

# Colby Economic Outlook

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## Anniversary Issue

This is the fifth anniversary of the senior seminar in economic forecasting at Colby College. Since 1989 members of this seminar have studied methods for data analysis and forecasting and contributed to the maintenance and update of the Colby Quarterly Econometric Model of the U.S. economy under the direction of Michael Donihue, Assistant Professor of Economics. The *Colby Economic Outlook* is published twice annually by the students of Economics 493 and provides their assessment of current economic conditions and short-term forecasts for key economic indicators of the U.S. and Maine economies.

In this issue of the *CEO* we examine a national economy currently on the rebound and forecast to post significant gains in real output growth and employment through 1995. An improving U.S. outlook will translate into a brighter future for the Maine economy as well. Also featured in this newsletter is an assessment of the economic impacts of the Clinton Administration's proposals for health care reform.

## Déjà Vu All Over Again?

Not for the student authors of this newsletter. In fact the last time short-term interest rates were as low as they have been this year was before any of them were born! September 1993 looked a bit like September 1963 as that was the last time the interest rate on three month treasury bills was just 2.9%. Mortgage rates were also lower during 1993 than they have been at any time during the past 25 years or so. 1993 will be only the second year since 1965 that consumer prices have risen by less than 3% on an annual basis. Reports on consumer sentiment today look more like the numbers for 1970.

The mix of economic indicators today presents a confusing picture on which we base our economic outlook. The economic recovery which followed the recession of 1990-91 looks unlike any other in the post WWII era. Unemployment remains stubbornly high and despite some encouraging economic news in the past couple of months the level of uncertainty today among investors and consumers remains quite high.

Unemployment in November fell from 7.1% in January to 6.4%. Domestic auto sales have risen during the current quarter and consumer prices didn't rise at all in September. Thanks to a glut of world oil supplies and relatively peaceful times in the Middle East, gasoline prices in many areas of the country are lower today than they were prior to the government's 4¢ per gallon increase in gas taxes which took effect in October. These factors, plus low mortgage rates have contributed to recent gains in consumer sentiment and business fixed investment. Housing starts posted large increases over the past several months with additional gains predicted for December. These increases have translated into increased purchases of consumer durables as well.

Less encouraging is the fact that rising exchange rates have prevented any improvement in the balance of trade during the past year and as the economy continues to grow we can expect continued net export deficits in the future. November also saw a bottoming out of short-term interest rates and like many other analysts, we expect the Fed to tighten monetary policy a bit early next year. What this news means for our short-term economic outlook of the U.S. economy is summarized beginning on the next page.

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### The Engines of Growth Are Up & Running

The 5.7% annual rate of growth in real Gross Domestic Product which occurred during the fourth quarter of 1992 came as a surprise to many economists. Early indications, however seem to point toward a similar upturn in economic growth in the final quarter of this year.

Our forecast is for real GDP to grow by 3.9% annually in the current quarter, ending the year with 2.79% more real output than in 1992. Our outlook gets brighter next year as consumer spending rises by 2.12% and investment contributes just under 1% to what will amount to 3.28% real GDP growth in 1994. In the final year of the forecast horizon, we predict that real GDP will grow by 3%.

Net exports will contribute positively to growth in both 1994 and 1995 according to our projections as the trade deficit shrinks from \$76 billion this year (1987 dollars) to \$74 billion in 1994 and \$70 billion in 1995.

Lower interest rates have finally begun to work their magic on the U.S. economy as housing starts and residential investment --- two traditional engines of economic growth --- have begun to show some life in recent months. We predict that residential fixed investment will grow by just over 7% in real terms this year and by 5% in 1994. Housing starts are forecast to grow by 7.3% in 1994. This will, in part, help support a forecast of 6.5% increase in inflation-adjusted expenditures on consumer durables. Overall, we predict that personal consumption expenditures will grow by over 3% in real terms for each of the years of the forecast horizon.

We predict that this year, for just the second time during the past 25 years, consumer prices will rise by less

than 3%. We see little increase in consumer prices next year, with inflation forecast to be 3%. In 1995 increased economic growth will begin to translate into slightly higher inflation with our forecast of 3.2%.

Retail gasoline prices are forecast to fall by 1% this year despite the 4¢/gallon tax which went into effect in the final quarter of 1993. Real disposable income is forecast to grow by 1.8% this year and 3.2% in 1994. By the end of the forecast horizon growth in real disposable income is forecast to slow somewhat to 2.6% in 1995.

Short-term interest rates are forecast to have bottomed out in the current quarter and will increase by over 50 basis points by the end of next year. By the end of the forecast horizon short-term rates are predicted to gain 100 basis points. Long-term rates are forecast to flatten out, growing by just 30 to 50 basis points during the next nine quarters.

The exchange value of the dollar is forecast to appreciate slightly over the entire forecast horizon. This, in addition to forecasted increases in income in this country account for our prediction that real imports will grow by 3.4% next year.

Employment is forecast to post significant gains in 1994 and 1995, growing by 2.5% and 2.6%, respectively. The unemployment rate is forecast to fall just below 6% by the end of the forecast horizon. Total productivity is forecast to rise by 1.3% this year and next, but just 0.8% in 1995.

Government purchases are forecast to fall by 0.6% in real terms this year. However, we are predicting that government spending will rise by 1.3% next year and by 1.7% in 1995, with the majority of growth occurring at the state and local level.

Relatively slower growth in Federal expenditures, together with increasing revenues translate into reductions in the Federal budget deficit in both Fiscal Year 1994 (-15%) and FY 95 (-6.5%).



Contributions To Real GDP Growth			
	1993	1994	1995
Gross Domestic Product	2.79%	3.28%	3.07%
Consumer Expenditures	2.18%	2.12%	1.99%
Durable Goods	0.59%	0.33%	0.31%
Nondurable Goods	0.51%	0.61%	0.54%
Services	1.08%	1.18%	1.13%
Investment	1.58%	0.89%	0.71%
Fixed Investment	1.45%	1.03%	0.65%
Nonresidential	1.17%	0.81%	0.53%
Residential	0.28%	0.22%	0.13%
Chg. in Bus. Inventories	0.13%	-0.13%	0.06%
Government Purchases	-0.12%	0.23%	0.31%
Net Exports	-0.85%	0.04%	0.07%
Exports	0.29%	0.47%	0.58%
Imports	1.14%	0.43%	0.51%



**Forecast Accuracy: 1992Q4 - 1993Q3**

Performing evaluations of past forecast accuracy is a crucial step in the process of constantly improving and fine tuning the model used to generate the forecasts. Errors from the December 1992 *CEO* were influenced largely by the unexpectedly large fluctuations in real GDP growth at the fulcrum of 1992-1993. Real GDP growth boomed to an annual growth rate of 5.7% in the fourth quarter of 1992, much higher than anyone had expected at the time. However, instead of continuing on a steady upward path, GDP growth screeched to a near halt in 1993Q1, growing at an annual rate of only 0.8%. This growth pattern skewed the forecasts for each sector in the National Income and Product Accounts to a certain extent, as shown in the accompanying table.

The forecast for exports was overstated for the first three quarters of 1993, due largely to foreign economies being mired in sluggish, if any, recovery from lagging recessions as well as to a strengthening of the dollar against many foreign currencies. The appreciation of the dollar also led to an underestimate of imports. Forecasts of interest rates, both 3 Month T-bills and Aaa corporate bond rates, were fairly accurate for the fourth quarter of 1992, but became increasingly overstated for each quarter of 1993. The expected increase in both short and long-term rates had not occurred by the middle of the year. Forecasts of consumer sentiment, again, became overstated as 1993 wore on. Consumers appear to have remained cautious that a double-dip recession might be forthcoming because of the large drop in economic growth in the first quarter of 1993. We anticipated an increase in consumer confidence in 1993 which did not occur.

Forecasts of money supply, the exchange value of the dollar, and unemployment were all quite accurate throughout the four quarter horizon.

**The Colby Model**

The Colby Quarterly Econometric Model of the U.S. Economy is a simplified model of real gross domestic product and its major components. This semester, for the sixth time in the history of the Colby Model, all of the equations in the previous version were updated and reestimated and a few new behavioral equations were added bringing the total to 52. Of the approximately 100 variables in the model, 15 are exogenously determined.

