

**SHADOW OPEN MARKET COMMITTEE  
(SOMC)**

**Policy Statement and Position Papers**

**September 10-11, 1995**

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## SHADOW OPEN MARKET COMMITTEE

The Shadow Open Market Committee met on Sunday, September 10, 1995 from 2:00 p.m. to 6:30 p.m. in Washington, DC.

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## SOMC POLICY STATEMENT SUMMARY

Washington, D.C., September 11—The Shadow Open Market Committee called on the Federal Reserve System to “promptly reduce short-term interest rates until the monetary base grows at a 6 percent rate.” The monetary base—the sum of currency and bank reserves—has decelerated to a 4.5 percent annual growth rate.

The SOMC, a group of academic and business economists who regularly analyze and critique public policy issues, asserted that a 6 percent annual growth rate of the monetary base is “currently consistent with steady real growth without inflation.” The committee warned that “If the present growth rate of the base continues, the economy risks recession or deflation in 1996.”

The Shadow Open Market Committee, which meets in March and September, was founded in 1973 by Professor Allan H. Meltzer of Carnegie-Mellon University and the late Professor Karl Brunner of the University of Rochester.

The SOMC urged the Federal Reserve to reject the “mistaken” notion that economic growth causes inflation. “There is little evidence that faster economic growth, or a lower unemployment rate, affect inflation.” The committee statement noted that the typical error in forecasting inflation from the unemployment rate (a relationship that economists call the “Phillips Curve”) “is so large that it covers much more than the range that is of interest.”

The Shadow group charged that the Federal Reserve’s practice of “targeting interest rates is a bad idea in general but is especially so during the transition to a balanced budget when the effects of deficit reduction on interest rates are unpredictable...The Federal Reserve should not try to anticipate the effects of deficit reduction.”

The SOMC also rejected the notion that reducing the federal deficit will lead to depreciation of the U.S. dollar. “There is no reliable evidence that deficit finance affects the exchange rate...A credible policy of deficit reduction by cutting transfer payments and raising expected rates of return would strengthen the dollar exchange rate.”

The committee statement attacked proposals to expand the role of the International Monetary Fund as “a wrong-headed response to the Mexican devaluation.” This plan, which was announced by the major industrial nations at the Economic Summit in Halifax, Nova Scotia in June, “Goes in the wrong direction. It would encourage bad policies, not discourage them.” The SOMC urged Congress to “reject the Halifax proposal and should not expand the role of the IMF. It should end U.S. participation in the IMF.”

**SHADOW OPEN MARKET COMMITTEE**  
**Policy Statement**  
**September 11, 1995**

Federal Reserve policy remains restrictive whether measured by monetary aggregates or by interest rates. Growth of the monetary base—bank reserves and currency—is below the rate required for sustained growth with low inflation. Market interest rates from 3 to 18 month maturities are below the overnight rate on Federal funds that is set by the Federal Reserve. To keep the Federal funds rate at its current level, 5 3/4 percent, the Federal Reserve drains reserves from the banking system. This lowers bank reserves and the monetary base. Continued growth of the base at the current annual rate of 4.5 percent risks recession.

In 1994, the Federal Reserve responded to excessive monetary growth by raising interest rates in a series of steps. As a result of its effective anti-inflationary actions in 1994, the rise in inflation has been small. The Federal Reserve now has the opportunity to restore growth with price stability or low inflation in 1996 and future years.

This is a significant achievement. The Federal Reserve has achieved stability—sustained growth with low inflation—in less than 20 percent of the years since its founding. It has taken 15 years of disinflation to reduce inflation to current low levels.

The Federal Reserve should promptly reduce short-term interest rates until the monetary base grows at a 6 percent annual rate. A 6 percent growth rate of the base is the rate currently consistent with steady real growth without inflation. If the present growth of the base—4.5 percent for the past year—continues, the economy risks recession or deflation in 1996.

**ECONOMIC GROWTH DOES NOT CAUSE INFLATION**

The Federal Reserve and financial markets respond to reports of renewed growth and lower unemployment rates by raising interest rates. Interest rates fall when announcements suggest that the economy has slowed. The reason is that market participants believe that the Federal Reserve will not reduce the short-term interest rate if

the economy grows at a 2 1/2 percent or higher rate. Their rationale for this belief is either that economic growth causes inflation and higher interest rates or that the Federal Reserve acts on the presumption that economic growth causes inflation and will raise (or not reduce) interest rates, if the economy shows evidence of faster growth.

This is mistaken and leads to poor policy. Economic growth does not cause inflation. There is little evidence that faster economic growth, or a lower unemployment rate, affect inflation.

The association between inflation and the unemployment rate is known as the Phillips Curve. Two-thirds of the errors in predicting inflation in the next quarter from a Phillips-Curve relating inflation to the unemployment rate and past rates of inflation fall in a range of plus or minus 1.4 percent at an annual rate for the period 1960-1993. This error is so large that it covers much more than the range that is of interest. Because of the large error, a forecast of 3 percent inflation is consistent with actual inflation as low as 1 1/2 percent or as high as 4 1/2 percent.

Further, the unemployment rate contributes very little to the inflation forecast. (A typical Phillips Curve estimate of the effect of a one percentage point change in the unemployment rate is minus 5.9 basis points in the annual inflation rate.) Almost all of the forecast reflects past changes in inflation. The same is true of other measures of output such as capacity utilization. There is, therefore, no basis for the belief at the Federal Reserve or in the market that faster growth will cause inflation to increase.

Chart 1 compares the deviations of annual inflation from its mean to the deviation of unemployment from its mean multiplied by the estimated effect of unemployment on inflation (-0.059 percent). The chart shows that only a very small proportion of changes in inflation is accounted for by fluctuations in unemployment or output.

The Federal Open Market Committee, through its Chairman, should publicly renounce use of the Phillips Curve to forecast inflation. Growth does not cause inflation; inflation is caused by excessive monetary growth.

## **THE DEFICIT AND THE FED**

Targeting interest rates is a bad idea in general but is especially so during the transition to a balanced budget when the effects of deficit reduction on interest rates are unpredictable. The prospective shift in the deficit over the next two years is smaller than the reduction in the past two years.

The Federal Reserve should not try to anticipate the effects of deficit reduction. The magnitude and direction are uncertain. By targeting monetary growth the Federal Reserve can assure that the economy will receive the benefits of deficit reduction and continued disinflation.

## **THE DEFICIT AND THE DOLLAR**

The budget resolution that Congress approved in July proposes reductions in spending sufficient to balance the budget at the end of seven years and lower tax rates. Most of the reductions in spending come from entitlement programs, particularly Medicare and Medicaid. We have long recommended changes such as those now proposed. We welcome them, and we urge Congress and the administration to carry them out by enacting a budget and a long-term budget plan.

A major reaction in the budget deficit achieved by reducing transfer payments permits the economy to shift resources from consumption to investment. Higher investment in productive physical capital and productive education raises living standards. The Kerrey-Danforth Commission, the trustees of the Social Security fund, the Concord group, and many others have warned about the long-term effects of continued deficits and a growing debt. These groups provide a public service by warning about the costs of delay in reducing spending on entitlements, but they often fail to point out that the present generation leaves both unfunded Social Security liabilities and real capital to its progeny. A major policy goal should be to remove the bias against investment. This would increase the capital stock and reduce the burden of unfunded Social Security liabilities.

The main effects of deficit reduction depend on how the deficit is reduced. Government transfer payments and entitlements encourage consumption at the expense of



investment. Removing that bias has positive effects on resource use and economic welfare. Further, should the reduction in tax rates lower taxes on investment, the anticipated after-tax return to investment in the U.S. would rise relative to returns abroad. These changes would strengthen the dollar relative to other currencies and increase the capital stock.

Some analysts argue the opposite—that reducing the budget deficit would depreciate the dollar. Their analyses consider only the direct effects of reduced government borrowing and neglect the more important effects of changes in the composition of spending and taxes. Evidence suggests that the direct effects of borrowing have been relatively small. There is no reliable evidence that deficit finance affects the exchange rate.

Chart 2 compares the deficit as a share of GDP to the real exchange rate for more than thirty years. There is no apparent relation. More detailed studies that hold constant other relevant factors, show the same result. The principal effects of reducing the deficit depend on how the deficit is reduced. A credible policy of deficit reduction by reducing transfer payments and raising expected rates of return would strengthen the dollar exchange rate.

## **THE HALIFAX PROPOSALS FOR THE IMF**

At Halifax in June, the leaders of the G-7 countries proposed that the International Monetary Fund (IMF) establish a new “Emergency Funding Mechanism” to provide faster access to borrowing arrangements. The G-7 governments also proposed to double the amount of lending under the General Agreements to Borrow by adding \$28 billion to that fund.

These proposals are a wrong-headed responses to the Mexican devaluation. Mexico’s problems were caused by excessive spending and monetary expansion by the Mexican government, not by an absence of lending. The Halifax proposal addresses symptoms, not causes.

Quite apart from the causes, the proposal to increase foreign lending ignores the main lessons of the savings and loan failures in the 1980s and similar experience in other

countries: If lenders know they will be rescued, they will be less prudent about the loans they make. If borrowers can expect that economic mismanagement will bring more foreign financing, they will relax their policies and postpone solutions.

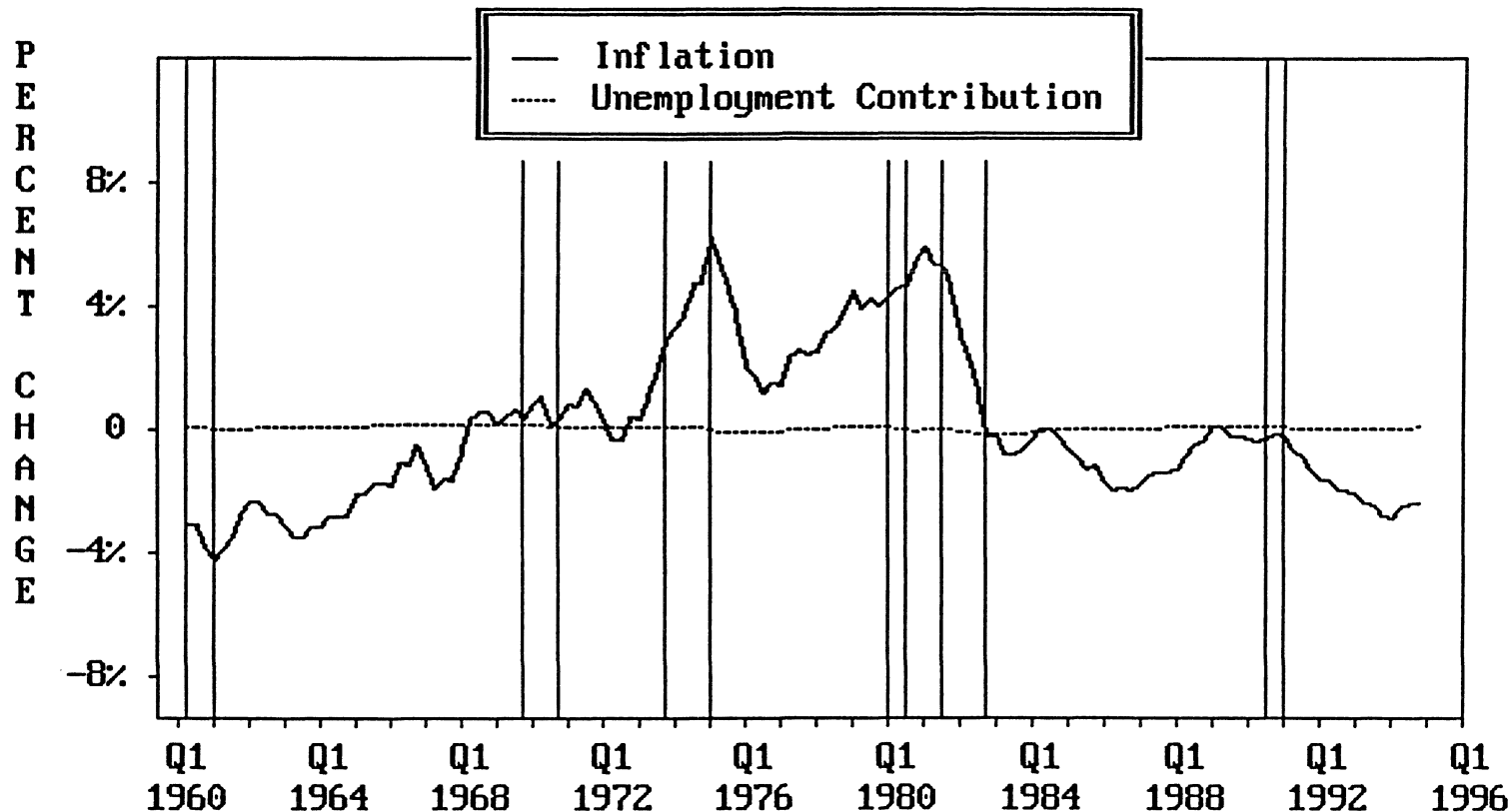
The Halifax proposal goes in the wrong direction. It would encourage bad policies, not discourage them. The lesson of Mexico is that loose monetary and fiscal policies lead to capital flight and devaluation. The proper response is more stable policies, not more foreign lending.

The IMF has drawn the wrong conclusion from the Mexican devaluation. Its report, "International Capital Markets: Developments, Prospects and Policy Issues," advises developing countries to consider using "temporary" exchange controls on foreign capital inflows. This advice shifts the blame for currency fluctuations or devaluations from policymakers to markets, private lenders and investors.

Mexico's devaluation would have been avoided if Mexico had controlled spending and money growth. The flight of capital from Mexico prior to devaluation reflected judgments, mainly by Mexican nationals, that Mexican policy was too expansive to sustain the prevailing exchange rate. Exchange controls would have been evaded; they would not have prevented the outflow or the devaluation.

The IMF's recommendation is bad advice. Congress should reject the Halifax proposal and should not expand the role of the IMF. It should end U.S. participation in the IMF.

CHART 1  
INFLATION AND UNEMPLOYMENT

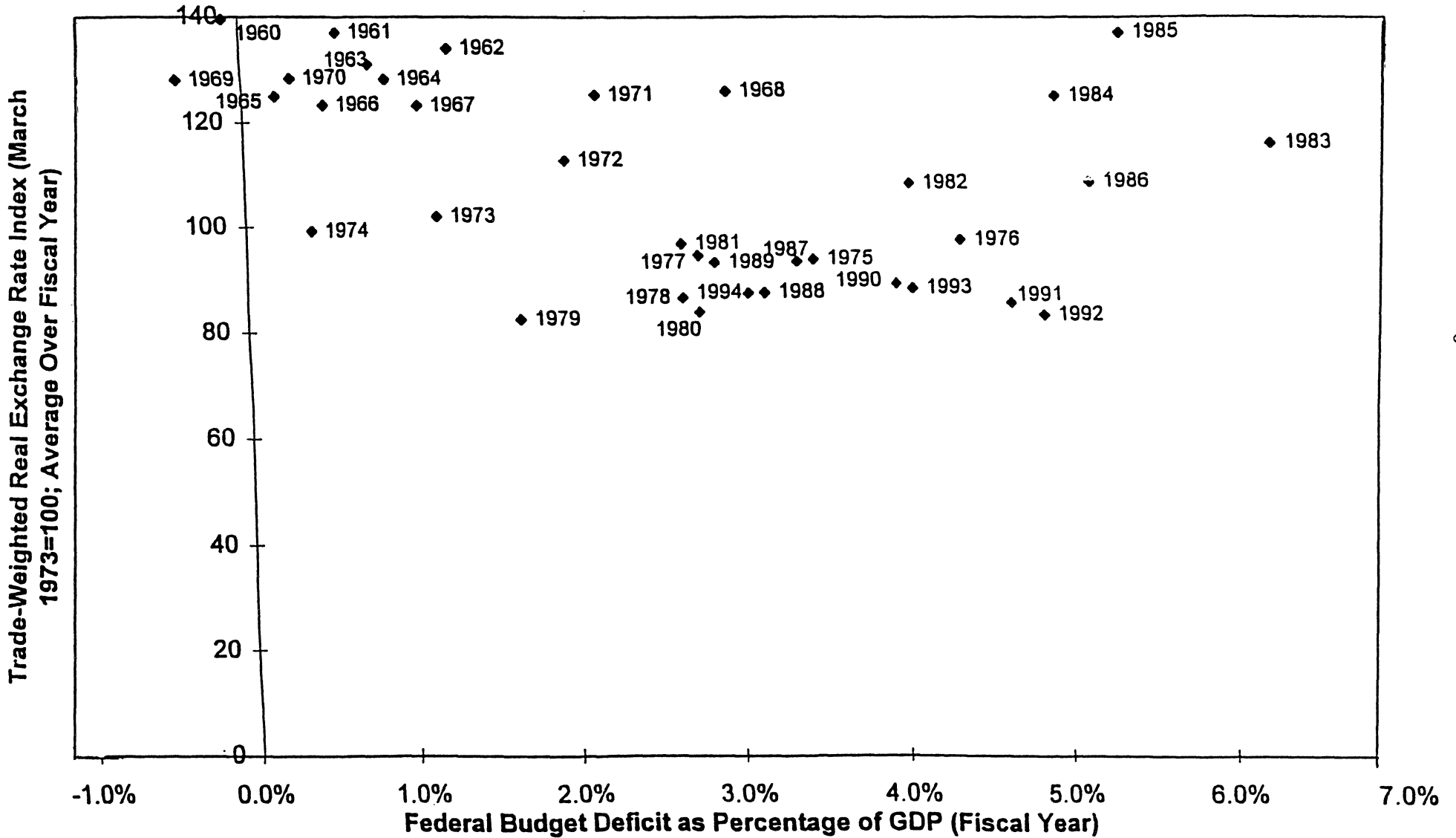


Notes: The chart shows annual changes in the GDP deflator minus its mean rate of change 1960-1994 (line) and the unemployment rate lagged one quarter multiplied by  $-0.059$  minus its mean value (dot). The vertical lines show recessions.

Sources: Haver Analytics; Heinemann Economic Research

CHART 2

### Federal Budget Deficit Versus Trade-Weighted Real Exchange Rate 1960-1994





## **TIGHT MONEY, TIGHT BUDGET, PROFIT SQUEEZE IN SERVICES**

**H. Erich HEINEMANN  
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The Federal Reserve has intensified its money squeeze thus far in 1995. Total bank reserves—the high-powered raw material for the money supply—fell at a rate of 7.8 percent in the second quarter. Reserves rose in July, following 12 months of decline. This was only the second monthly gain since February 1994. The previous gain was in July 1994, which suggests a possible seasonal adjustment problem. The drop in reserves last spring was the fifth consecutive quarter of decline and was by far the largest of the current round of tight money. Growth in the monetary base has dropped well below the level recommended by the Shadow Open Market Committee (first chart).

The Fed's token reduction in its target for overnight interest rates has not and probably will not lead to a meaningful easing in monetary policy. The Fed implements its policy by setting a target for the Fed funds rate, which is the price of bank reserves.

The central bank controls the supply of bank reserves through its open market operations. However, the Fed cannot control the short-run demand for reserves. Therefore, officials must supply whatever amount of reserves bankers wish to hold at the prevailing target price—5 3/4 percent at present. Under current credit-market conditions, the Federal Reserve must limit the supply of high-powered money in the banking system to keep rates from declining below that level.

The notion of a policy choice between jobs and inflation is false. Attempts to trade more inflation for more jobs backfire. The country gets higher prices and lower jobs. However, history also shows that sustained monetary contractions end in recessions and sustained accelerations lead to inflation.

Forcing rates down sufficiently to induce a substantial increase in the quantity of reserves could trigger a further drop in dollar. That would put more upward pressure on the cost of imports. Import prices, which fell almost 12 percent in 1991, 1992 and 1993, have risen 3.4 percent in the past year and one-half. In the second quarter alone, import

prices rose at an annual rate of 5 percent. Imports are about 30 percent of goods consumed in the U.S.

Fiscal policy is also restrictive. The primary surplus in the federal budget is growing rapidly (second chart). The primary budget balance (revenues minus outlays other than net interest) is the best measure of the economic impact of the government's decisions about taxes and spending. A primary budget surplus means that tax revenues exceed current outlays for goods, services and transfer payments. Any remaining red ink reflects previous, rather than current, fiscal policy. Cause and effect are far from clear, but a primary budget surplus has preceded every recession since World War II.

Finally, profits are under pressure in the private service sector. These companies have been responsible for almost nine of every 10 new jobs added in the current business expansion, well above their postwar average of 71 percent. These firms added more than 6-million workers to their payrolls since 1991—mostly in businesses with low productivity.

This is the Achilles' Heel of the U.S. expansion—some of the weakest parts of the service-producing sector (for example, retailing and health care) have created the vast majority of the new jobs. Measures of productivity in services are either slowing sharply or are actually falling. Profits of private service companies were slightly lower in the fourth quarter of 1994 and were up only 3 percent from a year earlier.

The slowdown in service jobs over the last few months shows that the incentive to continue to add to the headcount has eroded. When it becomes unprofitable for employers in the service sector to add to their payrolls, they will stop doing so. When the great American job machine goes into reverse, so does the economy.

The Labor Department's index of unit profits in nonfinancial corporations rose modestly in the second quarter, following a sharp drop during the winter months. This index is a key measure of profitability. It has not changed in the past year, following four years of steady gains at an annual rate of 11.5 percent (third chart). These data appear closer to economic reality than the steamy increases reported by *Business Week* magazine and *The Wall Street Journal*.

This erosion in profitability has already led to slower growth in employment, income, consumption and investment. The Labor Department estimated that private employers added 3.3 million jobs from January to July, 1 million fewer than in the same period in 1994. Seasonally adjusted, this was a gain of 698,000 jobs, down from 1.74 million last year.

Our Baseline Forecast indicates that these forces should culminate in a recession toward the end of 1996 or in early 1997 (table). Slower growth in business investment is likely to be a key element in the decline. The Ridgewood Index of leading indicators of the computer industry has slowed sharply in recent months. The authors of this measure were senior members of the IBM Economics Department for many years. We regard their data as among the best available to track investment in information processing technology. Their numbers are fair warning of the coming decline. Inventories of communications equipment have started to snowball.

## **GLOBAL COOLING**

The world economy has begun to slow. While there are few signs of an impending recession outside the U.S., business executives in many countries anticipate that the expansion will proceed at a more moderate pace. Sales expectations in Japan have dropped for two quarters in a row, and prices continue to fall. The short-run outlook has deteriorated in Germany and Italy.

In France, production of consumer goods has all but stalled over the past year. In Britain, real retail sales have slowed sharply. Favorable inflation prospects in Germany could set the stage for additional interest rate reductions by the Bundesbank. This global cooling could undermine the rapid expansion in some developing nations—Brazil is one example.

Exports continue to be on the cutting edge of the American economy despite the global cooling. Real exports of merchandise averaged \$556 billion at a seasonally adjusted annual rate during the second quarter. That was up 14 percent in the past year and 24 percent since the spring of 1993. The record was all the more remarkable because



Mexico, the third-largest U.S. trading partner, has been in a deep recession since the beginning of 1995.

In dollar terms, American exports gained more than \$100 billion over the last 24 months. Not only is the U.S. the world's largest exporter, but very few nations have total exports that match the \$100 billion increase in American sales since 1993. The U.S. share of the world export market has been rising steadily (fourth chart). The United States sells a huge variety of goods and services to overseas buyers, but its greatest advantages are in agricultural products and industrial materials and supplies. A good example of the latter would be the chemical industry, which traditionally runs a large trade surplus.

The biggest change in U.S. trade patterns in recent years is the emergence of a large and rapidly growing deficit in transactions involving computers, peripherals and parts. American producers have not lost their leadership in information technology, but they now assemble more of their computer components abroad. Among other reasons, U.S. regulations make it difficult to build new factories that produce circuit boards, a basic building block in any computer. In the first half of 1995, imports of computer accessories and semiconductors rose by more than \$10 billion from a year earlier.

Measurement of U.S. trade in current dollars is distorted by the 9 percent devaluation of the dollar in the year ended second quarter 1995. (We use J.P. Morgan's real effective exchange rate index to track the value of the dollar.) The "J-curve" effect from the cheap dollar exaggerates the trade deficit and makes profits of U.S. multinationals look better than they really are.

Cut through the fog and you find that in real terms the merchandise deficit has not changed significantly since July of 1993. Meanwhile, steady upward pressure on import prices has played a major role in the surge in the U.S. producer price index for all commodities in 1995. In recent months, prices of crude and intermediate materials have risen much more than those for finished or consumer goods. Such pressures are part of the overall squeeze on profitability which we believe will tip the U.S. economy into recession in 1996 or 1997.

## **GUIDELINES FOR THE FED**

We believe the U.S. economy is slowly sliding toward a recession. The government's "chain-weight" index of gross domestic product—the new standard for GDP measurement starting next year—showed little increase in the second quarter. A rising risk of recession will complicate the Presidential election in 1996. It will also muddy the pending transition in leadership at the Federal Reserve. Vice Chairman Alan S. Blinder's term at the Fed expires January 31, 1996. Chairman Alan Greenspan's term as chairman runs out four weeks later on March 2. Moreover, there is already one vacancy on the seven-person board due to the resignation of Governor John LaWare.

