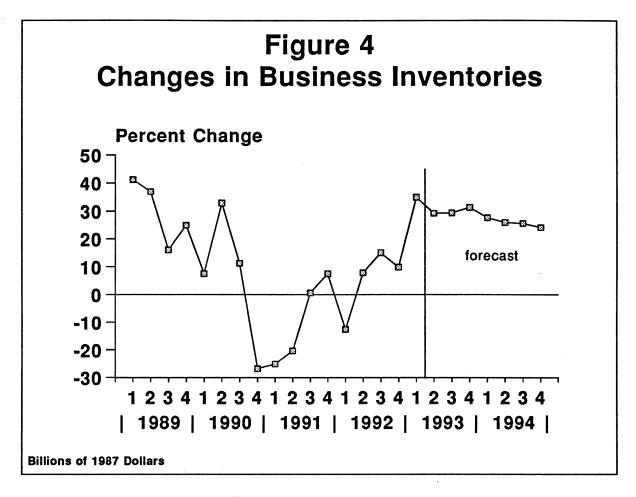
A further manifestation of the lackluster performance expected of the national economy is the predicted rate of growth of real consumer spending on services. In recent years consumer spending on services has been the fastest growing category of consumer expenditures. Although the forecasted growth rate of such spending, 2.3 percent in 1993 and 2.0 percent in 1994, is relatively strong in comparison to the predicted performance of the economy as a whole, it represents much slower growth than spending in this category has experienced in the last decade, and is not a great deal larger than the increases of 1.9 and 1.1 percent that occurred during the recession years of 1990 and 1991.

Another category of aggregate demand that tends to be highly cyclical is investment spending. Of the three major categories of investment spending, business fixed investment, changed in business inventories, and residential investment, the largest is business fixed investment, that is to say, business spending on new plant and equipment. As a result of declining aggregate demand at the end of 1990, business fixed investment leveled off in that year, and then fell sharply (7.1 percent) in 1991. The 1991 drop included a 4.6 percent decline in spending on equipment and a 12 percent drop in spending on structures. Although aggregate demand was growing in 1992, continued uncertainty about the strength of the recovery and the existence of excess capacity led to a restrained 3.0 percent growth in business fixed investment. As capacity becomes more heavily utilized and the moderate recovery continues, however, the forecast is for firms to make substantial additions to their capital stock, with business fixed investment increasing 8.7 percent in 1993 and 4.1 percent in 1994. All of this predicted increase is in spending on equipment, which is expected to grow 12.8 and 5.6 percent.



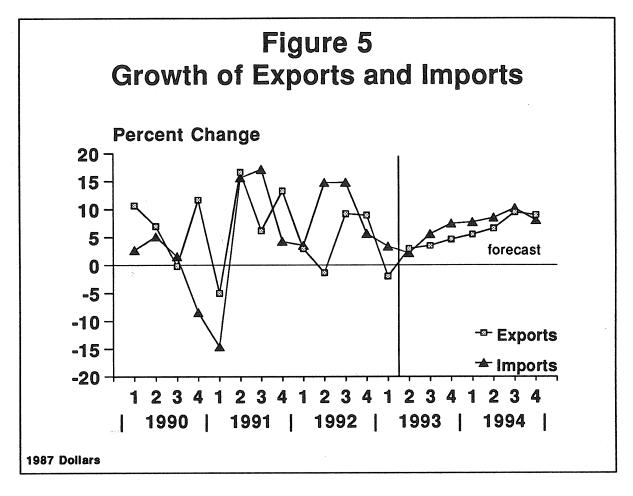
The cyclical nature of residential investment is evident in Figure 3, the downturns in the 1981-1982 and 1990-1991 periods corresponding to the general economic declines in those periods. As the figure illustrates, residential investment spending began to rebound in 1992, growing 13.1 percent, but still did not achieve its pre-recession levels. Our forecast is for real residential investment spending to increase a further 6.4 percent in 1993 and 4.3 percent in 1994. The level of real residential investment spending predicted for 1994 will put it at about 95 percent of its pre-recession maximum.

The most highly cyclical of all the investment spending categories is business spending on inventories. On average, firms tend to overreact to the business cycle in the sense that, during a downturn, they reduce production even more than their sales are reduced. This means that during a recovery, they tend to increase production even more than their sales are increased in order to replenish inventory stocks



that were drawn down during the recession. This pattern of behavior, which can be clearly observed in Figure 4, tends to increase the severity of swings in output over the business cycle. Figure 4 also illustrates a prominent feature of our forecast, namely the fact that the recovery is expected to continue at only a moderate pace. As can be seen, the forecasted levels of business additions to inventories, although substantial, are modest compared to pre-recession standards, and certainly do not achieve the sort of levels that would be associated with expectations of a boom period.

The U.S. trade deficit<sup>3</sup> reached a minimum in the second quarter of 1991, when real net exports were -\$17.4 billion. As Figure 5 shows, since that time real imports have routinely exceeded real exports, and the trade deficit has widened, reaching -\$41.8 billion in 1992. Our forecast is for exports to grow fairly slowly, as the economies of our trading partners continue to lag. We expect real exports to grow

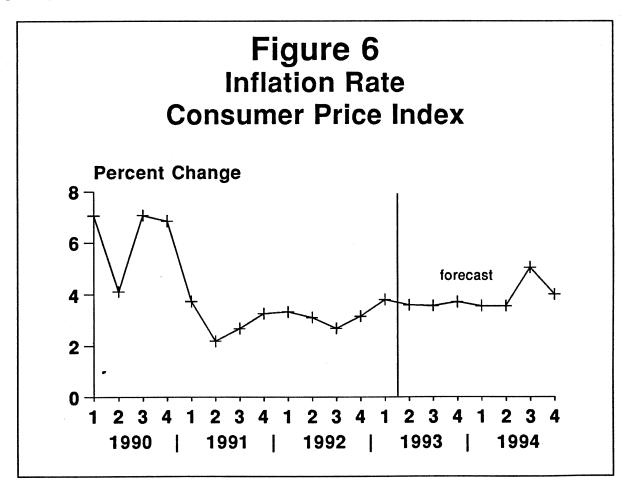


only 2.6 percent in 1993 and 3.5 percent in 1994. On the other hand, we expect real imports to grow 7.0 percent in 1993 and 4.6 percent in 1994, leading to trade deficit of -\$70.2 billion in 1993 and -79.5 billion in 1994.

Partly as a response to new budget cutting initiatives, we expect real Federal spending on goods and services to decline 4.7 percent in 1993 and 2.3 percent in 1994. This lack of fiscal stimulus on the spending side is one reason why the recovery will continue to be weak. Small increases in aggregate demand will come from spending by state and local governments, however, which is expected to grow 0.6 percent in 1993 and 1.2 percent in 1994.

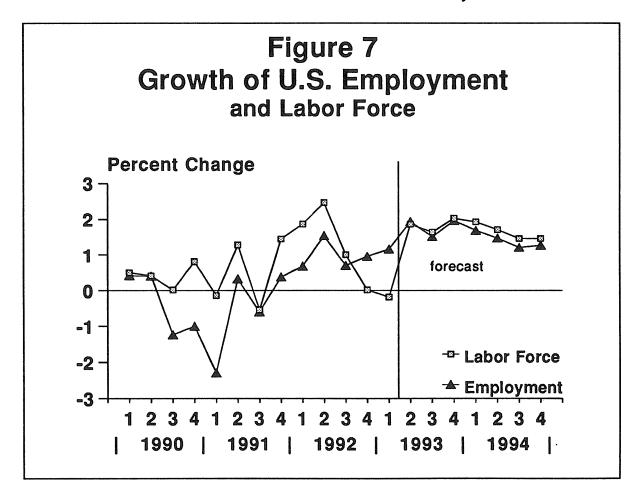
The growth of nominal personal income will reflect the overall performance of the economy, reaching 5.5 percent in 1993 and 5.2 percent in 1994. Given the fairly low levels of inflation expected

over the period, real personal income is expected to grow 2.5 percent on 1993 and 1.8 percent in 1994. The largest component of personal income, wages and salaries, is expected to grow only 4.8 and 4.4 percent during 1993 and 1994, reflecting slack conditions in the labor market. On the other hand, transfer payments are expected to grow 8.4 and 9.7 percent. Personal tax and nontax payments are expected to grow 6.5 percent in 1993 and 8.6 percent in 1994, thus reducing the rate of growth of disposable personal income below the rate of growth of personal income in those years. Corrected for inflation, disposable personal income is expected to grow 2.3 percent in 1993 and 1.3 percent in 1994, enough growth to support some increases in real personal consumption spending, but not enough to lift consumption spending to levels that would drive the economy into a booming recovery.



Since aggregate demand will be growing only slowly, inflationary pressures should remain

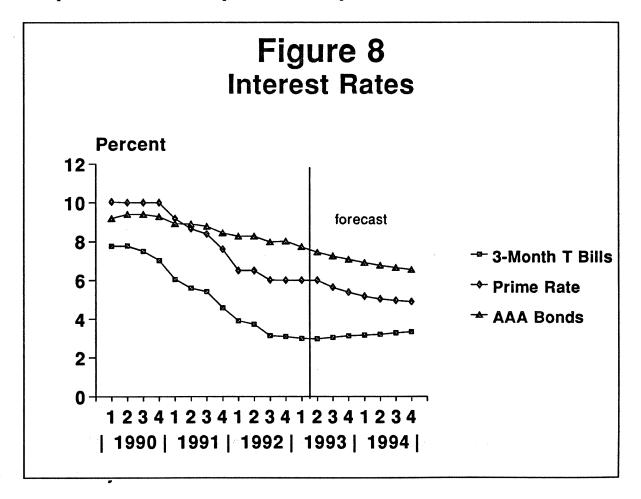
moderate over the forecast period, with the consumer price index growing 3.4 percent in 1993 and 3.8 percent in 1994. This is only slightly faster than the 1992 rate increase of 3.0 percent, which was the lowest in several years. Even inflation rates such as these, however, which are very low relative to recent historical rates, appear to be of concern to the Federal Reserve Board, and it is still indicating more concern about the rate of inflation than about the rate of economic recovery.