The Colby Model contains equations which model personal consumption expenditures of nondurables, durables, and services; and inflation as measured by the consumer price index, and implicit price deflators for the three areas of personal consumption expenditures. Inflation is also forecasted in terms of the GDP implicit price deflator using and identity. There are also equations for predicting gasoline prices, automobile sales, housing starts and labor productivity.

The labor and government sectors of the model received considerable attention this semester. Our labor sector provides forecasts of the civilian unemployment rate, female labor force participation rate, measures of wages, help-wanted advertising, and output per hour. The government sector contains equations for real government purchases and the corresponding implicit

price deflator. New this semester is the endogenous determination of federal net interest payments which we use to compute our forecasts of the federal budget deficit.

Consumer sentiment is modeled explicitly, as are various measures of expenditures and employment in the health care industry. The monetary sector of the model includes seven interest rate equations and two equations for the money supply. Real imports, import and export price deflators, and the exchange rate are each modeled separately and make up the foreign sector of the model.

<b>Forecast Errors</b>				
<b>For the December 1992 Colby Economic Outlook</b>				
<b>(Actual - Predicted Rates of Growth)</b>				
	<b>92:Q4</b>	<b>93:Q1</b>	<b>93:Q2</b>	<b>93:Q3</b>
Real GDP	2.6	-3.1	-1.9	-0.9
Personal Consumption Exp.	3.0	-2.6	0.8	1.6
Durable Goods	10.2	-11.8	4.1	1.3
Nondurable Goods	5.5	-4.2	0.7	1.5
Services	-0.1	0.6	0.02	1.7
Gross Domestic Investment	6.7	13.4	-14.3	-4.7
Nonresidential	-1.0	0.6	0.02	1.7
Residential	11.6	-22.5	-29.1	-5.4
Government Purchases	-3.3	-8.3	2.4	-3.0
Exports	3.2	-7.9	-1.9	-6.6
Imports	-1.5	4.9	7.1	-0.8
Disposable Income	8.4	-10.6	3.1	-1.6
<b>(Actual - Predicted Percentage Points)</b>				
Civ. Unemployment Rate	0.1	-0.04	0.07	0.01
3 Month T-Bill Rate	-0.1	-0.3	-0.4	-0.6
Aaa Corporate Bond Rate	-0.1	-0.5	-1.0	-1.6
Inflation: CPI (Annual rog)	1.0	2.2	1.2	-1.7
<b>(Actual - Predicted Percentage Error)</b>				
Exchange Value of the \$	-1.6	2.9	0.6	4.2
Consumer Sentiment Index	-3.8	-5.9	-12.0	-19.2
Money Supply: M2	-0.1	-1.7	-2.4	-3.0



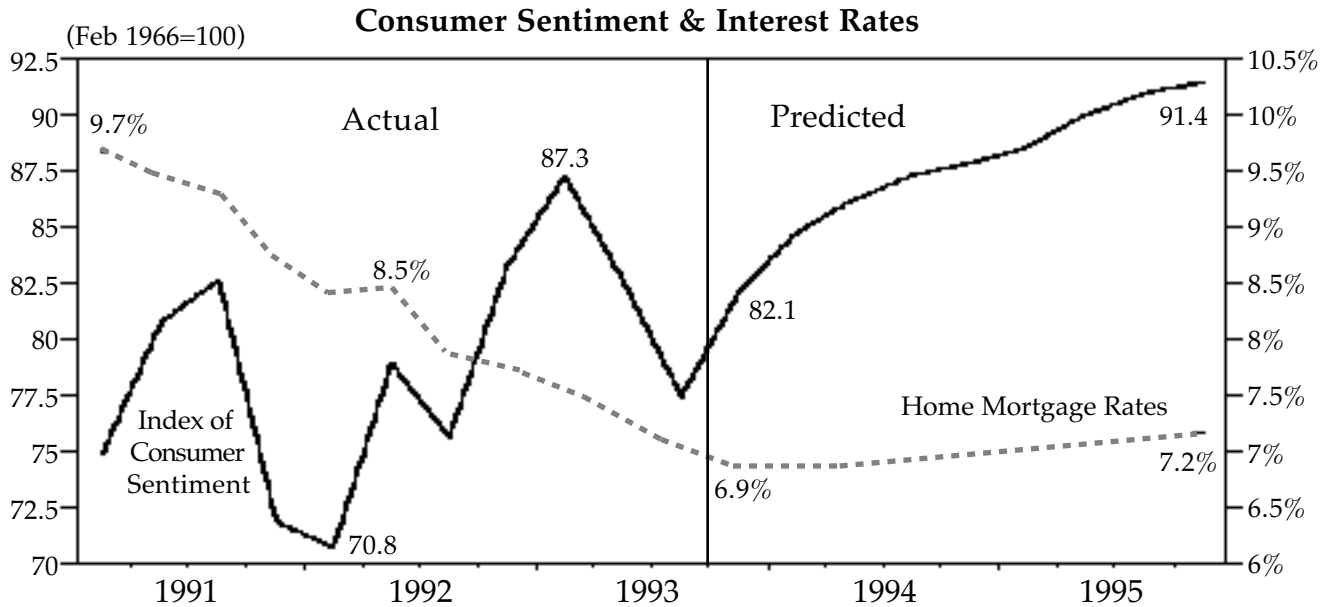
## Lower Interest Rates & Higher Consumer Confidence Boost Spending

The American economy has fully recovered from the recession! After the down-sizing of many industries, which caused the loss of many white-collar jobs in 1991 and 1992, firms are beginning to hire employees. With the increase in jobs, consumer confidence rose and resulted in an increase in consumer spending during the first three quarters of 1993. Inflation remained stagnant despite lower interest rates and an accommodating Fed which enabled consumers to refinance and purchase durable goods.

Expenditures on nondurables goods actually decreased at an annual rate of 2.1% in real terms during the first quarter of this year. We predict that for the year as a whole, real expenditures on nondurables will rise by 2.4% relative to 1992. 1994 should be slightly better as expenditures on nondurables are forecast to rise by 2.9% in real terms next year and 2.6% in 1995.

Real personal consumption expenditures on services, which rose by just over 4% annually last quarter are forecast to rise by 2.9% this year, 3.2% next year, and 3.1% in 1995.

Another sign of strength in the American economy this year was in domestic automobile sales. American



The election of President Clinton and the low interest rates have led to some significant gains in the University of Michigan's index of consumer confidence following the recession of 1990-91. The increase in the availability of well-paying jobs and the Bull market on Wall Street has increased the consumer confidence index which translates into increased consumer spending. The index is computed relative to a value of 100 in the base period of February 1966 and gained 10 points, reaching a value of 83, during the twelve months ending in October of this year. We are projecting that it will reach 91.4 by the end of 1995, increasing by 5.1% in 1994 and another 4.3% in 1995.

The consumption sector of the U.S. economy has shown considerable strength during the past two quarters particularly in the area of durable goods sales which rose by 11% and 7.3% at inflation-adjusted annual rates during the second and third quarters of 1993, respectively. We predict that in real terms, consumer expenditures on durable goods will rise by 6.5% this year and 3.5% next year as interest rates begin to creep upward.

consumers purchased more American automobiles because of the increase quality and lower prices in 1993 relative to foreign competitors. We predict that in 1993 domestic auto sales will rise by 6.5%, before flattening out and showing almost no growth in 1994 and only 1% growth in 1995 as foreign manufacturers recover from a relatively poor showing this year.

### The Plunge is Over!

In the past few weeks, interest rates have begun their ascent from historical lows which were seen during the past year. With the exception of 30-year Treasury Bonds, whose turning-point will lag one period according to our projections, interest rates have struck bottom---and we're forecasting that it's all uphill from here!

The last time that the Three Month Treasury Bill rate last dipped below 2.95% was in May of 1963. According to our research, the 5.94% rate of return on 30 Year Treasury Bills was the lowest ever recorded for this asset. Interest rates on home mortgages were at the same levels in 1993 that they were in 1973.



Although the low rates have been praised for their help in stimulating investment and consumption expenditures, we believe that the Federal Reserve has informally already begun to take action, by slowing growth in the monetary base, designed to stem inflationary pressures before the economic recovery heats up. In an attempt to maintain the current inflation rates, we believe that the central bank will begin formal tightening of monetary policy early next year.