Thus, President Clinton has an unprecedented opportunity to influence the direction of the Federal Reserve. The Senate Banking Committee should take the opportunity created by the hearings on these appointments to review the basic guidelines that govern monetary policy in the U.S. Congress, rather than the White House, holds the Constitutional authority to "coin money and regulate the value thereof." Such an examination, should it occur, would be long overdue.

The notion among members of the Washington press corps is that policymakers exploit a tradeoff between inflation and growth. This leads to a classification of Fed members as either "hawks" or "doves." Hawks supposedly want high interest rates and low inflation to service creditors on Wall Street—essentially the haves of American society. The doves, populists in another era, are for the have-nots, common folk who benefit from low rates and rapid growth.

This taxonomy may be popular inside the Beltway, but it is false. There is no policy choice between jobs and inflation. Attempts to trade more inflation for more jobs backfire with the result that the country ends up with higher prices and lower jobs

Thomas C. Melzer, president of the Federal Reserve Bank of St. Louis, recently published an excellent restatement of one of the SOMC's central positions: namely, that focusing monetary policy on long-run price stability best serves the interests of all Americans—rich and poor, haves and have-nots. Members of the Senate should ponder Mr. Melzer's thoughtful analysis as they prepare to advise President Clinton on his

upcoming nominees to the central bank—nominees who may or may not include Alan Greenspan as Fed chairman for another four years.

It is obvious that the ultimate goal of economic policy should be to achieve the highest sustainable standard of living, but as Mr. Melzer said, the Fed's direct influence over long-term trends in real output and employment is negligible. "These trends depend largely on population and technology growth, the skill and education levels of the work force and the accumulation of capital."

"The only lasting monetary policy contribution to the real output trend is to create an environment conducive to growth, one in which relative price signals are clear and markets are not distorted by high and variable inflation." The problem, he went on to say, is that "current legislation and official Federal Reserve statements list multiple objectives . . . including real growth, low unemployment and stable prices."

Firing at economic targets with a shotgun rather than a rifle leaves Federal Reserve officials "with no clear ranking of priorities. Multiple objectives also allow policymakers—as well as their critics—to shift from one priority to another at any given time." While such artful dodging may seem to be little more than adjusting policy to current events, it actually creates "substantial uncertainty" about the Federal Reserve's objectives over time. Consequently, long-term interest rates—which should reflect long-term expectations about inflation—gyrate in response to short-term news about the economy.

Uncertainty about future inflation has practical results. Most important, it leads to an increase in the risk premium that lenders demand to protect the real value of their principal over time. "The fact that long-term interest rates in Japan are roughly three percentage points lower in Japan than in the United States," Mr. Melzer asserted, "says a lot about how different markets view inflation risks . . ."

Far from the antithesis of growth, low inflation tends to be a common denominator in most high-performance economies, whether the Asian tigers (Korea, Hong Kong, Taiwan and Singapore) or mature industrial nations such as Germany and Japan. As a result, an increasing number of nations are following the lead of New

Zealand in establishing an explicit target for inflation and then making the central bank responsible for achieving it.

Mr. Melzer said that “I strongly support the independence of the Federal Reserve from the short-run political process, but this independence can be maintained in a democratic society only if the Federal Reserve can be held accountable for its policies. With multiple objectives, it cannot. Accountability in terms of price stability represents an achievable and measurable objective. It is, therefore, likely to affect the behavior and improve the performance of policymakers.”

These views are now not part of the conventional wisdom inside the Beltway. But the record shows that an unequivocal commitment to low inflation would lead to lower long-term interest rates and faster growth. President Clinton should take note. Come to think of it, he should name Tom Melzer to the Federal Reserve Board.

## **THE BUDGET “SURPLUS”**

When Congress goes back to Washington after Labor Day, the federal budget will be at center stage. Democrats and Republicans will trumpet their rival, if largely spurious, plans for balancing the government’s accounts sometime after the turn of the century. Bureaucrats are getting ready to shut down the government on October 1 if there is no agreement.

Chances are, much of the public debate will focus on hot-button issues such as foreign aid or federal funding of abortions. These questions dominate the political agenda, but they are trivial in spending terms. Debate about fundamental fiscal reforms to boost incentives to work, save, invest and curtail the growth of \$1-trillion-dollar-a-year in government transfer programs will probably get short shrift.

Temporarily, the budget is actually in better shape than Washington seems willing to admit. Using data from the national income accounts, the second quarter Treasury deficit was at an annual rate of \$127.8 billion, the lowest in more than six years. Projections by the Organization for Economic Cooperation and Development indicate that the U.S. deficit will average less than 2 percent of GDP during the next 18 months, the lowest percentage of any major country.

The forces behind this improvement are easy to find. During the past two years, federal revenue has risen at an annual rate of 8.8 percent, while outlays have increased at a pace of only 3.7 percent. Were those trends to continue, the Treasury would be in the black by fiscal year 1998. In fiscal year 2000, which will start October 1, 1999, there would be a surplus of \$250 billion.

Unfortunately, the pattern of big gains in revenue and modest increase in outlays is probably *not* sustainable. There are two main reasons: First, a recession is likely to start within the next two years. In part, this will likely be a consequence of the abrupt tightening of fiscal policy in the Clinton Administration. If the economy does turn down, revenues will slow, expenditures will accelerate and the tide of red ink will rise rapidly.

Second, Mr. Clinton's fiscal program—huge tax increases coupled with draconian cuts in Pentagon spending—was full of provisions designed to produce big one-time gains. For example, many analysts believe the White House must stop cutting real defense outlays if the U.S. is to retain its role of global political leadership. Since the first quarter of 1993, real defense spending has dropped 18.5 percent. The Pentagon's share of the economy is now the smallest since 1940.

Budget watchers also note that despite the talk about rolling back Washington's share of the economy, members of Congress still fund pet projects. At the same time, Social Security—Washington's largest single program—is “off the table,” outside the budget talks. Sad to say, the recent news about the Federal budget may be literally too good to be true. During the year ended in June 1995, in fact, federal revenue growth already started to slow, and expenditures to accelerate.

This is not to say that fiscal policy is not restrictive. The primary surplus in the federal budget is growing rapidly (second chart). The primary budget balances (revenues minus outlays other than net interest) is the best measure of the economic impact of the government's decisions about taxes and spending.

A primary budget surplus means that tax revenues exceed current outlays for goods, services and transfer payments. Any remaining red ink reflects payments for previous, rather than current, outlays. While the link between cause and effect is not clear, a primary budget surplus has preceded every recession since World War II.

Governments have two basic economic functions: Number one, they purchase goods and services. Examples include maintaining military and police forces, operating schools, hospitals, parks and air traffic control systems and building bridges, dams and highways.

Thus far under the Clinton Administration, non-military government purchases have gone up at a rate of about 3 percent, just slightly over the inflation rate in the same period. Real military outlays, as noted, are sharply lower. Real purchases of goods and services at all levels are currently the smallest share of real GDP since 1931 (fifth chart).

Governments also redistribute income through transfer payments, which generally take money from individuals who work to give to those who do not. Over the last two and one-half years, these payments have increased at a rate of 6.2 percent, double the growth of non-military purchases.

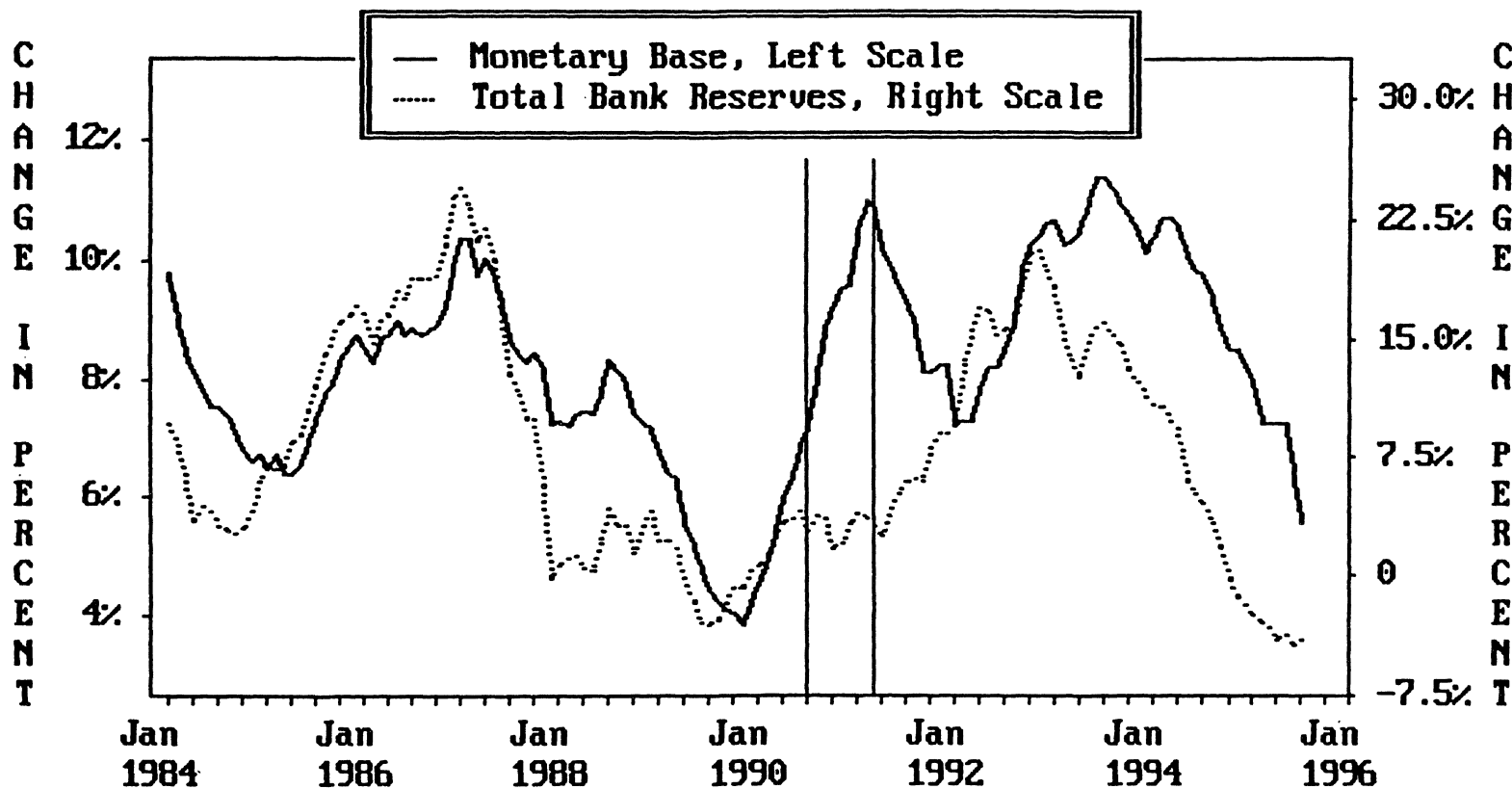
In the last 30 years, transfer payments, measured in current dollars, have grown from \$39 billion to \$1 trillion annually—from 6.5 percent of national income to more than 17 percent. More than 90 percent of transfers come directly or indirectly from Washington.

Government actions that restrict individual choice (say, by shifting income from workers to non-workers) usually impair the efficiency of the economy. However, an efficient economy may not be fair to all its participants. Some people earn and/or receive too few of the economy's goods and services to have a minimum living standard. Mostly, this is what the stream of \$1 trillion in transfer payments is supposed to cure.

Equally important is whether cutting traditional government functions to facilitate rapid growth in transfer programs may create problems for the future. Defense, education, infrastructure and public safety, after all, are critical to the smooth running of the society.

There is no magic level of transfer spending that will produce optimum growth. But seeking equity by redistributing income involves costs that go beyond the dollars in the budget. These costs are often hidden. Voters, who must make the final decisions, should beware.

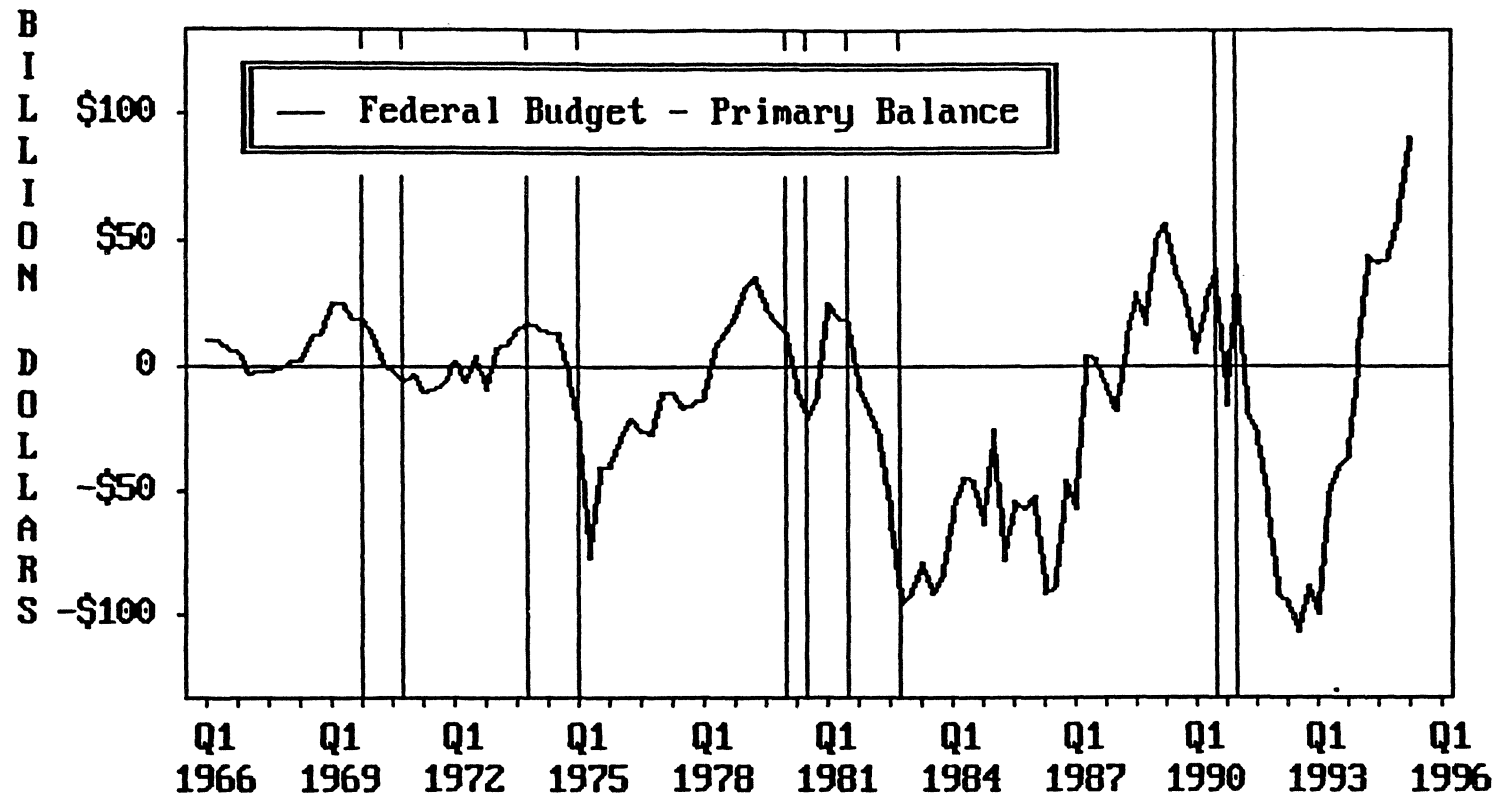
### CYCLES IN FEDERAL RESERVE POLICY



**Notes:** The chart shows year-over-year changes in the monetary base (line) and in total bank reserves (dot). Federal Reserve Board data, adjusted for seasonal and reserve requirement changes. The vertical lines show the recession.

**Sources:** Haver Analytics; Heinemann Economic Research

## THE RISING SURPLUS IN THE PRIMARY FEDERAL BUDGET



**Notes:** The chart shows the primary balance in the federal budget - total revenues minus expenditures other than net interest paid to the public. Surplus (+), Deficit (-). Billions of current dollars. The vertical lines show recessions.

**Sources:** Haver Analytics; Heinemann Economic Research



**HEINEMANN ECONOMIC RESEARCH/DIVISION OF BRIMBERG & CO.**  
Baseline Forecast - August 1995

	IV'94 A	I'95 A	II'95 F	III'95 F	IV'95 F	I'96 F	II'96 F	III'96 F	IV'96 F	1994 A	1995 F	1996 F
<b>THE ECONOMY:</b>												
Gross Domestic Product (\$87)	\$5,433.8	\$5,470.1	\$5,477.3	\$5,514.9	\$5,556.3	\$5,582.4	\$5,605.5	\$5,616.3	\$5,606.1	\$5,344.0	\$5,504.6	\$5,602.6
Pct Chg	5.07%	2.70%	0.5%	2.8%	3.0%	1.9%	1.7%	0.8%	-0.7%	4.08%	3.0%	1.8%
Personal Consumption (\$87)	\$3,629.6	\$3,643.9	\$3,666.5	\$3,681.7	\$3,699.7	\$3,710.8	\$3,716.4	\$3,712.7	\$3,709.7	\$3,579.6	\$3,673.0	\$3,712.4
Pct Chg	5.11%	1.59%	2.5%	1.7%	2.0%	1.2%	0.6%	-0.4%	-0.3%	3.50%	2.6%	1.1%
Business Investment (\$87)	\$708.2	\$743.6	\$764.6	\$785.3	\$798.7	\$814.9	\$826.3	\$837.9	\$834.8	\$672.4	\$773.0	\$828.5
Pct Chg	17.65%	21.54%	11.8%	11.3%	7.0%	8.4%	5.7%	5.7%	-1.4%	13.66%	15.0%	7.2%
Structures (\$87)	\$155.6	\$159.9	\$163.2	\$164.7	\$168.1	\$169.6	\$173.1	\$174.9	\$173.1	\$150.6	\$164.0	\$172.7
Prod. Dur. Equip. (\$87)	\$552.6	\$583.7	\$601.4	\$620.6	\$630.6	\$645.3	\$653.2	\$663.0	\$661.7	\$521.8	\$609.1	\$655.8
Residential Invest. (\$87)	\$231.5	\$229.5	\$220.9	\$227.5	\$227.7	\$227.7	\$228.4	\$230.1	\$230.1	\$231.4	\$226.4	\$229.1
Pct Chg	2.28%	-3.41%	-14.2%	12.5%	0.4%	0.0%	1.1%	3.1%	-0.0%	8.59%	-2.1%	1.2%
Change in Inventory (\$87)	\$49.4	\$51.1	\$30.4	\$25.2	\$26.5	\$17.5	\$13.5	\$9.5	(\$0.5)	\$47.8	\$33.3	\$10.0
Net Exports (\$87)	(\$107.1)	(\$118.5)	(\$125.0)	(\$126.1)	(\$118.6)	(\$112.6)	(\$104.7)	(\$100.2)	(\$94.2)	(\$110.0)	(\$122.0)	(\$102.9)
Government Purchases (\$87)	\$922.2	\$920.5	\$919.9	\$921.3	\$922.2	\$924.0	\$925.7	\$926.3	\$926.1	\$922.8	\$921.0	\$925.5
Pct Chg	-4.14%	-0.74%	-0.3%	0.6%	0.4%	0.8%	0.7%	0.3%	-0.1%	-0.75%	-0.2%	0.5%
Final Domestic Sales (\$87)	\$5,491.5	\$5,537.5	\$5,571.9	\$5,615.8	\$5,648.3	\$5,677.5	\$5,696.8	\$5,707.0	\$5,700.8	\$5,406.2	\$5,593.4	\$5,695.5
Pct Chg	4.85%	3.39%	2.5%	3.2%	2.3%	2.1%	1.4%	0.7%	-0.4%	4.10%	3.5%	1.8%
Gross Dom. Prod. (\$ Current)	\$6,897.2	\$6,977.4	\$7,011.8	\$7,110.0	\$7,216.6	\$7,317.6	\$7,405.5	\$7,479.5	\$7,525.1	\$6,738.4	\$7,078.9	\$7,431.9
Pct Chg	6.36%	4.73%	2.0%	5.7%	6.1%	5.7%	4.9%	4.1%	2.5%	6.23%	5.1%	5.0%
Disposable Income (\$87)	\$3,911.0	\$3,950.5	\$3,937.6	\$3,961.3	\$3,980.3	\$3,999.5	\$4,013.4	\$4,023.4	\$4,029.3	\$3,835.7	\$3,957.4	\$4,016.4
Pct Chg	7.50%	4.10%	-1.3%	2.4%	1.9%	1.9%	1.4%	1.0%	0.6%	3.55%	3.2%	1.5%
Savings Rate (Percent)	4.6%	5.10%	4.1%	4.7%	4.7%	4.9%	5.0%	5.3%	5.4%	4.10%	4.6%	5.1%
Operating Profits (\$ Current)	\$560.3	\$569.7	\$559.3	\$562.1	\$565.3	\$567.8	\$558.5	\$552.9	\$528.8	\$542.7	\$564.1	\$552.0
Pct Chg	3.13%	6.9%	-7.1%	2.0%	2.3%	1.8%	-6.4%	-3.9%	-16.3%	11.73%	3.9%	-2.1%
Industrial Prod. (1987=100)	120.50	122.00	121.00	121.9	122.7	123.5	124.1	124.4	122.9	118.07	121.9	123.7
Pct Chg	5.95%	5.07%	-3.24%	3.1%	2.6%	2.4%	2.0%	1.0%	-4.7%	5.33%	3.3%	1.5%
Housing Starts (Mill. Units)	1.511	1.308	1.265	1.28	1.28	1.30	1.29	1.29	1.27	1.446	1.28	1.29
Pct Chg	11.13%	-43.85%	-12.3%	3.9%	2.1%	4.0%	-0.9%	-2.0%	-5.1%	11.54%	-11.2%	0.3%
Tot Vehicle Sales (Mill Units)	15.420	14.890	14.34	14.6	14.6	14.40	14.04	13.89	13.57	15.060	14.6	14.0
Pct Chg	23.08%	-13.06%	-13.98%	6.6%	0.4%	-4.9%	-9.6%	-4.1%	-9.1%	8.46%	-3.1%	-4.2%
Nonfarm Payroll Jobs (Mill)	115.329	116.078	116.351	116.7	117.0	117.3	117.6	117.8	117.8	114.028	116.5	117.6
Pct Chg	2.99%	2.63%	0.94%	1.2%	1.1%	1.0%	0.9%	0.8%	-0.1%	2.98%	2.2%	0.9%
Unemployment Rate (Percent)*	5.57%	5.53%	5.70%	5.8%	5.9%	6.1%	6.1%	6.3%	6.5%	6.09%	5.7%	6.3%
Comp. Per Hour Non-Farm Bus**	164.4	166.1	167.6	169.8	172.2	174.6	177.3	179.3	181.1	162.6	168.9	178.1
Pct Chg	3.73%	4.20%	3.7%	5.5%	5.7%	5.5%	6.4%	4.6%	4.2%	2.68%	3.9%	5.4%
Productivity Non-Farm Bus**	118.6	119.3	120.2	120.7	121.2	121.5	121.7	121.8	121.6	117.4	120.3	121.6
Pct Chg	4.51%	2.38%	3.05%	1.5%	1.9%	0.9%	0.8%	0.0%	-0.6%	1.93%	2.5%	1.1%
Unit Labor Cost Non-Farm Bus**	138.7	139.2	139.4	140.8	142.1	143.7	145.6	147.3	149.0	138.5	140.4	146.4
Pct Chg	-0.29%	1.45%	0.6%	4.0%	3.7%	4.6%	5.5%	4.6%	4.9%	0.75%	1.3%	4.3%
GDP Deflator (1987=100)	126.9	127.6	128.0	128.9	129.9	131.1	132.1	133.2	134.2	126.1	128.6	132.6
Pct Chg	1.23%	1.98%	1.5%	2.9%	3.0%	3.8%	3.2%	3.3%	3.2%	2.06%	2.0%	3.2%
Consumer Prices (1982-84=100)	149.83	150.97	152.23	153.7	155.3	156.8	158.1	159.4	160.5	148.3	153.0	158.7
Pct Chg	2.25%	3.08%	3.38%	4.0%	4.1%	3.9%	3.6%	3.2%	2.8%	2.61%	3.2%	3.7%
Fed'l Deficit (\$ Current NIA)	(\$161.1)	(\$148.6)	(\$153.1)	(\$150.0)	(\$158.8)	(\$161.4)	(\$137.2)	(\$170.1)	(\$175.2)	(\$159.1)	(\$152.6)	(\$161.0)
<b>FINANCIAL MARKETS:</b>												
Federal Funds Rate	5.17%	5.81%	6.02%	5.8%	5.5%	5.4%	5.2%	4.7%	4.3%	4.20%	5.8%	4.9%
Three-month Bills (Discount)	5.28%	5.74%	5.60%	5.4%	5.2%	5.0%	4.8%	4.4%	4.0%	4.25%	5.5%	4.6%
Prime Rate, Major Banks	8.13%	8.83%	9.00%	8.8%	8.2%	8.1%	7.9%	7.4%	7.0%	7.14%	8.7%	7.6%
30-Year Treasury Bonds	7.96%	7.64%	6.96%	6.6%	6.4%	6.2%	6.2%	6.0%	5.9%	7.37%	6.9%	6.1%
Money Supply (M-1, \$ Current)	\$1,147.8	\$1,147.9	\$1,145.4	\$1,146.5	\$1,154.7	\$1,161.0	\$1,178.2	\$1,200.0	\$1,230.0	\$1,145.1	\$1,148.6	\$1,192.3
Pct Chg	-1.22%	0.03%	-0.87%	0.4%	2.9%	2.2%	6.1%	7.6%	10.4%	6.2%	0.3%	3.8%
Velocity (Ratio: GDP to M-1)	6.009	6.078	6.12	6.20	6.25	6.30	6.29	6.23	6.12	5.884	6.16	6.23
Trade-Weighted \$ (1973=100)	88.00	86.43	82.27	84.3	86.0	87.7	88.8	89.8	91.6	91.32	84.8	89.5

A=Actual F=Forecast Billions of dollars unless noted.

