



COLBY ECONOMIC OUTLOOK

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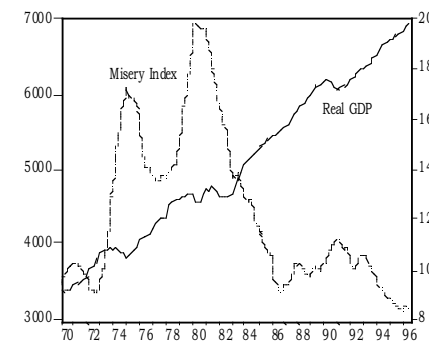
ECONOMIC PROJECTIONS FOR THE U.S. & MAINE ECONOMIES

With this issue, the *Colby Economic Outlook* celebrates its 7th year of providing short-term projections for the U.S. macroeconomy and the state of Maine. Each year, students in the senior seminar in economic forecasting study methods for data analysis and forecasting using the Colby Quarterly Econometric Model of the U.S. economy under the direction of Michael Donihue, Associate Professor of Economics.

In this issue of the *CEO* we examine a national economy that seems to defy both gravity and the conventional wisdom that for every expansion there must be a recession, as growth continues despite tight fiscal policies and seemingly unsustainable levels of employment and consumer debt.

The Maine economy, on the other hand, from recent data appears to be teetering on the brink of another recession despite anecdotal evidence that everything is, as folks from Maine like to say: "The way life should be."

Newtonian Economics ?



Real GDP keeps on growing while the Misery Index (smoothed in the chart) keeps falling.

If Sir Isaac Newton had been an economist, one wonders what he would have thought of the performance of the U.S. economy during the current business cycle. Like the Energizer® Bunny, the economy keeps growing and growing as this month marks the 69th month of the current expansion--nearly 2 years longer than the previous post-WWII average.

Week after week throughout the Presidential campaign of 1996 the economy continued to post numbers that an

incumbent President could only dream of. When voters went to the polls in November, the misery index (sum of the inflation and unemployment rates) stood at its lowest level in 20 years, leaving Republicans green with envy and the door to the White House firmly locked in Clinton's grasp.

Precisely what lies ahead is anyone's guess. This newsletter is our take on the current state of the economy and what we foresee for the next 2 years.

Inside The *Colby Economic Outlook*

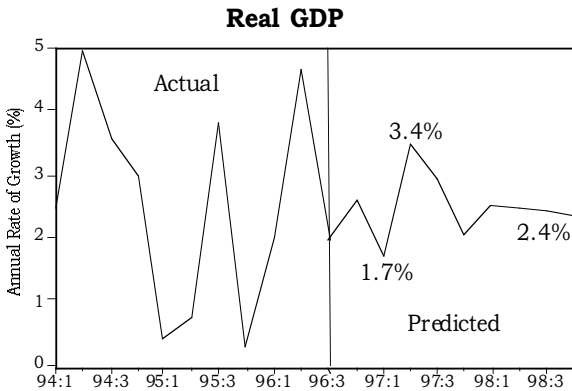
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The Ride Isn't Over Yet

Economic growth over the past 8 quarters, adjusted for inflation, has see-sawed between annual rates of less than 1% to nearly 5%.



Preliminary estimates put real GDP growth for the third quarter of 1996 at 2%, down considerably from the 4.7% growth recorded in the second quarter of the year. Our assumption is that the Fed will 'stay the course,' enabling economic growth to pick up in 1997 to an average of 2.6%, from an estimated 2.3% for 1996. Real GDP growth should then settle in at roughly 2.5% in 1998 according to our forecast.

Looking at the composition of output growth (see table), we predict that growth in household consumption of durable goods will drop off significantly to just 1.7% in 1997 and 1998, from the estimated 5.2% growth in 1996 -- most of which

occurred during the first half of the year.

Residential Investment is also forecast to grow at a somewhat slower pace as long-term interest rates drift upward by about 50 basis points over the forecast horizon. From an estimated 5.4% in 1996, real residential investment is forecast to grow by 3.5% in 1997 and by another 2.2% in 1998.

Real nonresidential investment is forecast to remain strong throughout the forecast horizon, increasing by 7.1% in 1997 and 6.1% in 1998, as producers' appetite for computers and other durable equipment remains strong.

We assume that the budget projections described by the OMB in the 1996 Mid-Session Review will remain in force during Fiscal '97, which puts real government expenditures on a downward path over the forecast horizon.

According to our projections, the civilian unemployment rate will stabilize at about 5.5% while inflationary pressures will remain modest, continuing a remarkable string of good years on the inflationary front and confounding those who fear that a sudden burst of inflation is on the horizon.

For the trade deficit, we are predicting an increase in the deficit in 1997 with only modest improvement in '98.

Forecast Summary

| Real GDP Growth | 1996 | 1997 | 1998 |
|------------------------------|--------|--------|--------|
| Gross Domestic Product | 2.3% | 2.6% | 2.5% |
| Consumption Expenditures | 2.4% | 2.5% | 2.6% |
| Durable Goods | 5.2% | 1.7% | 1.7% |
| Nondurable Goods | 1.4% | 2.3% | 2.4% |
| Services | 2.3% | 2.8% | 2.9% |
| Investment | 4.8% | 6.6% | 4.9% |
| Fixed Investment | 6.7% | 6.1% | 5.0% |
| Nonresidential | 7.2% | 7.1% | 6.1% |
| Residential | 5.4% | 3.5% | 2.2% |
| Inventory Investment* | \$16.9 | \$26.5 | \$27.2 |
| Government Spending | 0.8% | -0.6% | -0.3% |
| Net Exports* | \$-125 | \$-144 | \$-143 |
| Exports | 5.3% | 4.4% | 5.9% |
| Imports | 6.6% | 5.9% | 4.9% |
| Annual Averages | | | |
| Civilian Unemployment Rate | 5.4% | 5.5% | 5.5% |
| Inflation: CPI-U | 2.9% | 2.5% | 2.6% |
| Inflation: Nonfarm GDP Index | 2.0% | 2.3% | 2.5% |
| 3 Month T-Bill Rate | 5.0% | 5.3% | 5.9% |
| Aaa Corporate Bond Rate | 7.4% | 7.5% | 7.9% |
| Exchange Value of the Dollar | 3.4% | 0.5% | -3.0% |

* Billions of chained 1992 dollars, annual average

Accuracy of Last Year's Forecast

Forecasting is an imprecise science at best, and revisions to historical data make gauging the accuracy of your forecasts a bit like trying to hit a moving target. Last year's edition of the *CEO* was published on December 15, 1995. Two weeks later the Bureau of Economic Analysis published its rebenchmarking of the National Income & Product Accounts. The rebenchmarking resulted in an entirely new set of historical data for GDP and its components, including a redefinition of the way in which real GDP is calculated (see the next section on the Colby Model). As a result, it is not possible to calculate the accuracy of the forecasts of GDP or any of its components from last year's *CEO*.

Fortunately, some variables remain the same (or nearly

so). In the table below we see that last year's *CEO* overpredicted the rate of CPI inflation in all but the final quarter (96Q3) which was typical of many forecasters at that time. However, the unemployment rate turned out to be greater than predicted.

In general, last year's *CEO* underpredicted short-term interest rates in all 4 quarters and was too low on long-term rates in the first 2 quarters, but overpredicted long-term rates in the final 2 quarters.

Last year's *CEO* was also overly pessimistic with regard to consumer sentiment in all but the final quarter.

Average hourly earnings were slightly higher than expected for the first 2 quarters, but then were lower than predicted in the middle of 1996. The trade-weighted dollar also turned out to be lower than anticipated.

The Colby Model: It Just Doesn't Add Up

Last year's quintennial rebenchmarking of the National Income & Product Accounts brought with it the usual updating of historical values of real GDP and its components. Also included for the first time, however, was a redefinition of how GDP is calculated, both nominally and in real (inflation-adjusted) terms.

Government spending at both the federal and state and local levels, is now broken down into a consumption and an investment component. The way personal computers are treated in the national accounts also changed.

Perhaps the most significant change, however, was the introduction of the Fisher indexing of real GDP.

Prior to 1996, the BEA featured a calculation of real GDP using fixed-price weights based on a particular year, e.g., 1987. Every five years the BEA rebenchmarks its calculation of the components of real GDP, updating the price-weights in the process. Real GDP is now based in 1992 dollars.