The quarterly pattern of the inflation forecast is shown in Figure 6. The smallest price increases in the forecast are for food and beverages, which are expected to be 2.1 percent in 1993 and 2.2 percent in 1994. Housing costs are expected to increase 3.1 and 4.2 percent in the same two years, while costs of transportation are expected to increase 3.8 and 3.6 percent. As usual the highest rate of price increases will be in the category of medical care, with increases of 6.2 and 5.7 percent, but even these rates would

be the lowest that have been seen in this category for years.

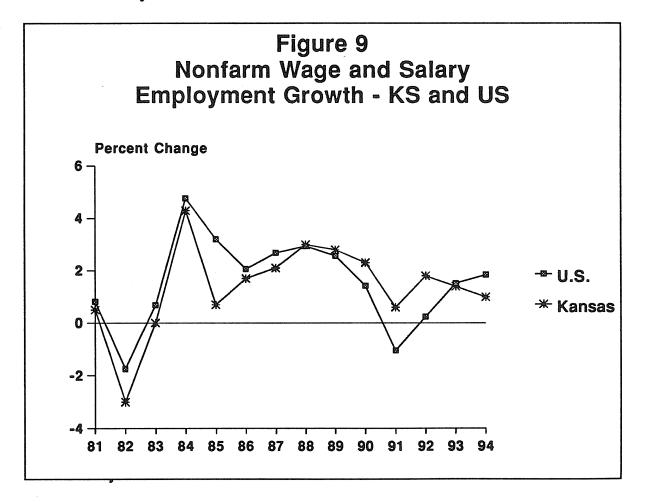
The forecast for the civilian labor force and employment is shown in Figure 7. The figure clearly shows that the expected rate of economic growth will not be sufficient to reduce the unemployment rate, as the labor force and employment are growing at nearly the same rate over the forecast period. If anything, the unemployment rate should creep up slightly over the period, going from 7.0 percent in the second quarter of 1993 to over 7.2 percent in the last quarter of 1994.



The interest rate forecast is shown in Figure 8. The dramatic drop in short-term interest rates that has occurred since the recognition of the recession is expected to end in early 1993. With the Federal Reserve Board continuing to express concerns about potential inflation, those rates should begin to climb during the second half of 1993 and go from a bottom of 3.0 percent in the second quarter of 1993 to 3.3

percent by the end of 1994. The prime rate, however, is expected to continue fall, from 6.0 percent in the second quarter of 11992 to 4.9 percent by the end of 1994. Long-run rates, as represented by the Moody AAA bond rate in our forecast, are also expected to fall throughout the forecast period, dropping form 7.4 percent in the second quarter of 1993 to 6.5 percent by the end of 1994, as inflationary concerns continue to recede.

#### The Kansas Economy



The Kansas economy, partly because of developments in the durable goods manufacturing sector, will experience a modest slowdown in 1993 and 1994. Figure 9 gives a comparison of the historical and forecasted growth rates of nonfarm wage and salary employment in the U.S. and Kansas. As can be seen, beginning with the onset of the recession in 1990, employment growth has been significantly greater in

Kansas than in the U.S. over the past three years. For reasons elaborated on below, our forecast is for that gap to disappear in 1993 and for the growth of jobs in the U.S. to slightly exceed the growth of jobs in Kansas in 1994. The forecasted rate of increase of nonfarm wage and salary employment for Kansas is 1.4 percent in 1993 and 1.0 percent in 1994.

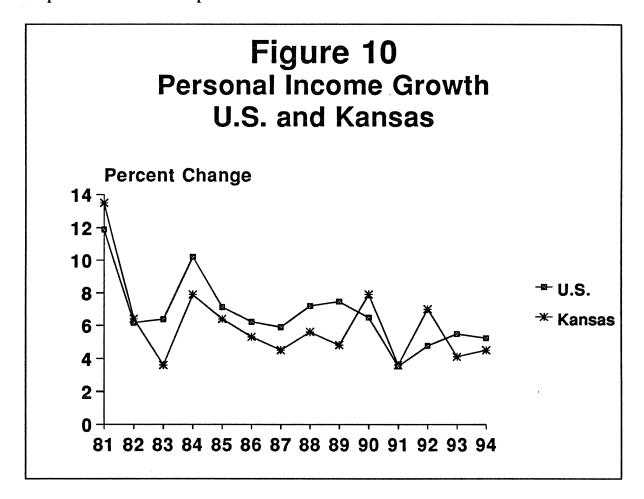
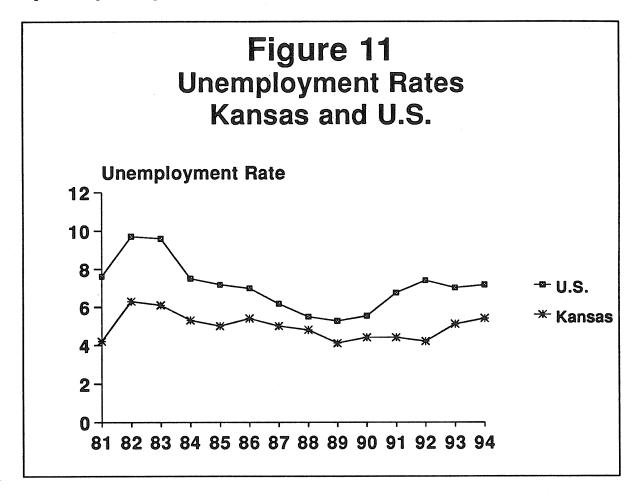


Figure 10 shows a comparison of Kansas and U.S. nominal personal income growth. Once again we see that the growth of personal income in Kansas over the past three years equaled or exceeded that of personal income in the nation. Just as in the case of employment, however, we expect to see that trend disappear over the next two years, as the Kansas economy slows somewhat. The forecasted rates of growth for personal income in Kansas are 4.1 percent in 1993 and 4.5 percent in 1994, about one

percentage point below the U.S. average for the period. Corrected for inflation, Kansas personal income is expected to grow 1.1 percent in both 1993 and 1994.



In Figure 11, we compare the Kansas and U.S. unemployment rates. As the figure clearly illustrates, the measured unemployment rate in Kansas historically is significantly lower than the U.S. unemployment rate. The unemployment rate comparison that tells the most about the relative performance of the two economies is, therefore, the size of the gap between the two. If we focus on this feature, we see a pattern that is consistent with the conclusions that we drew from the employment and personal income forecasts. The widening gap in the 1990-1992 period is consistent with the fact that the Kansas economy was outperforming the U.S. during the period, while the narrowing gap in 1993 and 1994 is consistent with the interpretation of a forecast of slightly underperforming the U.S. economy.

Table 3
Kansas Employment Growth Breakdown

	1992	1993	1994
Mining	-8.1	-6.5	-1.7
Construction	6.7	3.6	1.6
Durable Goods Manufacturing	-2.0	-3.8	-2.2
Nondurable Goods Manufacturing	0.0	1.1	0.7
Transportation and Utilities	-0.7	1.3	1.1
Wholesale Trade	0.8	1.6	1.5
Retail Trade	1.3	2.9	1.2
Finance, Insurance and Real Estate	-0.8	0.8	-1.0
Services	4.2	2.3	2.3
State and Local Government	3.4	2.2	1.8
Federal Government	2.0	-1.2	-1.8
Farm	-3.8	2.8	-2.5

The breakdown by major sector of the employment forecast for Kansas is shown in Table 3. Due to the relative stability of world oil prices over the past several years, Kansas mining employment, which is mostly in the oil and gas extraction subsector, has had a pattern of gradual decline. With one exception, employment in this sector has declined every year since 1984. The exceptional year was 1990, when employment in the Kansas mining sector grew 6.7 percent, in response to fairly large increases in oil

prices that occurred in 1989 and again in 1990. We project imported oil prices to increase only about three percent per year over the forecast period, leaving the price deflator for petroleum and petroleum products only 12 to 15 percent above its 1987 level. Given the relatively small rate of increase and low level of oil prices, our forecast is for mining employment to continue its gradual decline in 1993 and 1994.

Low interest rates and a reasonably healthy state economy led to a growth of 6.7 percent in construction employment in 1992. This is only the second year of growth in the industry since its peak employment year of 1987, and the 1992 level of employment was still nearly 1000 jobs less than it was during that earlier year. Our forecast of continued low interest rates indicates a continuation of employment growth in the industry in 1993 and 1994, although some weakening in personal income growth over the period will reduce growth rates somewhat from 1992. We forecast construction employment to grow 3.6 percent in 1993 and 1.6 percent in 1994.