We predict that short-term rates will rise early next year as the Fed slowly moves the interest rate on federal funds up by about 15 basis points next quarter, and by about 70 basis points over the next year. 1995 is predicted to show another 45 basis point increase in this instrument of monetary policy. This will lead to a flattening of the yield curve according to our projections as long-term rates are forecast to rise less quickly as inflation remains in check.

**Inflation? No Problem**

Consumer prices rose at an annual rate of just 1.2% in the third quarter of 1993 and it now seems clear that inflation will be less than 3% this year. With the economic recovery however, we can expect prices to rise more quickly. Moderate intervention on the part of the Fed early next year should dampen the inflationary pressures and our forecast is the consumer prices will rise by 3% next year and 3.2% in 1995.

Medical care inflation is forecast to decline dramatically from historic lows due in part to the recent sluggishness in the economy and to cost-cutting measures on the part of the health-care industry. Our forecast is that inflation in this sector of the economy will average 6% this year and flatten to 4.5% next year and 4.3% in the final year of the forecast horizon.

In the third quarter of this year average retail gasoline prices were at the lowest level in almost two years. The effects of the new gas tax (4¢/gallon) implemented early this fall were obviously overridden by the problems of OPEC. As this issue of the *CEO* goes to press, imported oil prices are headed toward the \$15 per barrel level. However, gas prices are not forecast to

continue their descent. It is doubtful that OPEC will let oil prices slip much further and this coupled with the lagged effects of the gas tax should help raise gasoline prices by 3.8% in 1994 and 4.3% in 1995.

Import prices are forecast to remain low due to declining prices in the economies of our major trading partners. Import prices are predicted to fall by nearly 2% this year. 1994 should see no growth in import prices while recoveries abroad will lead to slightly less than 1% increase in import prices in 1995.

With the economy just beginning to pull out of its rut

real disposable income is forecast to finish out 1993 up only 1.8% in real terms relative to 1992. However, with the continuing recovery real disposable income is expected to rise by 3.2% in 1994 and 2.6% in 1995.

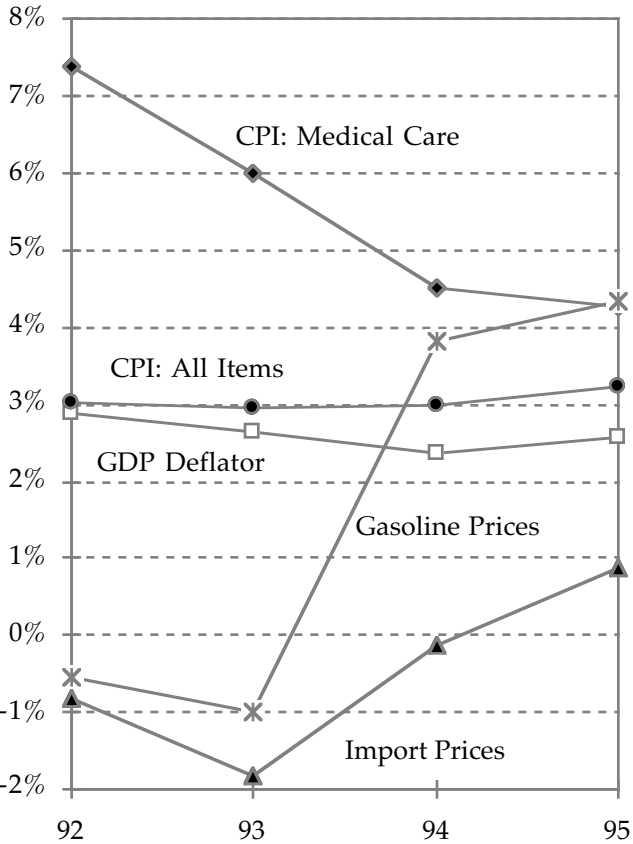
**No Longer A Jobless Recovery**

Employee compensation is forecast to grow by just over 5% this year and by 2.8% next year. Continued economic growth will lead to an increase in employee compensation in 1995 of 3.5%. Wages are forecast to grow by 2.3% this year and by 2.1% and 2.4% in 1994 and 1995, respectively.

The forecasts for the Labor and Productivity Sector of the Colby Model look pretty bright all the way through 1995. Total employment is forecast to grow steadily throughout the forecast horizon. After showing only 1.4% growth this year, total employment is forecast to grow by 2.5% next year and by 2.6% in 1995. The unemployment rate is forecast to fall from its current level of 6.4% to 5.93% by the fourth quarter of 1995. To put the icing on the cake, productivity is forecast to grow at an average rate of just above 1% over the forecast horizon, and the female labor force participation rate is forecast to experience a constant growth rate of 1.2% in both 1994 and 1995.

Clearly, the so-called 'jobless recovery' is over and we can look forward to a sustained period of genuine gains in employment and earnings.

**Inflation Forecasts**





### 1993: Lessons In Free Trade

1993 will be remembered as the year when free trade issues made headlines all over the world. NAFTA and the imminent passage of the Uruguay Round of GATT negotiations suggest that the new global marketplace is beginning to embrace the notion of reduced quotas and tariffs and allowing the most efficient producers to sell goods to consumers all over the world.

The U.S. economic recovery during 1993 coincided with an appreciation of the U.S. dollar, on a trade-weighted basis, relative to the currencies of our major trading partners. We predict that 1993 will show an overall increase in the value of the dollar of 7.5% compared to 1992. This appreciation of the dollar is predicted to slow somewhat in 1994, with the dollar gaining 3.6% in value. 1995 is forecast to show only 1.2% growth in the dollar exchange value.

As the dollar gains momentum, domestic goods become more expensive to foreigners (it takes more Deutsche Marks to buy one dollar, for example) while foreign goods look less expensive to U.S. consumers (one U.S. dollar buys more Marks). Thus imports tend to rise at the expense of exports. In addition, increases in disposable income accompanying the recovery in this country will cause an increase in consumption of all goods, including imports. In 1993, imports are forecast to rise by 9.3% after adjusting for inflation. Growth in imports is forecast to slow a bit to 3.3% next year and 3.9% in 1995. By comparison, export growth is predicted to be just 2.5% in real terms this year. We predict that real exports will grow by 4.1% next year and by 5% in 1995. As export growth outpaces the growth of imports the balance of trade, while still in deficit, should improve slightly. We are forecasting that, in real terms, net exports will improve from this year's level of -\$76 billion to -\$70 billion in 1995.

The recent Bundesbank cuts in interest rates to spur Europe's ailing economy. We're looking for the first signs of a European economic recovery to appear by the end of the second quarter of next year to help support our projection for export growth over the forecast horizon. We predict that short-term foreign interest rates will bottom out at an average of about 5.2% sometime during the

middle of next year and then begin to rise slowly, gaining roughly 50 basis points by the end of 1995. The Euro-dollar deposit rate, the interest rate earned by dollars held outside of the U.S., fell by 50 basis points this year according to our estimates. We predict that it will gain roughly 40 basis points next year and another 60 basis points in 1995.

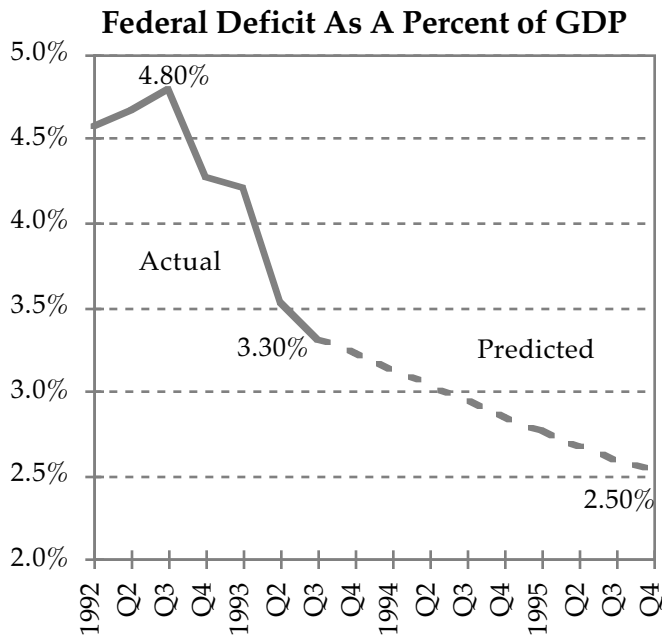
### The Federal Deficit: Is It Really Under Control?