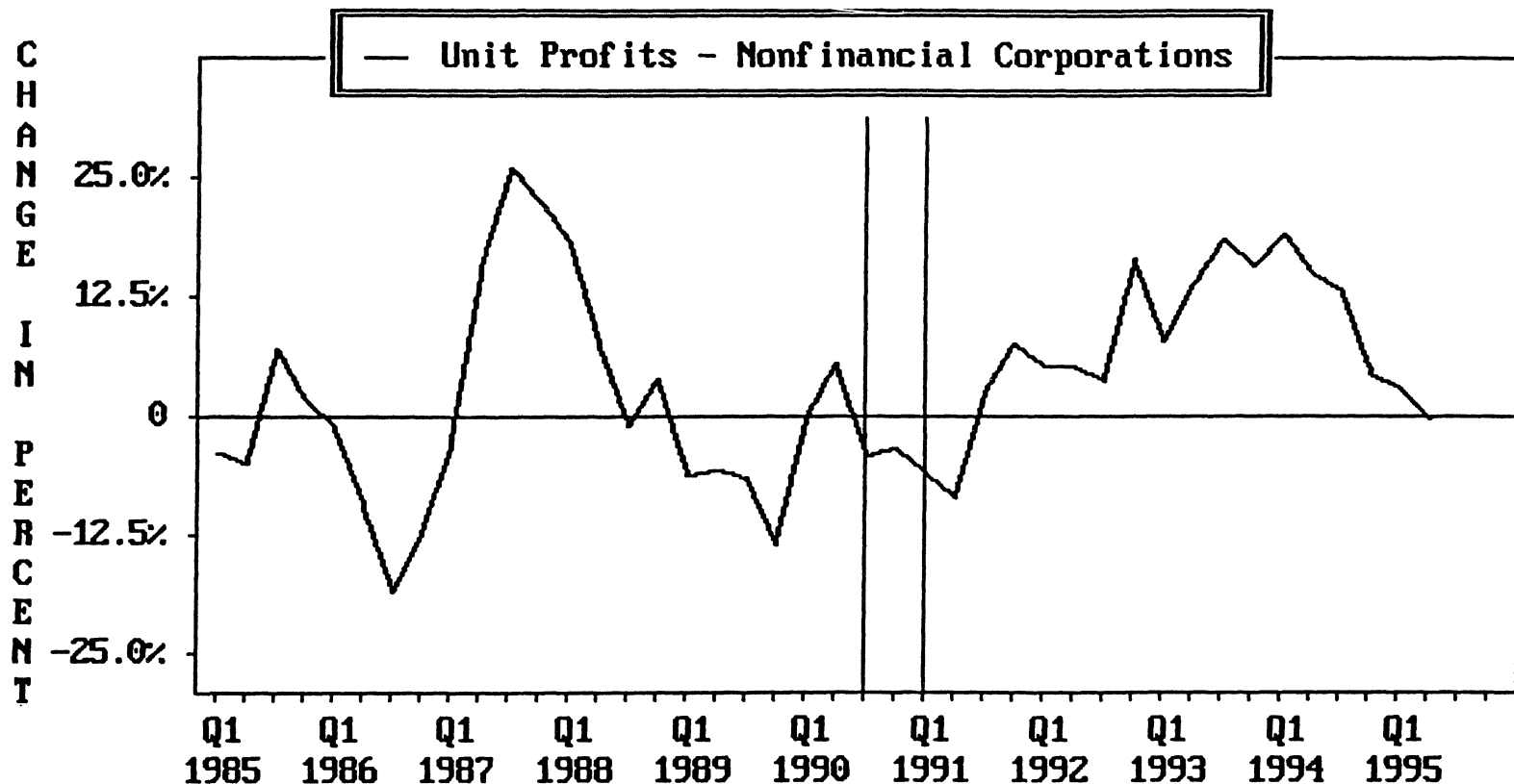
\* Break in series, January 1994. \*\* Compensation, productivity and unit labor costs are index numbers, 1982=100.

Sources: Haver Analytics; Heinemann Economic Research

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	I'94 A		II'94 A		III'94 A		IV'94 A		1994 A	
THE ECONOMY:	\$ Change	Pct Chg	\$ Change	Pct Chg	\$ Change	Pct Chg	\$ Change	Pct Chg	\$ Change	Pct Chg
Gross Domestic Product (\$87)	\$43.1	3.35%	\$52.9	4.09%	\$53.0	4.04%	\$66.8	5.07%	\$209.4	4.08%
Personal Consumption (\$87)	\$40.1	3.11%	\$11.5	0.89%	\$26.9	2.05%	\$44.9	3.41%	\$120.9	2.35%
Business Investment (\$87)	\$16.4	1.27%	\$14.3	1.11%	\$22.1	1.69%	\$28.2	2.14%	\$80.8	1.57%
Structures (\$87)	(\$4.6)	-0.36%	\$6.9	0.53%	\$0.6	0.05%	\$4.0	0.30%	\$2.9	0.06%
Prod. Dur. Equip. (\$87)	\$20.9	1.62%	\$7.5	0.58%	\$21.5	1.64%	\$24.2	1.84%	\$78.0	1.52%
Residential Invest. (\$87)	\$5.4	0.42%	\$3.9	0.30%	(\$3.6)	-0.27%	\$1.3	0.10%	\$18.3	0.36%
Change in Inventory (\$87)	\$14.6	1.13%	\$33.8	2.61%	(\$2.1)	-0.16%	(\$7.7)	-0.58%	\$32.5	0.63%
Net Exports (\$87)	(\$21.8)	-1.69%	(\$7.8)	-0.60%	(\$5.2)	-0.40%	\$9.9	0.75%	(\$36.1)	-0.70%
Government Purchases (\$87)	(\$11.6)	-0.90%	(\$2.8)	-0.22%	\$14.9	1.14%	(\$9.8)	-0.74%	(\$7.0)	-0.14%
Final Domestic Sales (\$87)	\$50.3	3.90%	\$27.0	2.09%	\$60.2	4.59%	\$64.6	4.91%	\$213.1	4.15%
GDP (\$87) Four qtr chg (%)		3.66%		4.09%		4.43%		4.14%		
	I'95 A		II'95 F		III'95 F		IV'95 F		1995 F	
THE ECONOMY:	\$ Change	Pct Chg	\$ Change	Pct Chg	\$ Change	Pct Chg	\$ Change	Pct Chg	\$ Change	Pct Chg
Gross Domestic Product (\$87)	\$36.3	2.70%	\$7.2	0.53%	\$37.6	2.77%	\$41.4	3.0%	\$160.7	3.0%
Personal Consumption (\$87)	\$14.3	1.06%	\$22.6	1.66%	\$15.2	1.12%	\$18.0	1.3%	\$93.4	1.7%
Business Investment (\$87)	\$35.4	2.63%	\$21.0	1.54%	\$20.7	1.53%	\$13.4	1.0%	\$100.6	1.9%
Structures (\$87)	\$4.3	0.32%	\$3.3	0.24%	\$1.5	0.11%	\$3.4	0.3%	\$13.4	0.3%
Prod. Dur. Equip. (\$87)	\$31.1	2.31%	\$17.7	1.30%	\$19.2	1.42%	\$9.9	0.7%	\$87.3	1.6%
Residential Invest. (\$87)	(\$2.0)	-0.15%	(\$8.6)	-0.63%	\$6.6	0.49%	\$0.2	0.0%	(\$4.9)	-0.1%
Change in Inventory (\$87)	\$1.7	0.13%	(\$20.7)	-1.52%	(\$5.2)	-0.38%	\$1.3	0.1%	(\$14.5)	-0.3%
Net Exports (\$87)	(\$11.4)	-0.85%	(\$6.5)	-0.48%	(\$1.1)	-0.08%	\$7.6	0.6%	(\$12.1)	-0.2%
Government Purchases (\$87)	(\$1.7)	-0.13%	(\$0.6)	-0.04%	\$1.4	0.10%	\$0.9	0.1%	(\$1.8)	-0.0%
Final Domestic Sales (\$87)	\$46.0	3.42%	\$34.4	2.52%	\$43.9	3.24%	\$32.5	2.4%	\$187.2	3.5%
GDP (\$87) Four qtr chg (%)		3.97%		3.07%		2.76%		2.3%		
	I'96 F		II'96 F		III'96 F		IV'96 F		1996 F	
THE ECONOMY:	\$ Change	Pct Chg	\$ Change	Pct Chg	\$ Change	Pct Chg	\$ Change	Pct Chg	\$ Change	Pct Chg
Gross Domestic Product (\$87)	\$26.1	1.9%	\$23.1	1.7%	\$10.8	0.8%	(\$10.2)	-0.7%	\$97.9	1.8%
Personal Consumption (\$87)	\$11.1	0.8%	\$5.6	0.4%	(\$3.7)	-0.3%	(\$3.0)	-0.2%	\$39.4	0.7%
Business Investment (\$87)	\$16.3	1.2%	\$11.4	0.8%	\$11.5	0.8%	(\$3.1)	-0.2%	\$55.4	1.0%
Structures (\$87)	\$1.5	0.1%	\$3.5	0.3%	\$1.7	0.1%	(\$1.7)	-0.1%	\$8.7	0.2%
Prod. Dur. Equip. (\$87)	\$14.8	1.1%	\$7.9	0.6%	\$9.8	0.7%	(\$1.3)	-0.1%	\$46.7	0.8%
Residential Invest. (\$87)	\$0.0	0.0%	\$0.6	0.0%	\$1.7	0.1%	(\$0.0)	-0.0%	\$2.7	0.0%
Change in Inventory (\$87)	(\$9.0)	-0.7%	(\$4.0)	-0.3%	(\$4.0)	-0.3%	(\$10.0)	-0.7%	(\$23.3)	-0.4%
Net Exports (\$87)	\$5.9	0.4%	\$7.9	0.6%	\$4.6	0.3%	\$6.0	0.4%	\$19.1	0.3%
Government Purchases (\$87)	\$1.8	0.1%	\$1.6	0.1%	\$0.7	0.0%	(\$0.2)	-0.0%	\$4.6	0.1%
Final Domestic Sales (\$87)	\$29.2	2.1%	\$19.2	1.4%	\$10.2	0.7%	(\$6.3)	-0.4%	\$102.1	1.9%

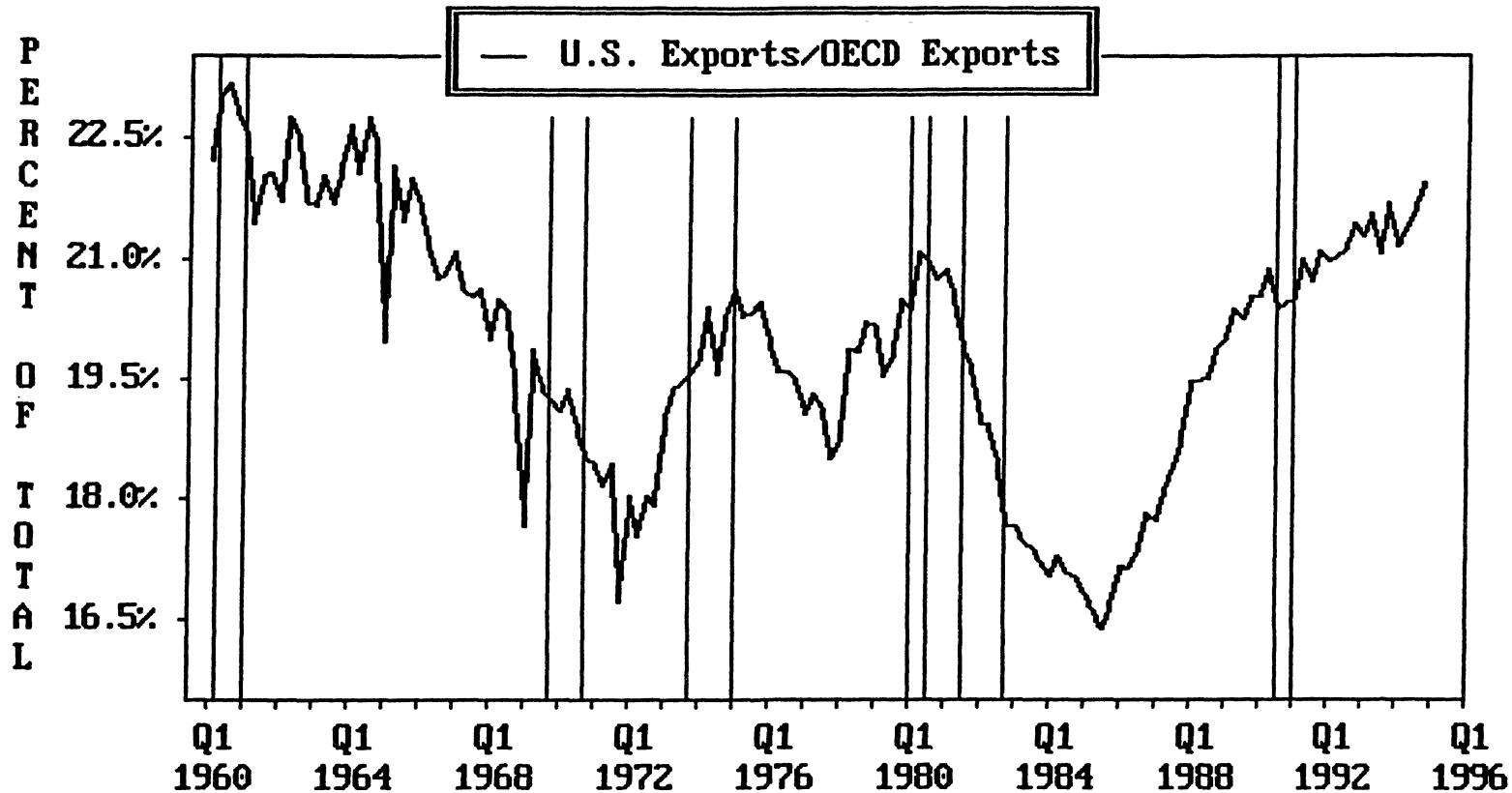
## THE SQUEEZE ON CORPORATE PROFITABILITY



Notes: The chart shows year-over-year percentage changes in the Bureau of Labor Statistics' Index of Unit Profits in Nonfinancial Corporations (1982=100). Second quarter 1995 plotted. The vertical lines show the 1990-91 recession.

Sources: Haver Analytics; Heinemann Economic Research

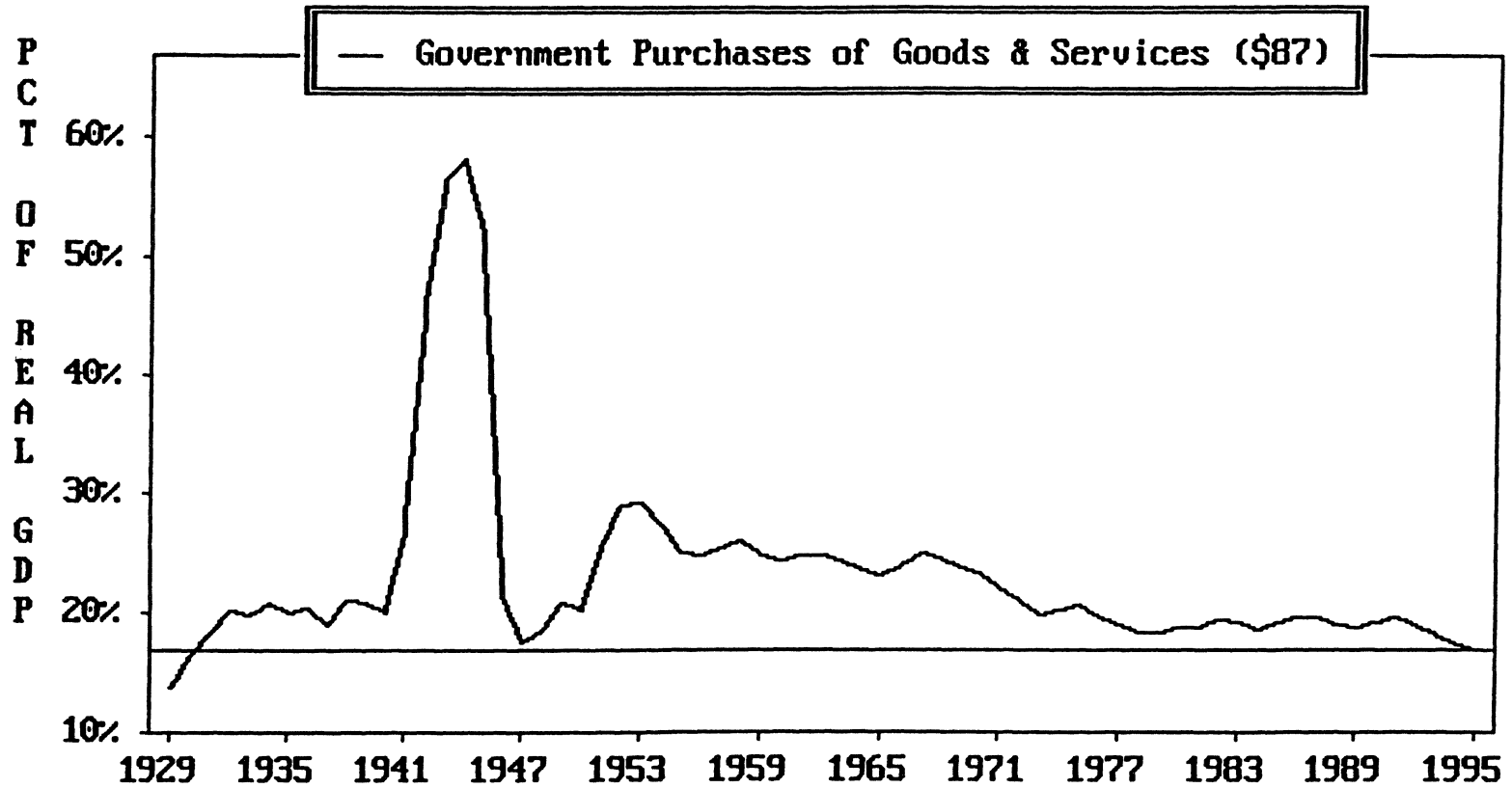
## THE RISING MARKET SHARE OF AMERICAN EXPORTS



**Notes:** The chart shows real U.S. exports of goods and services as a percent of real exports from the members of the Organization for Economic Cooperation and Development. Data are in 1990 dollars. Vertical lines show U.S. recessions.

**Sources:** Haver Analytics; Heinemann Economic Research

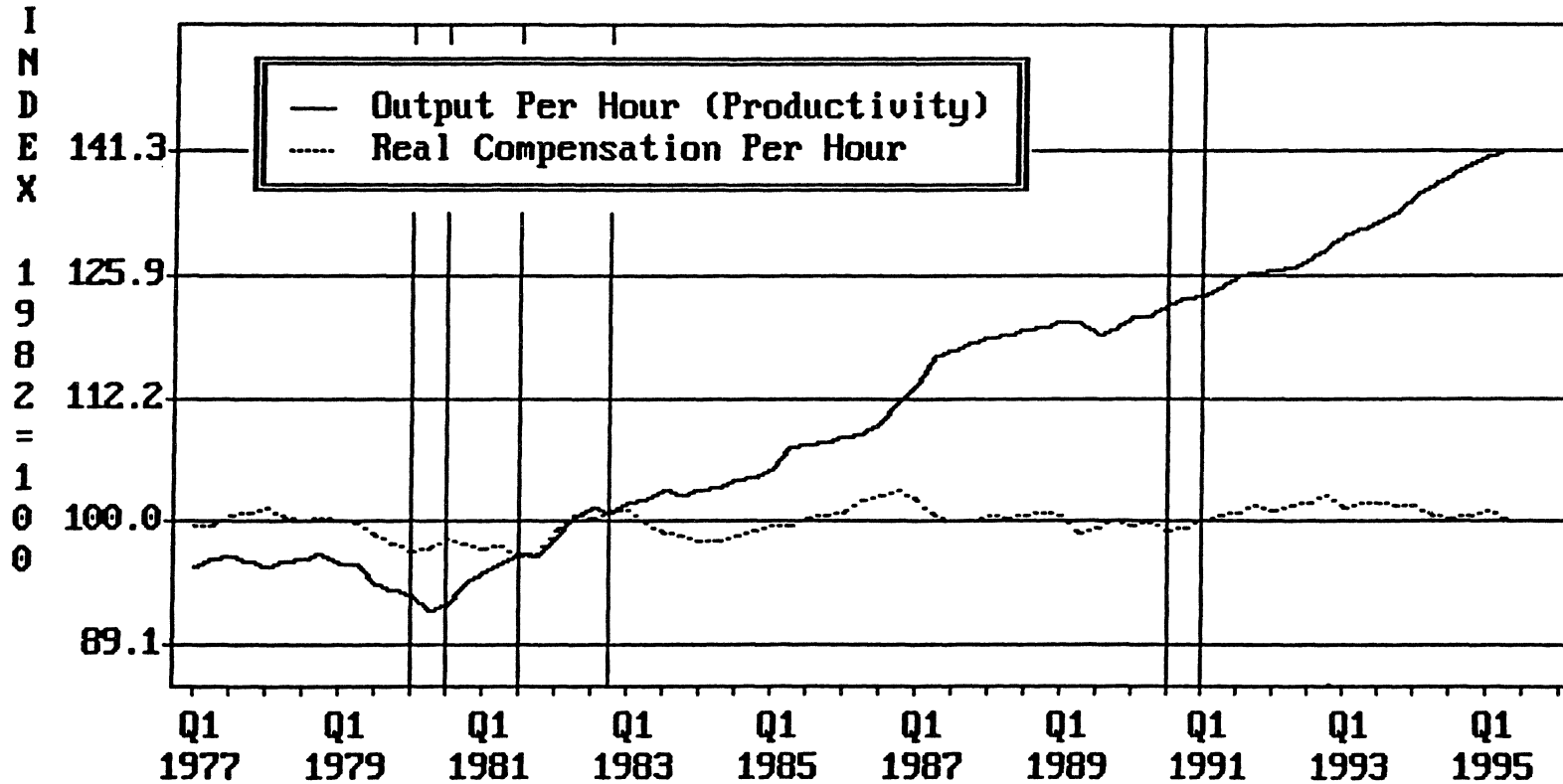
**GOVERNMENT PURCHASES HAVE DROPPED AS A SHARE OF THE ECONOMY**



**Notes:** The chart shows real federal, state and local purchases of goods and services (defense, education, infrastructure, health etc.) as a percent of real GDP. The horizontal line is 16.81%, the average for the first half of 1995.

**Sources:** Haver Analytics; Heinemann Economic Research

## THE GAP BETWEEN PRODUCTIVITY AND INCOME IN MANUFACTURING



**Notes:** The chart shows Bureau of Labor Statistics indexes of output per hour (line) and real compensation per hour (dot) in manufacturing. Index, 1982 equals 100. Semilog scale. The vertical lines show periods of recession.

**Sources:** Haver Analytics; Heinemann Economic Research



**HEINEMANN ECONOMICS  
PROSPECTS FOR MONEY AND THE ECONOMY  
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**H. Erich HEINEMANN  
Heinemann Economic Research  
Division of Brimberg & Co.**

**I WROTE AS I PLEASED**

*After 21 years, nearly one thousand reports and several million words, the time has come to end my regular letters to the investment community. It has been a long road from Morgan Stanley's Weekly Federal Reserve Report in August 1974 to Prospects for Money and the Economy in August 1995. New management at Ladenburg, Thalmann has decided to focus on small-cap stocks, so I have retired as chief economist.*

*However, retirement is not the same as pregnancy; you can do it half way. Effective immediately, Heinemann Economic Research will become a division of Brimberg & Co., an institutional brokerage firm in New York. I expect to work closely with a small number of key clients. Following a short vacation, I will be in touch. My telephone numbers will be 212-838-3100, 516-466-3893 or 516-466-3872.*

**HIGHLIGHTS**

**If the Fed sticks to its strategy of a disciplined monetary policy aimed at zero inflation, long-term interest rates should continue to decline. THE CASE FOR A 6 PERCENT LONG BOND (Page 29)**

**Inflation occurs only when central banks print more money than people wish to hold. Inflation is not due to capacity use in manufacturing, unemployment or even the price of oil. ROOTS OF INFLATION (Page 30)**

**Profits are under pressure in private services. These companies, mostly with low productivity, have added to their payrolls. Now their profit margins are suffering. THE SOFT UNDERBELLY OF GROWTH (Page 32)**

**The U.S. Budget is in better shape than Washington admits. However, rapid growth in revenue and stagnant spending (which would produce a large surplus) are not sustainable. THE DISAPPEARING BUDGET "SURPLUS" (Page 34)**

**THE CASE FOR A 6 PERCENT LONG BOND**

Somewhere lost in the fog of history, Wall Street's twenty-something bond traders decided that easy money means lower interest rates. Even superficial knowledge



of basic economic principles would have shown them that their story was backward. Nations with low long-term interest rates generally have tight monetary policies.