The sector of the Kansas economy that seems to have been hit hardest by the recession is durable goods manufacturing. The last year of significant growth in the sector was 1989 when employment grew 2.2 percent, following an even stronger 3.8 percent growth in 1988. As the effects of the recession began to be felt in 1990, growth slowed to a mere 0.7 percent. When the full effects of the recession were felt in 1991 and 1992, employment in durable goods manufacturing declined by 2 percent a year. Unfortunately, the hard times for this sector appear to be far from over. Due in large part to large employment decreases in the transportation equipment subsector, employment in durable goods manufacturing is expected to fall 3.8 percent in 1993, and another 2.2 percent in 1994. This represents a loss of nearly 8500 jobs in this sector compared to its 1991 level. The transportation equipment subsector of durable goods manufacturing saw its last year of significant employment growth, 5.5 percent, in 1989. This was followed by lackluster 0.3 percent growth in 1990, and 1.3 percent and 1.2 percent decreases in 1991 and 1992. Largely as a result of problems faced by the aircraft producing subsector, in particular Boeing, employment in transportation equipment is expected to decline 8.8 percent in 1993

and a further 2.6 percent in 1994. This represents a decrease of 6000 workers from 1991 to 1994 in this subsector alone. Other, smaller, subsectors of durable goods manufacturing are expected to experience slight employment declines in 1993 and 1994, including stone, glass, and clay; fabricated metals; and machinery, including electrical. Primary metals, which accounts for only about 3 percent of the employment in durable goods manufacturing, will see some employment growth over the period.

The situation is somewhat better in nondurable goods manufacturing. Even during 1990 and 1991, the years of the biggest effects from the national recession, employment in nondurable goods manufacturing grew 1.0 and 0.4 percent. Although the sector experienced no employment growth in 1992, it is expected to grow 1.1 percent in 1993 and 0.7 percent in 1994. The sector will be led by the food and kindred products sector, in which employment is forecasted to grow 3.2 percent in 1993 and 2.5 percent in 1994. Employment in this subsector makes up a little more than a third of total nondurable goods manufacturing employment. The printing and publishing subsector will also contribute to the strength of nondurable goods manufacturing, growing 0.3 percent in 1993 and 1.3 percent in 1994. Employment in chemicals and allied products; petroleum and coal; and apparel is expected to decline slightly over the forecast period.

Although the transportation and utilities sector has recently been one of the weaker sectors in the Kansas economy, with employment declining in 1990, 1991, and 1992, it is forecasted to grow 1.3 percent in 1993 and 1.1 percent in 1994. Two factors account for the upswing: first, the rate of decline of employment in railroads is expected to be smaller than in recent years, and second, employment in trucking and warehousing, and electric and sanitary services is expected to be moderately strong.

Wholesale and retail trade are also expected to exhibit solid growth. Wholesale trade employment is expected to grow 1.6 percent in 1993 and 1.5 percent in 1994. Employment in retail trade is expected to grow 2.9 percent in 1993 and 1.2 percent in 1994. The strongest growth within retail trade will occur in general merchandise stores and food stores. Employment in auto dealers and gas stations, and apparel

and accessory stores will decline slightly.

The performance of the finance, insurance, and real estate sector is expected to be relatively flat over the forecast period, growing 0.8 percent in 1993 and declining 1.0 percent in 1994. Employment in banking is expected to decline somewhat over the forecast period, while employment in insurance is expected to grow moderately.

A sign of a slowdown in the Kansas economy is the growth of employment in the services sector. Although the forecasted rate of growth in services of 2.3 percent per year is well above the average rate of growth of employment in the state economy as a whole, it is well below the average rate of growth of services employment in Kansas over the last several years. Between 1987 and 1992, the average annual growth rate of services employment was 5.0 percent, so that the forecasted rate of growth is less than half of the average during the last six years. Employment in hotels and lodging is expected to decline slightly during 1992 and 1994, while employment in personal services is expected to grow modestly.

Federal government employment is expected to decline 1.5 percent in 1993 and grow 2.0 percent in 1994. State and local government employment, which accounts for about 17 percent of total jobs in the Kansas economy, is forecasted to continue growing, although at rates slightly below its recent historical average. The 2.2 percent growth forecasted for 1993, and the 1.8 percent growth forecasted for 1994 are both below the average annual growth of 2.8 percent in this sector over the last six years.

The forecast is for farm employment to increase 2.8 percent in 1993 and decrease 2.5 percent in 1994. This compares somewhat favorably to the average 2.8 percent decrease in farm employment over the past 6 years.

The breakdown of the personal income forecast for Kansas is shown in Table 4. Because of the very mild inflation that is predicted for the forecast period, the forecasted 4.1 percent and 4.5 percent increases in personal income still translate into real personal income gains. Corrected for inflation, personal income will grow 1.1 percent in both 1993 and 1994. The slowdown in the Kansas economy

Table 4
Kansas Personal Income Growth Breakdown

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is reflected in the relatively small growth forecasted for wages and salaries, 3.7 percent and 4.0 percent for 1993 and 1994, respectively. For the purpose of comparison, we note that from 1987 through 1992, a period that included a national recession, the average annual growth rate of wages and salaries in Kansas was 5.3 percent.

Nonfarm proprietors' income is expected to grow 9.2 percent in 1993 and 5.4 percent in 1994. As evidenced by the 126 percent growth in 1992, farm proprietors' income is a highly volatile part of Kansas personal income. In fact, during the last six years, growth in farm proprietors' income has ranged from a high of 126 percent to a low of -47 percent. This extreme variability in farm proprietors' income makes it very difficult to forecast reliably. Although our forecast is for modest declines in 1993 and 1994, this would still keep its level relatively high by recent historical standards. Since forecasts of farm

proprietors' income are so much less reliable than the forecasts of other categories of personal income, it makes sense to calculate forecasts for personal income less farm proprietors' income. If we do so, we find that personal income less farm proprietors' income grew 5.2 percent in 1992, and is forecasted to grow 4.5 percent in 1993 and 4.8 percent in 1994. This illustrates the degree to which the variability in farm proprietors' income introduces variability to the forecasts of personal income.

A big decline in interest rates in 1992 led to a fall in personal income received through dividends, interest, and rents. Although interest rates are expected to be slightly lower on average in 1993 than 1992, the difference will not be great enough to cause a further decline in dividend, interest, and rental income, which should grow a modest 1.5 percent in 1993. Slight increases in interest rates in 1994 will lead to a 3.0 percent increase in personal income from this category. Personal contributions for social insurance, a deduction from personal income, is expected to experience stable growth of just less than six and a half percent over the forecast period. Income from transfer payments is expected to grow 8.2 percent and 9.5 percent in 1993 and 1994, respectively, while other labor income will grow 6.6 percent and 5.7 percent.

#### Conclusion

Growth of the national economy in 1993 and 1994 will be driven by the domestic private sector, in particular by consumer spending on durable goods and business spending on new equipment. A strong focus on reducing the budget deficit effectively limits fiscal policy as a source of growth, while a concern for limiting inflation rather than stimulating growth eliminates money supply increases as a stimulus. Furthermore, economic weakness among our trading partners removes any hope of growth through increased demand from abroad. Moderate growth in aggregate demand means that inflation will increase only slightly, but at the same time it means that the unemployment rate will probably increase slightly. Finally, short-term interest rates have probably bottomed out, but long-term rates should continue to fall

gradually, reflecting reduced inflationary expectations.

The run during which the Kansas economy has outperformed the national economy appears to be coming to an end, largely due to a reduction in employment in the durable goods manufacturing sector. Nevertheless, it appears that there will still be job and real income growth in the state in 1993 and 1994, even while adjustments are taking place.

#### 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. National Income and Product Accounts basis.
- 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**

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GNP AS EXPENDITURE - 1982 DOLLARS	199301	199392	199393	199394	199491	199492	199493	199404	1993	1994
US: Gross Domestic Product Percent Change From Last Qtr (AR)	6.999.9 0.7	5020.6	5046.1 2.0	5068.4 1.8	5081.6	5101.8 1.6	5119.8 1.4	5140.8 1.6	5033.7 2.3	5111.0 1.5
US: Personal Consumption Expend. Percent Change From Last Qtr (AR)	3366.5 0.8	3383.3 2.0	3398.2 1.8	3414.5 1.9	3428.1 1.6	3445.1 2.0	3460.8 1.8	3478.2 2.0	3390.6 2.3	3453.1 1.8
US: Per. Con. ExpDurables Percent Change From Last Qtr (AR)	453.5 -0.8	461.5	467.8 5.5	473.7 5.2	478.3	483.2 4.1	487.2	491.1	464.1	484.9 4.5
US: PCE-Nondurables Percent Change From Last Qtr (AR)	1062.2 -2.7	1062.7 0.2	1063.1 0.2	1064.5 0.5	1065.1 0.2	1067.2 0.8	1069.2 0.7	1071.9	1063.1 0.9	1068.3 0.5
US: PCE-Services Percent Change From Last Qtr (AR)	1850.8 3.2	1859.0 1.8	1867.2 1.8	1876.3 2.0	1884.7 1.8	1894.7 2.1	1904.5	1915.2 2.3	1863.3 2.3	1899.8 2.0
US: Fixed Nonresidential Invest. Percent Change From Last Qtr (AR)	547.5 13.1	555.2	565.1 7.4	571.5 4.6	575.9 3.1	580.7 3.4	585.7 3.5	589.8	559.8 8.7	583.0 4.1
US: Producers Durable Equipment Percent Change From Last Gtr (AR)	403.5	412.4	420.2 7.8	425.9 5.5	430.9	436.2 5.0	441.5 5.0	446.1	415.5 12.8	438.7 5.6
US: Investment in Structures Percent Change From Last Qtr (AR)	144.0	142.8	144.9	145.7	145.0 -1.8	144.5	144.2 -0.9	143.6 -1.6	144.3	144.3
US: Residential Investment Percent Change From Last Qtr (AR)	203.0	203.4	205.3	208.2	210.6	212.8	214.9 4.2	216.7	205.0	213.7

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.