As we finally emerge from the lingering shadow of the recession, stronger economic growth coupled with the higher tax rates introduced by the Clinton Administration will set the course of the federal deficit on a lower path than was originally expected. Federal government receipts will grow faster than anticipated because of an increase in taxable income as well as larger tax rates which now reach 36% for the top bracket.

In addition, government purchases have slowed somewhat due in part to a downsizing of defense. Clinton's proposed health plan would place a greater initial burden on federal expenditures but would eventually lead to lower government spending on health services.

Unfortunately, problems loom in a number of areas for keeping the deficit in check. As crime and drugs continue to tear at society and fear continues to rise, the demand for some kind of crime package will escalate, leaving a strong possibility of large increases in federal spending in that area, as opposed to the relative pennies that have been spent recently. Another huge potential problem is the 2000-pound runaway elephant which is the Social Security program. As baby boomers continue to age and greater numbers of elderly receive entitlement checks (some of whom don't need them at all), it is likely that in its current form the program will simply overheat. Clearly this is a problem that needs to be addressed in order to really bring the deficit under control.

Our current forecast predicts that the deficit will continue to decline through the end of 1995, when it will reach a level of approximately \$183.6 billion (NIPA basis). As a percentage of GDP, the deficit will fall to a level of 2.5% of GDP by the end of 1995, from its current level of 3.3%, and from





its high of 4.8% in the third quarter of 1992. These figures assume no significant policy changes or unexpected economic downturns over the next two years.

In addition, the government continues to devote more and more of the budget to interest payments on the national debt. Our forecast calls for slightly less spending on this in FY 1993 due to lower interest rates, but as these rates start to increase over the next several quarters, interest payments will continue to rise throughout the forecast horizon.

With the possible storm clouds of the Clinton proposals for health care reform, social security, and crime lingering ahead on the horizon, there are questions as to how effective the Clinton Administration can be in achieving it's targets for future deficit reductions.

**Alternative Scenario:  
The Clinton Health Plan**

The Clinton Administration believes it has a mandate from the American people. Too many people, for too long, have feared losing their coverage or have no coverage at all. Health care expenditures as a percentage of GDP surpassed double-digit levels in recent years and has become a very real concern as a drain on future economic performance. It is our estimate that Americans will spend nearly 11% of our total Gross Domestic Product on health care services this year. In 1985 we spent less than 8% of GDP on health care in this country.

Part of the problem is the cost of services. As the chart below shows, the cost of medical care services has far outpaced the general rate of inflation in the U.S. in recent years. Our baseline projections are that the rate of inflation for health care services will decline during the next two years, but remain two to three percentage points above the overall rate of inflation.

Clinton's health care proposals rely heavily on estimated savings to be accrued by attacking fraud, waste, and abuse in the current system. First, the President proposes that he will eliminate waste by only having one insurance form. Second, he attacks fraud by giving every American a health care card. Third, he proposes to prevent abuses of the system

by limiting malpractice fees for attorneys and publish the amount of lawsuits pending on existing HMO's. And fourth, the Administration's plan would limit the amount of "inappropriate" treatments and other inefficiencies. These are laudable goals but many analysts believe that the Administration's numbers just do not add up.

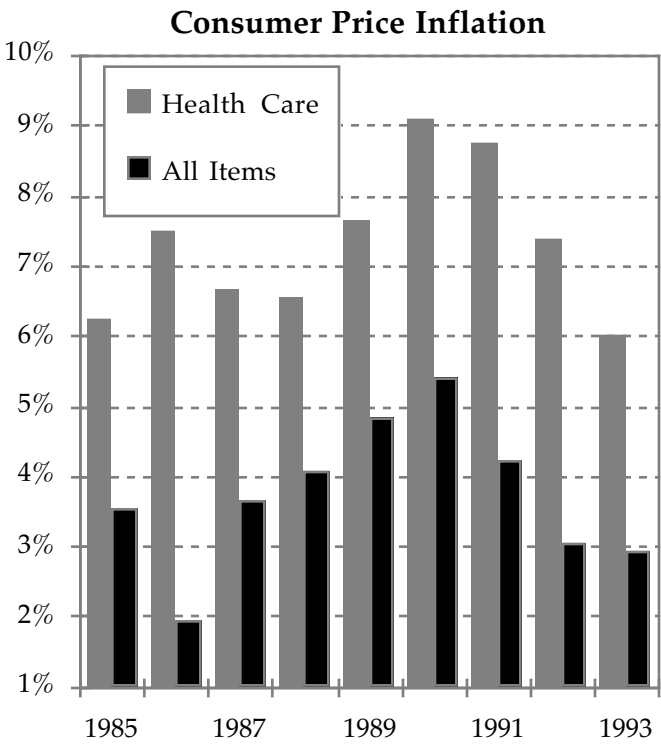
- Some Features of the Clinton Health Plan**
- Coverage for all U.S. citizens and legal residents via state sponsored "health alliances."
  - One standardized claims form for all health plans.
  - Employers pay 80% of the average insurance premium in their region. Workers pay the rest.
  - Premiums for unemployed workers would be paid by the government. Financed in part by new taxes on tobacco.
  - A long-term care program for the severely disabled.
  - Dental care & eyeglasses for children.
  - Prescription drug coverage for all.
  - Limits on attorney fees in malpractice cases plus public access to malpractice track records of health care providers.

According to the architects of the Clinton Administration's health plan additional increases in Federal spending in the next 4 years would be more than offset by the savings, in terms of reduction in Medicare and Medicaid expenditures, in the following three years.

There are many risks to the Administration's health care proposals and in some cases the numbers don't always seem to add up. The projected savings of nearly \$240 billion between 1996 and 2000 for example, will be offset by the \$150 billion cost of long-term coverage.

The goal of reducing the health-care portion of the Federal budget deficit by \$450 billion cannot be met by raising sin taxes alone. Borrowing from the supply-side theories of his predecessors, Clinton hopes to gain about \$50 billion in increased tax revenue due to private sector savings resulting from a reduction in current health care expenditures.

Critics of the Clinton health plan point primarily to costs imposed on businesses who do not currently offer health insurance to their





employees. Indeed, forcing small businesses to provide health insurance is little different from imposing a payroll tax.

The exact cost is uncertain, but some estimates range as high as \$30 billion. Some critics of the Clinton health plan point primarily to costs imposed on businesses who do not currently offer health insurance to their employees. Indeed, forcing small businesses to provide health insurance is little different from imposing a payroll tax. This will undoubtedly have some negative impact on employment in the short run. Lobbyists for small-businesses suggest that the Clinton plan could cost the economy over 18 million jobs. Our estimates are that it will cost far less.

**Predicted Impacts of the Clinton Plan**

The health care proposals which the President and his wife presented to Congress on October 27th promise to be one of the most visible and important pieces of major legislation to be debated during the upcoming session. For the

purposes of the scenario which we present here we have taken the major planks of the Clinton plan at face value and imposed some of the details which we know of the President's plan on our baseline forecast.

In order to assess the impacts of the Clinton Plan we assumed that the majority of the savings which the Administration claims from their proposals would not occur until several years after the plan was put into place. We assumed that the Clinton Plan would take effect at the beginning of the next fiscal year (October 1994) and extended our baseline forecast through 1998 for purposes of comparison. As you can see in the table above, we estimate that the Clinton plan will, on net, have a minimal impact on total output. Employment growth will

slow initially by about four tenths of a percentage point annually, with the gap closing rapidly within five years. By 1998 we estimate that there will have been about 1 million fewer jobs as businesses absorb the increased cost of providing health care for their employees. The overall civilian unemployment rate should be unaffected according to our projections.