However, right or wrong has little relevance on Wall Street. What counts is what traders believe—the people who author Tom Wolfe satirized in his brilliant novel *Bonfire of the Vanities*. Right now, these self-appointed “masters of the universe” are at it again, regularly bidding up bond prices at any hint of economic weakness that could push the Federal Reserve to ease.

In fact, there is an excellent case for a 6 percent long bond over the next 6 to 18 months, but not because of what passes as conventional wisdom in the canyons of downtown lower Manhattan. If the cost of long-term credit continues to decline and bond prices continue to rise as we expect, it will be because the Federal Open Market Committee sticks to its strategy of a disciplined monetary policy aimed at achieving zero inflation.

## **ROOTS OF INFLATION**

Remember, inflation is a monetary phenomenon. It is not due to high levels of capacity use in manufacturing, low levels of unemployment or even the price of oil. Such measures are symptoms of the inflation process, not its causes. Inflation is determined by the number of dollars that chase the available supply of goods and services. Inflation occurs only when central banks print more money than people wish to hold. Transitory price changes—up and down—happen all the time. Such short-run adjustments translate into sustained changes in rates of change in the overall price level only in response to monetary policy. Too much money will create inflation; too little money leads to deflation.

Federal Reserve officials generally concur with this view. Therefore, their actions are likely to be guided by these principles. To paraphrase recent Fed testimony to Congress, price stability is the key ingredient to maximize productivity, real incomes, and living standards. Thus, it is crucial to extend the current period of low inflation. As the

Federal Reserve Bank of Cleveland put it, “Economic polices should create the conditions in which the natural incentives of a capitalist system foster the creativity and ingenuity necessary for innovation and capital accumulation. . . The relationship between monetary polices and the economy can be summarized by four key points:

- “(1) The Fed seeks to restrain inflation in order to promote economic growth in the conviction that inflation hampers growth.”
- “(2) Growth is not sacrificed in order to maintain price stability.”
- “(3) Monetary policy is the only tool for preventing inflation.”
- “(4) Even 1994’s low rate of inflation is too high for the nation’s long-term good.”

### **SPEAKING TO THE SHADOWS**

Total bank reserves, which are raw material for the money supply, were down again in August—the 16th monthly decline in the last 18 months. From January through August, bank reserves fell at an annual rate of 4.5 percent in contrast to a 1.9 percent rate of decline during calendar year 1994. In 1992 and 1993, reserves were up 20 percent and 12 percent, respectively. The monetary base averaged \$430.6 billion last month, up at a 3.9 percent rate thus far in 1995. That was less than half the growth rate of the base last year (see Figure 1).

At their meeting in early July, members of the Federal Open Market Committee decided that “they favored or could support a directive that called for some slight easing in the degree of pressure on reserve positions and that included a bias toward possible further easing of reserve conditions. . .” In a memorandum to our colleagues on the alternative Shadow Open Market Committee, which is scheduled to meet next weekend, we observed that this token reduction in the Fed’s target for overnight interest rates would probably not lead to a meaningful easing in monetary policy.

The Fed implements its policy by targeting the Fed funds rate, the price of bank reserves. The central bank controls the supply of bank reserves through its open market operations. However, the Fed cannot control the short-run demand for reserves. Therefore, officials must supply whatever amount of reserves bankers wish to hold at the prevailing target price—5 3/4 percent at present. Under current credit-market conditions,

the Federal Reserve must limit the supply of high-powered money in the banking system to keep rates from declining below that level.

We reiterate that the notion of a policy choice between jobs and inflation is false. Attempts to trade more inflation for more jobs backfire. The country would get higher prices and fewer jobs. Forcing rates down sufficiently to induce an increase in the quantity of reserves could trigger a further drop in the dollar, which would put upward pressure on import prices. Imports make up 30 percent of goods consumed in the U.S.

Fiscal policy is also restrictive. The primary surplus in the federal budget soared to a record annual rate of \$90.6 billion in the second quarter. In the first quarter of 1993, the primary <sup>balance</sup> ~~balance~~ was a deficit of \$101 billion (see Figure 2). The primary budget balance (revenues minus outlays other than net interest) is the best measure of the impact of government decisions about taxes and spending. A primary budget surplus means that tax revenues exceed current outlays for goods, services and transfer payments. Any remaining red ink reflects previous, rather than current, fiscal policy. Cause and effect are not clear, but a primary budget surplus has preceded every recession since World War II.

## **THE SOFT UNDERBELLY OF GROWTH**

Profits are under pressure in the private service sector. These companies have been responsible for almost nine of every 10 new jobs added in the current business expansion, well above their postwar average of 71 percent. These firms have added more than 6 million workers to their payrolls since 1991—mostly in businesses with low productivity. This is the soft underbelly of the expansion. Some of the weakest parts of the service-producing sector (for example, retailing and health care) have created the vast majority of the new jobs. Measures of productivity in services are either slowing sharply or are actually falling. Profits of private service companies were slightly lower in the fourth quarter of 1994 and were up only 3 percent from a year earlier.

The slump in service jobs over the last few months shows that the incentive to continue to add to the headcount has eroded. When it becomes unprofitable for

employers in the service sector to add to their payrolls, they will stop doing so. When the great American job machine goes into reverse, so does the economy.

## **THE CONSEQUENCES OF LOWER PROFITS**

The Labor Department's index of unit profits in nonfinancial corporations rose modestly in the second quarter, following a sharp drop during the winter months. This index is a key measure of profitability. It has not changed in the past year, following four years of steady gains at an annual rate of 11.5 percent.

The erosion in profitability has already led to slower growth in employment, and therefore also in income, consumption and investment. The Bureau of Labor Statistics estimated that private employers added 3.6 million jobs from January through August, 1 million fewer than in the same period of 1994. Roughly 20 percent of the slowdown was due to reduced estimates by the BLS of net job creation by newly-formed enterprises. Seasonally adjusted, the data add up to a gain of 858,000 jobs in 1995, down from 2 million in the same period last year.

More critical, the BLS index of aggregate hours worked in the private nonfarm economy is essentially unchanged thus far in 1995, following two years of gains at a rate of 4 percent. This sluggishness is beginning to back up in the investment sector. Real contracts and orders for plants and equipment, which rose at an average annual rate of 17 percent in the second half of 1993 and full-year 1994, fell sharply in July to an average annual rate of \$582 billion. Compare that to the average of more than \$600 billion during the first six months of this year.

In manufacturing, the diffusion indexes compiled by the National Association of Purchasing Management are generally down sharply from their levels in mid-1994. The overall NAPM composite index was 47.6 during June, July and August, well below its long-term average of 53.1. New orders have declined, supplier deliveries are improving and price pressures on basic materials are evaporating. Only export orders show consistent strength. Put these numbers on a chart, and they look more and more like a typical prerecession pattern.

## THE DISAPPEARING BUDGET “SURPLUS”

When Congress goes back to Washington after Labor Day, the federal budget will be at center stage. Democrats and Republicans will trumpet their rival, if largely spurious, plans for balancing the government’s accounts sometime after the turn of the century. Bureaucrats are getting ready to shut down the government on October 1 if there is no agreement.

Chances are that much of the public debate will focus on hot-button issues such as foreign aid or federal funding of abortions. These questions dominate the political agenda, but they are trivial in spending terms. Debate about fundamental fiscal reforms to boost incentives to work, save, invest and curtail the growth of \$1-trillion-dollar-a-year in government transfer programs will probably get short shrift.

For the time being, the budget is actually in better shape than Washington seems willing to admit. In the 12 months ended in July, the Treasury’s cash accounts were in the red by \$157 billion, the smallest shortfall since 1990. Projections by the Organization for Economic Cooperation and Development indicate the U.S. deficit will average less than 2 percent of GDP during the next 18 months, the lower percentage of any major country.

The forces behind this improvement are easy to find. During the past two years, federal revenue has risen at an annual rate of 8.8 percent, while outlays have increased at a pace of only 3.7 percent. Were those trends to continue, the Treasury would be in the black by fiscal year 1998. In fiscal year 2000, which will start October 1, 1999, there would be a surplus of \$250 billion.

This pattern of big gains in revenue and modest increases in outlays is *not* sustainable. There are two main reasons: First, a recession is likely to start within the next two years. In part, this will likely be a consequence of the abrupt tightening of fiscal policy during the Clinton Administration. If the economy does turn down, revenues will slow, expenditures will accelerate and the tide of red ink will rise rapidly.

Second, Mr. Clinton’s fiscal program—huge tax increases coupled with draconian cuts in Pentagon spending—was full of provisions designed to produce big one-time gains. For example, many analysts believe the White House must stop cutting real

defense outlays if the U.S. is to retain its global political leadership. Since the first quarter of 1993, real defense spending has dropped 18.5 percent. The Pentagon's share of the economy is now the smallest since 1940.

### **TOO GOOD TO BE TRUE**

Budget watchers also note that despite the talk about rolling back Washington's share of the economy, members of Congress still fund pet projects. At the same time, Social Security—Washington's largest single program—is “off the table,” outside the budget talks. Sad to say, the recent news about the Federal budget may be literally too good to be true. During the year ended in June 1995 federal revenue growth had already started to slow and expenditures to acceralte. This is not to say that fiscal policy is not restrictive. The primary surplus in the federal budget is growing rapidly.

Governments have two basic economic functions: Number one, they purchase goods and services. Examples include maintaining military and police forces, operating schools, hospitals, parks and air traffic control systems and building bridges, dams and highways.

Thus far under the Clinton Administration, non-military government purchases have gone up at a rate of about 3 percent, just slightly over the inflation rate in the same period. Real military outlays, as noted, are sharply lower. Real purchases of goods and services at all levels of government currently represent the smallest share of real GDP since 1931.

Governments also redistribute income through transfer payments, which generally take money from individuals who work to give to those who do not. Over the last two and one-half years, these payments have increased at a rate of 6.2 percent, double the growth of non-military purchases.

### **THE GROWTH OF TRANSFERS**

In the last 30 years, transfer payments, measured in current dollars, have grown from \$39 billion to \$1 trillion annually—from 6.5 percent of national income to more than 17 percent. More than 90 percent of transfers come directly or indirectly from

Washington. There are serious matters in an economy facing a long-term decline in its saving rate (Figure 3) and eroding rates of return on productive investment (Figure 4).

Government actions that restrict individual choice (say, by shifting income from workers to non-workers) usually impair the efficiency of the economy. However, an efficient economy may not be fair to all its participants. Some people earn and/or receive too few of the economy's goods and services to have a minimum living standard. Mostly, this is what the stream of \$1 trillion in transfer payments is supposed to cure.

Equally important is whether cutting traditional government functions to facilitate rapid growth in transfer programs may create problems for the future. Defense, education, infrastructure and public safety, after all, are critical to the smooth running of the society.

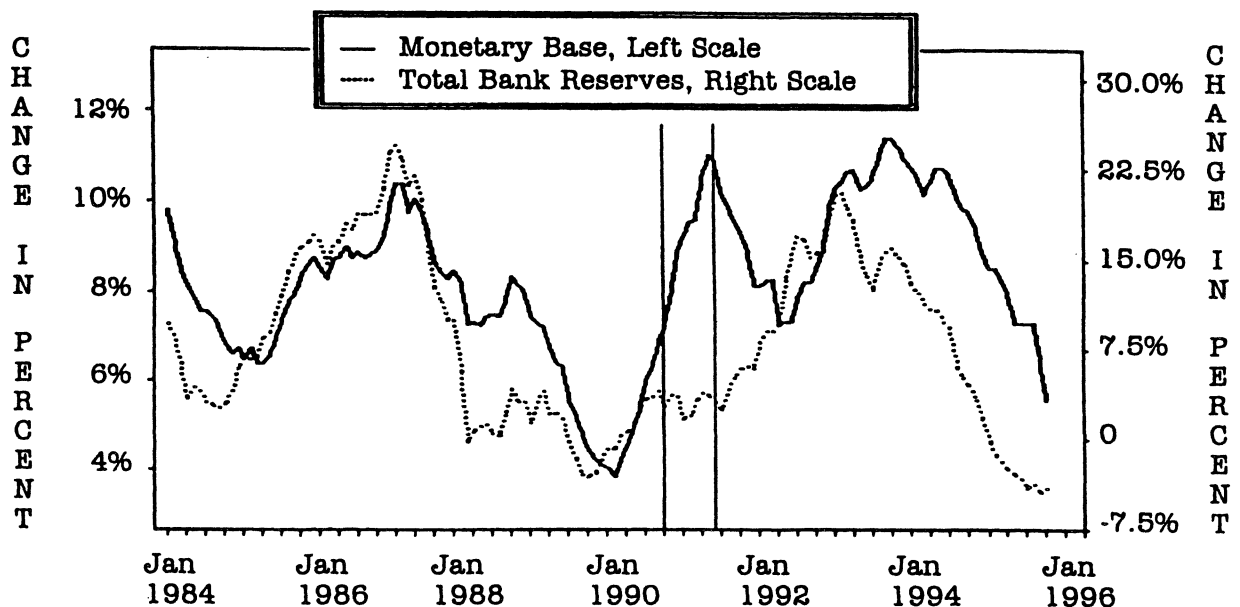
There is no magic level of transfer spending that will produce optimum growth. But seeking equity by redistributing income involves costs that go beyond the dollars in the budget. These costs are often hidden. Voters, who must make the final decisions, should beware.

**WEEKLY MONETARY DATA**  
(Billions of dollars, except as noted)

	Latest Week	Change from Previous week	--Rates of Change Over--			Week Ended
			3 Months	6 Months	12 Months	
<b>MONEY SUPPLY</b>						
M-1 (Cash, Demand and other Checkable Deposits)	\$1,145.6	\$2.3	0.3%	-0.3%	-0.5%	21-Aug-95
M-2 (M-1 Plus RPs, Euros, MMMFs, MMDAs, Consumer Time A/Cs)	3744.5	9.4	9.0	6.2	3.3	21-Aug-95
M-3 (M-2 Plus Large time A/Cs, Term RPs and Euros)	4521.2	7.8	10.7	8.7	5.7	21-Aug-95
Domestic M-1	531.9	2.9	5.3	1.7	0.5	21-Aug-95
<b>FRB RESERVE AGGREGATES</b>						
Monetary Base	430.725	0.323	-0.3	3.8	5.2	30-Aug-95
Total Reserves	57.476	-0.062	-0.5	-4.7	-3.8	30-Aug-95
Nonborrowed Reserves	57.189	-0.100	-1.3	-5.4	2.6	30-Aug-95
Borrowing, ex. Extended Credit (NSA) (millions of dollars)	0.288	0.038	NM	NM	NM	30-Aug-95
<b>ST. LOUIS RESERVE AGGREGATES</b>						
Adjusted Monetary Base	469.0	0.3	-0.2	2.9	4.3	30-Aug-95
Adjusted Fed Credit	437.7	0.4	-2.5	1.9	4.2	30-Aug-95
Total Commercial Paper	659.320	-1.881	4.8	15.6	15.7	23-Aug-95
C&I Loans - All Large Banks	344.3	-1.500	5.1	11.8	14.4	16-Aug-95

Notes: Data, except as noted, are seasonally adjusted. NM - Not meaningful. NA - Not available  
Domestic M-1 is an estimate of holdings of American currency in the U.S. plus demand deposits.  
Rates of change are compound annual rates based on four-week moving averages.

**Figure 1**  
**CYCLES IN FEDERAL RESERVE POLICY**



Notes: The chart shows year-over-year changes in the monetary base (line) and in total bank reserves (dot). Federal Reserve Board data, adjusted for seasonal and reserve requirement changes. The vertical lines show the recession.

Sources: Haver Analytics; Heinemann Economic Research

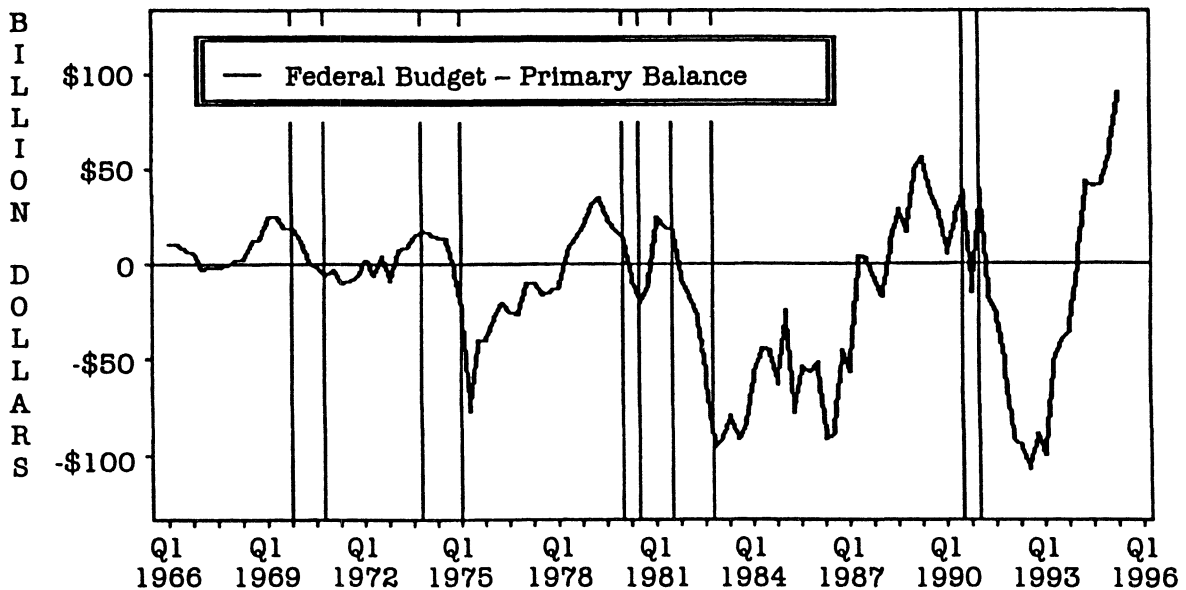


WEEKLY ECONOMIC DATA							
		Latest	Change from	----Rates of Change Over----			Week
		Week	Previous Week	3 Months	6 Months	12 Months	Ended
<b>BUSINESS WEEK PRODUCTION INDEX*</b>							
<u>OUTPUT, Production:</u>							
Autos (Units)	P	133168	13758	54.7	-14.1	-7.2	26-Aug-95
Trucks (Units)	P	124261	-112	91.9	3.2	-7.2	26-Aug-95
Paper (Thousands of tons)	P	838.4	-15.3	-1.4	4.5	2.0	19-Aug-95
Paperboard (Thousands of tons)	P	882.0	-8.8	-7.4	-4.5	0.5	19-Aug-95
Raw Steel (Thsds of short tons)	P	1935	32	1.6	-8.5	4.7	26-Aug-95
Bitum. Coal (Thsds of short tons)	P	19883	-160	-1.1	-12.3	-2.9	19-Aug-95
Crude Oil (Thousands of bbls)	P	13613	47	-13.7	-2.5	-0.9	26-Aug-95
Electricity (Millions of kwh)	P	66856	-3467	48.0	17.2	12.4	26-Aug-95
Rotary Rigs (US units operating)	P	762	5	4.6	2.0	-1.9	01-Sep-95
<u>TRANSPORTATION</u>							
Class I Railroad Freight Traffic (Billions of ton-miles)	P	24.1	0.2	-2.7	1.8	0.4	19-Aug-95
<u>PRICES</u>							
Spot Index All Commodities 1967=100		293.44	-0.43	5.1	5.2	10.6	29-Aug-95
Raw Industrials		342.00	-0.13	-13.3	0.3	11.1	29-Aug-95
Foodstuffs		235.02	-0.72	38.9	12.7	9.9	29-Aug-95
Domestic Spot Mkt Crude Oil Price		17.83	-1.87	-21.0	-1.5	2.5	31-Aug-95
Trade-weighted Value of the US Dollar (March 1973=100)	P	85.90	-0.20	9.6	-5.4	-4.9	30-Aug-95
Common Stock Prices S&P 500		561.88	4.42	27.0	33.2	19.7	31-Aug-95
<u>EMPLOYMENT</u>							
Initial Unemployment Claims (Thsds)		349	0	-29.7	3.9	4.5	26-Aug-95
Claimant Level (Thousands)		2654	25	16.1	8.0	-1.5	19-Aug-95

Notes: \*Copyright, McGraw-Hill, Inc. Used with permission. Data, except prices, seasonally adjusted. P - Preliminary. Changes are compound annual rates based on four-week averages.

Figure 2

THE RISING SURPLUS IN THE PRIMARY FEDERAL BUDGET

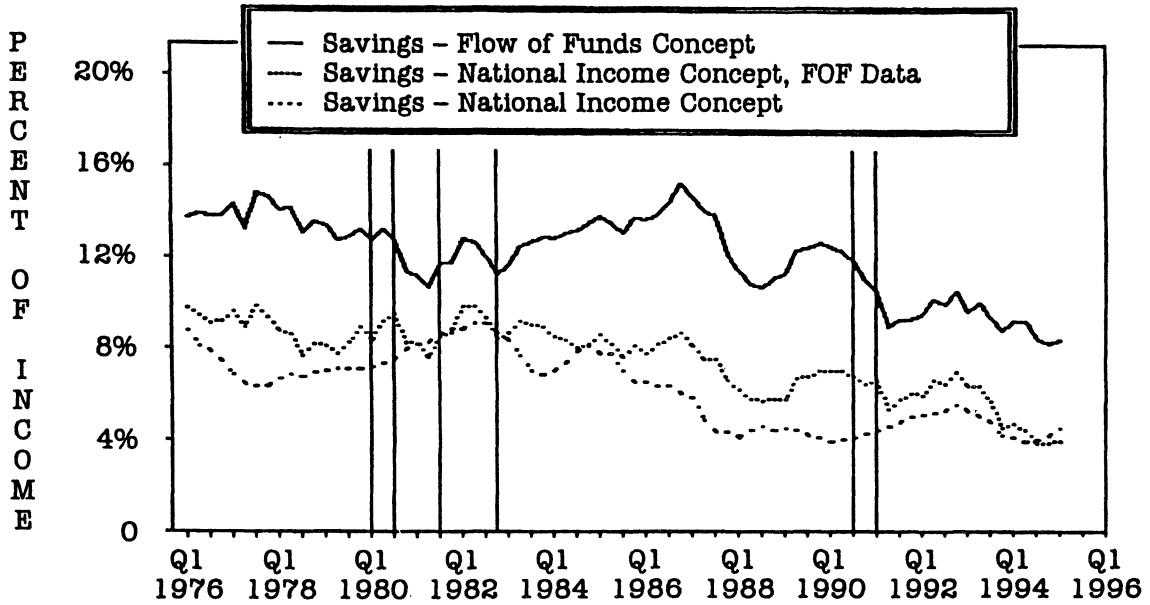


Notes: The chart shows the primary balance in the federal budget - total revenues minus expenditures other than net interest paid to the public. Surplus (+), Deficit (-). Billions of current dollars. The vertical lines show recessions.

Sources: Haver Analytics; Heinemann Economic Research

**Figure 3**

THE LONG-TERM DECLINE IN THE SAVING RATE

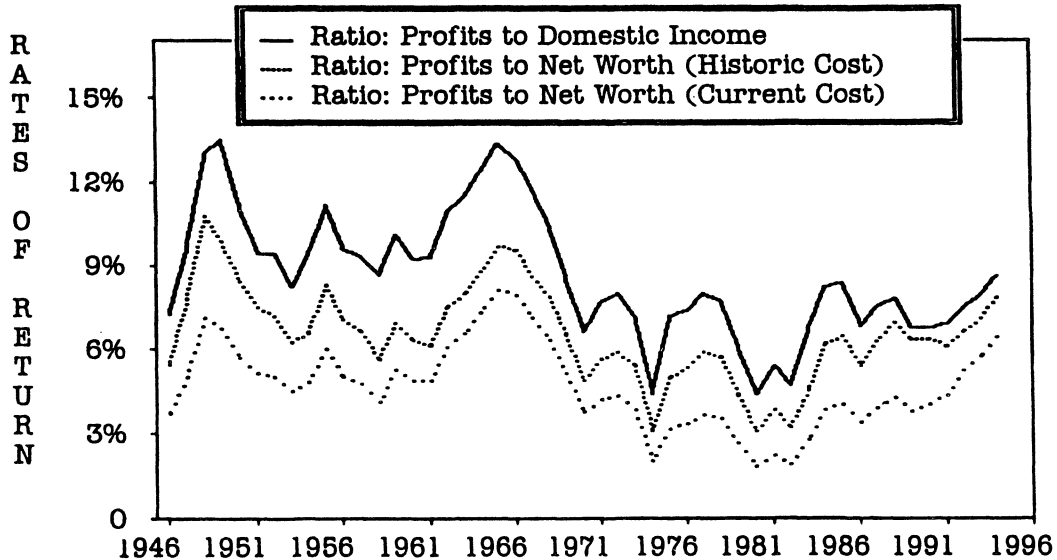


Notes: The chart shows saving as a percent of after-tax income: Solid line, flow of funds concept. Close dot, flow of funds concept, national income data. Wide dot, national income concept. 4-quarter averages. Vertical lines show recessions.