	199301	199302	199303	199304	199401	1994a2	199403	199404	1993	1994
US: Change in Bus. Inventories	33.5	21.4	21.9	23.2	20.5	19.1	18.6	17.5	25.0	18.9
US: Change in Farm Inventories	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0
US: Change in Nonfarm Inv.	30.5	19.4	21.9	23.2	20.5	19.1	18.6	17.5	23.8	18.9
US: Net Exports Percent Change From Last Qtr (AR)	-70.3 323.7	-67.9	-69.4 9.7	-73.1 22.5	-75.7 15.5	-78.3 14.1	-82.1 21.1	-81.9	-70.2 68.0	-79.5 13.3
US: Total Exports Percent Change From Last Qtr (AR)	584.2 -2.8	586.0 1.2	588.9	592.6 2.5	597.6 3.5	604.1	612.1 5.4	621.0 5.9	587.9 2.6	608.7 3.5
US: Total Imports Percent Change From Last Qtr (AR)	654.5	653.9 -0.4	658.4 2.8	665.6	673.4 4.7	682.4 5.5	694.3	702.8	658.1 7.0	688.2 4.6
US: Total Government Purchases Percent Change From Last Qtr (AR)	919.6	925.2 2.5	925.0	924.0 -0.4	922.4	922.4	921.8 -0.2	920.5 -0.6	923.4 -1.5	921.8 -0.2
US: Fed. Govt. Purchases Percent Change From Last Qtr (AR)	357.0 -17.9	360.3 3.8	358.5 -2.0	355.9 -2.9	352.7 -3.6	351.1 -1.8	348.9	345.9	358.0 -4.7	349.7 -2.3
US: Fed. Defense Purchases Percent Change From Last Gtr (AR)	245.9 -25.9	247.7	244.7	241.0 -6.0	236.6 -7.1	233.8	230.1	226.9	244.8 -7.6	231.8 -5.3
US: Fed. Nondefense Purchases Percent Change From Last Gtr (AR)	111.1	112.7 5.8	113.8 4.0	115.0	116.1	117.3	118.8	119.0	113.1	117.8
US: State and Local Govt. Purch. Percent Change From Last Qtr (AR)	562.6	564.9	566.4	568.1 1.2	569.7	571.3	572.9	574.6 1.1	565.5 0.6	572.1 1.2

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.

ăi	search, Ur 1993q1	Research, University of 1993a1 1993a2	of Kansas 1993q3	1993-1994 199394	US Forecast 1994q1	st 199402	199403	199494	21JUL93 1993	A3 1994
	6145.8	6209.8	6271.2	6334.6	6384.0	6442.9	6522.5	6593.9	6240.3	6485.
	4234.7	4288.7 5.2	4341.5 5.0	4398.2 5.3	4450.3 4.8	4507.3 5.2	4576.9 6.3	4642.2 5.8	4315.8 5.4	4544
	498.8	508.2 7.8	515.8 6.2	523.7 6.3	530.3 5.1	537.2 5.3	544.4	551.0 4.9	511.6 6.5	540.7 5.7
	1320.8 0.7	1328.6 2.4	1334.3	1342.3 2.4	1348.7 1.9	1357.3 2.6	1373.1	1384.6 3.4	1331.5 3.2	1365.9
	2415.1 6.5	2451.9 6.2	2491.4 6.6	2532.2 6.7	2571.3 6.3	2612.9 6.6	2659.4 7.3	2706.5 7.3	2472.7 6.4	2637.5 6.7
	573.8 8.6	576.3 1.8	581.3 3.5	583.2 1.3	582.6 -0.4	582.4 -0.1	584.6 1.5	584.4 -0.1	578.6 5.5	583
	405.8 11.3	408.7	410.4	410.3	409.6 -0.8	409.0	8.09.8 0.8	409.0 -0.8	408.8 7.6	409.4
	168.0	167.6	170.9 8.2	172.8 4.5	173.0 0.4	173.4 0.9	174.7 3.2	175.4	169.8 0.9	174.
	235.2 5.8	3.3	240.5	245.3 8.2	249.4	253.4	258.4	262.5 6.4	239.5	255.9

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

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

	199301	199302	199393	199304	199401		1994a3	199494		1994
US: Gross Domestic Product Percent Change From Last Qtr (AR)	6145.8 4.3	6209.8 4.2								6485.8 3.9
US: Cap. Cons. Allow. with Adj. Percent Change From Last Qtr (AR)	661.2	671.6 6.5								716.2 5.9
US: Cap. Cons. Allow w/o Adj. Percent Change From Last Qtr (AR)	640.0	650.4 6.7	659.8 5.9	669.8	679.3 5.8	688.8 5.7	700.7	711.2	655.0 5.8	695.0 6.1
US: Cap. Cons. Adjustment, Total Percent Change From Last Qtr (AR)	-21.2 61.7	-21.2								-21.2 0.0
US: Net National Product Percent Change From Last Qtr (AR)	5499.3	5552.8 4.0								5784.4 3.7
US: Indirect Business Taxes Percent Change From Last Qtr (AR)	523.0 3.1	530.6								575.0 7.6
US: Business Transfer Payments Percent Change From Last Qtr (AR)	29.7 -2.6	30.3								32.1 5.5
US: Statistical Discrepency	43.4	43.4								43.4
US: Sub. less Cur. SurGov. E. Percent Change From Last Qtr (AR)	16.3 1461.3	10.4 -83.4								5.5
US: National Income Percent Change From Last Qtr (AR)	4919.5	4959.1 3.3								5139.6 3.2

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	199301	199392	199303	199304	199401		199403			1994
US: Corp. Prof. w. IVA + CCADJ Percent Change From Last Qtr (AR)	429.6		408.8 0.3	397.5 -10.6	369.1 -25.7		353.5 -6.4			358.5 -12.8
US: Net Interest Percent Change From Last Qtr (AR)	402.0 -1.6		402.6	406.2	410.1		418.0			416.0
US: Cont. to Soc. InsTotal Percent Change From Last Gtr (AR)	572.4 7.2	580.0 5.4	585.4 3.8	592.0 4.6	607.7 11.0	613.8 4.1	619.9	626.5	582.4 5.2	617.0 5.9
US: Wage Accruals less Disburs.	0.9-		0.0	0.0	0.0		0.0			0.0
US: Govt. Trans. to PersTotal Percent Change From Last Qtr (AR)	884.8 10.5		921.8 9.6	943.2	965.5 9.8		1014.6 11.0			1002.0 9.8
US: Personal Interest Income Percent Change From Last Qtr (AR)	4.959 -0.8		658.6 1.8	663.7 3.1	668.4		678.2 3.0			675.5 2.6
US: Personal Dividend Income Percent Change From Last Gtr (AR)	149.9		154.4	156.6 5.9	158.6		162.4			161.4 5.3
US: Personal Income Percent Change From Last Qtr (AR)	5237.6 6.1		5362.3	5436.9 5.7	5507.0 5.3		5649.9			5614.4 5.2