Real disposable income will only be slightly affected as increased subsidies initially make up for part of the income lost due to fewer jobs. By 1995 we should begin to see a reduction in government spending as the predicted

		1994	1995	1996	1997	1998
Real GDP*	Baseline	3.28%	3.07%	2.65%	2.13%	1.86%
	Clinton Plan	3.26%	2.99%	2.63%	2.10%	1.79%
Employment*	Baseline	2.48%	2.63%	2.45%	2.31%	2.25%
	Clinton Plan	2.45%	2.29%	2.03%	1.99%	2.02%
Real Disposable Income*	Baseline	3.16%	2.65%	2.34%	2.19%	2.11%
	Clinton Plan	3.15%	2.54%	2.24%	2.10%	2.04%
Real Govt Spending*	Baseline	1.27%	1.71%	1.95%	1.95%	1.85%
	Clinton Plan	1.24%	1.30%	1.45%	1.53%	1.47%
Real PCE Medical Care*	Baseline	3.50%	3.47%	3.46%	3.42%	3.35%
	Clinton Plan	3.50%	3.65%	3.80%	3.71%	3.58%
CPI Medical Care*	Baseline	4.51%	4.28%	4.36%	4.58%	4.87%
	Clinton Plan	4.51%	3.94%	3.74%	4.09%	4.51%
PCE Medical Care Deflator*	Baseline	4.60%	4.88%	4.73%	4.65%	4.65%
	Clinton Plan	4.60%	4.34%	3.74%	3.79%	3.95%
Fiscal Year Federal Deficit (Billions of Dollars)	Baseline	\$204	\$191	\$180	\$172	\$162
	Clinton Plan	\$209	\$206	\$193	\$161	\$126
Civilian Unemployment Rate	Baseline	6.30%	6.04%	5.92%	5.96%	6.12%
	Clinton Plan	6.30%	6.04%	5.92%	5.96%	6.12%

\* Annual Percent Changes

savings in Medicare and Medicaid begin to outweigh any increased costs of administration of the program. This should speed up progress on the Federal deficit leading to a forecast which is \$40 billion less than our current baseline forecast.

As the cost of medical care falls toward the overall rate of inflation, personal consumption expenditures on medical care services should rise.

The precise impacts of the President's plan are subject to debate and this scenario is meant only to depict one possible alternative to the current economic outlook. As with any economic proposals of this magnitude it's a question of timing and of weighing the costs and benefits. For some sectors of the economy, notably small business and their employees, the impacts of the plan will be significant. In terms of overall economic performance, the costs of slightly less GDP growth may be worth the sizable reductions in the Federal budget deficit.





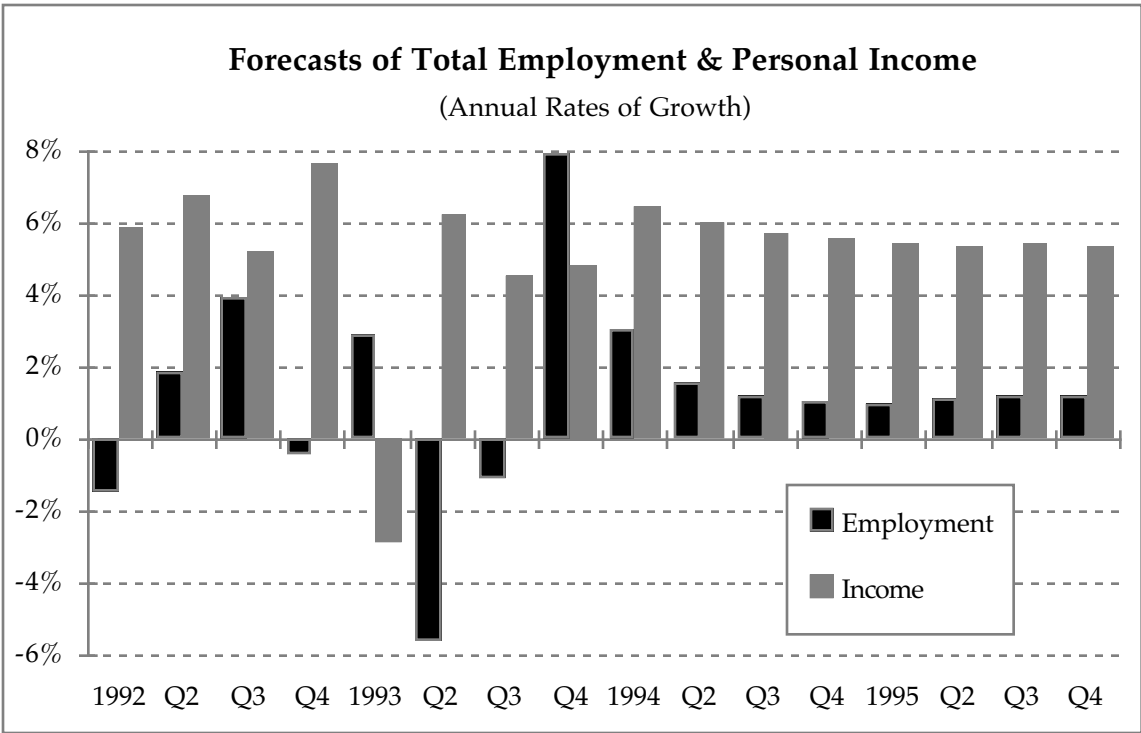
### The Outlook for Maine: An Economy in Transition ?

When we think of economies in transition, we generally think of countries like Poland or Russia where the people are struggling to adjust to free markets after decades of living under communist rule and the accompanying economic programs. It seems a far cry from what we see happening in Maine today....or is it?

While still a land of free and open markets, Maine is definitely undergoing a transition as we've seen the national program of corporate downsizing and the near shut-down of defense related industries and base closings

good, both in terms of the annual increases in the number of new jobs and also the types of jobs available.

While the U.S. economy officially began its recovery in the second quarter of 1991, employment in Maine continued to fall for another full year before we hit bottom and began to see a turn around. After starting 1993 with an almost 3% annual rate of growth in employment for the first quarter it looked as if Maine was headed back into a steep slump as employment fell by 5.6% at an annual rate in the second quarter and by another 1% the following quarter. We are predicting that fourth quarter growth will be much stronger as it now looks like



sweep into the state. While maybe not an economic transition in the sense of a movement from communism to capitalism, we are seeing a change in the structure of the Maine economy. The future for the people of Maine now appears to be in the service industries, rather than heavy manufacturing or even agriculture. How we embrace this structural change and plan for the future promises to be one of the major issues of the upcoming gubernatorial election in 1994.

In a sense, Maine is still trying to recover from the national recession of 1990-91. While true that Maine fared better than its New England neighbors to the south, it has taken us longer to recover from the recession. Part of this recovery involved an adjustment to the fact that the employment gains of the late 1980s are gone for

employment will grow by nearly 8% annually. This means that 1993 will end with a slightly positive increase in total wage and salary employment for Maine. 1994 should begin strong as well, with employment up by 3.1% annually in the first quarter. From here our forecast levels off a bit with a projected growth rate of 2.2% next year and 1.2% in 1995.

After six consecutive quarters of growth, personal income in Maine fell by 2.9% annually in the first quarter of this year. While personal income rebounded in the second quarter, the poor showing at the beginning of the year contributed to the level of uncertainty regarding the strength of the Maine economy today. We estimate that personal income will continue to grow throughout the remainder of the forecast horizon. On an inflation-



adjusted basis, personal income will grow by just 1% this year and 2.9% in 1994.

Taxable retail sales are forecast to grow by 7.2% this year and 7.8% in 1994. Continued growth in retail sales in 1995 should help support our employment forecast as retailers gain confidence in the economy and increase hiring.

1993 will prove to have been a bad year for the construction industry in Maine according to our analysis of the current data and projections for the fourth quarter of this year. Housing permits are forecast to decline by 7.9% this year before recovering in 1994 and 1995.

Finally, growth in retail sales and employment translate into an optimistic fiscal outlook for Maine. We predict that the current fiscal year will show a State budget surplus of just under \$1 million.

**Accuracy of the Maine Forecasts**

In presenting forecasts for the Maine economy, it is a good idea to look at how the *CEO* performed in predicting key indicators of the state’s economic activity from previous quarters. In the table below, a positive forecast error means that the predicted value for a certain quarter was less than what the actual value was believed to be. The Mean error is a measure of the bias in the forecast, it notes whether the model tends to be overly optimistic or pessimistic. The MAPE is the average percentage forecast error expressed in absolute terms, all of the forecast errors are computed in terms of their absolute values so that the negatives and positives do not cancel each other out. These absolute errors are then averaged together to produce the MAPE.

The *CEO* forecasts that were made last December were, on average, off by an average of just 1.0% during the past four quarters for total employment and 2.2% for personal income. That’s a pretty good track record considering the level of uncertainty that existed about the future of the Maine economy last year. But some other variables were harder to forecast with such accuracy, the unemployment rate and housing permits are two notable exceptions. In each case we were more optimistic last year about the health of the Maine economy than what we now know to be true.