In general, measures of constant-dollar GDP calculated using prices from a more recent base year will increase less than calculations

Forecast Errors

For the December 1995 *Colby Economic Outlook*

| | 95Q4 | 96Q1 | 96Q2 | 96Q3 |
|--|------|-------|-------|-------|
| (Actual - Predicted Percentage Points) | | | | |
| Civilian Unemployment Rate | 0.0 | 0.0 | 0.2 | 0.4 |
| CPI Inflation (Annual rog) | -0.3 | -1.0 | -1.5 | 0.1 |
| Federal Funds Rate | 0.0 | 0.3 | 0.3 | 0.2 |
| 3 Month Treasury Bill Rate | 0.0 | 0.4 | 0.3 | 0.2 |
| 30 Year Treasury Bond Rate | 0.1 | 0.0 | -0.6 | -0.7 |
| Aaa Corporate Bond Rate | 0.1 | 0.0 | -0.7 | -0.7 |
| (Actual - Predicted Percentage Errors) | | | | |
| Average Hourly Earnings | 0.0% | 0.1% | -0.3% | -0.5% |
| Total Employment | 0.1% | -0.1% | -0.4% | -0.5% |
| Index of Consumer Sentiment | 0.4% | 0.7% | 0.9% | -2.0% |
| Exchange Value of the Dollar | 0.3% | -1.8% | -3.0% | -1.2% |

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based on prices from an earlier year. This occurs because output grows most rapidly for those products which have the smallest increases in prices.

When real GDP is calculated using recent prices, goods and services with strong output growth will receive less weight than they would if those goods and services were valued using prices from an earlier time period. Real growth in aggregate output will thus be lower than it would be if earlier prices were used.

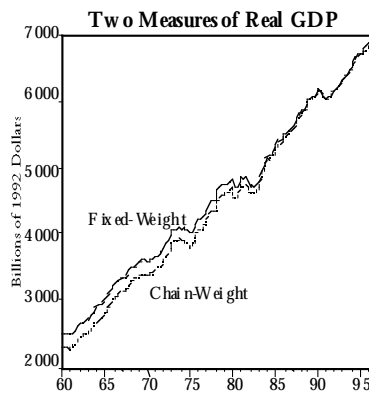
Economists have always known that this presented a problem for comparisons of GDP over time. However, the difference in the effect of using one set of prices over an earlier set were generally considered to be so small as to be unimportant. Two factors caused the BEA to rethink its approach for calculating real GDP.

First, the energy price shocks of the 1970's, and more recent fluctuations in food prices, were sufficiently large so that the choice of price weights had a significant impact on the measurement of real GDP growth.

Second, since the mid-1980's, dramatic reductions in computer prices have resulted in a difference of 0.3 percent annually in the rate of growth of real GDP when calculated using 1987 price weights, versus prices based in 1982. With the 1995

rebenchmarking, the BEA began featuring a new measure of real GDP which more accurately reflects output growth in an environment of rapidly changing prices. This measure is known as chain-weighted real GDP.

Technically, chain-weighting the components of GDP represents an approach introduced by the famous economist Irving Fisher in 1922. The underlying idea is to allow for changes over time in the relative price structure of GDP, thus correcting for the bias which occurs when prices are held constant at one particular base year. In the base year (1992) both the fixed-weight and the chain-weighted estimates of real GDP should be the same. As you move further and further from the base period, however, the two measures will diverge (see chart).



The biggest problem presented by the new definition for modelers like ourselves is that, unlike the fixed-weighted components, the level of 'chain-weighted' real GDP is not equal to the sum of chain-weighted

consumption, investment, government spending, and net exports.

Essentially this means that all of the aggregating formulas in our model for the components of real GDP now involve very complicated algebraic expressions. Even then, the results will not match the data from the BEA exactly because our model does not disaggregate GDP to as fine a level of detail--the BEA disaggregates GDP across hundreds of components. Thus any forecast of real GDP (by any modeler) now contains an aggregation error in the historical definition. Our job is to get as close as is reasonably possible and we worked hard this semester to ensure that we have.

The model we use to produce our forecasts, the Colby Quarterly Econometric Model of the U.S. Economy, is a simplified statistical model of real GDP and its major components. We rebuilt the entire model this semester. Several new equations were added, particularly in modelling the foreign sector of the economy, bringing the total to 64 behavioral relationships and 33 identities. Complete documentation for the CQEM will be available at our Internet address.

Of the nearly 100 variables in the model, only 20 are exogenously determined.

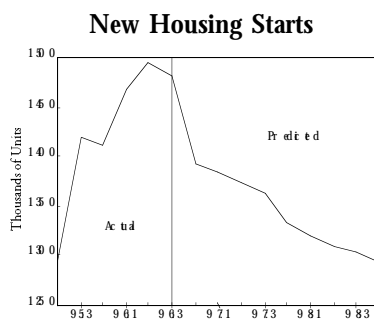
Are Consumers In Over Their Heads?

American households have grown increasingly dependent on their credit cards. People today are paying with plastic for everything from dishwashers to diapers. We are as close to a 'cash-less' society as we've ever been and with the advent of electronic banking and shopping, the trend shows little sign of slowing. Over the past 5 years consumer debt has risen by nearly 40%. If there's a lynch pin to our forecast, it's how long consumers can sustain this level of debt accumulation. The American Bankers Association reports that the delinquency rate for credit card bills this year was 3.6%, the highest it has ever been since they began tracking the rate in 1974. After posting strong growth in the first 2 quarters of 1996, preliminary estimates report that purchases of consumer durables (adjusted for inflation) declined at an annual rate of 2% in the third quarter of 1996. Our estimate is that personal consumption of durable goods will rise by 5.2% in real terms this year. However, it is our belief that consumers will back off from the rapid rate of debt accumulation of late, resulting in a rate of growth for durable goods expenditures of just 1.7% in 1997 and 1998.

Housing: At The End of the Cycle

During the first 9 months of 1996, housing starts were nearly 10% higher than in 1995. For the second quarter of 1996, real residential investment reached an all-time high. But in September the residential construction sector of the economy changed dramatically as housing starts fell by 6%, followed by another 5% decline in October.

Our forecast is that strong growth in the first-half of 1996 will enable total residential investment to grow by 5.4% in real terms. Growth in 1997 is forecast to slow to 3.5%, and 2.2% in 1998, as long-term interest rates drift upward.



New housing starts are forecast to increase by 7.4% this year, but fall by 6.5% in 1997 and another 4.3% in 1998 as the recent expansion comes to an abrupt end. Part of the decline is attributable to a predicted 50 basis point increase in mortgage interest rates over the forecast horizon.

Deficit Reduction & Government Investment

In 1992 President-elect Clinton promised the American people that he would cut the federal deficit in half. During his first term in office, he exceeded most expectations in this regard. Indeed, one week before the election, the Office of Management and Budget (OMB) declared that the federal budget deficit would close fiscal 1996 at \$107.3 billion, more than equalling Clinton's campaign pledge to cut the deficit in half. As a percentage of GDP, the OMB estimate represented the lowest deficit figure since 1974.

The Administration and the newly-elected Congress appear to be in agreement over balancing the budget by 2002. Clearly some form of balanced-budget plan will be enacted during the coming year. In our forecast we worked from the 1996 Mid-Session Review of the Budget published by the OMB and translated by the BEA onto a national income basis. Using revenue projections from the CQEM, we estimate that the federal deficit will fall by 5.6% in fiscal year 1997 and another 10% in fiscal 1998.

The recent revision of the national income and product accounts (NIPA) has led to new discussion on government

expenditures. Previously, consumption and investment were joined together under the heading of total government expenditures. Now the new NIPA data includes separate entries for government consumption and investment. Government investment includes expenditures for structures and equipment (such as highways, schools, motor vehicles, and computers). Since such expenditures were previously counted as "gross government consumption," government saving was understated. The BEA estimates that this new treatment will raise both the share of GDP accounted for by gross investment and the national saving rate by about 3 percentage points.

President Reagan promoted huge investments in military spending during his administration. The \$86 billion peak reached in the third quarter of 1987 was well above the historical average of \$51 billion (chained '92 \$s).

During President Bush's term in office, real federal investment remained roughly constant, although significant reductions in military spending were enacted, but not yet implemented, at the end of his term.

President Clinton followed through on these initiatives, and added some of his own, and as a result real federal investment spending has fallen by 22% since January 1993--- primarily as a result of

The Twin Deficit Puzzle

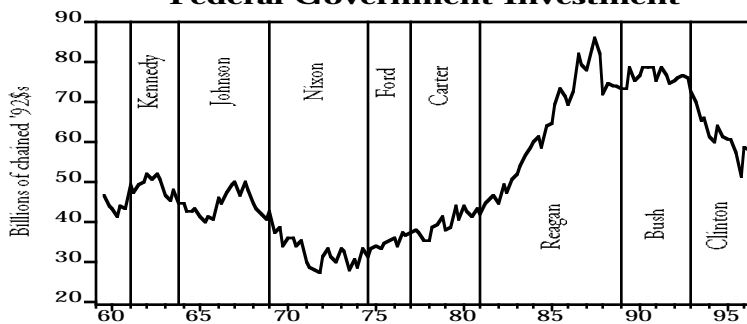
During past two decades one of the biggest macroeconomic problems in the U.S. has been that of the "twin deficits"-- the federal budget and current account deficits.