199301	199302	199303	199304	199401	199402	199403	199404	1993	15
<b>U</b> 1	5304.1 5.2	5362.3 4.5	5436.9	5507.0 5.3	5578.2	5649.9	5722.5 5.2	5335.2 5.5	5614.4 5.2
3005.8 .R) 4.9	3045.5	3073.7 3.7	3110.0 4.8	3144.4	3177.4	3210.9 4.3	3245.1 4.3	3058.7 4.8	
	322.2 7.4	326.0 4.8	330.7 5.9	335.2 5.5	339.5 5.3	343.9	348.3 5.3	323.9 5.9	
	442.1 0.2	443.4	6.644 6.0	457.6 7.0	464.1 5.7	466.4	471.1	6.6	
	46.7	41.8 -35.8	41.8 -0.1	44.1	44.5	40.8	39.1 -16.3	45.8 15.8	
	395.4	401.6	408.1	413.5 5.4	419.6 6.0	425.6	432.0 6.2	398.5 9.2	
	24.2 249.4	25.2 17.6	26.2 16.8	27.2 16.2	28.2	29.2 15.0	30.2 14.4	23.3 396.3	
	655.7 -0.4	658.6 1.8	663.7 3.1	668.4	673.2 2.9	678.2 3.0	682.4 2.5	658.6 -1.7	
	152.1 6.0	154.4	156.6 5.9	158.6 5.1	160.5 4.8	162.4 4.8	164.2 4.6	153.3	
909.9 R) 10.2	926.6 7.5	947.8	969.7	992.4	1015.7 9.8	1042.3 10.9	1067.7 10.1	938.5	
	IS: Personal Income Percent Change From Last qtr (AR)  S: Wage and Salary Disburse.  IS: Wage and Salary Disburse.  IS: Other Labor Income IS: Other Labor Income IS: Total Proprietors Inc.  IS: Farm Proprietors Inc.  IS: Farm Proprietors Inc.  IS: Farm Proprietors Inc.  IS: Nonfarm Proprietors Inc.  IS: Nonfarm Proprietors Inc.  IS: Nonfarm Proprietors Inc.  IS: Rental Income of Persons IS: Rental Income of Persons IS: Personal Interest Income IS: Personal Interest Income IS: Personal Dividend Income IS: Total Transfer Payments  IS: Total Transfer Payments  IS: Total Transfer Payments  IO: 10.2	5237.6 5 6.1 6 7.05.8 3 16.5 5 6.4.9 13.2 6 7.7.7 186.9 656.4 656.4 609.9 11.7 11.7	5237.6 5304.1 5.2 6.1 5.2 6.1 5.2 6.1 5.2 6.1 5.2 6.4 6.9 5.4 7.4 6.1 9.4 6.7 6.7 6.3 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	5237.6 5304.1 5362.3 6.1 5.2 4.5 4.5 6.1 5.2 4.5 4.5 6.5 6.9 6.5 6.9 6.5 6.9 6.5 6.9 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5	5237.6 5304.1 5362.3 6.1 5.2 4.5 4.5 4.9 5.4 3.7 3.05.8 3045.5 3073.7 3.6 5.6 6.8 7.4 442.1 443.4 13.2 0.2 1.2 52.9 46.7 41.8 46.3 -39.2 -35.8 389.0 395.4 401.6 9.4 6.7 6.5 6.5 17.7 24.2 25.2 186.9 249.4 17.6 6.5 17.6 6.5 17.7 24.2 25.2 186.9 249.4 17.6 6.5 17.6 6.5 17.6 6.5 17.7 6.0 6.2 909.9 926.6 947.8 10.2 7.5 9.5	5237.6       5304.1       5362.3       5436.9       5507.0         6.1       5.2       4.5       5.7       5.3         5.4       5.4       3.7       3110.0       3144.4         4.9       5.4       3.7       4.8       4.5         5.6       7.4       4.8       4.6.9       4.57.6         441.9       442.1       443.4       449.9       457.6         13.2       0.2       1.2       6.0       7.0         52.9       46.7       41.8       41.8       44.1         46.3       -39.2       -35.8       -0.1       24.3         52.9       46.7       41.8       44.1       44.1         46.3       -35.2       -35.8       -0.1       24.3         52.9       46.7       401.6       408.1       413.5         9.4       6.7       6.5       6.6       5.4         17.7       24.2       17.6       16.8       16.2         186.9       249.4       17.6       16.8       16.2         169.9       -0.4       1.8       3.1       2.9         149.9       152.1       154.4       156.6       158.6	5237.6       5304.1       5362.3       5436.9       5507.0       5578.2         6.1       5.2       4.5       5.7       5.3       5.3         3005.8       3045.5       3073.7       3110.0       3144.4       3177.4         4.9       5.4       4.5       4.5       4.5         441.9       442.1       443.4       449.9       457.6       464.1         13.2       46.7       41.8       44.9       457.6       464.1         46.3       -39.2       -35.8       -0.1       24.3       44.5         46.3       -39.2       -35.8       -0.1       24.3       44.5         46.3       -39.2       -35.8       -0.1       24.3       3.2         52.9       -36.6       44.1       44.5       44.5         46.3       -39.2       -35.8       -0.1       24.3       3.2         52.9       -39.2       -35.8       -0.1       24.3       3.2         186.9       249.4       401.6       408.1       413.5       419.6         656.4       655.7       658.6       663.7       668.4       673.2         -0.8       -0.4       156.6       5.9 <td>5237.6         5304.1         5362.3         5436.9         5507.0         5578.2         5649.9           6.1         5.2         4.5         5.7         5.3         5.3         5.2         569.9           6.1         5.2         4.5         5.7         5.3         5.3         5.2         5.2         5.2         5.2           3005.8         3045.5         3073.7         3110.0         3144.4         417.4         417.4         417.4         417.4         417.4         41.3         41.3         41.3         41.3         41.3         41.3         41.3         41.3         41.3         41.3         41.3         41.4</td> <td>5237.6         5304.1         5362.3         5456.9         5507.0         5578.2         5649.9         5722.5           3005.8         3065.8         3073.7         3110.0         3144.4         3177.4         3210.9         3265.1           316.5         322.2         326.0         330.7         335.2         339.5         343.9         4.3           441.9         442.1         443.9         457.6         464.1         466.4         471.1           13.2         46.3         41.8         44.9         457.6         464.1         466.4         471.1           441.9         46.3         42.9         457.6         464.1         466.4         471.1           441.9         442.9         457.6         464.1         466.4         471.1           46.3         40.8         40.9         457.6         464.1         466.4         471.1           46.3         46.3         40.8         40.9         47.0         471.1         471.1           46.3         46.7         46.0         47.0         47.1         466.4         471.1           46.3         40.8         40.8         40.1         40.1         40.1         40.1         40.1&lt;</td>	5237.6         5304.1         5362.3         5436.9         5507.0         5578.2         5649.9           6.1         5.2         4.5         5.7         5.3         5.3         5.2         569.9           6.1         5.2         4.5         5.7         5.3         5.3         5.2         5.2         5.2         5.2           3005.8         3045.5         3073.7         3110.0         3144.4         417.4         417.4         417.4         417.4         417.4         41.3         41.3         41.3         41.3         41.3         41.3         41.3         41.3         41.3         41.3         41.3         41.4	5237.6         5304.1         5362.3         5456.9         5507.0         5578.2         5649.9         5722.5           3005.8         3065.8         3073.7         3110.0         3144.4         3177.4         3210.9         3265.1           316.5         322.2         326.0         330.7         335.2         339.5         343.9         4.3           441.9         442.1         443.9         457.6         464.1         466.4         471.1           13.2         46.3         41.8         44.9         457.6         464.1         466.4         471.1           441.9         46.3         42.9         457.6         464.1         466.4         471.1           441.9         442.9         457.6         464.1         466.4         471.1           46.3         40.8         40.9         457.6         464.1         466.4         471.1           46.3         46.3         40.8         40.9         47.0         471.1         471.1           46.3         46.7         46.0         47.0         47.1         466.4         471.1           46.3         40.8         40.8         40.1         40.1         40.1         40.1         40.1<

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199404	737.3	4985.2 5.4	4642.2 5.8	110.5	11.0	221.6	3735.1 1.6	7.4
199403	729.8	4920.1 5.4	4576.9 6.3	111.3	11.0	220.9	3720.2 1.0	4.5
199402	722.6	4855.6	4507.3 5.2	111.5	11.0	225.8 4.5	3711.1 1.8	4.6
199401	710.6 18.8	4796.4	4450.3 4.8	111.8	11.0	223.3 -18.4	3694.9 0.3	4.7
199304	680.7 6.5	4756.2 5.6	4398.2 5.3	112.0 0.1	11.0	234.9	3692.3 2.2	6.4
199303	670.1 3.5	4692.3	4341.5 5.0	112.0	11.0	227.7 0.5	3672.5 1.4	6.9
199302	664.4 5.2	4639.7 5.2	4288.7 5.2	112.6	11.0	227.4 8.4	3660.1 2.0	4.9
199301	656.0 7.9	4581.7 5.8	4234.7	113.0	11.0	222.9	3642.3	6.4
	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.

iness	Research, University of	iversity o	f Kansas	1993-1994	US Forecast	st			21 JUL 93	<b>A9</b>
NATIONAL INCOME - CURRENT DOLLARS	199301	199302	199303	199304	199401	199402	199403	199404	1993	1994
US: National Income Percent Change From Last Qtr (AR)	4919.5 5.2	4959.1	4998.6	5042.7 3.6	5074.1 2.5	5116.2 3.4	5158.8 3.4	5209.1 4.0	4980.0 5.0	5139.6 3.2
US: Wages and Salaries • Percent Change From Last Gtr (AR)	2999.8	3045.5 6.2	3073.7 3.7	3110.0 4.8	3144.4 4.5	3177.4	3210.9 4.3	3245.1 4.3	3057.2 4.8	3194.4
US: W. and SGovt. + Govt. Ent. Percent Change From Last Qtr (AR)	578.2 6.2	582.9	586.2 2.3	589.5	592.8 2.3	596.2 2.3	599.5	602.9	584.2	597.9 2.3
US: W. and SOther Percent Change From Last Qtr (AR)	2421.6 4.6	2462.6 7.0	2487.5 4.1	2520.5 5.4	2551.6 5.0	2581.2 4.7	2611.3 4.8	2642.2 4.8	2473.1 5.1	2596.6 5.0
US: Supplements to w. and s. Percent Change From Last Qtr (AR)	628.6	638.1 6.2	644.8	652.9 5.1	665.7 8.1	673.2 4.6	680.8 4.6	688.7 4.7	641.1 5.3	677.1 5.6
US: Emp. Cont. to Soc. Ins. Percent Change From Last Qtr (AR)	312.0 5.8	315.9 5.1	318.8 3.6	322.2 4.4	330.5 10.8	333.7 3.9	336.9 3.9	340.4	317.2	335.4 5.7
US: Other Labor Income Percent Change From Last Qtr (AR)	316.5 5.6	322.2 7.4	326.0 4.8	330.7 5.9	335.2 5.5	339.5 5.3	343.9 5.2	348.3 5.3	323.9 5.9	341.7
US: Total Proprietors Inc. Percent Change From Last Gtr (AR)	441.9	442.1	443.4	6.654 6.03	457.6 7.0	464.1	466.4	471.1	6.6	464.8
US: Farm Proprietors Inc. Percent Change From Last Qtr (AR)	52.9 46.3	46.7	41.8 -35.8	41.8	44.1	44.5	40.8 -29.0	39.1 -16.3	45.8 15.8	42.1
US: Nonfarm Proprietors Inc. Percent Change From Last Gtr (AR)	389.0	395.4 6.7	401.6	408.1 6.6	413.5 5.4	419.6	425.6 5.8	432.0 6.2	398.5 9.2	422.7 6.1