One of the things that makes economic forecasting difficult is that the historical data keeps changing. This is particularly true for state-level data. The column in the table below labeled Revision represents the deviation between what was believed to be the value of the variable as of December 1992 and what is now being to have actually occurred. In some cases, the revision is large, nearly eight thousand persons for the cases of nonmanufacturing employment for example (larger than any one of our forecast errors for the past four quarters), as better information becomes available over time. Some data aren’t revised at all, for example Total Undedicated Revenues. Others merely receive new seasonal adjustments and so the revisions are quite small.

Note that for personal income, 93:Q3 represents a forecast error since that observation was not available at the time last December’s *CEO* went to press. Similarly, today we do not yet know the value of personal income for the third quarter of this year.

Colby Economic Outlook: December 20, 1992 Forecast Errors (Actual - Predicted)		Revision Forecast						
		92:Q3	92:Q4	93:Q1	93:Q2	93:Q3	Mean	MAPE
Total Wage & Salary Employment	(Thousands)	5.4	0.5	1.5	-8.1	-11.2	-4.3	1.0%
Nonmanufacturing Employment	(Thousands)	7.9	3.3	4	-4	-5.8	-0.6	1.0%
Manufacturing Employment	(Thousands)	-2.7	2.9	-2.7	-4.2	-5.4	-3.8	4.1%
Unemployment Rate	(%)	0.1	0.5	1.7	1.9	1.3	1.4	
Personal Income	(Billion \$'s)	-0.1	-0.1	-0.7	-0.8	n.a.	-0.5	2.2%
Taxable Retail Sales	(Million \$'s)	-10.9	-20.5	-28.5	0.0	11.2	-16.3	1.9%
Housing Unit Permits	(Units)	-2	58	-84	-55	-34	-28.8	19.5%
Total Undedicated Revenues	(Million \$'s)	0.0	-5.3	-18.8	4.7	2.9	-4.1	2.2%

COLBY ECONOMIC OUTLOOK FOR THE MAINE ECONOMY, 1993:Q4 - 1995:Q4

13-Dec-93

Variable	Units	Actual Forecast										Percent Change		
		93:Q3	93:Q4	94:Q1	94:Q2	94:Q3	94:Q4	95:Q1	95:Q2	95:Q3	95:Q4	1992-93	1993-94	1994-95
Total Wage & Salary Employment	(Thousands)	509.9	519.7	523.7	525.7	527.3	528.7	530.1	531.6	533.2	534.8	0.5%	2.2%	1.2%
Nonmanufacturing Employment	(Thousands)	418.5	427.1	428.9	431.2	433.2	435.1	437.0	438.8	440.6	442.2	0.7%	2.2%	1.7%
Manufacturing Employment	(Thousands)	91.4	92.6	94.8	94.6	94.1	93.7	93.1	92.8	92.6	92.6	-0.2%	2.4%	-1.6%
Unemployment Rate	(%)	7.60	7.10	6.85	6.72	6.64	6.58	6.53	6.48	6.43	6.38	8.9%	-13.5%	-3.6%
Personal Income (a)	(Billion \$'s)	23.34	23.62	24.00	24.35	24.69	25.03	25.37	25.70	26.04	26.39	3.7%	5.7%	5.5%
Real Personal Income (a)	(Bill 1987 \$'s)	18.32	18.42	18.57	18.71	18.83	18.95	19.06	19.18	19.30	19.41	1.0%	2.9%	2.5%
Taxable Retail Sales	(Million \$'s)	2,554	2,593	2,640	2,677	2,713	2,746	2,782	2,818	2,852	2,882	7.2%	7.8%	5.2%
Housing Unit Permits	(Units)	314	313	316	325	328	327	331	336	339	342	-7.9%	10.7%	4.0%
Total Undedicated Revenues	(Million \$'s)	419.3	416.0	349.7	399.8	392.5	382.3	368.2	459.2	438.3	427.0	1,563.4	1,584.8	1,602.2

FY '93 FY '94 FY '95

Input Assumptions for the Exogenous Variables in the Maine Model

	93:Q3	93:Q4	94:Q1	94:Q2	94:Q3	94:Q4	95:Q1	95:Q2	95:Q3	95:Q4	1992-93	1993-94	1994-95	
Gross National Product	(Bill '87 \$'s)	5135.9	5185.4	5229.5	5273.9	5316.0	5355.6	5396.2	5436.7	5477.1	5515.0	2.8%	3.3%	3.1%
Index of Consumer Sentiment	(Feb '66=100)	77.4	82.1	84.7	86.2	87.3	87.9	88.6	90.0	91.0	91.4	6.7%	5.1%	4.3%
Newspaper Index of Help Wanted Ads.	(1967=100)	101.7	104.7	106.4	107.5	108.1	108.3	108.5	108.6	108.6	108.4	8.5%	7.9%	0.9%
Consumer Price Index: All Items	(1982-84=100)	144.77	145.76	146.92	148.22	149.49	150.78	151.93	153.06	154.23	155.46	2.9%	3.0%	3.2%
Average Home Mortgage Rate	(%)	7.04	6.87	6.86	6.89	6.93	6.97	7.02	7.07	7.12	7.17	-11.6%	-3.9%	2.6%

Endogenous Variables with Nonzero Adjustment Constants

	93:Q4	94:Q1	94:Q2	94:Q3	94:Q4	95:Q1	95:Q2	95:Q3	95:Q4
Total Wage & Salary Employment	(Thousands)	10	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Nonmanufacturing Employment	(Thousands)	7	0	0	0	0	0	0	0
Personal Income	(b)	-0.01	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002
Housing Unit Permits	(Units)	14	0	-60	-40	-20	-10	-5	-5
Taxable Retail Sales	(b)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total Undedicated Revenues	(b)	-0.1	-0.2	-0.28	-0.25	-0.25	-0.25	-0.25	-0.25

(a) Value in 1993Q3 is predicted.

(b) Forecasting equation for this variable was estimated in terms of the natural logarithms.