Sources: Haver Analytics; Heinemann Economic Research

**Figure 4**

LONG-TERM RATES OF RETURN IN NONFINANCIAL CORPORATIONS



Notes: The chart shows after-tax operating profits of domestic nonfinancial corporations as a percent of domestic income (line), net worth based on historic costs (close dot) and net worth based on current costs (wide dot). In current dollars.

Sources: Haver Analytics; Heinemann Economic Research



## **SOME OBSERVATIONS ON MONETARY POLICY**

**Lee HOSKINS**  
**The Huntington National Bank**

The FOMC appears to be successfully containing inflationary pressure created by policy actions from 1991-93. Now the FOMC has an opportunity to make reality out of its rhetoric of the past decade with regard to price stability, or zero inflation. Yet the ability of its FOMC to seize the opportunity may be more fragile than it was five years ago. A minority of members of the current FOMC view price stability as merely one of several equally important goals, rather than as the single means by which the Fed can make indirect but lasting contributions to other objectives. Attempts to balance multiple objectives creates uncertainty about future rates of inflation and weakens the credibility of the Federal Reserve. Fortunately, support for a statutory designation of price stability as the sole objective of monetary policy is again gaining ground in Washington. Congress should alter the Federal Reserve's charter to give primacy to price stability.

### **MONEY GROWTH, INFLATION AND CREDIBILITY**

The high growth rate for the monetary base from 1991-94 began to produce a rising inflation rate by early 1995. The year-to-year change in the CPI increased from 2.3 percent in May 1994 to 3.2 percent in May 1995. FOMC policy actions in 1994 and early 1995 have begun to slow growth in the monetary base and inflation pressures appear to be receding. Base growth year-to-date is less than 6 percent, significantly below the 9 percent trend rate of the previous four years (see figure) and below the 7 percent we recommended last March. Base growth of less than 6 percent, will limit and reverse the rise in the inflation rate in 1996 and restore price stability. A continuation of base growth at 6 percent is consistent with progress toward that goal.

The monetary history of the U.S. demonstrates that moderate base growth is associated with zero inflation. From 1871 to 1994 the mean of monetary base growth was 5.5 percent. The two-year moving average of base growth was above the mean in 63 years and below the mean in 61 years. During the fast growth periods, base growth

averaged 9.8 percent and inflation averaged 4.8 percent. In the moderate growth years, base growth averaged 1.8 percent and inflation averaged zero percent—the price level was stable (see table). During periods throughout the last 123 years, then, the price level was stable on average when base growth remained below 5.5 percent.<sup>1</sup>

Despite the historical record, policy makers have yet to directly and consistently pursue low and steady monetary growth. For a brief period in the early 1980's, the FOMC did attempt to manage money growth and money began to gain some credibility as an instrument of policy. Since then, the FOMC has relied less and less on monetary targets and more on other instruments to carry out its objectives. In Humphrey-Hawkins testimony before Congress in July 1993, Chairman Greenspan explicitly downgraded the importance of monetary aggregates as indicators of financial conditions. Today, targets are set for some aggregates but they have little operational or policy significance within the FOMC. Decisions in recent years appear to have been guided by an evolving mix of concern for various objectives with money growth being held hostage to the concern of the moment.

## **PRICE STABILITY AND CREDIBILITY**

While policy makers have been unwilling to explicitly manage money growth to achieve price stability, they have, it seems to me, been willing to place more emphasis on price stability as the dominant objective over the past decade, at least in their rhetoric. In 1990, all 12 Presidents signed a letter in support of the Neal Resolution (House Joint Resolution 409). Chairman Greenspan, representing all members of the Board of Governors, testified in favor of the Resolution. In effect, all of the members of the FOMC supported the Resolution which would have made price stability the dominant objective of monetary policy and set a time frame for achieving it. The Resolution failed in Committee. Recently, Chairman Greenspan has said in Congressional testimony that the Federal Reserve's unwavering goal is to foster maximum sustainable economic growth and rising standards of living and that it can best do so by achieving and maintaining price stability. Encouragingly, the sole reason given for the July 6 adjustment to policy was that inflationary pressures have receded.

The statement of a zero inflation objective is an important step, but several more are needed to achieve a credible monetary policy. An announced policy is credible when the public acts on it even when faced with evidence that seems to contradict the policy. To gain this kind of credibility, the FOMC must have a clear objective with a verifiable outcome and rules that are consistently adhered to in order to minimize uncertainty. If it has consistent rule, a policy of zero inflation satisfies these requirements: it is clear and it is verifiable. A predictable, verifiable policy ensures efficient long-term planning and resource allocation decisions. Such a policy requires a resolute focus on the long-term and a resistance to short-run policy fixes aimed at recession, unemployment weak exchange value of the dollar or other perceived economic ills. The direct pursuit of multiple goals will only introduce more uncertainty into an already uncertain world.

The current FOMC seems unable to give unanimous and consistent support to a price stability objective. At least one member has publicly stated that the goal of monetary policy is to balance inflation and economic growth and several others seem to share this view. Still others are concerned about the exchange value of the dollar or the unemployment rate. And, you can be sure that expectations of fiscal drag from Federal budget cuts will be put forth by some as a reason for lowering the funds rate. The historical record also demonstrates that maximum sustainable growth is achievable only in an environment of a stable price level. There is no long-run, exploitable trade-off between inflation and unemployment or growth. Attempts to exploit any short-run trade-off that might exist are deceitful, at best. In practice, they often have been counter-productive. In the 63 years since 1871, when the monetary base grew rapidly, real economic growth averaged 3.3 percent. In the 61 moderate money growth years, real growth averaged 3.6 percent (see table).

### **CONGRESS TO THE RESCUE?**

I doubt that today Chairman Greenspan could muster unanimous support from members of the FOMC for a bill making zero inflation the dominant objective of monetary policy. Clearly, to make zero inflation a more credible policy objective, there must be a commitment to achieving it within a specific time frame and with a penalty for

failure. This requires a change in the Fed's charter through Congressional action. Senator Connie Mack (R-Florida) seems a sure bet to lead the charge since he has publicly stated his desire for price stability as the sole objective for monetary policy. Legislation should direct the FOMC to promote the maximum attainable level of employment and output by achieving and sustaining a stable price level. The Federal Reserve should have complete freedom to design and adopt procedures and set and seek intermediate targets, without political interference. At the same time, the Fed must constantly be held accountable for the results of its actions—for producing a stable price level over time. The appropriate committees of Congress or the Executive Branch must have the authority to, and be specifically directed to, remove and replace monetary policymakers if and when the actual price level deviates from stability over a pre-specified time by a pre-specified amount. In short, policymakers should be explicitly directed to promote maximum sustainable growth by delivering zero inflation.

The FOMC cannot successfully fine-tune or even coarsely-tune the economy. By trying to do so, it jeopardizes the one economic objective it can achieve over time—zero inflation. This is not an insignificant objective. By eliminating inflation, the FOMC can reduce at least some of the uncertainties that individuals and businesses face, laying the foundation for a more efficient, and ultimately, more prosperous economy.

## NOTES

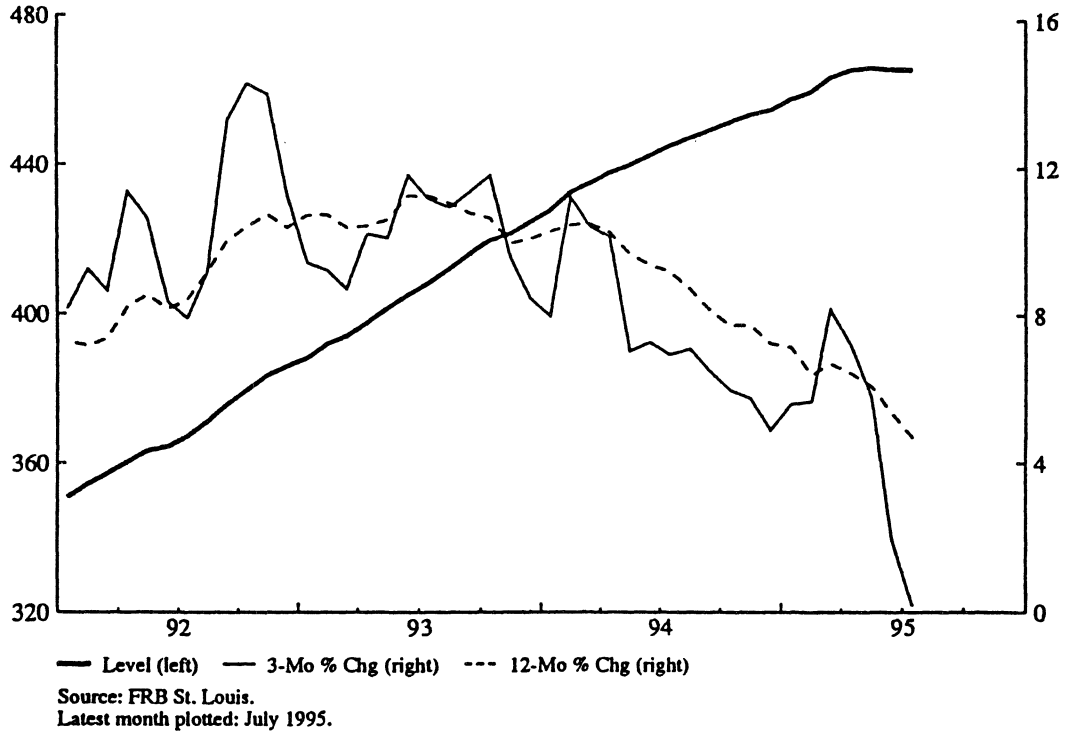
<sup>1</sup>This analysis is adapted from Charles I. Plosser, "Some Observations on Monetary Base Growth During Recoveries," Policy Statement and Position Papers, March 7-8, 1993, pp. 51-59.



**FIGURE**

**Monetary Base**

Level in Billions, Rate of Change in Percent



**TABLE**  
**MONETARY BASE GROWTH AND**  
**INFLATION AND REAL OUTPUT GROWTH<sup>1</sup>**

	<b>Base Growth<sup>2</sup></b>	<b>Inflation</b>	<b>Real Output Growth</b>
<b>Base Growth ≥ 5.5%</b>	9.8	4.8	3.3
<b>&lt; 5.5%</b>	1.8	0.0	3.6

<sup>1</sup>Data from 1872 to the start of the modern series are from R. J. Gordon, *The American Business Cycle: Continuity and Change*. (Chicago and London: University of Chicago Press, 1986), pp. 781-786 and Milton Friedman and Anna J. Schwartz, *Monetary Trends in the United States and the United Kingdom: Their Relation to Income, Prices, and Interest Rates, 1867-1975* (Chicago: University of Chicago Press, 1982), pp. 122-29.

<sup>2</sup>Base growth is the two-year moving average of annual monetary base growth.

## **POSITIVE IMPLICATIONS OF DEFICIT REDUCTION AND FISCAL REFORM**

**Mickey D. LEVY**  
**NationsBanc Capital Markets, Inc.**

The political and economic environment for budget and tax reform is favorable. Congress's Concurrent Resolution to balance the budget by 2002, passed in June 1995, involves dramatic cuts in nondefense domestic programs, although its implementation awaits detailed instructions from the appropriation and authorization committees. By reallocating national resources from consumption-oriented deficit spending on transfer payments toward more productive private uses, improving the structure of key spending programs, and raising national saving, this fiscal reform would raise long-term growth and would be relatively neutral economically in the short run. Standard demand-driven macroeconomic models that rely on deficit measures of fiscal thrust and project all deficit reduction to restrict economic activity are misleading. The Fed must avoid an accommodative monetary stance specifically designed to offset any anticipated fiscal restraint. Meanwhile, tax reform is not expected until after the 1996 presidential elections.

Deficit cutting is the top priority of the reform-minded fiscal policymakers, while significant tax reform (not just tax cuts) is on the back-burner. Appropriation and authorization committees presently are developing legislative instructions to implement the proposed \$1.1 trillion cumulative savings from current law. They are scheduled to submit reports on September 22. The depth and breadth of the required cuts will test the resolve of these committees, particularly in Medicare, Medicaid, and welfare. The Administration proposes somewhat smaller savings from a more optimistic budget baseline and a balanced budget by 2004. Political fisticuffs are anticipated, and the political process may involve a continuing appropriation resolution and/or a Presidential veto. Such political maneuvering may briefly disrupt general government operations or debt-financing schedules by delaying approval of the necessary rise in the federal debt

ceiling. When the dust clears, major deficit-cutting legislation is the expected outcome, although actual (rather than projected) budget balancing seems a long-shot.

## **CURRENT BUDGET STATUS**

In recent years, the budget deficit has narrowed significantly, from \$290 billion in Fiscal Year 1992 (4.9 percent of GDP) to approximately \$155 billion in 1995 (2.3 percent of GDP). Excluding net interest outlays of approximately \$230 billion in 1995, the budget is in significant surplus. The dramatic improvement reflects favorable economic conditions (stronger growth and lower interest rates), the tax hikes of 1993, and the reversal of the government's earlier massive outflows to bail out the thrift industry. Tax receipts rose 8.5 percent annually in 1994-1995, while spending growth slowed to 3.8 percent annually. Spending growth in entitlements, particularly Medicare and Medicaid, continues to rise rapidly, but outlays for discretionary programs have slowed sharply.

Without legislation, however, the budget outlook deteriorates beginning in 1996, with the deficit rising to approximately \$220 billion in 1997 and 1998. After that, projected spending and deficits soar, under the assumption that spending on discretionary programs, capped through 1998 by the Omnibus Budget Resolution Act of 1993, keeps pace with inflation. The Congressional Budget Office (CBO) projects current law deficits to exceed \$300 billion in 2001 and rise sharply thereafter, reflecting surging entitlement spending. The Administration's baseline projections of gently rising deficits rely on economic assumptions similar to the CBO's, but optimistically assume continued caps on discretionary spending after 1998. In the past, such unrealistic optimism has misled and muddled the budget process and lowered policymakers' credibility.

## **THE PROPOSALS**

Congress's resolution to balance the budget proposes increasingly stringent spending constraints on both discretionary spending programs and entitlements. It leaves social security untouched. Measured from the CBO's baseline, it proposes \$440 billion in cumulative cuts in discretionary programs between 1996 and 2002. This includes holding defense outlays in 2002 nearly unchanged from 1995 levels, an approximate 25

percent decline in inflation-adjusted terms, and a \$30 billion reduction in nondefense outlays, a 30 percent decline in real terms. Crucially important, achieving these proposed cuts requires more than a dozen appropriation committees in each house legislate increasingly deeper cuts in discretionary programs in each year though 2002.

The resolution also proposes cuts of \$623 billion in entitlement programs, nearly three-quarters of which are from Medicare and Medicaid. This involves slowing the annualized spending growth of Medicare from a projected 10.3 percent to 6.3 percent and Medicaid from 10.4 percent to 4.8 percent. Programmatic changes have not yet been determined.

The resolution's proposed budget savings reflect \$182 billion in lower debt service as a result of slower growth of federal debt and a "fiscal dividend" of \$170 billion that the CBO says would result from assumed lower interest rates and modestly stronger economic growth. Finally, the resolution provides for a \$240 billion tax cut if the appropriation committees legislate the proposed savings in the reconciliation directive.

Cuts of the magnitudes proposed would require significant reductions in the level of real services and subsidies the government provides in a wide array of programs, including medical services, welfare and agricultural support. This is particularly true since social security (22.8 percent) and net interest outlays (15.9 percent) combined constitute nearly two-fifths of total federal spending. To date, with key committees tied up on major substantive issues as well as program detail, skepticism about Congress's fiscal resolve is warranted. Successful deficit reduction will require definitive resolution of these issues.

The Administration's proposal to balance the budget by 2004 is more a case of deficit bean-counting in political response to the Congress's aggressive initiative than a solid proposal based on programmatic legislation. It is based on an unrealistically optimistic budget baseline and most of its deficit cuts are what the Administration calls "indicative proposals" (they do not reflect specific policies). Even more than Congress's proposal, its savings are heavily backloaded into the last years of its projection period (2003-2004). Ignore it.

## **ECONOMIC AND FINANCIAL IMPACTS**

Congress's proposal would not have a significant negative short-run economic impact, contrary to the projections of standard demand-driven macroeconomic models, and would raise long-run growth potential. Any assessment of the economic impact of fiscal legislation requires detail on the mix of deficit-cutting and the implications for the allocation of national resources and incentives. Standard demand-driven models incorrectly rely nearly exclusively on deficits to measure fiscal thrust—and assume that all deficit reduction is restrictive and reduces national wealth. These are inadequate oversimplifications and largely wrong, particularly for the task at hand—cutting transfer payments. Changes in deficits (cyclically-adjust or otherwise) provide little information about economic effects and are a misleading basis for evaluating fiscal policy. Different types of deficit spending have diverse effects on resource allocation and economic behavior. Reducing the deficit through spending cuts must be distinguished from tax increases; moreover, government transfer payments have different economic impacts than government purchases. Similarly, different tax structures producing similar revenues may generate different economic and financial outcomes. Thus, the economic impact of deficit reduction depends crucially on how it is accomplished.

The most important contributions of the Congressional budget resolution are: reallocating national resources from public uses to private uses; improving the structures of key government spending programs and reducing existing economic disincentives; raising national saving; and establishing the credibility of fiscal policymakers. These factors would raise long-run economic growth; although estimates are uncertain, the cumulative rise in standards of living is quite substantial. These factors are not captured in the short-term projections of standard macro models.

In recent years, higher taxes and debt have financed a gradually declining amount of inflation-adjusted government purchases, which directly absorb national resources, and a sharply rising amount of transfer payments, which are redistributed through entitlement and discretionary programs and generally finance consumption by the beneficiaries. The government's tax structure encourages consumption over saving, raises the demand for medical services, and generates disincentives to supply.

Congress's budget resolution would begin to reverse these trends, reallocating resources from public to private uses, freeing resources for more productive activities and raising long-run standards of living. At issue is the short-run transition costs and distributional consequences. A relatively small portion of the budget savings is from defense, which reduces government purchases and directly lowers absorption of resources. Since there is little if any private sector substitution for spending on national defense, economic output is reduced in a short-run static sense. Most of the budget savings in Congress's proposal would derive from cuts in transfer payments and entitlements. While transfer payments redistribute resources from taxpayers to beneficiaries and do not directly absorb them, a hefty portion of the proposed entitlement cuts are in Medicare and Medicaid, which are associated with the provision of medical services. Reducing these entitlements will temporarily lower GDP to the extent that reducing government subsidies reduces total demand for medical services. Cutting other transfer payments will temporarily depress the disposable income and consumption of the beneficiaries.

The direct, short-run impact on GDP would be the amount of the reduction in government purchases for defense and nondefense (infrastructure, commerce, research and development, etc.), plus any reduction of medical output as a result of the cutback in government subsidies. Based on Congress's budget resolution, this impact would be minor, particularly through 1998. The reduction in consumption as a consequence of reduced disposable income of beneficiaries depends on the size and timing of the cuts in transfers.

These negative short-run impacts on output would be largely offset by a number of economic and financial responses that would stimulate increased activity in other sectors, assuming the implementation of a credible deficit reduction package. The result would be a change in the mix of GDP, as increases in private investment, durable goods consumption and a reduction in the net export deficit offset the declines in government purchases, medical care output, and consumption of services.

A credible fiscal package would lower interest rates (reduce inflation expectations) and raise national wealth. Net national saving would rise (the reduction in

government dissaving would be partially offset by lower private saving), and an increase in the investment share of output would lift the nation's capital stock. Ultimately, reduced transfers will lessen the current bias toward consumption, further boosting savings and investment. With more domestic saving to finance U.S. investment, borrowing from abroad would fall, lowering the current account deficit. The credibility gained by fiscal responsibility would raise expected rates of return on investment, provide support to the U.S. dollar, and lift purchasing power. Also, in addition to reducing waste, presumably the fiscal reform would improve the structures of certain government programs, raise efficiency and reduce existing disincentives that constrain labor supply, productive output, and private saving.

Certainly, this outcome depends crucially on the credibility of any deficit-cutting legislation. The Federal Reserve's long, arduous road is a benchmark for fiscal policymakers who lack credibility, following over a decade of bungling. Recent deficit reduction has enhanced the image of fiscal policymaking only modestly, as policymakers have relied excessively on tax increases and have avoided reform of key spending programs. Congress's budget resolution sets the stage for meaningful fiscal reform, but effective and stringent legislation by the appropriation committees is now required. To gain credibility, reforming Medicare is a minimal first step. Any legislative slippage now or in the future would be dilutive.

Is Congress's deficit reduction proposal worthwhile economically? Yes, insofar as the positive cumulative long-run impacts on economic growth and living standards would be substantial, far outweighing any minor short-run transition costs. Much of the programmatic detail of Congress's proposal remains undeveloped. The only glaring omission of the proposal is the failure to initiate social security reform, ultimately a necessity for long-run fiscal solvency. Leaving untouched the government's largest spending program ignores its many inefficiencies and inequities, raises the cost-cutting burdens on other spending programs, and only delays and raises the costs of eventual reform.

## **THE FEDERAL RESERVE'S RESPONSE AND THE MONETARY-FISCAL MIX**

The Fed's pursuit of its long-run objective of price stability as a foundation for healthy sustained economic expansion requires that it maintain a neutral monetary policy in response to any deficit reduction package. The notion that accommodative monetary policy is a necessary complement to offset the temporary restrictive nature of the fiscal belt-tightening is misguided and dangerous. It has potentially adverse consequences and only confuses the current macroeconomic debate. Similarly, attempts by the Fed to lower its funds rate target to reflect an assumed decline in the equilibrium level of real interest rates associated with deficit reduction is also problematic and may have unintended monetary policy consequences.

Monetary policy and fiscal policy are not substitutes for achieving the desirable objectives of healthy, sustained economic expansion and stable prices. Fiscal policy determines the allocation of national resources between the public and private sectors and influences long-run potential output by altering incentives to consume, save, and invest, but it is not capable of generating permanent shift in aggregate demand. Accommodative monetary policy is incapable of lifting long-run productivity or output, and only generates higher inflation that interrupts economic expansion.

Attempts to change the policy mix to achieve a desired outcome require that the magnitude and timing of the economic responses to fiscal and monetary policies are understood; they are not. Even the direction of the fiscal policy multipliers are in question: standard macroeconomic models project that Congress's budget resolution would reduce GDP in the short run, while the CBO projects a positive economic response, although the specific posture it assumes for monetary policy is unclear.

While interest rates are likely to fall with credible fiscal reform, the magnitude and timing of the effects on real rates and inflationary expectations are highly uncertain. As a result, the correct adjustment of the funds rate consistent with maintaining monetary neutrality is a high risk proposition for the Fed. Instead, relying on the monetary aggregates to measure monetary thrust is critical.



Recent history illustrates the pitfalls of the Fed's misplaced efforts to coordinate monetary policy with fiscal policy, its excessive reliance on funds rate targeting, and allowing the long-run objectives of monetary policy to be sidetracked by short-term concerns. Witness the second half of 1990, when the Fed maintained an excessively restrictive monetary policy by pegging the funds rate too high and allowing real money balances to decline while waiting for a fiscal compromise; this contributed to recession. Tying monetary policy to fiscal policy is counterproductive in terms of actual outcomes and underlines the Fed's independence and credibility.

## **SOFT-LANDING SUCCEEDS: MODERATE ECONOMIC GROWTH AND IMPROVING INFLATION FUNDAMENTALS**

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The economy has glided into the soft-landing policymakers desired. In response to the monetary tightening initiated in early 1994, real economic growth decelerated sharply in the first half of 1995, and is now stabilizing toward its long-run trendline. Real GDP is projected to expand at a 2.0-2.5 percent rate in the second half of 1995 and approximately 2.75 percent in 1996. The probability of recession is very low.

The inflation fundamentals continue to improve. The Federal Reserve's preemptive monetary tightening in 1994 has slowed current dollar spending growth while businesses have boosted productivity and suppressed unit labor costs. As a result, inflation is now peaking around 3.0 percent, and the best is yet to come: in lagged response to the monetary restrictiveness, inflation is projected to recede toward 2.0 percent through 1997.

In contrast to recent cyclical slowdowns, the economy entered 1995 very sound structurally, and businesses have responded quickly and efficiently to the slowdown in product demand. As a result, the economy is adjusting toward its long-run growth path. The trend toward moderate real growth and declining inflation provides sound fundamentals for sustained economic expansion. The Fed's funds rate target requires lowering to reflect these trends.

These fundamentals are positive for financial markets. Interest rates are projected to decline further as inflationary expectations recede and lower inflation provides the Fed room to ease. The stock market is projected to remain firm, reflecting lower interest rates, strong productivity gains, and expected sustained economic and profits expansion. The Fed's heightened inflation-fighting credibility supports a firming U.S. dollar.

## **ORCHESTRATING AN ECONOMIC SOFT-LANDING**

The slowdown from robust economic growth in 1994 unfolded in very typical cyclical fashion. In response to accelerating real and nominal GDP growth in 1994 and the associated threat of rising inflation, the Federal Reserve tightened monetary policy, reducing real money balances and generating a sharp flattening of the yield curve. Similar to earlier episodes of monetary tightening, while financial markets experienced a very bumpy adjustment, the economy did not respond immediately, leading many to assert that financial innovations had diminished the ability of monetary policy to influence the economy. In late 1994, with a lag similar to historical experience, aggregate demand weakened abruptly.