Institute for Public Policy and Business	Research, University of	iversity of	f Kansas	1993-1994	US Forecast	st			21 JUL93	A10
	199301	199302	1993@3	199304	199401	199402	1994@3	199404	1993	1994
US: Rental Income of Persons Percent Change From Last Qtr (AR)	17.7 186.9	24.2 249.4	25.2 17.6	26.2 16.8	27.2 16.2	28.2 15.5	29.2 15.0	30.2 14.4	23.3	28.7 23.0
US: Corp. Prof. w. IVA + CCABJ Percent Change From Last Qtr (AR)	429.6	408.6 -18.2	408.8 0.3	397.5 -10.6	369.1 -25.7	359.4 -10.1	353.5 -6.4	352.0 -1.7	411.1	358.5 -12.8
US: Net Interest Percent Change From Last Qtr (AR)	402.0	400.5	402.6	406.2	410.1	414.0	418.0	422.0	402.8	416.0 3.3
US: Corp. Prof. before Taxe Percent Change From Last Qtr (AR)	398.3	372.4 -23.6	374.6 2.3	366.4 -8.5	338.4 -27.3	329.8 -9.7	332.1 2.8	327.5 -5.4	377.9 1.7	332.0 -12.2
US: Profits Tax Liability Percent Change From Last Gtr (AR)	147.2	140.1	141.9	140.4	132.3 -21.1	130.6	132.3 5.4	131.9	142.4 1.6	131.8 -7.5
US: Corp. Prof. after Taxes Percent Change From Last Qtr (AR)	251.1 17.8	232.3	232.7	226.0 -10.9	206.1	199.2 -12.7	199.8	195.7 -8.0	235.5	200.2 -15.0
US: Dividends-Total Percent Change From Last Qtr (AR)	160.2	162.7 6.4	165.2 6.3	167.6 6.0	169.8 5.3	171.9	174.0	176.0 4.7	163.9 9.8	172.9 5.5
US: Undistribured Corp. Prof. Percent Change From Last Qtr (AR)	90.9 30.8	69.6	67.4	58.4 -43.8	36.2 -85.1	27.3 -67.8	25.8 -20.2	19.7	71.6 -12.8	27.3
US: Inventory Valuation Adj. Percent Change From Last Qtr (AR)	-9.4 780649.0	-4.3	-6.0 285.0	-9.0 395.7	-9.3 12.7	-10.3 51.6	-18.4 908.0	-15.1 -54.1	-7.2 -2.8	-13.3 84.5
US: Corp. Cap. Cons. Adj. Percent Change From Last Qtr (AR)	40.6 28.9	40.4	40.3	40.2	40.0 -1.5	39.9	39.7 -1.5	39.6 -1.5	40.4	39.8 -1.5
US: Net Interest Percent Change From Last Qtr (AR)	402.0	400.5	402.6	406.2 3.6	410.1	414.0	418.0 3.9	422.0	402.8 -3.0	416.0

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 F	Research, University of Kansas	iiversity o	f Kansas	1993-1994	1993-1994 US Forecast	ıst			21JUL93	A11
PRICE DEFLATORS	199391	199302	199393	199394	1994a1	199402	199403	199404	1993	1994
US: CPI-All items Percent Change From Last Qtr (AR)	1.4 3.8	3.6 3.6	3.6	3.7	3.6	1.5 3.6	1.5	1.5	3.4	3.8
US: Implicit Deflator - GDP Percent Change From Last Qtr (AR)	1.2 3.5	1.2	1.2	1.2	1.3	2.1	1.3 3.6	1.3	1.2	1.3
US: Implicit Deflator - C Percent Change From Last Qtr (AR)	3.0	3.1	3.2	3.3	3.1	1.3 3.2	1.3	1.3	3.0	1.3 3.4
US: Implicit Deflator - IOIL Percent Change From Last Qtr (AR)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Institute for Public Policy and Busines	Ø	Research, University of Kansas	iversity of	Kansas	1993-1994	US Forecast	st			21JUL93	A12
EMPLOYMENT		199301	199302	199303	199394	1994a1	199492	199403	199494	1993	1994
US: Civilian Labor Force Percent Change From Last Qtr (AR)	(AR)	127.3	127.9	128.4	129.0	129.7	130.2	130.7	131.2	128.1 0.9	130.4 1.8
US: Civilian Employment Percent Change From Last Qtr (AR)	(AR)	118.4	118.9	119.4	120.0	120.5	120.9	121.3	121.6	119.2	121.1
US: Unemployment Percent Change From Last Qtr (AR)	(AR)	8.9 -16.2	8 O	9.0	9.1	9.2	9.3	4.6 4.8	3.9	9.0	9.4
US: Unemployment Rate-Total		7.0	7.0	7.0	7.0	7.1	7.1	7.2	7.2	7.0	7.2
US: Tot. Nonfarm Empl. Percent Change From Last Qtr (AR)	(AR)	109.4	109.9	110.4	111.0	111.5	112.0	112.4	112.8	110.2	112.2 1.8
US: Total Govt. Empl. Percent Change From Last Qtr (AR)	(AR)	18.8 0.6	18.9	18.9	19.0	19.0	19.1	19.2	19.2	18.9	1.3
US: Fed. Govt. Empl. Percent Change From Last Qtr (AR)	(AR)	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
US: S & L Govt. Empl. Percent Change From Last Otr (AR)	(AR)	15.8 0.9	15.9	16.0 1.5	16.0 1.5	16.1 1.5	16.2 1.5	16.2	16.3 1.5	15.9	16.2 1.5
US: Output Per Namhour-Pr. Nonag. Percent Change From Last Qtr (AR)	onag. (AR)	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9
Fed. Govt. Empl.  Fed. Govt. Empl.  S & L Govt. Empl.  cent Change From Last Qtr  cent Change From Last Qtr  cent Change From Last Qtr  cent Change From Last Qtr	(AR) (AR) onag.	2.9 6.0 6.0 6.0 6.0 6.0	15.9 15.9 15.9 22.9 1.4	22. 9. 1. 1. 2. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.	2.9 1.3 1.5 1.5 1.5 1.5	2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2	22.9 22.9 22.9 0.0			2.9 2.9 2.0 0.0 0.0	2.9 1.3 16.2 1.5 0.0

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 R	Research, Un	University of Kansas	f Kansas	1993-1994	US Forecast	st			21JUL93	A13
FINANCIAL AND GOVERNMENT BUDGET DEFECIT	199301	199302	1993a3	199394	199401	199492	199493	199494	1993	1994
US: M1 Money Supply Percent Change From Last Qtr (AR)	1033.9 6.7	1053.0 7.6	1065.6 4.9	1078.4 4.9	1090.8	1103.7 4.8	1117.5	1131.1 5.0	1057.7 9.4	1110.8 5.0
US: M2 Money Supply Percent Change From Last Qtr (AR)	3478.3 -2.0	3499.2	3542.4 5.0	3586.2 5.0	3634.8 5.5	3688.4 6.0	3742.9 6.0	3798.1 6.0	3526.5 1.5	3716.1 5.4
US: 3-Month T-Bill Rate Percent Change From Last Qtr (AR)	3.0	3.0	3.0	3.1 10.6	3.2	3.2 5.5	3.3	3.3	3.0	3.2
US: Prime Rate Charged By Banks Percent Change From Last Qtr (AR)	6.0	6.0	5.6	5.4 -16.8	5.2 -14.6	5.0	4.9	4.9	5.8	5.0
US: Moodys AAA Corp. Bond Rate Percent Change From Last Qtr (AR)	7.7	7.4 -14.6	7.2	7.1	6.9	6.8	6.6 -6.7	6.5	7.4	6.7
US: Federal Govt. Surplus Percent Change From Last Qtr (AR)	-272.1 -28.1	-281.4 14.3	-285.6 6.1	-290.9	-274.0 -21.3	-282.5 12.9	-279.3	-290.0 16.1	-282.5 -5.2	-281.4

Institute for Public Policy and Business R	Research, University of Kansas	niversity o	f Kansas	1993-1994	Kansas Forecast	recast			14JUL93	A14
EMPLOYMENT	199301	1993a2	199303	199304	1994a1	199402	1994a3	199494	1993	1994
KS EMP: Civilian Labor Force Percent Change From One Year Ago	1326.5 1.4	1350.1	1349.8 0.5	1334.2 1.0	1336.6 0.8	1360.2 0.7	1360.0 0.8	1344.4 0.8	1340.2 0.8	1350.3 0.8
KS EMP: Employed Percent Change From One Year Ago	1261.7 0.8	1280.7 -0.7	1281.5	1264.7 -0.2	1258.0 -0.3	1286.7 0.5	1289.6 0.6	1276.0 0.9	1272.1	1277.6 0.4
KS EMP: Unemployed Percent Change From One Year Ago	64.9 16.4	69.5 17.9	68.4 21.0	69.5 31.5	78.6 21.2	73.6	70.4	68.4 -1.6	68.1 21.5	72.8
KS EMP: Unemployment Rate Percent Change From One Year Ago	4.9	5.1	5.1	5.2 30.2	5.9	5.4	2.2	5.1	5.1	5.4
KS EMP: Adj. for Res. & Self Emp. Percent Change From One Year Ago	95.2	83.9 -24.9	92.9	75.1 -12.3	89.6	79.2 -5.6	88.1	70.3	86.7 -18.3	81.8
KS EMP: Farm Percent Change From One Year Ago	48.7 5.4	57.6 8.3	62.7 6.6	47.9	44.3	58.0 0.7	62.2 -0.8	47.2	54.2 2.8	52.9 -2.5
KS EMP: Total Non-farm Wage & Salary Percent Change From One Year Ago	1117.8	1139.2	1125.9	1141.7	1124.1 0.6	1149.5	1139.3	1158.6 1.5	1131.2	1142.9
KS EMP: Mining Percent Change From One Year Ago	8.3	4.8 4.8	.3.6 .3.6	8.4	8.1 -2.8	8.3 -1.8	 5.8.	8.3	8.4 -6.5	8.3