Many economists believe that the two phenomena are inherently related. An increase in government spending or a decrease in taxes, causing an increase in expenditures over revenue (a deficit), will stimulate income and output in the economy and have two effects: (i) it will increase import demand and thus reduce the volume of net exports; and (ii) it will put upward pressure on interest rates resulting in an inflow of capital from abroad. The resulting increase in demand for U.S. dollars will put upward pressure on exchange rates which in turn increases import demand and reduces demand for our exports--- fiscal deficits result in trade deficits.

The macroeconomic data for the U.S., prior to about 1992 seemed to bear out this conventional wisdom as huge fiscal deficits in the 1980's resulted in large capital inflows and a significant trade deficit.

More recent data on the volume of trade, however, has cast some doubt on this

Federal Government Investment



The chart above of total federal government investment, adjusted for inflation, reveals some interesting trends across different administrations. The lowest recorded investment was \$27 billion, which occurred during the Nixon Administration.

defense department downsizing.

We are predicting a 9.1% decline in current-dollar defense investment in 1997, followed by a 1.1% decline in 1998. Nondefense investment is predicted to remain roughly constant throughout the forecast horizon.

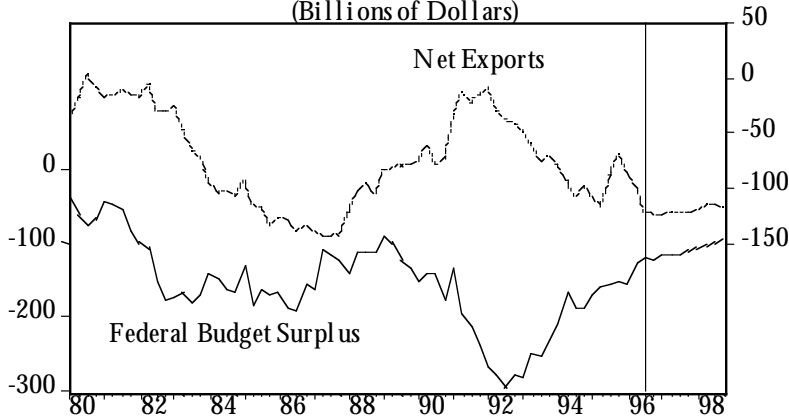
conventional wisdom and as a result the twin deficits have become more of a puzzle than a problem for policy makers and macroeconomists.

deficit has narrowed considerably.

In searching for explanations to the puzzle, some analysts argue that the relationship

Twin Deficits

(Billions of Dollars)



While the federal budget deficit (negative surplus in the chart above) has declined dramatically since 1992, net exports have become more negative, i.e., the trade deficit has *worsened*.

Part of the puzzle can be explained by the recovery from the 1990-91 recession. The early part of the current expansion brought about an increase in demand for imports at a time when the U.S. dollar was relatively strong. Both factors caused the trade deficit to increase. Indeed, throughout this expansion U.S. demand for foreign goods has remained strong.

More recently, the Clinton Administration embarked on a campaign of fiscal austerity through a combination of tax increases and continued reductions in fiscal spending. As a result, the federal fiscal

between interest rates, capital inflows, and exchange rates has become more complicated given the recent globalization of financial markets.

We predict that the exchange value of the dollar, on a trade-weighted basis, will continue its recent appreciation into the new year, rising by 3.4% in 1996 and 0.5% in 1997. 1998 should show a drop off of about 3% in the value of the dollar according to our projections.

In real terms, exports are forecast to grow by 5.3% in 1996, 4.4% in 1997, and 5.9% in 1998. Fueled by the appreciation in the dollar, import growth will outpace export growth in both 1996 and 1997 according to our projections, causing net exports to continue to be a drag on overall GDP growth.

The Greenspan Effect

On December 5, 1996, Alan Greenspan uttered two words that sent the world asset markets into disarray. The Chairman of the Federal Reserve characterized current behavior in both the stock and bond markets as “irrational exuberance,” causing a frenzy of selling in the United States, Asia, and Europe. When financial markets opened on December 6th, investors were jittery because Chairman Greenspan had hinted that he believed that stock prices had risen to unrealistic levels. Following Greenspan’s remarks, the market has shown restrained trading and high volatility. During the week ending December 13, the Standard and Poor’s 500 exhibited net changes which ranged from a high of 10.16 points to a low of -11.40 points.

Greenspan noted that “irrational exuberance” among traders has contributed to market crashes in the past. It also makes it much more difficult for monetary policy to be effective. Many believe that Greenspan sent a thinly veiled warning that the Fed is prepared to raise interest rates to pop any speculative bubble in the stock market, because if the market continues to rise, it becomes more vulnerable to a heavy correction. We concur with the belief that Chairman Greenspan merely intended to

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knock off some of the excesses in today's market. Clearly, many stock prices have been driven above what they are worth based on corporate earnings. It's also likely that Chairman Greenspan is paving the way for possible action of either tightening or easing the economy in the future.

Historians will surely note that Greenspan's 'Fed speak' proved to be an effective monetary policy tool in getting the financial markets to react without actually changing interest rates.

deficit premium placed on long-term yields today.

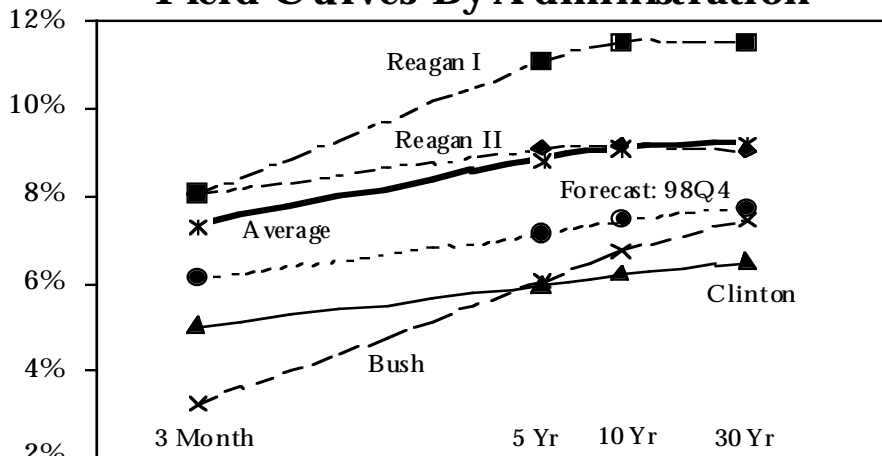
We are predicting almost no change in the slope of the yield curve over the forecast horizon as we assumed that the Fed does nothing in the way of explicit tightening over the forecast horizon. The discount rate is forecast to remain at 5% while the fed funds rate, which in our model is set according to a Fed reaction function, drifts up slightly during 1997, and then returns to current levels by the end of 1998.

and thus wages. Add in the unemployment rate and productivity, and we have a recipe for future inflation that would make Betty Crocker envious. However, Betty would be the first to tell you that if your ingredients are spoiled, the final product will taste bad. This is most likely the current problem that economists and forecasters are experiencing when using estimations of the Phillips curve (A.W. Phillips' historical relationship between wage inflation and the unemployment rate in the United Kingdom during the 1950's) to model and forecast inflation in the U.S.

Unit labor costs increased at an annual rate of 3.7% during the third quarter of 1996, accompanied by a 0.4% *decrease* in productivity (non-farm output per hour). As productivity slows, labor costs increase, and prices should increase accordingly. However, non-farm GDP prices increased by just 1.7% in the third quarter.

This sort of puzzle has been bothering economists throughout much of the current expansion. In the current technological age, we would expect that more mechanized methods of production have allowed for higher productivity. This has clearly been the case in the manufacturing sector, where productivity increased by 6.5% last quarter. Given the technological advances in the non-manufacturing sectors,

Yield Curves By Administration



The chart above compares yield curves at the end of the past 4 administrations, and our forecast for the end of 1998. Clinton inherited a relatively steep yield curve from the Bush Administration and ends his first term enjoying a relatively flat term structure relationship. The fact that the current yield curve is significantly below the average, and those of the Reagan Administrations partially reflect the lower

Inflation & Productivity: Cookbook Economics

To predict the future, we must have a good sense of the past as well as what is happening right now. In the case of prices, economists in general agree that current and past rates of inflation drive expectations for the future,

many economists are puzzled as to why the data on overall productivity growth seems at odds with anecdotal evidence.