The monetary tightening had its initial impact on housing activity and durable goods consumption, a typical cyclical pattern. By February, new home sales had fallen 19 percent from their peak; as the inventories of unsold homes mounted, new housing starts declined, eventually falling 20 percent from their peak. Durable goods consumption also slumped: auto sales fell and department store sales softened. Real consumption growth decelerated from 4.1 percent in the second half of 1994 to 2.5 percent in the first half of 1995. While residential investment fell, business fixed investment remained strong, growing at a robust 16.6 percent pace. This helped sustain strong import growth; at the same time, export growth slumped largely in response to the jarring recession in Mexico, the weakening of economic growth throughout Europe and recession in Japan. The subsequent continued to rise in the net export deficit, along with further declines in real government purchases, subtracted from economic growth.

In recent months, aggregate demand has begun to rebound. Housing activity troughed in Spring 1995, and sales and new housing starts have risen significantly. Retail sales have resumed a moderate growth path, and automobile sales spurted in August. While restrictive monetary thrust points to moderate growth in demand, the decline in interest rates has cushioned the impact of the Fed's restrictiveness and facilitated the adjustment of the economy toward its long-run growth path.

## **STRUCTURAL SOUNDNESS AND RAPID ADJUSTMENT TO SLOWER DEMAND**

The Fed's decisive monetary tightening steps to pre-empt inflation pressures were the crucial cyclical force in slowing current dollar spending growth, but two relatively unique factors have increased the efficiency of the adjustment to the Fed's disinflationary monetary policy and contributed to the economic soft-landing. First, businesses were very sound structurally as the slowdown began to unfold. Second, businesses adjusted production and labor inputs to the slowdown in demand more rapidly than in the past.

### **Structural Soundness**

A wide array of measures illustrates the present soundness in corporate structure and the economy:

- Strong Productivity Growth.** Increased efficiency in production, strong capital investment, and trimming and reallocating labor inputs have generated strong gains in productivity. In the current expansion, which began second quarter 1991, productivity has risen 2.1 percent annually in the nonfarm business sector and 3.2 percent in manufacturing. Moreover, many efficiencies in service-producing industries are not captured in these aggregate productivity statistics.

- Low Unit Labor Costs.** Increases in wages and nonwage compensation have been strictly limited. In the last year, the employment cost index has increased 2.8 percent and, for the first time since 1985, non-wage compensation costs have risen more slowly than wages. With compensation increases nearly matched by productivity gains, ULC inflation has been zero in the last year and ULCs have declined in the manufacturing sector. The level of ULCs in the U.S. manufacturing sector is now below the average of other large industrialized nations, and far below those in Germany and Japan.

- Low Inventory/Sales Ratios.** Despite the typical cyclical pattern of rapid inventory accumulation during the strong economic growth in 1994, aggregate ratios of

inventories-to-sales have remained in long-term declining patterns and are close to historical lows.

- Cash Rich Corporations. Boosted by a sustained rise of profits since 1991, corporations began the slowdown flush with cash. This has provided a buffer against the cyclical slump, as firms use internal funds to finance capital investment.

- Low Business Indebtedness. Levels of business indebtedness have remained relatively low, as efficient financial restructuring and lower interest rates have reduced debt service costs.

- Strong Stock Market. The rising price-earnings ratio and high stock prices have reduced the cost of raising capital through the equity markets, providing a valuable source of capital for business investment.

- A Sound Banking System. The banking sector is well capitalized, highly profitable and willing to lend. Loan delinquencies remain low. These characteristics contrast sharply with recent economic slowdowns, particularly 1989-1990.

### **Efficient Adjustment to Weaker Demand**

Typically, businesses adjust production slowly in response to weaker product demand and reduce labor inputs even more gradually. Undesired rapid inventory building resulting from the delay subsequently requires more dramatic production cutbacks; meanwhile, slow business adjustment contributes to accelerating unit labor costs that reduce corporate profits and exert inflation pressures; this also leads to more exaggerated declines in employment. These lagged responses prolong the adjustment process and contribute to recession.

Not this time. So far in 1995, businesses have adjusted production and labor inputs more rapidly than in past slowdown episodes. Manufacturing industrial production has declined in five of the last six months. Major automobile manufacturers have pared production schedules and manufacturers of nondurable goods also have adjusted rapidly. Most importantly, businesses have reduced labor inputs swiftly: employment growth has slowed sharply and aggregate hours worked have declined. So far this year, nonfarm payrolls have grown an average 145,000 monthly, half last year's

290,000 average. Beginning in early 1995, businesses trimmed overtime hours and in the second quarter, aggregate hours worked declined 1.4 percent annualized in the nonfarm business sector and 7.4 percent in the manufacturing sector, the fastest decline since the 1990-1991 recession. Average aggregate hours worked in July-August are only 0.3 percent higher than their second quarter average.

While these rapid adjustments in the goods, labor and capital markets have suppressed real economic activity and incomes—real GDP grew at a 1.9 percent annualized rate in the first half of 1995, less than half of its second half 1994 pace, while real disposable personal income slumped even more markedly—they are necessary adjustments that will allow a speedier recovery in economic performance. The rebound to long-term trend growth will also be accelerated by the rapid decline in real interest rates.

The early cuts in production have significantly trimmed the overhang in inventory building and helped avoid prolonged or jarring production decline. The equally rapid trimming of payrolls and hours worked has resulted in sustained healthy productivity gains despite the slowdown in product demand. Productivity in the nonfarm business sector rose an astonishing 3.6 percent annualized in the first half of 1995, somewhat faster than its 3.4 percent pace in the second half of 1994, and well above its long-term trend. This is unique during an economic slowdown, with positive implications for corporate profit margins, inflation and financial markets.

## **INFLATION; PEAKING AND HEADING DOWN**

The Fed's pre-emptive monetary tightening beginning in early 1994 has short-circuited a rise in inflation following the accommodative monetary policy in 1992-1993 and the strong economic growth in 1994. Consumer price inflation is now peaking cyclically close to 3.0 percent, approximately half its previous cyclical peak of 6.0 percent in 1990, thereby maintaining the downward-ratcheting trend that began in 1980. As the lagged impact of the monetary restrictiveness continues to constrain current dollar spending growth, inflation will decline to approximately 2.5 percent in 1996 and toward

2.0 percent in 1997. Thus, the outlook of inflation is the most optimistic since the early 1960s.

The improved outlook for inflation stems primarily from the Fed's restrictive monetary policy. Bank reserves and real M1 have been declining year-over-year since October 1994. The monetary base—reserves plus currency—has grown somewhat faster, but has recently decelerated, as the growth of currency has slowed. Reflecting this restrictive monetary stance, the yield curve has been relatively flat. M2 grew slower than inflation through February 1995, but recently has accelerated sharply, fueled by rapid increases in small time deposits and MMDAs. This spurt has been due primarily to portfolio adjustments as depositors seek higher yields, and does not imply any shift in the Fed's monetary thrust. In any case, year-over-year M2 growth remains a low 2.7 percent.

This sustained monetary restrictiveness has generated a significant slowdown in current dollar spending: nominal GDP grew 3.7 percent annualized in the first half of 1995, sharply slower than its 6.5 percent pace from fourth quarter 1993 to fourth quarter 1994. The slowdown in demand has constrained the ability of businesses to raise product prices. While prices have increased rapidly for goods and services in strong demand—for example, certain popular car models—such increases have been scattered and offset by modest price increases or outright declines for most goods and services.

Nominal GDP growth is projected to bounce back but remain approximately 5.0 percent through 1996. The Congressional Budget Office (CBO) projects 3.8 percent growth from fourth quarter 1994 to fourth quarter 1995, implying a very modest pickup in the second half of 1995, and 5.1 percent in 1996; the Administration projects 4.7 percent and 5.5 percent, respectively. As real GDP reaccelerates toward its long-run trendline of 2.75 percent, inflation will recede.

Business efforts to control operating costs and maintain strong productivity growth have contributed to lower inflation. Unit labor cost increases in the nonfarm business sector have decelerated continuously since their peak of nearly 6.0 percent in 1990 to 0.0 percent in the last year as businesses have controlled employment costs and generated strong productivity gains. In the last year, compensation costs increased 3.6 percent while productivity in the nonfarm business sector rose 3.5 percent. Mirroring the

stability of ULCs, producer prices for finished goods excluding food and energy have risen 2.1 percent in the last year, and the PPI for intermediate goods has decelerated in recent months.

The international environment is also favorable for inflation. Inflation is low and receding in every large industrialized nation except Japan, which is experiencing deflation, and Italy, where price pressures persist. Real economic growth in most industrialized nations is weakening. Importantly, central banks in most industrialized nations are pursuing disinflationary monetary policies. In this context, the weak U.S. dollar in the first half of 1995, which occurred despite the Fed's monetary restrictiveness, has had a larger impact on relative prices than domestic inflation. In the last year, prices of non-oil imports have risen 4.7 percent. Expanding international trade and the international mobility of labor have contributed to more efficient production processes and labor allocation that exert downward pressure on wages and inflation.

The Fed's inflation-fighting credibility also contributes to lower inflation. Its pre-emptive monetary tightening has successfully short-circuited the typical cyclical bout of inflation by slowing current dollar spending and forcing businesses, households and financial markets to adjust behavior to a moderate growth, low inflation environment. The persistently disinflationary monetary policy since then reinforces those expectations; a steady policy lowers uncertainty and reduces the short-run output and employment costs of achieving lower inflation.

## **FINANCIAL MARKET IMPLICATIONS**

The economic soft-landing and improving inflation conditions are unambiguously positive for bonds, stocks and the U.S. dollar. Interest rates have fallen with the decelerating real economic performance and improving inflation fundamentals. As inflation recedes and the Fed's credibility mounts, rates will fall further. Although lower inflation raises the real federal funds rate and provides more room for the Fed to ease, the Fed is expected to lower rates only gradually.

Inflationary expectations have ratcheted downward since 1980, but they continue to lag the actual improvement in inflation. Although the timing is uncertain, the next



decline in inflationary expectations and bond yields likely will be triggered by evidence that the real economy is growing along a moderate, disinflationary path. Enactment of a credible deficit-cutting package would contribute positively to those expectations.

The moderation of economic growth, improving inflation fundamentals and sustained productivity gains will continue to support a strong stock market. Corporate profit and cash flow growth has slowed temporarily, but the lower interest rates have raised the present value of expected earnings, lifting price-earning multiples. Efficiencies in production and sustained strong productivity gains and amid economic slowdown support long-run profit growth. Furthermore, lower inflation raises the quality of profits. The seemingly successful soft-landing and improving inflation outlook, by raising the probability of sustained economic expansion, increase expected long-run earnings potential. And the outlook remains optimistic. P/Es were dramatically higher than present levels in the mid-1960s prior to the significant upward tilt in inflation that followed.

The improving inflation outlook and the Fed's mounting inflation-fighting credibility are unambiguously positive for the U.S. dollar. Unit labor costs in manufacturing are significantly below those in Germany and Japan. Strong U.S. productivity gains lift expected rates of return on dollar-denominated assets. The dollar is projected to remain firm, and would be boosted further by a credible fiscal package.

# **ECONOMIC AND FINANCIAL PERSPECTIVES**

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**SHADOW OPEN MARKET COMMITTEE  
WASHINGTON, DC**

**SEPTEMBER 10-11, 1995**

# S N A P S H O T

QUARTERLY DATA	Levels				Quarterly % Change (annualized)				Yr-to-Yr % Change			
	1994		1995		1994		1995		1994		1995	
	Q3-94	Q4-94	Q1-95	Q2-95	Q3-94	Q4-94	Q1-95	Q2-95	Q3-94	Q4-94	Q1-95	Q2-95
Nominal GDP	6791.7	6897.2	6977.4	7024.9	6.2	6.4	4.7	2.8	6.8	6.5	6.1	5.0
GDP	5367.0	5433.8	5470.1	5485.2	4.0	5.1	2.7	1.1	4.4	4.1	4.0	3.2
Domestic Demand	5484.0	5540.9	5588.6	5612.0	4.4	4.2	3.5	1.7	4.9	4.5	4.2	3.4
Final Sales	5310.0	5384.4	5419.0	5452.5	4.3	5.7	2.6	2.5	3.6	3.4	3.5	3.8
Domestic Final Sales	5426.9	5491.5	5537.5	5579.3	4.6	4.8	3.4	3.1	4.1	3.8	3.7	4.0
Disposable Personal Income	3840.9	3911.0	3950.5	3939.1	3.1	7.5	4.1	-1.1	3.6	4.4	4.5	3.3
Consumption	3584.7	3629.6	3643.9	3674.3	3.1	5.1	1.6	3.4	3.2	3.5	2.8	3.3
Residential Investment	230.2	231.5	229.5	221.5	-6.0	2.3	-3.4	-13.2	9.1	3.1	-0.2	-5.3
Business Investment	680.0	708.2	743.6	764.7	14.1	17.6	21.5	11.8	13.7	12.9	15.5	16.2
Inventory Investment	57.1	49.4	51.1	32.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Government Purchases	932.0	922.2	920.5	918.7	6.7	-4.1	-0.7	-0.8	0.0	-1.0	0.1	0.2
Exports	666.5	697.9	706.2	716.8	14.8	20.2	4.8	6.1	12.0	11.6	14.0	11.3
Imports	783.5	805.0	824.6	843.6	15.6	11.4	10.1	9.5	15.0	13.8	14.0	11.6
Current Account (c)	-39.7	-43.3	-39.0	-43.6	-1.7	-3.6	4.3	-4.6	-12.7	-12.1	-8.8	-5.6
GDP Deflator	126.5	126.9	127.6	128.1	1.9	1.3	2.2	1.6	2.3	2.3	2.1	1.7
Employment Costs (Private)	122.8	123.6	124.3	125.2	3.3	2.6	2.3	2.9	3.3	3.1	2.9	2.8
Unit Labor Costs (Non-Farm)	138.8	138.7	139.2	138.8	0.0	-0.3	1.4	-1.1	0.8	1.4	1.0	0.0
Productivity (Non-Farm)	117.3	118.6	119.3	120.7	2.4	4.5	2.4	4.8	1.7	1.8	2.0	3.5
Compensation (Non-Farm)	162.9	164.4	166.1	167.5	2.7	3.7	4.2	3.4	2.6	3.2	3.0	3.5
Corporate Profits A/T (a)	329.5	337.9	350.7	355.8	2.5	2.5	3.8	1.5	14.1	8.9	17.1	10.7
Operating Profits A/T (a)	347.4	344.7	349.8	364.7	0.8	-0.8	1.5	4.3	7.4	0.7	7.9	5.8
Net Cash Flow (a)	591.7	600.9	616.9	625.8	1.6	1.6	2.7	1.4	9.5	6.3	7.8	7.5
MONTHLY DATA	Levels				Monthly % Change				12 Month % Change			
	May-95	Jun-95	Jul-95	Aug-95	May-95	Jun-95	Jul-95	Aug-95	May-95	Jun-95	Jul-95	Aug-95
Purchasing Managers Index	46.1	45.7	50.5	46.9	-11.3	-0.9	10.5	-7.1	-19.8	-21.9	-13.4	-18.4
Non-Farm Payrolls (b)	116.248	116.547	116.553	116.802	-62	299	6	249	2.30	2.29	2.09	2.00
Manufacturing Payrolls (b)	18.456	18.428	18.340	18.352	-50	-28	-88	12	1.09	0.72	0.24	0.03
Unemployment Rate (c)	5.7	5.6	5.7	5.6	-0.1	-0.1	0.1	-0.1	-0.4	-0.5	-0.4	-0.4
Average Workweek (sa)	34.2	34.4	34.6	34.4	-1.2	0.6	0.6	-0.6	-1.4	-0.9	-0.3	-0.6
Avg. Hourly Earnings (sa)	11.37	11.43	11.49	11.47	-0.3	0.5	0.5	-0.2	2.6	3.1	3.2	3.0
Total Vehicle Sales, incl. Lt. Trucks	14.5	14.7	13.7	NA	5.3	1.1	-6.5	NA	-0.7	1.7	0.0	NA
Domestic Unit Auto Sales	7.1	7.0	6.7	8.1	6.8	-1.3	-4.7	20.7	-0.5	1.1	2.8	8.1
Industrial Production	121.2	121.1	121.3	NA	0.0	-0.1	0.2	NA	3.2	2.6	2.6	NA
Capacity Utilization	83.9	83.6	83.4	NA	-0.2	-0.4	-0.2	NA	0.1	-0.6	-0.8	NA
PPI	127.9	127.8	127.8	127.7	0.0	-0.1	0.0	-0.1	2.2	2.1	1.8	1.3
PPI Ex. Food & Energy	139.6	139.9	140.2	140.3	0.3	0.2	0.2	0.1	2.0	2.0	2.1	2.0
CPI	152.3	152.5	152.8	NA	0.3	0.1	0.2	NA	3.2	3.0	2.9	NA
CPI Ex. Food & Energy	161.0	161.3	161.7	NA	0.2	0.2	0.2	NA	3.1	2.9	3.0	NA
Retail Sales	195.1	196.7	196.5	NA	1.1	0.8	-0.1	NA	6.5	6.3	6.2	NA
Housing Starts	1282	1293	1380	NA	1.0	0.9	6.7	NA	-13.9	-5.6	-4.2	NA
Permits	1243	1275	1355	NA	0.0	2.6	6.3	NA	-9.7	-5.6	0.6	NA
Federal Budget Surplus/Deficit (d)	-39.6	12.8	-13.6	NA	-7.5	-2.0	19.6	NA	-175.0	-177.0	-157.4	NA
Durable Goods Orders	159.5	159.0	155.6	NA	2.5	-0.3	-2.1	NA	6.8	5.2	7.1	NA
Manufacturing Orders	297.0	296.8	292.9	NA	1.4	-0.1	-1.3	NA	7.1	6.1	6.8	NA
Personal Income (\$)	5990.5	6018.9	6058.2	NA	-0.2	0.5	0.7	NA	5.7	6.1	6.2	NA
Consumption (\$87)	3681.1	3697.1	3698.6	NA	1.0	0.4	0.0	NA	3.5	3.6	3.7	NA
Personal Saving Rate (c)	4.0	3.9	NA	NA	-0.4	-0.1	NA	NA	-0.1	-0.3	NA	NA
Leading Economic Indicators	101.0	101.2	101.0	NA	-0.2	0.2	-0.2	NA	-0.5	-0.5	-0.7	NA
Total Business Inventories	956.5	960.5	NA	NA	0.4	0.4	NA	NA	8.6	8.5	NA	NA
Inventory/Total Sales (c)	1.41	1.41	NA	NA	-0.01	0.00	NA	NA	0.01	0.02	NA	NA
International Trade (c)	-11.0	-11.3	NA	NA	0.4	-0.3	NA	NA	-1.9	-2.4	NA	NA
3 Month Bill (c)	5.67	5.47	5.42	5.40	0.02	-0.20	-0.05	-0.02	1.53	1.33	1.09	0.92
2 Year Note (c)	6.17	5.72	5.78	5.98	-0.40	-0.45	0.06	0.20	0.20	-0.21	-0.35	-0.20
10 Year Note (c)	6.63	6.17	6.28	6.49	-0.43	-0.46	0.11	0.21	-0.55	-0.93	-1.02	-0.75
30 Year Bond (c)	6.95	6.57	6.72	6.86	-0.41	-0.38	0.15	0.14	-0.46	-0.83	-0.86	-0.63
DJIA	4391.6	4510.8	4684.8	4639.3	3.8	2.7	3.9	-1.0	18.4	20.7	26.0	22.2
S&P 500	523.81	539.35	557.37	559.11	3.1	3.0	3.3	0.3	16.2	18.6	23.5	20.4
U.S. Dollar (FRB)	82.7	82.3	81.9	84.6	1.1	-0.6	-0.4	3.3	-10.8	-10.2	-8.0	-5.2
Yen/\$	85	85	87	95	1.7	-0.6	3.3	8.4	-18.0	-17.4	-11.2	-5.2
DM/\$	1.41	1.40	1.39	1.45	2.1	-0.6	-0.9	4.1	-14.9	-13.9	-11.4	-7.6
M1	1142.9	1143.8	1144.9	NA	-0.6	0.1	0.1	NA	-0.1	-0.3	-0.6	NA
M2	3659.9	3695.7	3714.6	NA	0.4	1.0	0.5	NA	1.4	2.5	2.7	NA
Bank reserves	57761	57352	57655	NA	-0.3	-0.7	0.5	NA	-3.9	-4.4	-4.1	NA
C&I Loans & Non-Financial CP	862.2	868.3	NA	NA	0.6	0.7	NA	NA	13.3	12.9	NA	NA
Consumer Credit	959.6	970.7	979.6	NA	1.4	1.2	0.9	NA	15.3	15.2	15.3	NA

(a) Quarterly % changes are not annualized

(b) Monthly changes are in levels

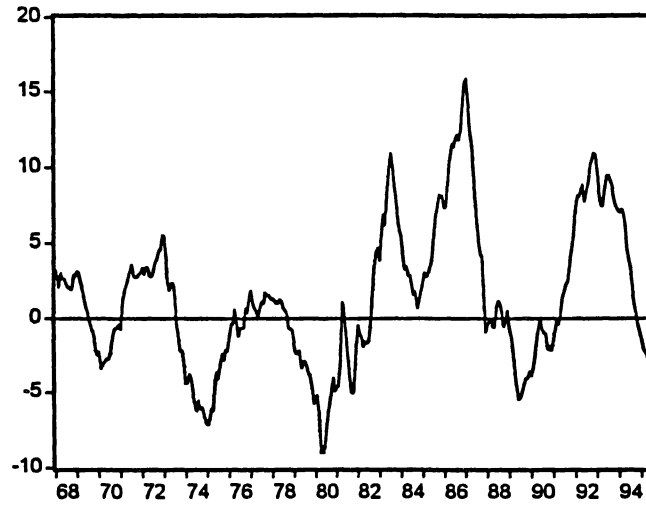
(c) All changes are in levels or basis points

(d) Monthly: change from same month last year; Annual: sum of past 12 months

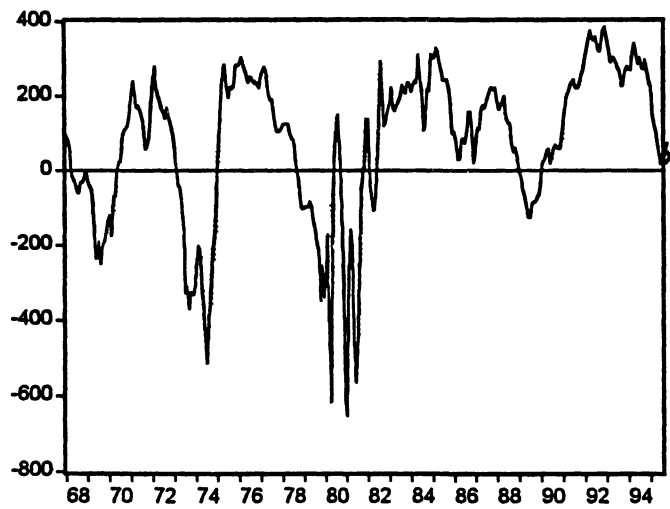
09/13/95

# Chart 1 MONETARY THRUST AND DOMESTIC PRODUCT

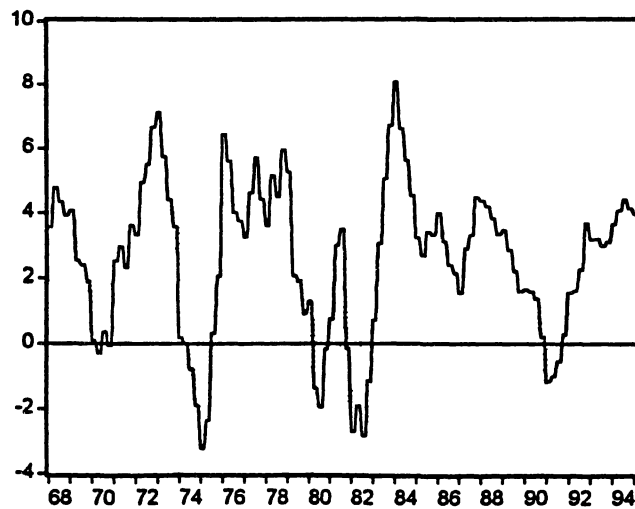
## Real M1 (yr/yr % change)



## Spread of 10-Yr T-Bond minus Federal Funds Rate



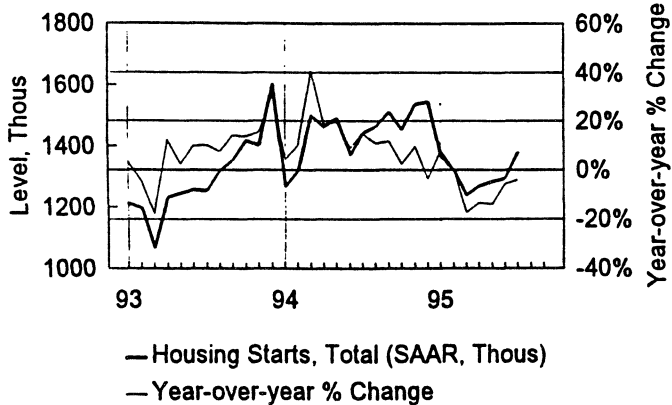
## Real Gross Domestic Product (yr/yr % change)