Institute for Public Policy and Business		Research, University of	versity of	f Kansas	1993-1994	Kansas Forecast	recast			14JUL93	A15
		199301	199302	199303	199304	1994a1	199402	199403	199404	1993	1994
KS EMP: Oil & Gas Extraction Percent Change From One Year Ago	on ar Ago	7.2	7.2	7.4	7.3	7.0	7.1	7.3	7.2	7.3	7.1
KS EMP: Mining Residual Percent Change From One Yean Ago	an Ago	-1.1	1.2	1.2	1.2	1.0	1.2	1.2	1.1	1.2	1.1
KS EMP: Construction Percent Change From One Year Ago	ar Ago	40.7	47.4	49.6 4.6	47.0	41.4	48.2	50.4 1.6	47.6	46.2 3.6	46.9
KS EMP: Non-durable Goods Percent Change From One Year Ago	ar Ago	76.5	7.77	1.0	7.1	77.1	78.3 0.7	78.3	77.6	77.3	0.7
KS EMP: Food & Kindred Percent Change From One Year Ago	ar Ago	27.5	28.0 3.3	28.5 3.6	28.6 3.8	28.2 2.5	28.7	29.2	29.3	28.1 3.2	28.8
KS EMP: Apparel Percent Change From One Year Ago	ar Ago	3.7	3.7	3.6 -1.3	3.4	3.3	3.3	3.3	3.2	3.6	3.3
KS EMP: Printing & Publishing Percent Change From One Year Ago	ing ar Ago	20.5	20.8	20.3 -1.4	20.1	20.8	21.0	20.5	20.4	20.4	1.3
KS EMP: Chemicals & Allied Prod. Percent Change From One Year Ago	Prod. ar Ago	6.9	6.9	6.8	6.6 -5.6	6.6 -4.4	6.6 -4.4	6.5	6.3	6.8	6.5
KS EMP: Petroleum & Coal Percent Change From One Year Ago	ar Ago	12.4	12.7	12.7	12.5	12.4 -0.4	12.6 -0.6	12.6 -0.8	12.3	12.6	12.5
KS EMP: Non-durables Residual Percent Change From One Year Ago	al ar Ago	5.6	5.7	5.9	3.9	6.0	6.1	6.2 5.5	6.2 5.1	5.8	5.7

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 Busines	s Research,	University of	f Kansas	1993-1994	Kansas Fo	Forecast			14JUL93	A16
	199301	199302	199303	199304	199401	1994a2	199403	199404	1993	1994
KS EMP: Durable Goods Percent Change From One Year Ago	102.4	101.6 -3.9	100.5	100.8 -3.4	99.5	99.5	98.7 -1.8	99.0 -1.8	101.3 -3.8	99.2
KS EMP: Stone Glass Clay Percent Change From One Yean Ago	5.4	5.7	5.8	5.7	5.4	5.6	5.7	5.6	5.6	5.6 -1.3
KS EMP: Primary Metals Percent Change From One Year Ago	3.1	3.2 11.6	3.2	ж. 6.9	3.2	3.2	3.2	3.1	3.2	3.2
KS EMP: Fabricated Metals Percent Change From One Year Ago	9.2 -5.8	9.2	9.1	9.0	8.7	8.7	8.6	8.5	9.1	8.6 -5.3
KS EMP: Machinery, Incl. Electrical Percent Change From One Year Ago		28.6 0.9	28.5	28.6	28.6 -0.1	28.3	28.1 -1.7	27.9 -2.4	28.6	28.2
KS EMP: Transportation Equipment Percent Change From One Year Ago	45.7 -7.9	44.2	42.9	43.7	43.3	42.9	42.4	43.4	44.1 -8.8	43.0
KS EMP: Durables Residual Percent Change From One Year Ago	10.4	10.8 4.6	10.9	10.7	10.3	10.7	10.8	10.6	10.7 3.5	10.6 -1.0
KS EMP: Transportation & Utilities Percent Change From One Year Ago		65.8 0.6	66.2	66.3	65.3	66.6	66.9	67.1	65.7 1.3	1.1
KS EMP: Railroads Percent Change From One Year Ago	-1.0	6.6	-3.1	6.6	6.4	6.5	6.5	6.5	6.6 -2.0	-1.7
KS EMP: Trucking & Warehousing Percent Change From One Year Ago	22.5	23.4	23.8	23.6	22.8	23.7	24.1	23.8	23.3	23.6

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Institute for Public Policy and Business Re	Research, University of	iversity of	f Kansas	1993-1994	Kansas Forecast	recast			14JUL93	A17
	199301	199392	199393	199394	199401	1994a2	199403	199404	1993	1994
KS EMP: Electric Gas & Sanitary Serv Percent Change From One Year Ago	12.2 -1.6	12.3	12.5	12.3	12.2 0.3	12.3 0.3	12.5	12.3 0.3	12.3	12.3 0.3
KS EMP: Trans. & Utilities Residual Percent Change From One Year Ago	23.4 -1.8	23.5 -1.0	23.3 -0.5	23.9	23.9	24.0 2.2	23.8	24.4	23.5	24.0
KS EMP: Wholesale Trade Percent Change From One Year Ago	70.2	71.9	72.4	71.5	71.3	73.0	73.5	72.5	71.5	72.6
KS EMP: Retail Trade Percent Change From One Year Ago	203.5	207.1	208.2	211.2	205.0	209.5	210.9	214.2	207.5	209.9
KS EMP: Gen. Merchandise Stores Percent Change From One Year Ago	27.8 3.6	27.6	27.8 1.8	29.5	27.5 -1.3	27.3 -1.0	27.6 -0.7	29.4 -0.4	28.2	27.9 -0.8
KS EMP: Food Stores Percent Change From One Year Ago	31.9 6.4	32.1 6.4	32.3	32.8	32.4 1.4	32.6 1.4	32.8	33.2 1.3	32.3 6.4	32.7
KS EMP: Auto. Dealers & Gas Stations Percent Change From One Year Ago	22.3 -1.2	22.7 -1.6	22.8 -0.1	22.4	22.1 -0.9	22.5	22.6 -0.6	22.3 -0.6	22.5 -0.7	22.4
KS EMP: Apparel & Accessory Stores Percent Change From One Year Ago	10.3	10.2	10.3	10.9	10.2	10.2	10.3	10.9	10.4	10.4
KS EMP: Retail Trade Residual Percent Change From One Year Ago	111.2	114.5	115.0 3.5	115.6 2.6	112.9	116.9	117.6	118.4	114.1	116.5
KS EMP: Finance, Insurance, R.E. Percent Change From One Year Ago	57.8 1.2	58.5 1.0	58.8	57.8 0.0	57.3 -0.9	58.0 -1.0	58.2 -1.0	57.1	58.2 0.8	57.6 -1.0

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

Institute for Public Policy and Business I	Research, University of	iversity or	f Kansas	1993-1994	Kansas Forecast	recast			14JUL93	A18
	199301	199302	199303	199304	199401	1994a2	199403	199404	1993	1994
KS EMP: Banking Percent Change From One Year Ago	23.8	23.8	23.9	23.5 -2.1	23.3	23.3	23.3	22.9	23.7	23.2
KS EMP: Insurance Percent Change From One Year,Ago	12.8 -0.3	12.9 0.3	13.0	13.0	12.9 0.5	13.0 0.5	13.1	13.0	12.9 0.8	13.0 0.5
KS EMP: F.I.R.E. Residual Percent Change From One Year Ago	21.2	21.8	21.9	21.4	21.1	21.7 -0.5	21.8	21.2 -0.8	21.6	21.4
KS EMP: Services Percent Change From One Year Ago	261.1	266.0	266.5	266.0 1.6	264.9	271.9	273.4 2.6	273.6 2.8	264.9	270.9
KS EMP: Hotels & Lodging Percent Change From One Year Ago	9.0	9.6	9.8 5.5	9.5	9.0	9.6	9.9	9.5	2.5	9.5
KS EMP: Personal Services Percent Change From One Year Ago	11.3	11.0	10.6	10.7 -4.2	11.3	11.0	10.7	10.8 0.6	10.9	10.9
KS EMP: Services Residual Percent Change From One Year Ago	240.7	245.5 2.5	246.0 2.0	245.8 1.8	244.6	251.3 2.4	252.8	253.3	244.5	250.5
KS EMP: Federal Gov. Percent Change From One Year Ago	29.0 -1.5	29.4 -1.4	29.2 -1.2	28.7 -0.7	28.3	28.8 -1.9	28.7 -1.6	28.3 -1.4	29.1	28.5 -1.8
KS EMP: State & Local Gov. Percent Change From One Year Ago	203.9	205.3	188.1	206.7	205.9	207.5	191.9	213.2	201.0	204.6