Some suggest that the problem lies in the service sector of our economy, more precisely among financial services, where measuring productivity is particularly difficult.

If in fact measured productivity is understated, we can interpret the current measurements of unit labor costs to be overstated. In turn, the gap between inflation and labor costs has narrowed, meaning that we ought not fear any serious jumps in inflation in the near future.

The Colby Model now includes a Phillips Curve to forecast inflation, as measured by the nonfarm GDP price index. From this we can derive an estimate of the Non-Accelerating Inflation Rate of Unemployment (NAIRU) --- an important benchmark for policy makers in Washington. We calculate that the NAIRU is roughly 5.7% as of 1996Q3. Attach to this point estimate a confidence interval of ± 0.5 percentage points, and the current data on inflation and unemployment would appear to indicate that the nation's economy is presently operating somewhere very near it's potential level of output.

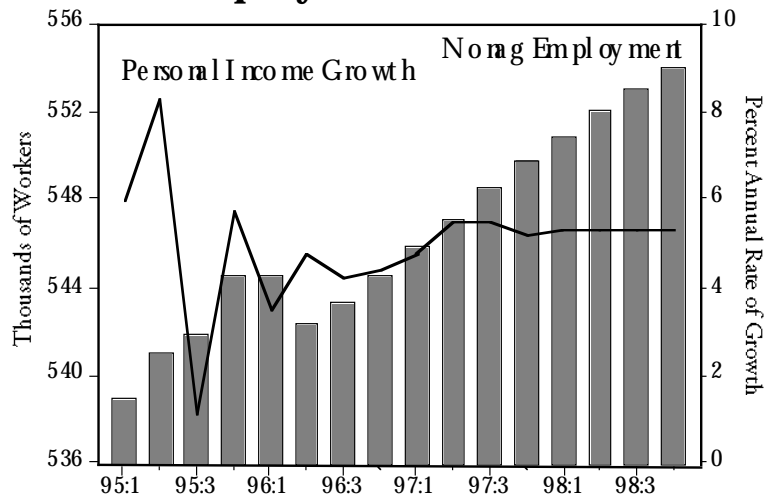
The Economic Outlook for Maine

This year has been somewhat of a puzzle for the Maine economy. For much of the year the construction industry in central and southern Maine by all appearances has been in very good shape and anecdotal reports on retail sales and income throughout the year indicate that the economy is

forecasting modest employment growth of 0.4% for 1996. Total employment is forecast to grow by less than 1% throughout the forecast horizon as Maine continues to face a loss of manufacturing jobs.

The unemployment rate in the state is forecast to remain roughly constant throughout the forecast horizon at about

Employment & Income



on the upswing. Yet the official data on employment paints a very different picture.

Total nonagricultural employment in the state declined in 5 of the first 7 months of the year, with employment in July lower than it had been in over a year. The last time employment declined for two consecutive quarters was in the early days of the recovery from the 1990-91 recession.

Employment in the third quarter increased at an annual rate of 0.7% and we are

5.1%.

Personal income is forecast to grow by 4.3% this year, 4.9% in 1997, and 5.3% in 1998. In real terms, this translates into income growth of 2.2% for 1996, 2.4% for 1997 and 2.6% in 1998 given our forecasts of consumer prices.

Consumer retail sales are forecast to grow by 5.1% this year, but slow noticeably in 1997 to 3.5% primarily as a result of the sluggish growth in employment.

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Lodging sales, a new feature of the Maine model this year, are forecast to grow by 4.5% in 1996, and jump by 7.9% next year, despite a predicted increase in the Canadian/U.S. dollar exchange rate. Much of the uptick in growth next year is forecast to occur because of strong disposable income growth nation-wide in 1996.

Commercial electricity sales, also new to the Maine model, are forecast to rise by 2.3% in 1996, 1.8% in 1997, and 1.4% in 1998. This variable provides an alternative measure of the health of the commercial sector of the Maine economy.

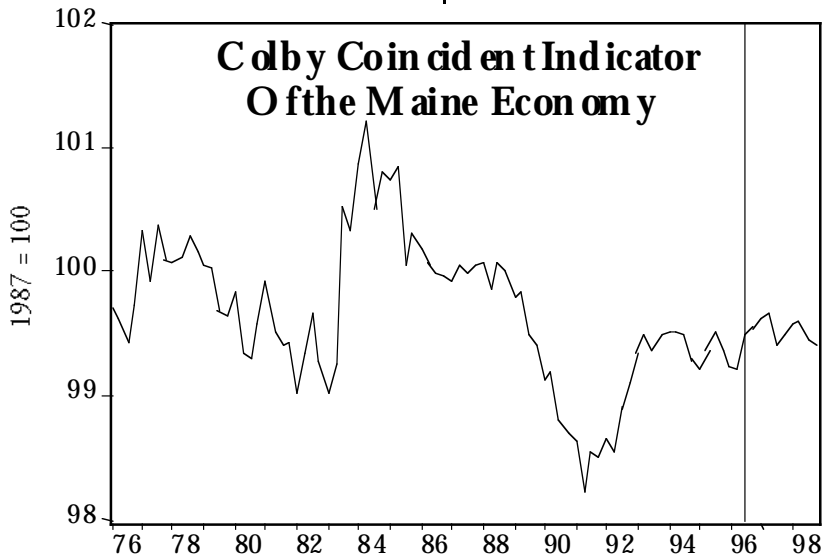
Finally, total undedicated revenue in the state is forecast to end Fiscal 1997 at \$1.87 billion. Fiscal 1998 should see revenues increase to \$1.99 billion according to our projections. Given the \$1.81 billion in appropriations for FY '97, and Governor King's proposed budget for FY '98 of \$1.82 billion, Maine would should realize a small budget surplus in both periods according to our projections.

A Coincident Indicator of the Maine Economy

This issue of the *CEO* introduces the Colby Coincident Indicator of the Maine Economy (CCI) which began as a research project of the seminar two years ago. The CCI provides both a

historical benchmark of business activity in this state along with a projected forecast into 1998.

The CCI was constructed using methods similar to



those developed by the National Bureau of Economic Research for calculating coincident indicators of the national economy. The CCI consists of four components: new housing permits in the previous period; commercial electricity sales; personal income; and nonmanufacturing employment. The CCI thus provides an aggregate index for business conditions in Maine. The individual components were chosen on the basis of their ability to track economic activity in a consistent fashion.

The CCI differs from other published coincident indicators for the Maine economy in that it has less of a time lag for which it can be calculated (all components are available at roughly the

same time); and, using the Colby Economic Outlook for the Maine Economy, it can be projected into the future. The index is based in 1987, meaning all values deviating

from the base-year value of 100 are relative to 1987.

From the chart above it's clear that according to the CCI, Maine took much longer than the nation as a whole to recover from the 1990-91 recession. In fact, it wasn't until 1993 that the recovery really took hold in the state. Since that time, the economy has remained well below the 1987 base period for the index.

Looking ahead, the CCI indicates little or no change for Maine's economy, on average, throughout the forecast horizon.

The conclusions expressed in the *Colby Economic Outlook* represent the views of the authors and do not necessarily represent the opinions or recommendations of the faculty and staff at Colby College.