COLBY ECONOMIC OUTLOOK FOR THE U.S. ECONOMY, 1993:Q4 - 1995:Q4

13-Dec-93

Variable	Units	Actual Forecast												Percent Change		
		93:Q3	93:Q4	94:Q1	94:Q2	94:Q3	94:Q4	95:Q1	95:Q2	95:Q3	95:Q4	92-93	93-94	94-95		
Gross Domestic Product	(Bill '87 \$'s)	5135.9	5185.4	5229.5	5273.9	5316.0	5355.6	5396.2	5436.7	5477.1	5515.0	2.8%	3.3%	3.1%		
Annual Rate of Growth		2.7%	3.9%	3.4%	3.4%	3.2%	3.0%	3.1%	3.0%	3.0%	2.8%					
Personal Consumption Expenditures	(Bill '87 \$'s)	3469.6	3495.8	3520.4	3546.1	3572.0	3597.8	3624.0	3650.9	3677.7	3704.2	3.3%	3.1%	3.0%		
Durable Goods	(Bill '87 \$'s)	492.8	495.9	498.0	501.3	504.7	508.3	512.4	517.0	521.8	526.4	6.5%	3.5%	3.2%		
Nondurable Goods	(Bill '87 \$'s)	1092.9	1101.1	1108.7	1116.1	1123.4	1130.6	1137.8	1145.0	1152.1	1159.1	2.4%	2.9%	2.6%		
Services	(Bill '87 \$'s)	1883.9	1898.8	1913.7	1928.7	1943.8	1958.8	1973.9	1988.9	2003.8	2018.7	2.9%	3.2%	3.1%		
Gross Private Domestic Investment	(Bill '87 \$'s)	811.9	827.7	840.4	853.0	863.6	872.3	881.8	891.0	899.9	906.6	10.7%	5.6%	4.4%		
Fixed Investment	(Bill '87 \$'s)	806.4	824.3	835.9	847.0	857.1	865.6	874.0	882.6	890.3	896.8	10.0%	6.6%	4.1%		
Nonresidential	(Bill '87 \$'s)	594.8	608.1	616.7	625.3	633.5	640.5	647.4	654.1	660.2	665.6	11.0%	7.1%	4.4%		
Residential	(Bill '87 \$'s)	211.6	216.2	219.2	221.7	223.6	225.0	226.7	228.5	230.1	231.1	7.2%	5.2%	3.0%		
Change in Business Inventories	(Bill '87 \$'s)	5.5	3.4	4.5	5.9	6.5	6.7	7.8	8.3	9.5	9.9	98%	-54%	50%		
Government Purchases	(Bill '87 \$'s)	941.7	943.4	946.1	949.3	953.0	956.9	961.0	965.2	969.7	974.4	-0.6%	1.3%	1.7%		
Net Exports of Good & Services	(Bill '87 \$'s)	-87.3	-81.5	-77.4	-74.5	-72.6	-71.4	-70.7	-70.4	-70.2	-70.2	126%	-2.6%	-4.9%		
Exports of Goods & Services (a)	(Bill '87 \$'s)	591.0	598.3	605.6	613.0	620.6	628.2	635.9	643.7	651.6	659.6	2.5%	4.1%	5.0%		
Imports of Goods & Services	(Bill '87 \$'s)	678.3	679.7	683.0	687.5	693.2	699.6	706.6	714.0	721.8	729.8	9.3%	3.3%	3.9%		
Gross National Product	(Bill '87 \$'s)	5140.5	5190.9	5235.8	5281.1	5324.1	5364.6	5406.1	5447.6	5488.8	5527.7	2.7%	3.4%	3.1%		
Gross Domestic Product	(Bill \$'s)	6394.5	6493.9	6588.4	6686.5	6784.3	6880.1	6975.7	7073.1	7169.4	7264.9	5.5%	5.7%	5.7%		
Personal Consumption Expenditures	(Bill \$'s)	4419.4	4482.8	4548.2	4616.7	4685.0	4753.9	4823.3	4892.9	4963.9	5035.0	6.0%	6.0%	6.0%		
Durable Goods	(Bill \$'s)	541.6	546.2	550.1	555.6	561.5	567.5	573.7	580.7	587.8	595.0	7.3%	4.7%	4.6%		
Nondurable Goods	(Bill \$'s)	1352.4	1367.1	1383.2	1400.0	1415.7	1431.5	1447.2	1462.0	1477.8	1493.3	3.8%	4.3%	4.4%		
Services	(Bill \$'s)	2525.4	2569.4	2614.9	2661.1	2707.8	2754.9	2802.5	2850.2	2898.3	2946.8	7.0%	7.1%	7.1%		
Gross Private Domestic Investment	(Bill \$'s)	883.1	898.2	911.8	927.0	940.8	952.3	965.5	978.6	991.0	1000.2	10.8%	5.7%	5.4%		
Fixed Investment	(Bill \$'s)	875.9	894.0	906.7	920.2	933.2	944.5	956.3	968.8	979.8	988.5	9.9%	6.7%	5.1%		
Nonresidential	(Bill \$'s)	624.9	635.4	641.9	649.6	657.4	664.7	671.9	679.3	685.5	690.8	9.4%	5.6%	4.4%		
Residential	(Bill \$'s)	251.0	258.6	264.8	270.7	275.8	279.8	284.3	289.5	294.3	297.7	11.4%	9.5%	6.8%		
Change in Business Inventories	(Bill \$'s)	7.2	4.2	5.0	6.8	7.6	7.8	9.2	9.8	11.2	11.7	100%	-54%	54%		
Government Purchases	(Bill \$'s)	1165.5	1173.5	1182.4	1191.9	1201.8	1212.1	1222.3	1232.6	1243.2	1254.1	2.4%	3.3%	3.4%		
Net Exports of Good & Services	(Bill \$'s)	-73.5	-60.6	-54.0	-49.1	-43.3	-38.1	-35.4	-31.0	-28.6	-24.5	109%	-25.4%	-35.2%		
Exports of Goods & Services	(Bill \$'s)	652.5	664.4	677.1	689.5	702.1	715.0	728.0	741.2	754.7	768.3	2.6%	5.9%	7.5%		
Imports of Goods & Services	(Bill \$'s)	726.0	725.0	731.1	738.6	745.4	753.1	763.3	772.2	783.3	792.8	7.3%	3.2%	4.8%		

(a) Exogenously Determined

COLBY ECONOMIC OUTLOOK FOR THE U.S. ECONOMY, 1993:Q4 - 1995:Q4

13-Dec-93

Variable	Units	Actual Forecast												Percent Change		
		93:Q3	93:Q4	94:Q1	94:Q2	94:Q3	94:Q4	95:Q1	95:Q2	95:Q3	95:Q4	92-93	93-94	94-95		
Inflation: GDP Deflator	(%/A.R.)	1.64	2.36	2.43	2.56	2.66	2.68	2.53	2.59	2.48	2.56	2.6%	2.4%	2.6%		
Consumer Price Index	(%/A.R.)	1.21	2.77	3.24	3.59	3.46	3.50	3.09	3.00	3.09	3.24	2.9%	3.0%	3.2%		
Personal Consumption Deflator	(%/A.R.)	1.27	2.64	3.04	3.11	3.01	3.01	2.93	2.82	2.87	2.85	2.7%	2.7%	2.9%		
Consumer Durables Deflator	(%/A.R.)	0.36	0.87	1.20	1.38	1.41	1.47	1.19	1.23	1.21	1.34	0.8%	1.2%	1.3%		
Nondurable Consumption Deflator	(%/A.R.)	-1.60	1.49	1.95	2.18	1.89	1.88	1.85	1.58	1.83	1.75	1.4%	1.3%	1.8%		
Consumer Services Deflator	(%/A.R.)	2.73	4.00	3.96	3.94	3.92	3.90	3.86	3.81	3.77	3.74	4.0%	3.8%	3.8%		
Medical Care Services Deflator	(%/A.R.)	3.41	4.33	4.72	4.89	4.93	4.93	4.89	4.85	4.80	4.75	5.1%	4.6%	4.9%		
CPI for Medical Care	(%/A.R.)	5.02	4.54	4.34	4.28	4.26	4.28	4.28	4.28	4.29	4.32	6.0%	4.5%	4.3%		
Government Purchases Deflator	(%/A.R.)	2.29	1.92	1.91	1.84	1.79	1.76	1.67	1.62	1.59	1.59	3.1%	1.9%	1.7%		
Import Price Deflator	(%/A.R.)	-5.42	-1.27	1.45	1.44	0.42	0.42	1.43	0.42	1.42	0.42	-1.8%	-0.1%	0.9%		
Export Price Deflator	(%/A.R.)	-3.20	2.43	2.71	2.42	2.39	2.41	2.35	2.36	2.36	2.32	0.1%	1.7%	2.4%		
Retail Gasoline Prices (All Types)	(\$/Gal.)	1.16	1.18	1.20	1.22	1.23	1.24	1.26	1.27	1.28	1.30	-1.0%	3.8%	4.3%		
Business Inventories	(Bill '87 \$s)	997.2	1000.6	1005.2	1011.1	1017.6	1024.4	1032.2	1040.5	1050.1	1059.9	1.5%	1.8%	3.1%		
Real Disposable Income	(Bill '87 \$s)	3706.0	3741.7	3771.7	3800.4	3827.2	3852.7	3877.8	3902.2	3926.2	3949.4	1.8%	3.2%	2.6%		
Nominal Disposable Income	(Bill \$'s)	4720.6	4798.0	4872.9	4947.7	5019.7	5090.7	5161.0	5229.8	5299.4	5368.2	4.5%	6.0%	5.7%		
Average Home Mortgage Rate	(%)	7.04	6.87	6.86	6.89	6.93	6.97	7.02	7.07	7.12	7.17	-11.6%	-3.9%	2.6%		
Aaa Corporate Bond Rate	(%)	6.89	6.87	6.99	7.01	7.04	7.06	7.09	7.10	7.13	7.14	-11.2%	-2.8%	1.3%		
New Privately-Owned Housing Units Started	(Millions)	1.30	1.32	1.34	1.34	1.35	1.36	1.37	1.39	1.39	1.39	3.9%	7.3%	2.9%		
30 Year Treasury Bond Rate	(%)	6.32	6.20	6.52	6.62	6.72	6.81	6.90	6.97	7.06	7.13	-13.7%	0.8%	5.2%		
10 Year Treasury Bond Rate	(%)	5.62	5.66	5.84	5.90	5.97	6.02	6.09	6.12	6.18	6.21	-16.0%	0.8%	3.6%		
5 Year Treasury Bond Rate	(%)	4.95	5.03	5.21	5.29	5.37	5.44	5.52	5.56	5.64	5.69	-16.6%	3.2%	5.1%		
3 Month Treasury Bill Rate	(%)	3.00	3.14	3.25	3.36	3.49	3.58	3.69	3.76	3.90	3.99	-12.1%	13.4%	12.2%		
Effective Rate on Federal Funds	(%)	3.06	3.06	3.21	3.41	3.58	3.75	3.89	4.04	4.21	4.34	-13.7%	14.8%	18.1%		
Average Foreign Interest Rate	(%)	5.96	5.52	5.29	5.21	5.21	5.27	5.36	5.47	5.60	5.72	-26.6%	-17.1%	5.6%		
Trade-Weighted Exchange Value of the U.S. \$	(3/73=100)	93.66	94.80	96.02	96.37	96.75	97.08	97.37	97.61	97.80	97.96	7.5%	3.6%	1.2%		
Euro-Dollar Deposit Rate	(%)	3.13	3.37	3.45	3.58	3.75	3.90	4.07	4.21	4.40	4.56	-13.7%	14.8%	17.4%		
Money Supply (M1)	(Bill \$'s)	1095.2	1126.9	1156.7	1185.1	1212.6	1239.4	1265.7	1291.8	1317.7	1343.4	11.6%	11.0%	8.9%		
Money Supply (M2)	(Bill \$'s)	3523.3	3545.7	3565.7	3584.5	3602.9	3621.1	3639.4	3657.8	3676.5	3695.4	1.1%	2.4%	2.1%		