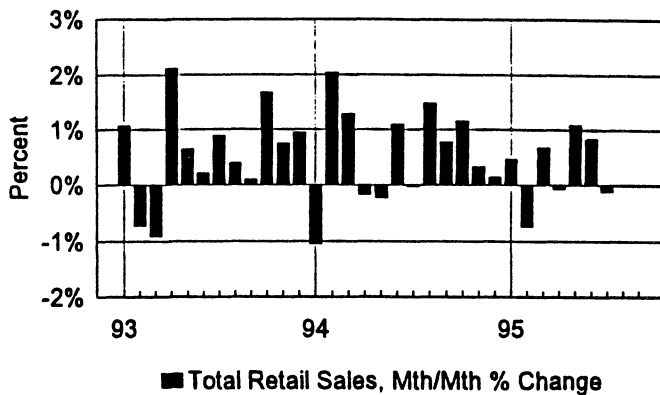
## Chart 2

### Aggregate Demand Slows...and then Rebounds Modestly

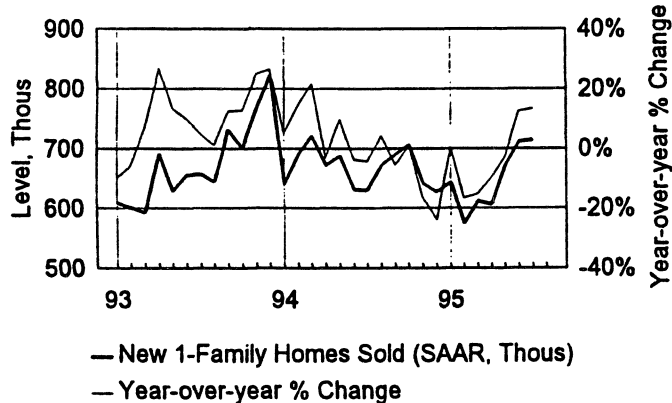
#### Housing Starts



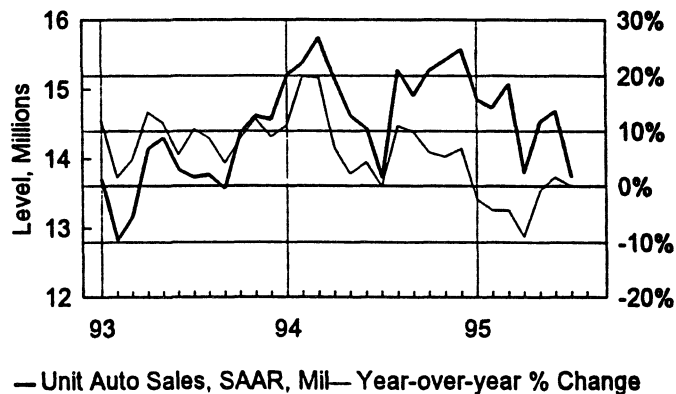
#### Retail Sales



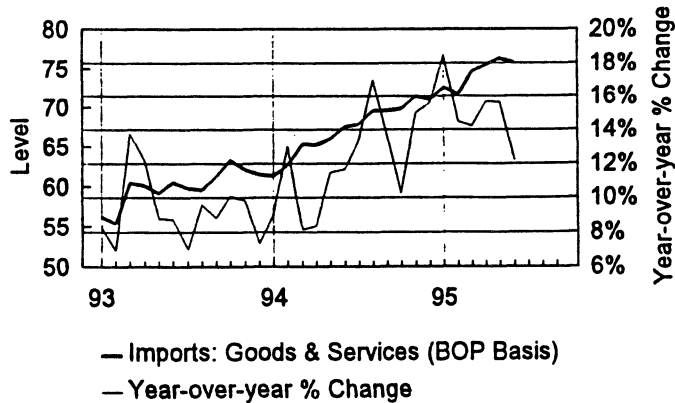
#### New 1-Family Homes Sold



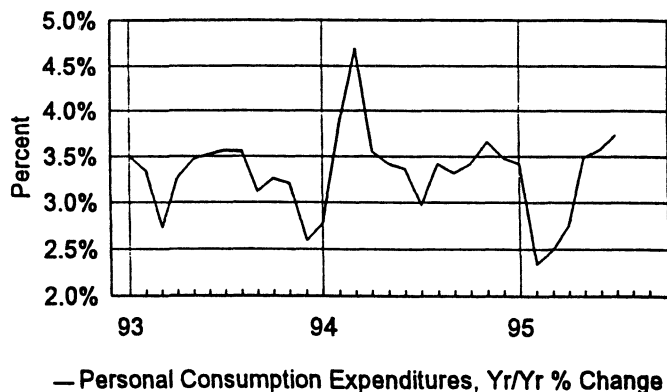
#### Unit Auto Sales



#### Imports



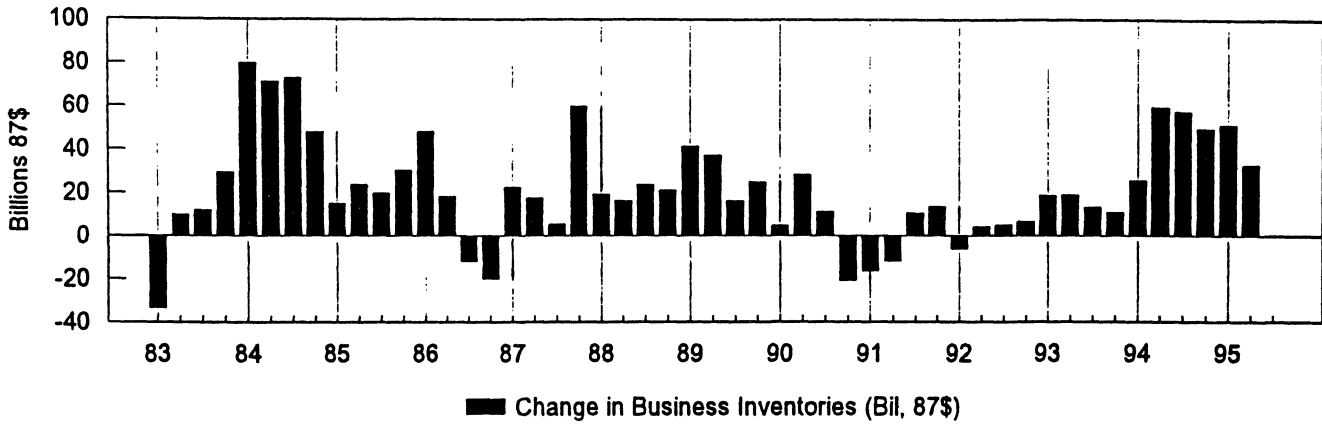
#### Real Consumption



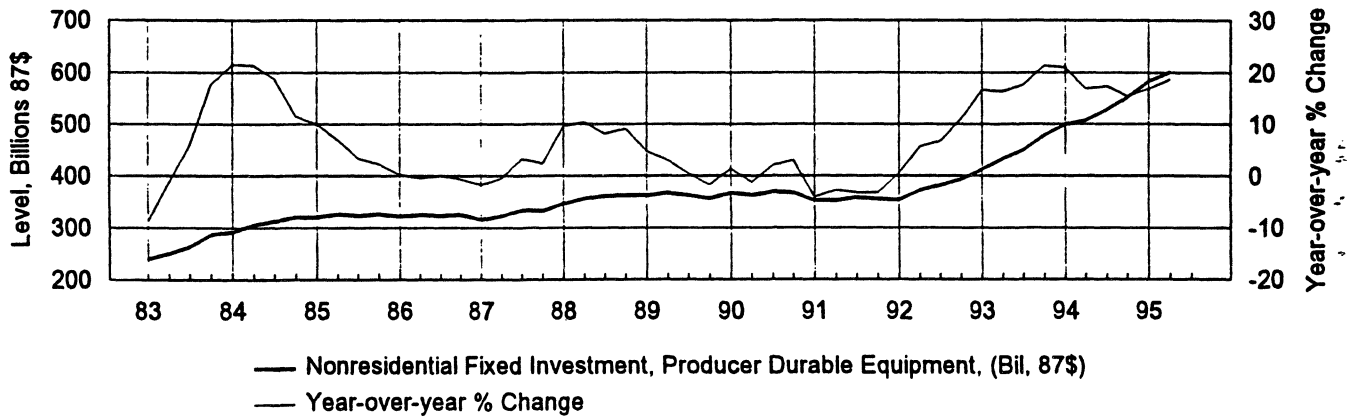
### Chart 3

## Inventories Correct as Business Investment Begins to Slow

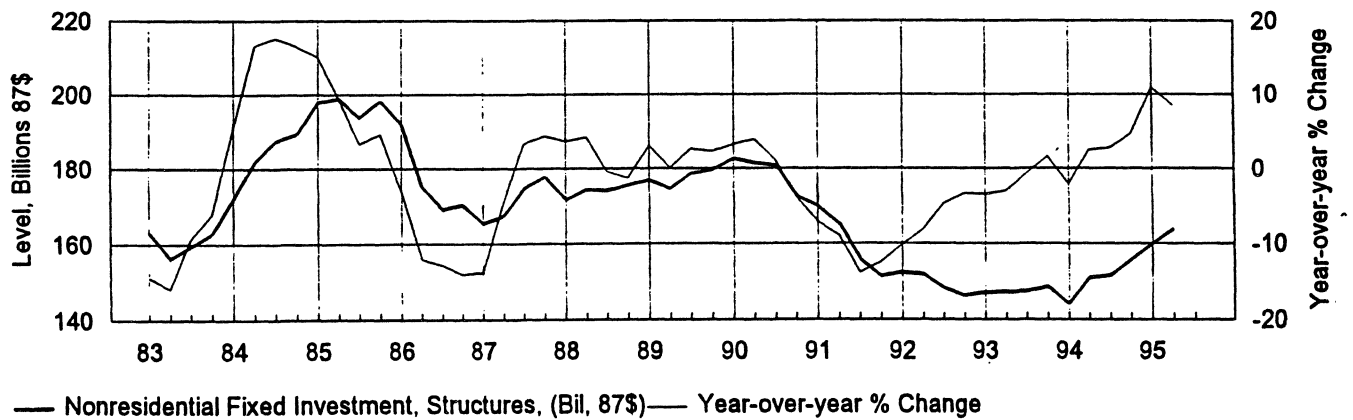
### Change in Business Inventories



### Business Investment in Producer Durable Goods



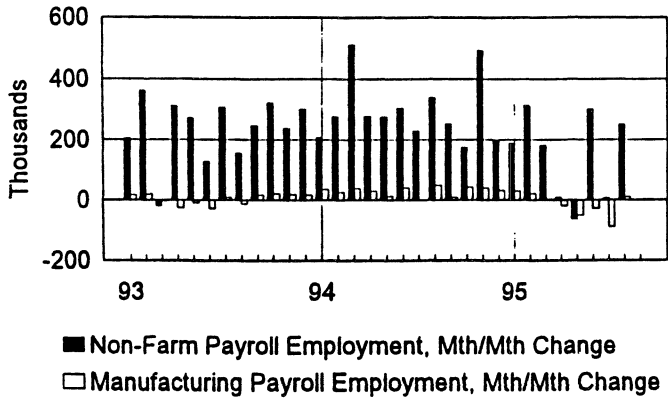
### Business Investment in Structures



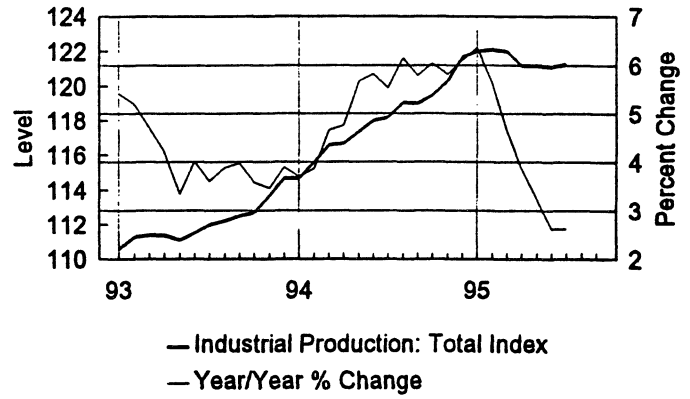
### Chart 4

## Production and Labor Adjust Rapidly

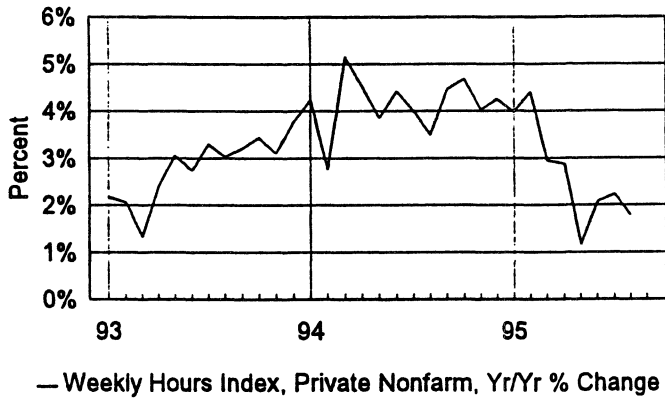
#### Employment



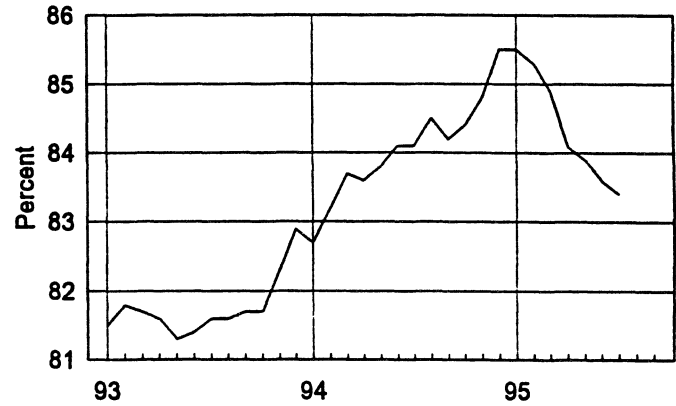
#### Industrial Production



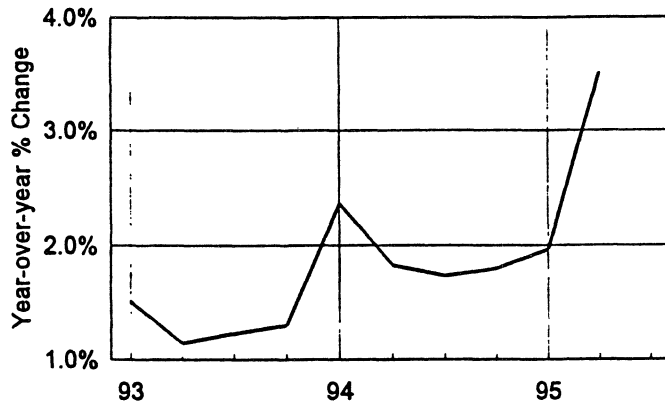
#### Aggregate Hours Worked



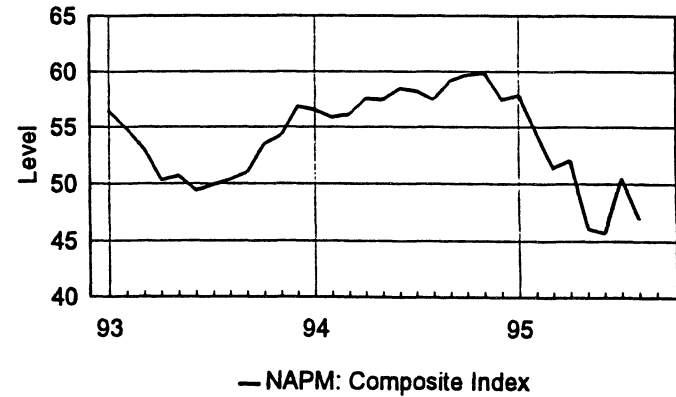
#### Capacity Utilization



#### Labor Productivity-Nonfarm Business



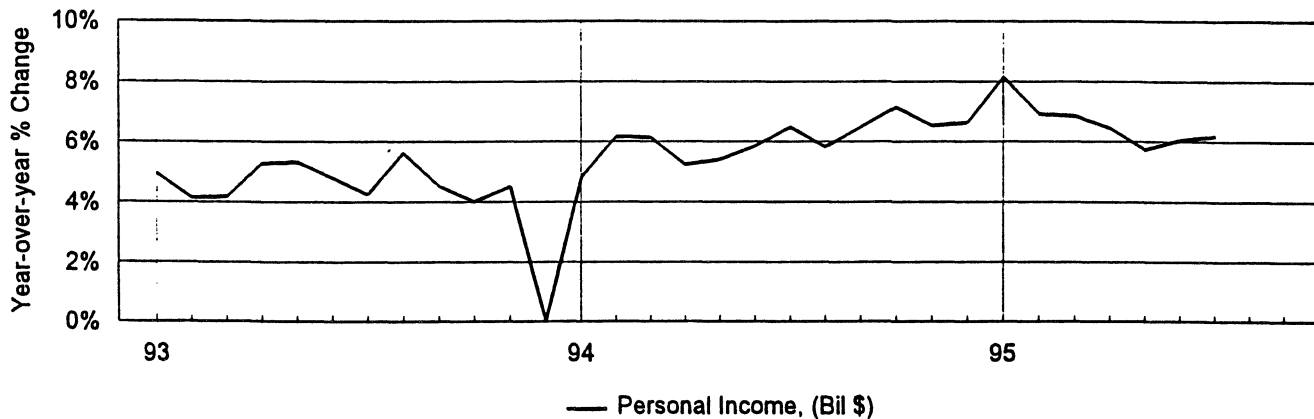
#### NAPM



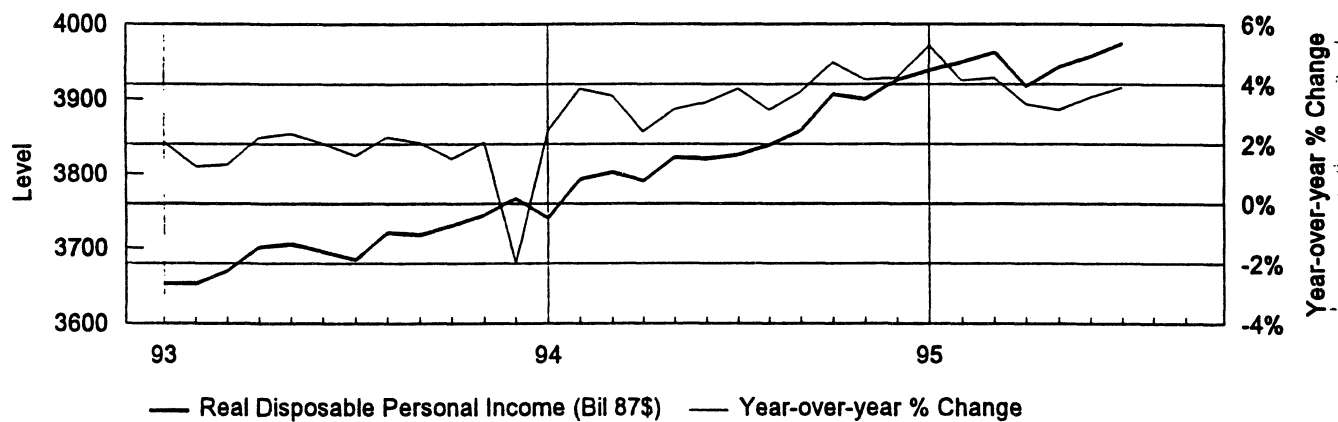
### Chart 5

## While Income and Profits Begin to Moderate

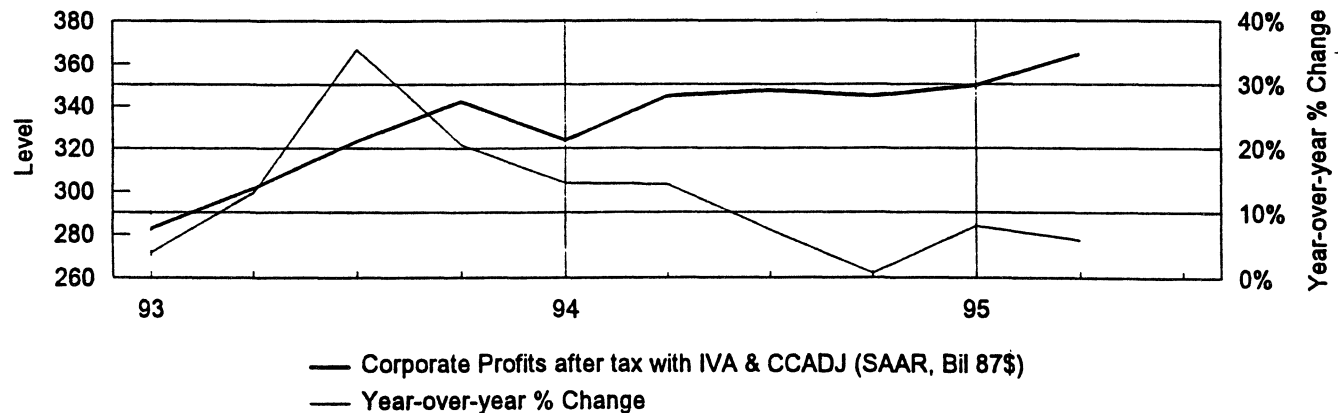
### Personal Income



### Real Disposable Personal Income



### Corporate Profits

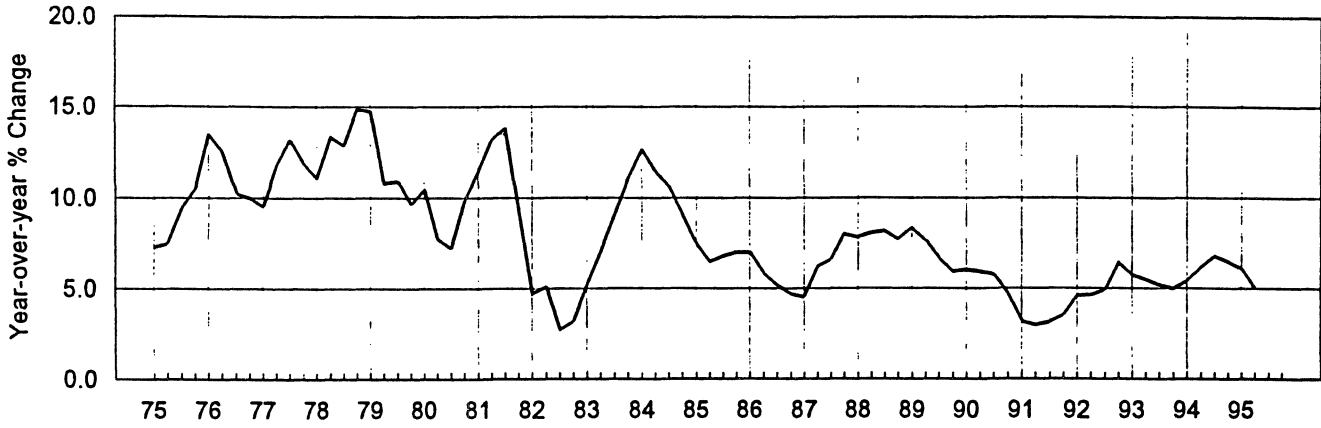




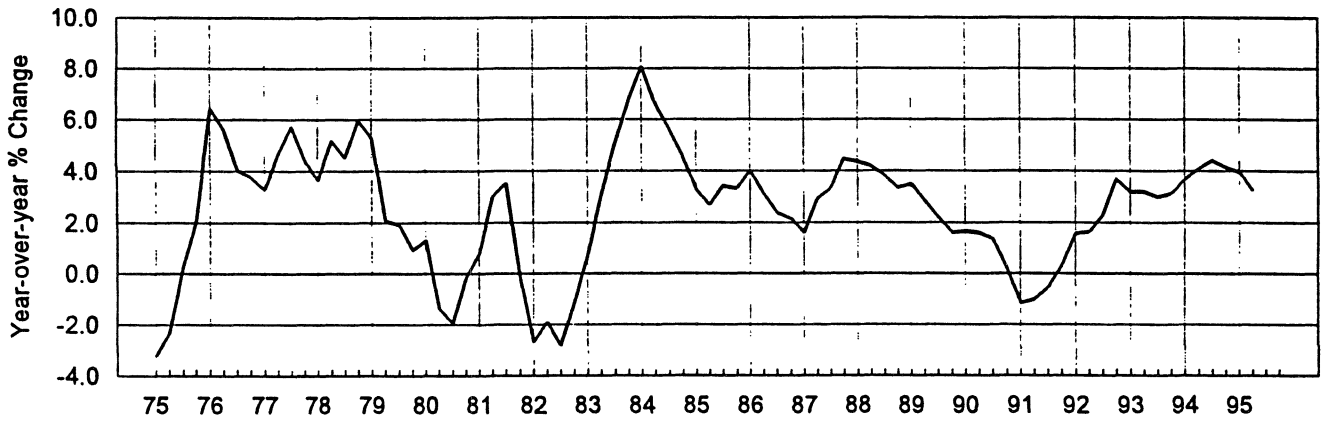
### Chart 6

## Current Dollar Spending Continues to Slow, Squeezing Inflation

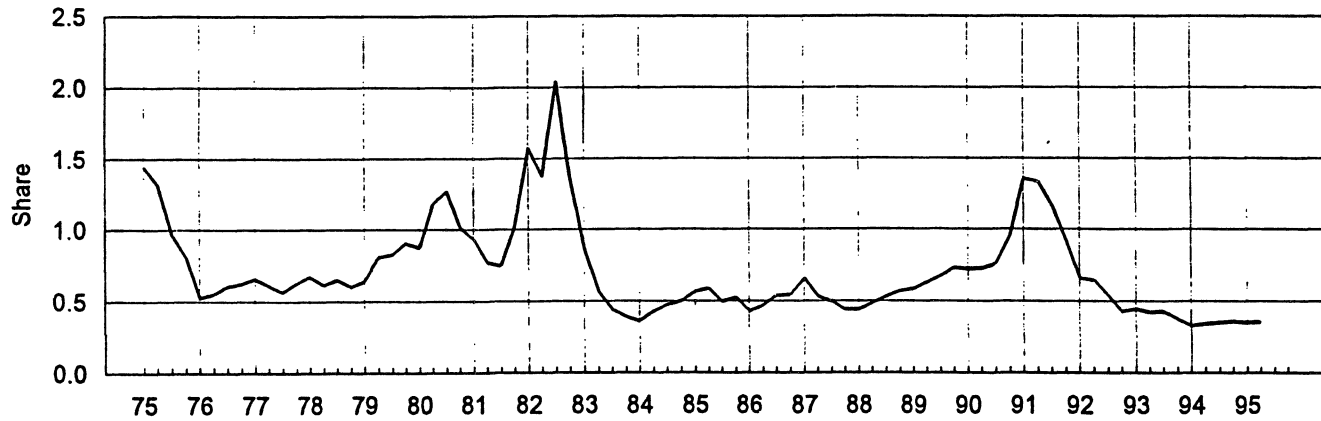
### Nominal GDP



### Real GDP



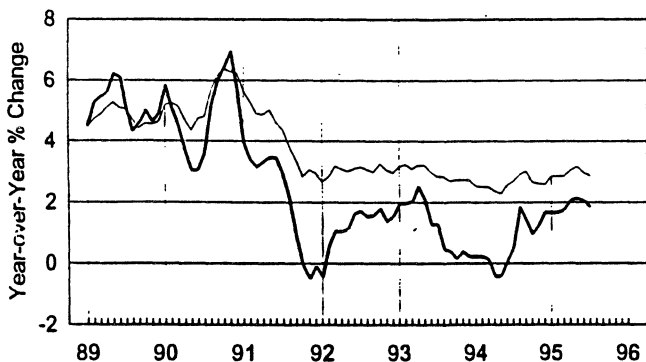
### Fraction of Nominal GDP growth that is Inflation