COLBY ECONOMIC OUTLOOK FOR THE MAINE ECONOMY, 1996:4 - 1998:4

| | Units | Actual Forecast | | | | Percent Change | | | | | | | | |
|------------------------------|---------------|-----------------|--------|--------|--------|----------------|--------|--------|--------|--------|--------|-----------------|-----------------|----------------|
| | | 96:Q3 | 96:Q4 | 97:Q1 | 97:Q2 | 97:Q3 | 97:Q4 | 98:Q1 | 98:Q2 | 98:Q3 | 98:Q4 | 95-96 | 96-97 | 97-98 |
| Nonagricultural Employment | (Thousands) | 543.3 | 544.6 | 545.9 | 547.0 | 548.5 | 549.8 | 550.9 | 552.0 | 553.0 | 554.0 | 0.4% | 0.8% | 0.9% |
| Nonmanufacturing | | 455.2 | 457.1 | 459.1 | 461.3 | 463.0 | 464.3 | 465.6 | 466.7 | 467.7 | 468.8 | 1.1% | 1.6% | 1.1% |
| Manufacturing | | 88.1 | 87.4 | 86.8 | 85.7 | 85.5 | 85.5 | 85.3 | 85.3 | 85.3 | 85.2 | -3.0% | -3.3% | -0.7% |
| Unemployment Rate | (%) | 5.20 | 5.15 | 5.14 | 5.14 | 5.12 | 5.12 | 5.12 | 5.11 | 5.11 | 5.10 | | | |
| Personal Income | (Billion \$) | 26.81 | 27.10 | 27.42 | 27.78 | 28.16 | 28.51 | 28.88 | 29.26 | 29.64 | 30.03 | 4.3% | 4.9% | 5.3% |
| Real Personal Income | (Bill '92 \$) | 24.36 | 24.49 | 24.63 | 24.79 | 24.96 | 25.11 | 25.27 | 25.44 | 25.61 | 25.77 | 2.2% | 2.4% | 2.6% |
| Consumer Retail Sales | (Mill \$,SA) | 2392.0 | 2411.3 | 2430.0 | 2447.7 | 2466.9 | 2485.4 | 2503.0 | 2521.0 | 2538.5 | 2555.6 | 5.1% | 3.5% | 2.9% |
| Lodging Sales | (Mill \$,SA) | 90.0 | 93.2 | 95.5 | 97.1 | 99.3 | 100.7 | 101.8 | 103.3 | 104.7 | 105.9 | 4.5% | 7.9% | 5.9% |
| Commercial Electricity Sales | (MWh,SA) | 1954 | 1957 | 1963 | 1969 | 1976 | 1983 | 1990 | 1997 | 2003 | 2010 | 2.3% | 1.8% | 1.4% |
| Housing Permits | (Units) | 1298 | 1360 | 1387 | 1385 | 1400 | 1431 | 1463 | 1489 | 1508 | 1522 | 14.0% | 15.8% | 6.7% |
| Colby Coincident Index | (1987 = 100) | 99.49 | 99.54 | 99.61 | 99.66 | 99.39 | 99.49 | 99.59 | 99.60 | 99.45 | 99.42 | 0.01% | 0.17% | -0.02% |
| Total Undedicated Revenue | (Million \$) | 456.21 | 460.18 | 434.11 | 519.48 | 501.72 | 484.81 | 459.39 | 544.91 | 527.16 | 510.55 | FY '96 1.766 | FY '97 1.870 | FY'98 1.991 |

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

| | Units | Percent Change | | | | | |
|--|---------------|----------------|--------|--------|-------|------|-------|
| | | 95-96 | 96-97 | 97-98 | | | |
| Gross Domestic Product (Billions of 1992 chained \$) | | 6926.2 | 6971.2 | 7001.0 | 2.3% | 2.6% | 2.5% |
| Index of Consumer Sentiment | (2/66=100) | 94.9 | 97.7 | 96.9 | 1.5% | 2.5% | -1.8% |
| Consumer Price Index | ('82-'84=100) | 157.5 | 158.3 | 159.3 | 2.9% | 2.5% | 2.6% |
| Foreign Exchange Rate: Canada | (C\$/US\$) | 1.37 | 1.37 | 1.37 | -0.2% | 0.6% | 0.6% |

COLBY ECONOMIC OUTLOOK FOR THE U.S. ECONOMY, 1996:Q4 - 1998:Q4

| | Actual | | | | Forecast | | | | Percent Change | | | | |
|--|--------|--------|--------|--------|----------|--------|--------|--------|----------------|--------|-------|-------|-------|
| | 96:Q3 | 96:Q4 | 97:Q1 | 97:Q2 | 97:Q3 | 97:Q4 | 98:Q1 | 98:Q2 | 98:Q3 | 98:Q4 | 95-96 | 96-97 | 97-98 |
| Gross Domestic Product (Billions of 1992 chained \$) | 6926.2 | 6971.2 | 7001.0 | 7060.4 | 7111.5 | 7147.4 | 7191.8 | 7236.1 | 7279.5 | 7321.7 | 2.3% | 2.6% | 2.5% |
| Annual Rate of Growth | 2.0% | 2.6% | 1.7% | 3.4% | 2.9% | 2.0% | 2.5% | 2.5% | 2.4% | 2.3% | | | |
| Personal Consumption Expenditures | 4694.3 | 4722.0 | 4753.4 | 4789.1 | 4822.7 | 4853.3 | 4884.4 | 4915.1 | 4945.0 | 4974.2 | 2.4% | 2.5% | 2.6% |
| Durable Goods | 612.5 | 612.3 | 614.5 | 619.2 | 622.3 | 624.3 | 627.1 | 629.8 | 632.3 | 634.5 | 5.2% | 1.7% | 1.7% |
| Nondurable Goods | 1442.0 | 1449.6 | 1459.1 | 1470.3 | 1480.8 | 1489.9 | 1498.7 | 1507.1 | 1515.1 | 1522.7 | 1.4% | 2.3% | 2.4% |
| Services | 2640.7 | 2660.6 | 2680.1 | 2700.0 | 2719.8 | 2739.1 | 2758.4 | 2777.7 | 2797.0 | 2816.1 | 2.3% | 2.8% | 2.9% |
| Medical Care Services | 699.7 | 704.7 | 710.2 | 715.9 | 721.7 | 727.6 | 733.6 | 739.7 | 745.9 | 752.1 | 2.0% | 3.0% | 3.3% |
| Gross Private Domestic Investment | 1090.2 | 1093.9 | 1102.8 | 1125.0 | 1139.1 | 1149.2 | 1163.8 | 1177.2 | 1190.7 | 1203.9 | 4.8% | 6.6% | 4.9% |
| Fixed Investment | 1056.0 | 1064.3 | 1080.3 | 1098.3 | 1113.0 | 1125.2 | 1138.6 | 1152.2 | 1166.0 | 1179.3 | 6.7% | 6.1% | 5.0% |
| Nonresidential | 780.4 | 788.0 | 800.0 | 813.9 | 826.7 | 838.2 | 850.7 | 863.2 | 875.7 | 888.0 | 7.2% | 7.1% | 6.1% |
| Residential | 277.3 | 278.2 | 282.1 | 286.4 | 288.4 | 289.4 | 290.6 | 292.0 | 293.6 | 294.9 | 5.4% | 3.5% | 2.2% |
| Change in Business Inventories | 32.8 | 30.9 | 23.9 | 28.3 | 27.9 | 26.0 | 27.2 | 27.3 | 27.1 | 27.1 | -4.9% | 5.7% | 2% |
| Government Consumption & Investment | 1277.4 | 1270.1 | 1261.7 | 1262.9 | 1266.3 | 1261.2 | 1259.8 | 1259.7 | 1259.3 | 1258.7 | 0.8% | -0.6% | -0.3% |
| Net Exports of Good & Services | -138.7 | -142.7 | -144.9 | -144.4 | -144.3 | -144.0 | -143.6 | -143.2 | -142.6 | -142.0 | 16.2% | 15.5% | -1.1% |
| Exports of Goods & Services | 816.1 | 823.8 | 833.4 | 846.0 | 858.4 | 871.0 | 883.6 | 896.3 | 909.1 | 921.9 | 5.3% | 4.4% | 5.9% |
| Imports of Goods & Services | 954.8 | 966.4 | 978.3 | 990.4 | 1002.7 | 1014.9 | 1027.2 | 1039.4 | 1051.7 | 1063.9 | 6.6% | 5.9% | 4.9% |
| Gross Domestic Product (Billions of current dollars) | 7611.9 | 7696.9 | 7787.1 | 7913.6 | 8021.7 | 8118.0 | 8224.5 | 8330.0 | 8435.9 | 8540.8 | 4.4% | 5.2% | 5.3% |
| Personal Consumption Expenditures | 5165.1 | 5224.6 | 5291.8 | 5367.1 | 5440.2 | 5511.4 | 5582.2 | 5652.4 | 5723.9 | 5795.6 | 4.5% | 5.0% | 5.3% |
| Durable Goods | 631.4 | 631.0 | 634.6 | 641.5 | 647.0 | 651.7 | 657.2 | 662.7 | 668.0 | 673.1 | 4.1% | 2.0% | 3.4% |
| Nondurable Goods | 1546.3 | 1561.4 | 1579.6 | 1600.9 | 1621.1 | 1640.3 | 1657.9 | 1674.6 | 1692.6 | 1710.8 | 3.9% | 4.3% | 4.6% |
| Services | 2987.4 | 3032.2 | 3077.6 | 3124.6 | 3172.1 | 3219.4 | 3267.1 | 3315.1 | 3363.3 | 3411.7 | 4.9% | 5.9% | 6.1% |
| Medical Care Services | 818.8 | 829.8 | 842.6 | 856.5 | 871.1 | 886.2 | 901.7 | 917.5 | 933.6 | 950.0 | 3.9% | 6.0% | 7.1% |
| Gross Private Domestic Investment | 1152.4 | 1177.3 | 1197.3 | 1231.2 | 1249.5 | 1267.9 | 1288.7 | 1307.5 | 1329.7 | 1351.5 | 5.5% | 10.0% | 6.7% |
| Fixed Investment | 1117.6 | 1130.7 | 1152.5 | 1177.0 | 1197.7 | 1216.3 | 1236.2 | 1256.2 | 1276.7 | 1297.2 | 7.1% | 7.6% | 6.8% |
| Nonresidential | 805.7 | 815.7 | 830.6 | 847.6 | 863.5 | 878.3 | 894.3 | 910.1 | 926.1 | 942.2 | 7.1% | 8.1% | 7.4% |
| Residential | 311.9 | 315.0 | 321.9 | 329.4 | 334.1 | 338.0 | 341.9 | 346.0 | 350.6 | 355.0 | 7.2% | 6.5% | 5.3% |
| Change in Business Inventories | 34.8 | 46.6 | 44.9 | 54.2 | 51.9 | 51.6 | 52.5 | 51.3 | 53.0 | 54.3 | -4.1% | 13.1% | 4% |
| Government Consumption & Investment | 1415.9 | 1419.0 | 1421.9 | 1436.5 | 1453.2 | 1460.6 | 1472.1 | 1484.9 | 1497.8 | 1510.9 | 3.6% | 2.6% | 3.4% |
| Net Exports of Good & Services | -121.5 | -124.0 | -124.0 | -121.2 | -121.1 | -121.8 | -118.6 | -114.8 | -115.6 | -117.2 | 14% | 13% | -5% |
| Exports of Goods & Services | 844.1 | 850.9 | 861.5 | 876.5 | 890.0 | 904.0 | 918.0 | 931.8 | 946.0 | 960.4 | 4.8% | 4.4% | 6.3% |
| Imports of Goods & Services | 965.6 | 974.9 | 985.5 | 997.6 | 1011.2 | 1025.8 | 1036.6 | 1046.5 | 1061.5 | 1077.5 | 5.7% | 5.4% | 5.0% |