(a) Exogenously Determined



*Input Assumptions: Endogenous Variables with Nonzero Intercept Adjustments*

	93:Q4	94:Q1	94:Q2	94:Q3	94:Q4	95:Q1	95:Q2	95:Q3	95:Q4
Average Foreign Interest Rate	(b) -0.25	0	0	0	0	0	0	0	0
Personal Consumption Exp. - Nondurable Goods	(b) 2	2	2	2	2	2	2	2	2
Trade-Weighted Exchange Value of the U.S. \$	(c) 0.003	0	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Implicit Deflator: PCE Nondurables	(c) -0.003	-0.003	-0.003	-0.003	-0.003	-0.003	-0.003	-0.003	-0.003
Retail Gasoline Prices (All Types)	(\$/Gal.) 0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Money Supply (M2)	(Bill \$'s) 6	8	10	12	14	16	18	20	22
Aaa Corporate Bond Rate	(%) 0.035	0.08	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Effective Rate on Federal Funds	(%) 0.05	0.2	0.25	0.3	0.35	0.4	0.45	0.5	0.5
3 Month Treasury Bill Rate	(%) 0.08	0	0	0	0	0	0	0	0
30 Year Treasury Bond Rate	(%) -0.1	0	0	0	0	0	0	0	0
Average Home Mortgage Rate	(%) 0.04	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Euro-Dollar Deposit Rate	(%) 0.2	0	0	0	0	0	0	0	0
Personal Consumption Exp. - Durable Goods	(Bill '87 \$'s) 5	0	-1	-1.5	-2	-2	-2	-2	-2
Personal Consumption - Nonmedical Services	(Bill '87 \$'s) 2	2	2	2	2	2	2	2	2
Implicit Deflator: Nonresidential Investment	(1987=100) -0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.4	-0.4
Nonresidential Fixed Investment	(Bill '87 \$'s) 5	4	6	8	8	9	10	10	10
Residential Fixed Investment	(Bill '87 \$'s) 0	0	1	1	1	1	1	1	1
Business Inventories	(Bill '87 \$'s) 2	2	3	3	3	4	4	5	5
New Privately-Owned Housing Units Started	(Millions) 0.01	0.02	0.03	0.04	0.05	0.06	0.06	0.06	0.06
Index of Consumer Sentiment	(Feb '66=100) 0	0	0	0	0	0	1	1	1
Consumer Price Index: All Items	(1982-84=100) 0	-0.15	-0.15	-0.3	-0.3	-0.5	-0.5	-0.5	-0.5

(b) The forecasting equation for this variable was estimated in terms of the first differences.

(c) The forecasting equation for this variable was estimated in terms of the first difference of the natural logarithms.

(a) Exogenously Determined

**COLBY ECONOMIC OUTLOOK FOR THE U.S. ECONOMY, 1993:Q4 - 1995:Q4**

13-Dec-93

*Input Assumptions: Forecast Paths for the Exogenous Variables in the Model*

Variable	Units	Actual Forecast												Percent Change			
		93:Q3	93:Q4	94:Q1	94:Q2	94:Q3	94:Q4	95:Q1	95:Q2	95:Q3	95:Q4	92-93	93-94	94-95			
Exports of Goods and Services	(Bill '87 \$'s)	591.0	598.3	605.6	613.0	620.6	628.2	635.9	643.7	651.6	659.6	2.5%	4.1%	5.0%			
Annual Rate of Growth (a)	(%)	-1.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0						
Avg. Refiners' Price of Crude Oil (a)	(\$'s/Barrel)	15.8	15.0	15.5	16.0	16.0	16.0	16.5	16.5	17.0	17.0	-9.8%	-4.4%	5.5%			
Manufacturing Capacity Utilization (a)	(%)	81.7	82.0	82.2	82.2	82.2	82.2	82.1	82.0	81.9	81.8	2.3%	0.6%	-0.3%			
Relative Foreign Prices (a, b)	Index	86.1	86.9	87.9	88.9	89.9	90.8	91.6	92.3	93.0	93.6	3.9%	2.8%	3.6%			
Discount Rate (a)	(%)	3.0	3.1	3.1	3.2	3.2	3.3	3.3	3.4	3.5	3.2	-7.7%	6.7%	4.7%			
Nonborrowed Reserves	(Bill \$'s)	57.8	59.2	60.6	62.0	63.5	65.0	66.6	68.2	69.8	71.5	13.9%	10.1%	9.9%			
Weekly Hours Index: Services Industry	(1977=100)	156.5	157.9	159.2	160.6	162.0	163.4	164.8	166.2	167.7	169.1	4.1%	3.7%	3.5%			
Annual Rate of Growth (a)	(%)	2.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5						
Average Hours of Production Workers (a)	(Hrs/week)	34.50	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	0.2%	0.1%	0.0%			
Nonoil Import Price Deflator	(1987=100)	104.57	104.69	104.81	104.93	105.04	105.16	105.28	105.40	105.52	105.63	-1.9%	0.0%	0.4%			
Annual Rate of Growth (a)	(%)	-3.08	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45						
Mortgage Debt Outstanding (a, d)	(Bill \$'s)	4.13	4.17	4.23	4.28	4.35	4.41	4.47	4.54	4.61	4.68	3.1%	5.0%	6.0%			
State & Local Government Purchases	(Bill \$'s)	720.1	731.5	743.1	754.9	766.9	779.1	791.4	804.0	816.8	829.7	4.7%	6.4%	6.5%			
Annual Rate of Growth (a)	(%)	5.2	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5						
Other Federal Government Expenditures (c)	(Bill \$'s)	862.5	875.2	888.0	901.0	914.3	927.7	941.3	955.1	969.1	983.3	5.0%	5.0%	6.0%			
Annual Rate of Growth (a)	(%)	0.9	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0						
Rest of World Factor Income Receipts	(Bill \$'s)	133.7	135.7	137.7	139.7	141.7	143.8	145.9	148.1	150.2	152.4	1.4%	7.4%	6.0%			
Annual Rate of Growth (a)	(%)	5.6	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0						
Rest of World Factor Income Payments	(Bill \$'s)	131.0	132.0	133.0	133.9	134.9	135.9	136.9	138.0	139.0	140.0	6.1%	3.9%	3.0%			
Annual Rate of Growth (a)	(%)	-3.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0						
Median # of Months Start to Sale: New 1-Family Homes (a)		3.60	3.74	3.74	3.74	3.74	3.74	3.74	3.74	3.74	3.74	5.0%	0.6%	0.0%			

(b) Defined historically as: (Nonoil Import Price Deflator x Exchange Value of the U.S. \$)/Export Price Deflator

(c) Total Federal Expenditures - Total Government Purchases of Goods & Services + State & Local Government Purchases - Federal Net Interest Payments

(d) Value in 93:Q3 is predicted

(a) Exogenously Determined