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HOURS AND WAGES	1993a1	199302	1993q3	199394	199491	1994a2	199403	199404	1993	1994
KS HRS/WK: Food & Kindred Products Percent Change From One Year Ago	43.8 -0.5	43.2 0.3	43.1	41.9	41.3	41.6	42.0 -2.4	41.2	43.0 -1.8	41.5
KS HRS/WK: Apparel&Other Fin. Prod. Percent Change From One Year Ago		39.1	38.5	37.9 -8.9	36.9 -8.2	36.8	36.9	36.9	38.9 0.5	36.9
KS HRS/WK: Pet. Refining & Rel. Ind. Percent Change From One Year Ago		41.6	41.3 4.0	41.4	41.0	41.6	41.3	41.4	41.3 2.0	41.3
KS HRS/WK: Fabricated Metal Products Percent Change From One Year Ago		37.8 1.6	37.6 -0.5	37.4 -1.4	36.5 -3.3	36.8	<b>36.8</b> -2.1	36.8 -1.6	37.6 -0.2	36.7 -2.4
KS HRS/WK: Machinery, Incl. Elec. Percent Change From One Year Ago		41.0	40.1	40.8	40.2	39.9	39.3 -2.0	40.2	40.9	39.9 -2.4
KS HRS/WK: Transportation Equipment Percent Change From One Year Ago		40.5 -1.5	40.1	40.8 -1.4	40.0	40.0	39.9 -0.5	40.8	40.6 -0.6	40.2
KS WAGE/HR: Food & Kindred Products Percent Change From One Year Ago	9.8	9.9	9.9	10.0	10.1	10.1	10.2 3.0	10.3	9.9	10.2 2.9
KS WAGE/HR: Apparel&Other Fin. Prod. Percent Change From One Year Ago		6.3 2.6	6.4	6.5 3.4	3.9	6.6	6.7 3.8	6.7 3.8	6.4 1.8	3.8
KS WAGE/HR: Pet. Refining & Rel. Ind Percent Change From One Year Ago		12.9	13.0 7.6	13.2	13.3	13.4	13.5 3.8	13.6 3.6	13.0 6.5	13.5 3.8
KS WAGE/HR: Fabricated Metal Product Percent Change From One Year Ago		9.9	10.0	10.1	10.2	10.3 3.1	10.3 3.3	10.4	10.0	10.3 3.2
KS WAGE/HR: Machinery, Incl. Elec. Percent Change From One Year Ago		10.5 2.8	10.7	10.8 3.5	10.8 3.2	10.9	11.0	11.1 3.4	10.6 3.9	11.0 3.2
KS WAGE/HR: Transportation Equipment Percent Change From One Year Ago	15.8 4.5	15.9 5.6	16.0	16.3	16.3	16.4 3.5	16.6 3.8	16.9 3.7	16.0 5.1	16.6 3.7

Institute for Public Policy and Business Research, University of Kansas	Research,	University	of Kansas	1993-1994	Kansas Forecast	orecast			14JUL93	A20
WAGE BILLS	199301	199392	199303	199304	199401	199402	199403	199404	1993	1994
KS WG BILL: Total Wages & Salaries Percent Change From One Year Ago	26395.9 3.3		26956.0 4.5	27237.2 3.5	27324.7 3.5	27801.1 3.9	28117.8 4.3	28387.1 4.2	26839.3 3.7	27907.7 4.0
KS WG BILL: Farm Wages & Salaries Percent Change From One Year Ago	224.2 5.2	225.5	226.2	226.6	227.7 1.6	228.7	229.4	229.7	225.6	228.9
KS WG BILL: Agricultural Services Percent Change From One Year Ago	119.5		122.6	124.2 5.2	125.7 5.2	127.3	128.9 5.1	130.5	121.9 2.8	128.1 5.1
KS WG BILL: Mining Percent Change From One Year Ago	237.2 -5.9		237.0 -0.4	240.3 0.5	240.6 1.4	241.8 2.5	245.1 3.4	249.4	237.6 -2.5	244.2 2.8
KS WG BILL: Construction Percent Change From One Year Ago	1081.2 -0.5		1156.5 8.4	1147.9	1129.8	1189.0 4.8	1211.3	1197.5	1130.1	1181.9 4.6
KS WG BILL: Durable Goods Percent Change From One Year Ago	3345.1 3.3	3353.0	3274.1 4.1	3394.6 -2.6	3317.5 -0.8	3364.9 0.4	3347.9 2.3	3441.8 1.4	3341.7 1.8	3368.0 0.8
KS WG BILL: Nondurable Goods Percent Change From One Year Ago	2042.6 5.7	2078.9	2093.0	2088.4	2107.9	2156.0 3.7	2177.7 4.1	2178.5 4.3	2075.7 5.1	2155.0 3.8

Institute for Public Policy and Business Research, University of Kansas	esearch, U	niversity o	f Kansas	1993-1994	Kansas Forecast	recast			14JUL93	A21
	199301	199302	199303	199304	199401	199402	199403	199404	1993	1994
KS WG BILL: Trans. & Public Utilities Percent Change From One Year Ago	2199.6	2239.1 2.4	2262.1 5.2	2285.1 5.4	2294.4	2333.1 4.2	2362.9	2387.5 4.5	2246.5 3.8	2344.5
KS WG BILL: Wholesale Trade Percent Change From One Year Ago	2024.7	2065.9	2092.6	2107.2	2130.0 5.2	2172.4	2205.0 5.4	2219.1 5.3	2072.6 5.6	2181.6
KS WG BILL: Retail Trade Percent Change From One Year Ago	2617.9 2.9	2628.7 3.0	2644.8	2661.5 2.4	2675.6 2.2	2689.2	2705.2	2720 <u>.2</u> 2.2	2638.2 3.0	2697.5 2.2
KS WG BILL: Finance, Insurance, & R.E Percent Change From One Year Ago	1674.5 7.3	1703.8 9.8	1728.5 8.6	1732.7 5.3	1746.6 4.3	1776.1 4.2	1800.1	1801.8 4.0	1709.9 7.7	1781.1 4.2
KS WG BILL: Services Percent Change From One Year Ago	5438.3 6.1	5532.2 6.2	5627.9 5.7	5685.5 4.9	5736.1 5.5	5884.3 6.4	6028.3	6101.5 7.3	5571.0 5.7	5937.5 6.6
KS WG BILL: Govt. & Govt. Enterprises Percent Change From One Year Ago	5391.2 -0.2	5449.0	5490.8 1.0	5543.4	5592.7 3.7	5638.4 3.5	5676.0 3.4	5729.7 3.4	5468.6 1.0	5659.2 3.5

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PERSONAL INCOME	199301	199302	199303	199304	199401		1994@3	199494	1993	1994
KS PERS INC: Total Personal Income Percent Change From One Year Ago	50124.8 4.7	50574.7 3.9	50852.2 5.1	52002.5 2.9	52097.6 3.9		53412.1 5.0	54323.9 4.5	50888.5 4.1	53195.6 4.5
KS PERS INC: Real Personal Income Percent Change From One Year Ago	39848.2 1.8	39896.5 1.1	39800.7 1.8	40370.0	40133.8 0.7		40385.9 1.5	40701.0 0.8	39978.9 1.1	40422.3
KS PERS INC: Farm Proprietors Income Percent Change From One Year Ago	1543.6 28.1	1321.4 -11.0	1090.2	1611.8 -31.2	1323.8 -14.2	1345.8 1.8	1110.4	1385.5 -14.0	1391.8 -8.4	1291.4 -7.2
KS PERS INC: Non-farm Proprietors Inc Percent Change From One Year Ago	3775.6 10.5	3830.4 9.9	3884.2 10.4	3939.8 6.4	3986.7 5.6		4091.1 5.3	4146.7 5.3	3857.5 9.2	4065.9 5.4
KS PERS INC: Dividends Interest & Ren Percent Change From One Year Ago	8653.7 0.3	8718.0 1.1	8771.5 2.0	8843.4	8911.2 3.0		9047.6	9109.2 3.0	8746.7 1.5	9011.6 3.0
KS PERS INC: Adj. For Residence Percent Change From One Year Ago	1208.5 2.8	1223.8 3.7	1239.1	1252.6	1266.8 4.8		1296.0	1310.9 4.7	1231.0 3.9	1288.7 4.7
KS PERS INC: Pers. Cont. For Soc. Ins Percent Change From One Year Ago	2467.8 6.4	2503.1 6.2	2527.2 6.8	2557.1 5.7	2631.9 6.7		2687.4 6.3	2717.2 6.3	2513.8 6.3	2674.0 6.4
KS PERS INC: Transfer Payments Percent Change From One Year Ago	8133.8 7.9	8279.7 7.6	8466.5 8.2	8658.6 9.0	8858.1 8.9		9296.6 9.8	9520.1 9.9	8384.6 8.2	9184.6 9.5
KS PERS INC: Other Labor Income Percent Change From One Year Ago	2881.5	2936.2 6.8	2971.9 6.7	3016.2 6.0	3058.3 6.1		3139.9 5.7	3181.6 5.5	2951.5 6.6	3119.7