COLBY ECONOMIC OUTLOOK FOR THE U.S. ECONOMY, 1996:Q4 - 1998:Q4

| | Units | Actual Forecast | | | | | | | | | | | | Percent Change | | | |
|---|---------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|----------------|--|--|--|
| | | 96:Q3 | 96:Q4 | 97:Q1 | 97:Q2 | 97:Q3 | 97:Q4 | 98:Q1 | 98:Q2 | 98:Q3 | 98:Q4 | 95-96 | 96-97 | 97-98 | | | |
| Inflation, Gas Prices & Income | | | | | | | | | | | | | | | | | |
| Inflation: GDP Price Deflator | (%, A.R.) | 1.59 | 1.88 | 2.99 | 3.12 | 2.57 | 2.80 | 2.77 | 2.68 | 2.70 | 2.67 | 2.0% | 2.5% | 2.7% | | | |
| Nonfarm Business GDP Deflator | | 1.69 | 2.14 | 2.35 | 2.63 | 2.45 | 2.56 | 2.50 | 2.38 | 2.49 | 2.57 | 2.0% | 2.3% | 2.5% | | | |
| Consumer Price Index | | 2.32 | 2.19 | 2.43 | 2.73 | 2.53 | 2.65 | 2.59 | 2.47 | 2.58 | 2.67 | 2.9% | 2.5% | 2.6% | | | |
| Personal Consumption Deflator | | 1.43 | 2.25 | 2.50 | 2.68 | 2.66 | 2.70 | 2.59 | 2.52 | 2.63 | 2.66 | 2.1% | 2.4% | 2.6% | | | |
| Consumer Durables Deflator | | -1.87 | -0.13 | 0.80 | 1.31 | 1.46 | 1.59 | 1.62 | 1.61 | 1.65 | 1.68 | -1.0% | 0.3% | 1.6% | | | |
| Consumer Nondurables Deflator | | 0.11 | 1.80 | 2.05 | 2.34 | 2.18 | 2.29 | 1.93 | 1.78 | 2.19 | 2.31 | 2.4% | 2.0% | 2.1% | | | |
| Consumer Services Deflator | | 2.84 | 2.99 | 3.08 | 3.15 | 3.15 | 3.15 | 3.12 | 3.08 | 3.06 | 3.04 | 2.5% | 3.1% | 3.1% | | | |
| Medical Care Services Deflator | | 1.68 | 2.54 | 3.07 | 3.40 | 3.58 | 3.68 | 3.72 | 3.72 | 3.71 | 3.69 | 1.9% | 2.9% | 3.7% | | | |
| CPI for Medical Care | | 3.02 | 3.43 | 3.70 | 3.90 | 4.01 | 4.09 | 4.14 | 4.16 | 4.17 | 4.19 | 3.6% | 3.6% | 4.1% | | | |
| Government Spending Deflator | | 2.29 | 3.23 | 3.51 | 3.78 | 3.61 | 3.71 | 3.66 | 3.56 | 3.65 | 3.72 | 2.8% | 3.1% | 3.7% | | | |
| Retail Gasoline Prices (All Types) | (\$/Gal.) | 1.31 | 1.31 | 1.32 | 1.33 | 1.34 | 1.34 | 1.33 | 1.31 | 1.32 | 1.32 | 7.0% | 3.4% | -0.9% | | | |
| Disposable Income | (Billion \$) | 5627.6 | 5672.1 | 5726.7 | 5808.2 | 5879.5 | 5944.2 | 6016.8 | 6089.4 | 6162.6 | 6235.4 | 4.9% | 4.6% | 4.9% | | | |
| Real Disposable Income | (Bill '92 \$) | 5114.6 | 5126.4 | 5144.0 | 5182.7 | 5212.1 | 5234.4 | 5264.6 | 5295.1 | 5324.0 | 5351.7 | 2.8% | 2.2% | 2.2% | | | |
| Transfer Payments to Persons | (Billion \$) | 1085.2 | 1094.3 | 1102.9 | 1111.1 | 1119.3 | 1127.4 | 1135.5 | 1143.7 | 1151.8 | 1160.0 | 5.6% | 3.3% | 2.9% | | | |
| Personal Tax Payments | (Billion \$) | 873.9 | 881.9 | 885.1 | 893.4 | 901.5 | 910.1 | 919.2 | 928.7 | 938.5 | 948.8 | 8.6% | 4.0% | 4.0% | | | |
| Inventories & Housing | | | | | | | | | | | | | | | | | |
| Business Inventories | (Billion \$) | 5118.0 | 5164.6 | 5209.4 | 5263.7 | 5315.5 | 5367.1 | 5419.6 | 5471.0 | 5524.0 | 5578.3 | 2.2% | 3.6% | 4.0% | | | |
| Business Inventories | (Bill '92 \$) | 4778.0 | 4808.9 | 4832.8 | 4861.1 | 4889.0 | 4915.0 | 4942.2 | 4969.5 | 4996.6 | 5023.7 | 1.3% | 2.2% | 2.2% | | | |
| New Housing Units Started | (Millions) | 1.48 | 1.39 | 1.38 | 1.37 | 1.36 | 1.33 | 1.32 | 1.31 | 1.30 | 1.29 | 7.4% | -6.5% | -4.3% | | | |
| Price of New Single-Family Homes | (1992=100) | 115.5 | 115.8 | 116.1 | 116.5 | 116.8 | 117.2 | 117.6 | 118.1 | 118.5 | 119.0 | 2.6% | 1.5% | 1.4% | | | |
| Sentiment & Automobile Sales | | | | | | | | | | | | | | | | | |
| Index of Consumer Sentiment | (2/66=100) | 94.9 | 97.7 | 96.9 | 96.2 | 95.6 | 95.3 | 94.8 | 94.5 | 94.1 | 93.8 | 1.5% | 2.5% | -1.8% | | | |
| Total Automobile Sales | (Millions) | 8.5 | 7.9 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | -2.4% | 0.1% | 0.5% | | | |
| Domestic Automobile Sales | (Millions) | 7.3 | 6.6 | 7.1 | 7.1 | 7.1 | 7.0 | 7.0 | 6.9 | 6.9 | 6.9 | 0.5% | -1.6% | -2.3% | | | |
| Import Automobile Sales | (Millions) | 1.3 | 1.3 | 1.3 | 1.4 | 1.4 | 1.5 | 1.5 | 1.6 | 1.6 | 1.7 | -1.6% | 9.3% | 14.4% | | | |
| Financial Sector | | | | | | | | | | | | | | | | | |
| Effective Rate on Federal Funds | (%) | 5.31 | 5.26 | 5.29 | 5.29 | 5.34 | 5.35 | 5.31 | 5.31 | 5.32 | 5.32 | -9.3% | 0.5% | -0.1% | | | |
| 3 Month Treasury Bill Rate | (%) | 5.10 | 4.93 | 5.05 | 5.31 | 5.44 | 5.56 | 5.69 | 5.82 | 5.96 | 6.09 | -9.0% | 6.9% | 10.4% | | | |
| 5 Year Treasury Bond Rate | (%) | 6.54 | 6.13 | 6.16 | 6.36 | 6.47 | 6.63 | 6.78 | 6.91 | 7.04 | 7.16 | -3.3% | 3.6% | 8.8% | | | |
| 10 Year Treasury Bond Rate | (%) | 6.78 | 6.43 | 6.48 | 6.68 | 6.79 | 6.95 | 7.09 | 7.21 | 7.33 | 7.44 | -1.8% | 4.1% | 8.1% | | | |
| 30 Year Treasury Bond Rate | (%) | 6.97 | 6.70 | 6.77 | 6.97 | 7.08 | 7.24 | 7.38 | 7.49 | 7.61 | 7.71 | -2.4% | 4.3% | 7.6% | | | |
| Aaa Corporate Bond Rate | (%) | 7.59 | 7.29 | 7.33 | 7.49 | 7.57 | 7.67 | 7.77 | 7.84 | 7.91 | 7.97 | -2.7% | 1.8% | 4.7% | | | |
| Conventional Home Mortgage Rate | (%) | 8.16 | 7.72 | 7.71 | 7.89 | 7.99 | 8.10 | 8.22 | 8.30 | 8.38 | 8.45 | -1.9% | 1.5% | 5.2% | | | |
| Money Supply (M2) | (Billion \$) | 3753.9 | 3778.9 | 3803.6 | 3828.0 | 3852.1 | 3876.1 | 3900.3 | 3924.3 | 3948.3 | 3972.2 | 4.5% | 2.7% | 2.5% | | | |
| Stock Price Index: S&P 500 | (1941-3=10) | 660.5 | 727.8 | 737.9 | 732.6 | 739.4 | 744.8 | 752.0 | 770.1 | 788.6 | 807.5 | 24% | 10% | 6% | | | |

COLBY ECONOMIC OUTLOOK FOR THE U.S. ECONOMY, 1996:Q4 - 1998:Q4

| | Units | Actual Forecast | | | | | | | | | | | | Percent Change | | |
|---|--------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|----------------|--|--|
| | | 96:Q3 | 96:Q4 | 97:Q1 | 97:Q2 | 97:Q3 | 97:Q4 | 98:Q1 | 98:Q2 | 98:Q3 | 98:Q4 | 95-96 | 96-97 | 97-98 | | |
| Productivity & Labor | | | | | | | | | | | | | | | | |
| Civilian Unemployment Rate | (%) | 5.23 | 5.43 | 5.59 | 5.52 | 5.45 | 5.41 | 5.45 | 5.51 | 5.57 | 5.63 | -2.9% | 1.1% | 0.9% | | |
| Female Labor Force Participation | (%) | 59.3 | 59.5 | 59.6 | 59.8 | 59.9 | 60.1 | 60.2 | 60.4 | 60.5 | 60.6 | 0.5% | 1.1% | 1.0% | | |
| Health Services Employment | (Millions) | 9.6 | 9.7 | 9.7 | 9.8 | 9.9 | 10.0 | 10.1 | 10.2 | 10.2 | 10.3 | 3.4% | 3.0% | 3.6% | | |
| Total Employment | (Millions) | 127.1 | 127.7 | 128.0 | 128.6 | 129.1 | 129.6 | 130.1 | 130.6 | 131.1 | 131.6 | 1.5% | 1.7% | 1.6% | | |
| Civilian Labor Force | (Millions) | 134.1 | 135.0 | 135.6 | 136.1 | 136.6 | 137.0 | 137.6 | 138.2 | 138.8 | 139.5 | 1.3% | 1.7% | 1.6% | | |
| Index of Help Wanted Advertising | (1987=100) | 82.67 | 83.82 | 81.16 | 81.54 | 82.38 | 83.18 | 83.36 | 83.33 | 83.17 | 82.99 | -1.6% | -1.3% | 1.4% | | |
| Productivity: Nonfarm Output/Hr | (1992=100) | 101.60 | 101.87 | 102.27 | 102.75 | 103.20 | 103.59 | 103.97 | 104.36 | 104.69 | 104.97 | 0.7% | 1.3% | 1.5% | | |
| Average Hourly Earnings | (\$/hour) | 11.86 | 11.95 | 12.02 | 12.10 | 12.17 | 12.25 | 12.32 | 12.40 | 12.48 | 12.55 | 3.2% | 2.8% | 2.5% | | |
| Unit Labor Costs | (1992=100) | 110.40 | 112.42 | 113.05 | 113.66 | 114.27 | 114.91 | 115.56 | 116.20 | 116.88 | 117.58 | 3.3% | 3.4% | 2.3% | | |
| Service Sector Avg Hourly Earnings | (\$/hour) | 11.72 | 11.81 | 11.89 | 11.97 | 12.04 | 12.12 | 12.20 | 12.28 | 12.36 | 12.44 | 3.1% | 2.3% | 2.6% | | |
| Service Sector Avg Weekly Hours | (1982=100) | 148.93 | 150.06 | 151.07 | 152.00 | 152.87 | 153.73 | 154.56 | 155.39 | 156.22 | 157.05 | 2.8% | 2.9% | 2.2% | | |
| Foreign Sector | | | | | | | | | | | | | | | | |
| Inflation: Export Price Deflator | (%,A.R.) | -1.89 | -0.54 | 0.32 | 0.88 | 0.32 | 0.43 | 0.39 | 0.25 | 0.38 | 0.42 | -0.4% | -0.1% | 0.4% | | |
| Inflation: Import Price Deflator | (%,A.R.) | -2.53 | -0.99 | -0.56 | -0.05 | 0.47 | 0.91 | -0.64 | -0.90 | 1.00 | 1.39 | -0.8% | -0.5% | 0.1% | | |
| Inflation: Nonoil Import Price Index | (%,A.R.) | -3.15 | -1.30 | -0.45 | 0.03 | 0.89 | 1.25 | 1.38 | 1.43 | 1.45 | 1.48 | -2.1% | -0.8% | 1.2% | | |
| Trade-Weighted \$ Exchange Rate | (3/73=100) | 87.08 | 87.11 | 87.53 | 88.11 | 87.74 | 87.02 | 86.22 | 85.39 | 84.56 | 83.71 | 3.4% | 0.5% | -3.0% | | |
| Average Foreign Interest Rate | (%) | 3.82 | 3.71 | 3.62 | 3.62 | 3.64 | 3.66 | 3.68 | 3.69 | 3.71 | 3.73 | -2.7% | -7.8% | 1.8% | | |
| Euro-Dollar Deposit Rate | (%) | 5.46 | 5.42 | 5.50 | 5.76 | 5.88 | 5.98 | 6.10 | 6.20 | 6.32 | 6.42 | -9.2% | 7.3% | 8.3% | | |
| Exports | (Billion \$) | 844.1 | 850.9 | 861.5 | 876.5 | 890.0 | 904.0 | 918.0 | 931.8 | 946.0 | 960.4 | 4.8% | 4.4% | 6.3% | | |
| - Imports | | 965.6 | 974.9 | 985.5 | 997.6 | 1011.2 | 1025.8 | 1036.6 | 1046.5 | 1061.5 | 1077.5 | 5.7% | 5.4% | 5.0% | | |
| + Receipts from Foreigners | | 1064.8 | 1071.2 | 1077.9 | 1085.2 | 1093.5 | 1102.3 | 1111.4 | 1120.8 | 1130.4 | 1140.2 | 5.1% | 2.1% | 3.3% | | |
| - Payments to Foreigners | | 1064.8 | 1083.7 | 1097.0 | 1119.9 | 1142.4 | 1166.4 | 1190.0 | 1213.9 | 1237.8 | 1261.8 | 5.4% | 5.7% | 8.3% | | |
| - Govt. Transfer Payments to Foreigners | | 11.5 | 23.7 | 13.2 | 13.1 | 13.9 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 43.5% | -19% | -2.3% | | |
| - Govt. Interest Payments to Foreigners | | 73.6 | 77.1 | 80.6 | 84.1 | 87.7 | 91.2 | 94.8 | 98.3 | 101.9 | 105.5 | 15.3% | 21.5% | 16.5% | | |
| = Current Account Balance | | -206.6 | -237.3 | -236.9 | -253.1 | -271.6 | -290.2 | -304.9 | -319.2 | -337.8 | -357.2 | 18.3% | 32.8% | 25.4% | | |
| The Federal Budget | | | | | | | | | | | | | | | | |
| Federal Government Consumption | (Billion \$) | 461.6 | 451.0 | 444.0 | 446.5 | 450.0 | 445.0 | 443.0 | 442.0 | 441.0 | 440.0 | 0.6% | -2.1% | -1.1% | | |
| + Federal Government Transfer Payments | | 762.6 | 774.2 | 786.0 | 797.9 | 810.0 | 822.3 | 834.7 | 847.2 | 860.0 | 872.9 | 5.5% | 5.3% | 6.2% | | |
| + Net Interest Paid | | 233.7 | 236.3 | 239.0 | 241.8 | 244.7 | 247.7 | 250.8 | 253.9 | 257.1 | 260.5 | 3.5% | 3.6% | 4.9% | | |
| + Grants-in-Aid to State & Local Govts. | | 214.5 | 236.0 | 236.0 | 236.0 | 236.0 | 236.0 | 236.0 | 236.0 | 236.0 | 236.0 | 3.3% | 11.8% | 0.0% | | |
| + Subsidies less Less Current Surplus | | 30.3 | 30.1 | 30.2 | 30.8 | 31.3 | 31.5 | 32.0 | 32.0 | 32.0 | 32.0 | -9.3% | 0.8% | 4.2% | | |
| + Wage Accruals less Disbursements | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | |
| - Federal Government Receipts | | 1582.3 | 1604.9 | 1616.4 | 1635.4 | 1653.0 | 1670.6 | 1688.5 | 1706.8 | 1725.5 | 1744.7 | 5.8% | 5.4% | 4.3% | | |
| = Federal Government Budget Surplus | | -124.4 | -143.4 | -147.3 | -149.1 | -148.3 | -155.7 | -160.1 | -163.6 | -167.4 | -171.4 | -18% | 5.6% | 10.0% | | |

Fiscal Year

COLBY ECONOMIC OUTLOOK FOR THE U.S. ECONOMY, 1996:Q4 - 1998:Q4

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

| Variable | Units | Actual Forecast | | | | | | | | | | | | Percent Change | | |
|---------------------------------------|---------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------|-------|-------|
| | | 96:Q3 | 96:Q4 | 97:Q1 | 97:Q2 | 97:Q3 | 97:Q4 | 98:Q1 | 98:Q2 | 98:Q3 | 98:Q4 | 95-96 | 96-97 | 97-98 | | |
| Discount Rate | (%) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | -3.6% | -0.4% | 0.0% |
| Industrial Production: Canada | (1987=100) | 116.3 | 116.7 | 117.2 | 117.6 | 118.0 | 118.5 | 118.9 | 119.4 | 119.8 | 120.3 | 120.3 | 120.3 | 1.3% | 2.2% | 1.5% |
| CPI: Germany | (82-4=100) | 133.1 | 133.8 | 134.4 | 135.1 | 135.8 | 136.4 | 137.1 | 137.8 | 138.5 | 139.2 | 139.2 | 139.2 | 1.6% | 1.9% | 2.0% |
| Industrial Prod.: US Manufacturing | (1987=100) | 129.2 | 129.0 | 129.3 | 129.4 | 130.0 | 131.0 | 132.0 | 133.0 | 134.0 | 135.0 | 135.0 | 135.0 | 3.0% | 1.7% | 2.8% |
| Industrial Prod.: OECD, Europe | (1987=100) | 115.0 | 115.6 | 116.1 | 116.7 | 117.3 | 117.9 | 118.5 | 119.1 | 119.6 | 120.2 | 120.2 | 120.2 | 0.4% | 1.8% | 2.0% |
| Capacity Utilization: Total Industry | (%) | 83.4 | 83.4 | 83.0 | 83.2 | 83.3 | 83.4 | 83.4 | 83.4 | 83.4 | 83.4 | 83.4 | 83.4 | -0.7% | 0.0% | 0.2% |
| Manufacturing Capacity Utilization | (%) | 82.4 | 82.4 | 82.2 | 82.3 | 82.3 | 82.3 | 82.3 | 82.3 | 82.3 | 82.3 | 82.3 | 82.3 | -1.0% | 0.1% | 0.0% |
| Avg. Refiners' Price of Crude Oil | (\$/Barrel) | 20.3 | 20.4 | 20.3 | 20.3 | 20.1 | 20.0 | 19.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 15.4% | 1.3% | -9.5% |
| Rest of World CPI | (Index) | 143.2 | 143.8 | 144.3 | 144.9 | 145.4 | 145.9 | 146.5 | 147.0 | 147.6 | 148.1 | 148.1 | 148.1 | 1.3% | 1.5% | 1.5% |
| Potential GDP | (Bill '92 \$) | 6906.0 | 6942.0 | 6978.1 | 7014.2 | 7050.5 | 7086.7 | 7123.1 | 7159.5 | 7195.9 | 7232.5 | 7232.5 | 7232.5 | 2.1% | 2.1% | 2.1% |
| Household Net Worth | (Billion \$) | 28261 | 28739 | 29225 | 29719 | 30221 | 30731 | 31249 | 31776 | 32311 | 32855 | 32855 | 32855 | 8.4% | 6.9% | 6.9% |
| Federal Government Consumption | (Billion \$) | 461.6 | 451.0 | 444.0 | 446.5 | 450.0 | 445.0 | 443.0 | 442.0 | 441.0 | 440.0 | 440.0 | 440.0 | 0.8% | -2.4% | -1.1% |
| Federal Defense Investment | | 44.0 | 45.0 | 42.0 | 41.0 | 41.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 4.3% | -9.1% | -2.4% |
| Federal Nondense Investment | | 19.7 | 19.7 | 19.7 | 19.7 | 19.7 | 19.7 | 19.7 | 19.7 | 19.7 | 19.7 | 19.7 | 19.7 | 1.0% | -0.1% | 0.0% |
| Grants-in-Aid to State & Local Govts. | | 214.5 | 236.0 | 236.0 | 236.0 | 236.0 | 236.0 | 236.0 | 236.0 | 236.0 | 236.0 | 236.0 | 236.0 | 6.5% | 7.6% | 0.0% |
| Subsidies less Less Current Surplus | | 30.3 | 30.1 | 30.2 | 30.8 | 31.3 | 31.5 | 32.0 | 32.0 | 32.0 | 32.0 | 32.0 | 32.0 | -3.0% | 1.8% | 3.4% |
| Wage Accruals less Disbursements | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| Federal Government Transfer Payments | | 762.6 | 774.2 | 786.0 | 797.9 | 810.0 | 822.3 | 834.7 | 847.2 | 860.0 | 872.9 | 872.9 | 872.9 | 5.9% | 5.4% | 6.2% |
| Govt. Transfer Payments to Foreigners | | 11.5 | 23.7 | 13.2 | 13.1 | 13.9 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 43.5% | -1.9% | -2.3% |
| State & Local Government Spending | | 890.6 | 903.3 | 916.2 | 929.3 | 942.5 | 955.9 | 969.4 | 983.2 | 997.1 | 1011.2 | 1011.2 | 1011.2 | 5.1% | 5.8% | 5.8% |

Endogenous Variables with Nonzero Intercept Adjustments

| Variable | Units | Actual Forecast | | | | | | | | | | | | Percent Change | | |
|----------------------------------|-----------------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|--|--|
| | | 96:Q3 | 96:Q4 | 97:Q1 | 97:Q2 | 97:Q3 | 97:Q4 | 98:Q1 | 98:Q2 | 98:Q3 | 98:Q4 | 95-96 | 96-97 | 97-98 | | |
| Domestic Automobile Sales | (a) | -0.5 | 0.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Consumption: Durable Goods | (Bill '92 \$'s) | -5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| Index of Consumer Sentiment | (2/66=100) | 5 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| Conventional Home Mortgage Rate | (%) | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | | | |
| Euro-Dollar Deposit Rate | (b) | 0.15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Nonresidential Fixed Investment | (Bill '92 \$) | -10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| 3 Month Treasury Bill Rate | (%) | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 | | | |
| Trade-Weighted \$ Exchange Rate | (b) | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| New Housing Units Started | (thousands) | -90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Index of Help Wanted Advertising | (1987=100) | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Civilian Unemployment Rate | (%) | 0.3 | 0.2 | 0.2 | 0 | 0 | 0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | | | |
| Stock Price Index: S&P 500 | '41-'43=10 | 54 | 50 | 50 | 30 | 21 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Exports of Goods & Services | (Bill '92 \$) | -12 | -5 | -5 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | | | |

(a) Equation estimated in terms of natural logs.

(b) Equation estimated in terms of first differences.