### Chart 7

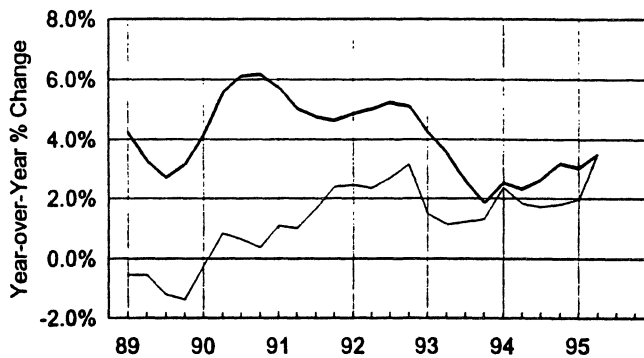
## Optimism on Inflation: Low and Going Lower

#### Consumer & Producer Price Indexes



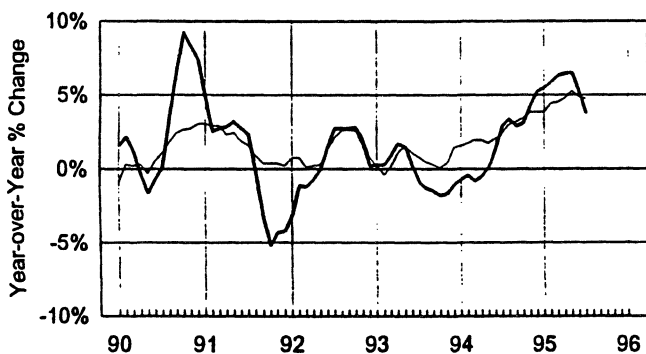
— CPI-U, All items (SA) — PPI-U, All Items, (SA)

#### Compensation & Productivity



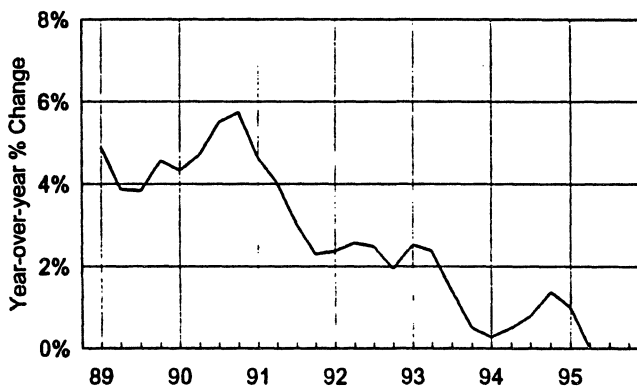
— Nonfarm Business Sector: Output Per Hour of All Persons (SA)  
 — Nonfarm Business Sector: Compensation Per Hour (SA)

#### Import Price Index



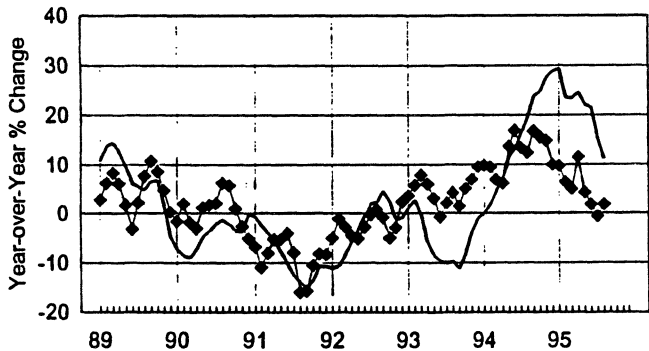
— Import Price Index: All Imports (Yr/Yr)  
 — Import Price Index: Non Petroleum (Yr/Yr)

#### Unit Labor Costs



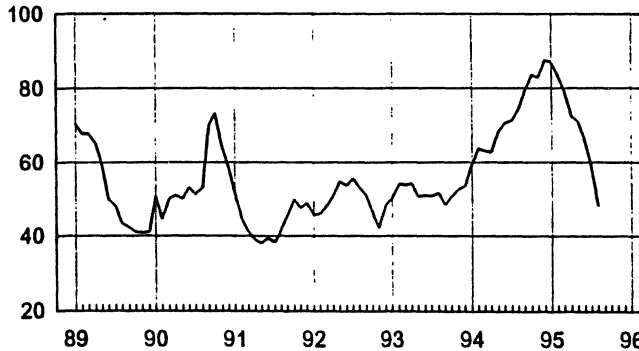
— Unit Labor Costs: Nonfarm Business

#### Commodity Prices



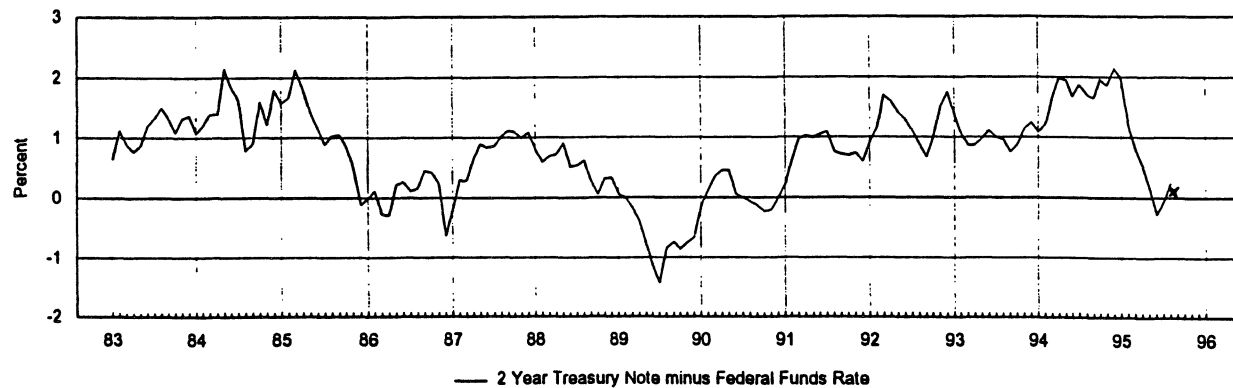
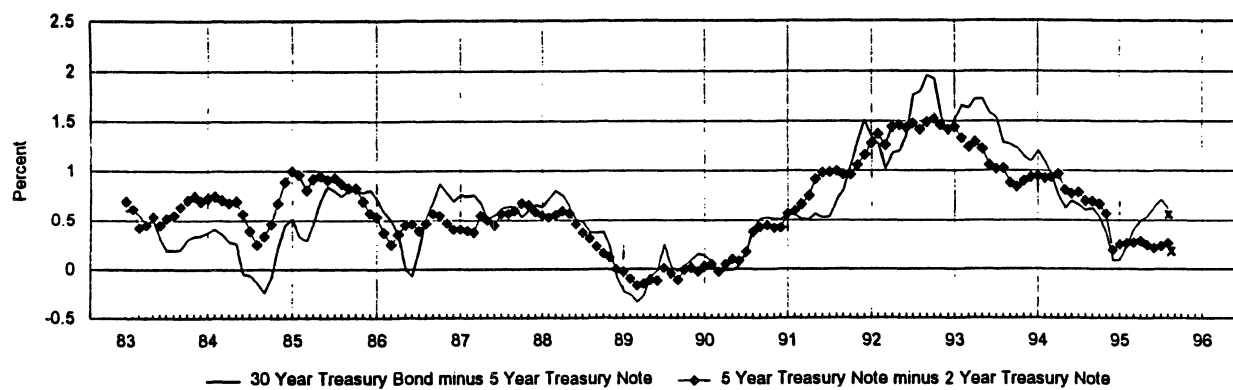
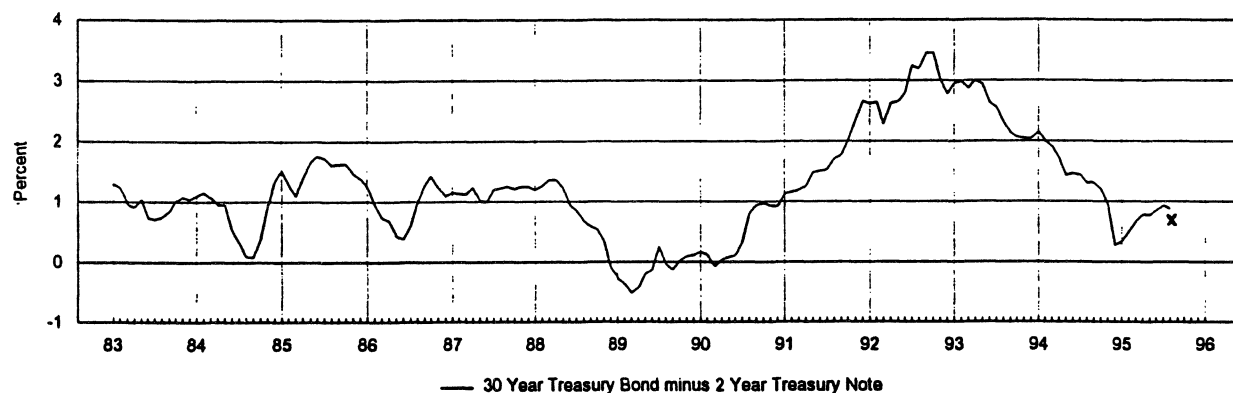
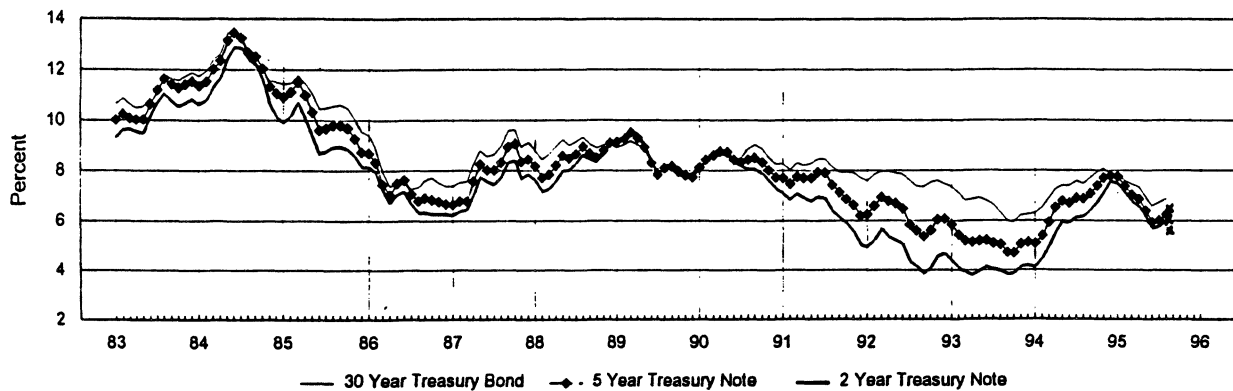
◆ CRB FPI: Industrial Materials  
 — CRB Spot Commodity Market Index: Raw Industrials

#### NAPM: Survey of Prices



— NAPM Survey-Diffusion Index, Prices, SA, (%)

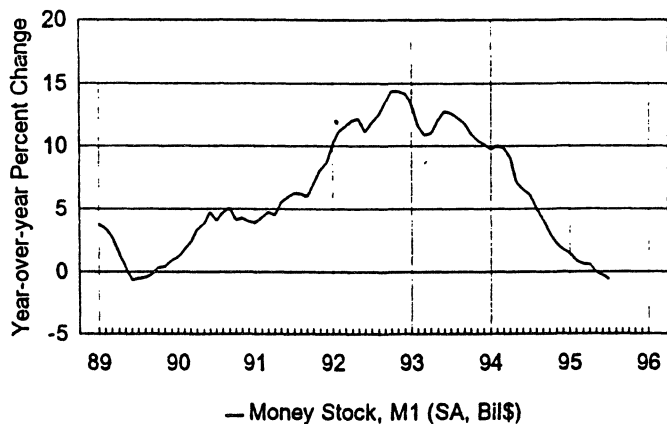
Chart 8  
Selected Interest Rates and Yield Spreads



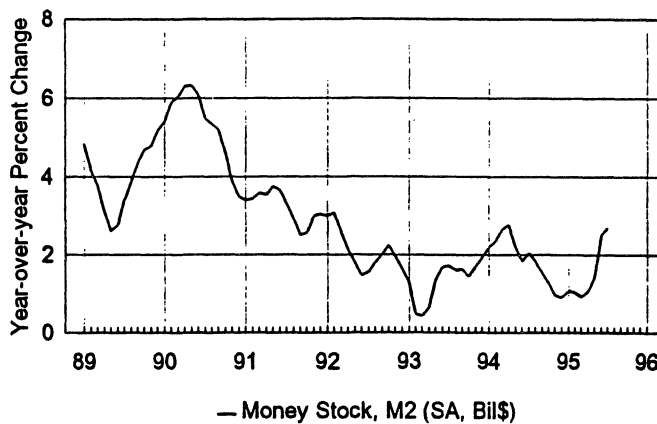
**Chart 9**

**Money and Credit Market Conditions**

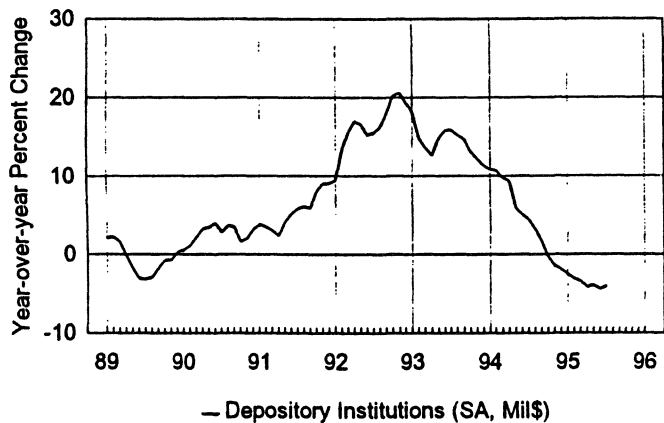
**Narrow Money: M1**



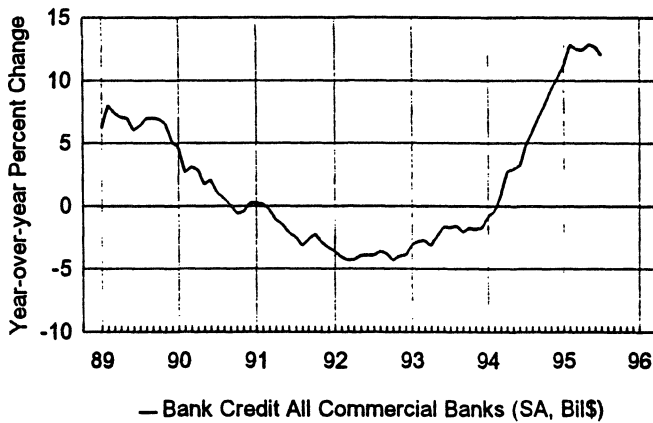
**Broad Money: M2**



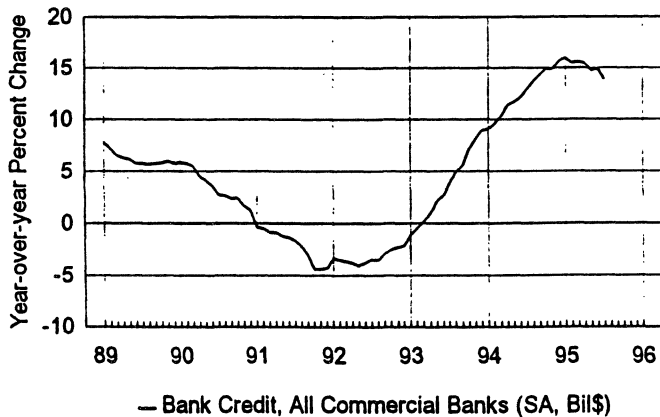
**Adjusted Reserves**



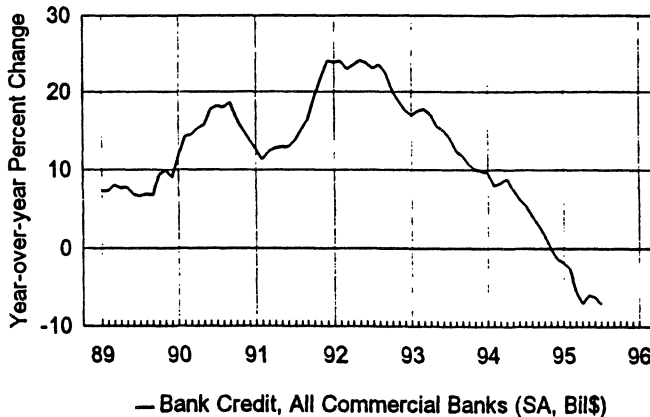
**C & I Loans**



**Consumer Loans**



**Government Securities**



## Table 1

### Federal Reserve Objectives and Monetary Policy

#### I. Federal Reserve Objectives and Actual Performance

Selected Economic Variables, Percent Change

	<b>Central Tendency Forecast*</b>		<b>Actual Performance</b>	
	<b><u>Q4:94 - Q4:95</u></b>	<b><u>Q4:95 - Q4:96</u></b>	<b><u>Year/Year</u></b>	<b><u>Latest Qtr.</u></b>
Real GDP	1.5% to 2.0%	2.25% to 2.75%	3.2%	1.1%
CPI Inflation	3.125% to 3.375%	2.875% to 3.25%	2.9%	3.4%
Nominal GDP	4.25% to 4.75%	4.75% to 5.375%	5.0%	2.8%
Unemployment Rate (4th Qtr)	5.75% to 6.125%	5.75% to 6.125%	na	5.7%

#### II. The Fed's Money Targets and Actual Trends

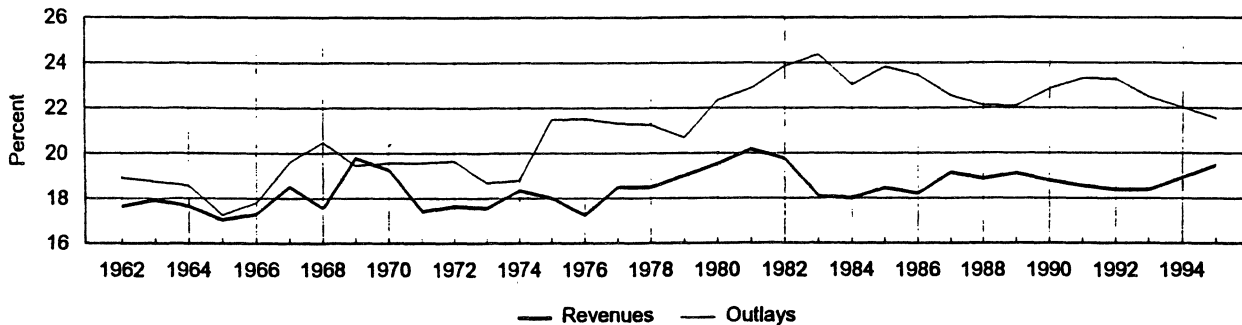
	<b>Money Supply Targets*</b>	<b>Annualized % Change</b>		
	<b><u>Q4:94 - Q4:95</u></b>	<b><u>Last 3 Months</u></b>	<b><u>Last 6 Months</u></b>	<b><u>Yr/Yr</u></b>
Bank Reserves	Not Targeted	-2.1	-4.9	-4.1
M1	Not Targeted	-1.6	-0.7	-0.6
M2	1% to 5%	8.0	4.8	2.7
M3	2% to 6%	10.3	7.7	5.0
Debt	3% to 7%	5.8	6.0	5.4

\*Source: Board of Governors of Federal Reserve System, 1995 Monetary Policy Objectives, July 1995.

Chart 10

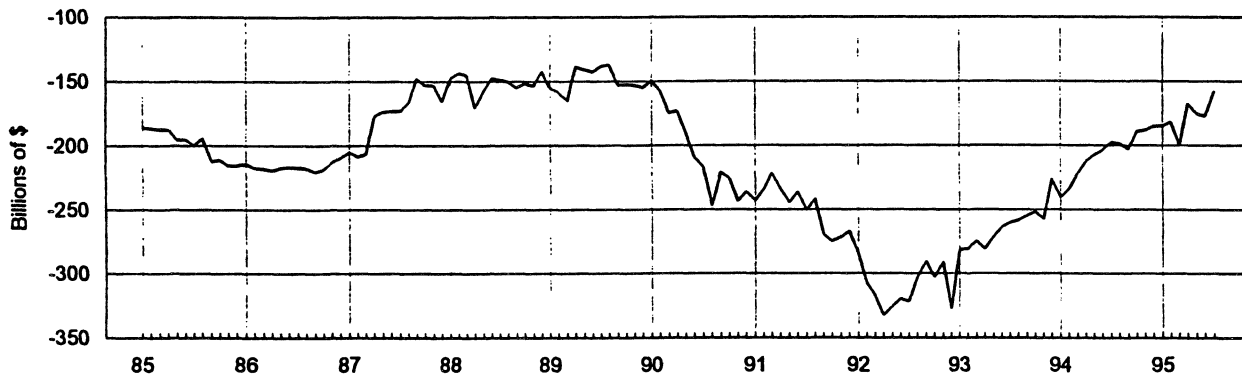
Federal Budget Trends

Federal Spending and Tax Receipts  
(Percent of GDP, Fiscal Year)

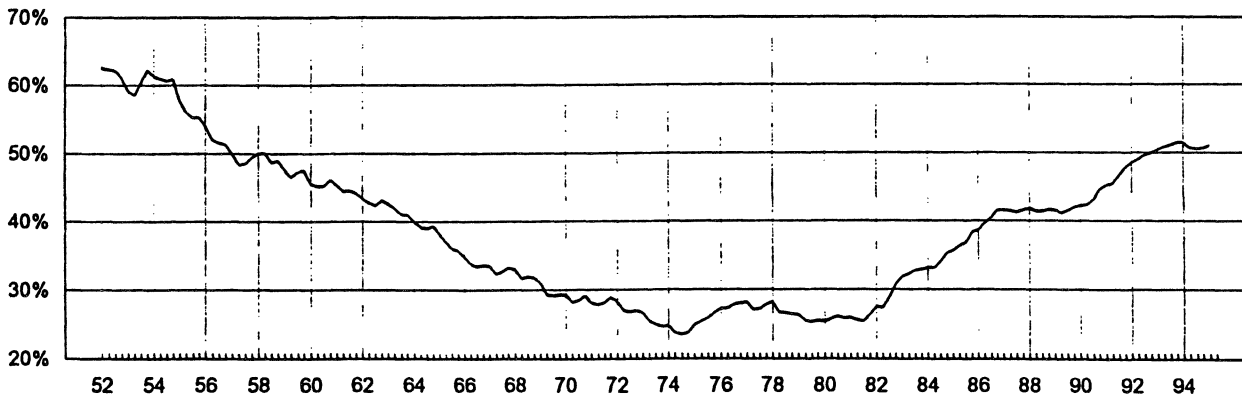


Fiscal Year 1995 Estimates

Federal Budget Deficit  
(Sum of Past 12 Months)



Publicly-Held Debt-to-GDP Ratio

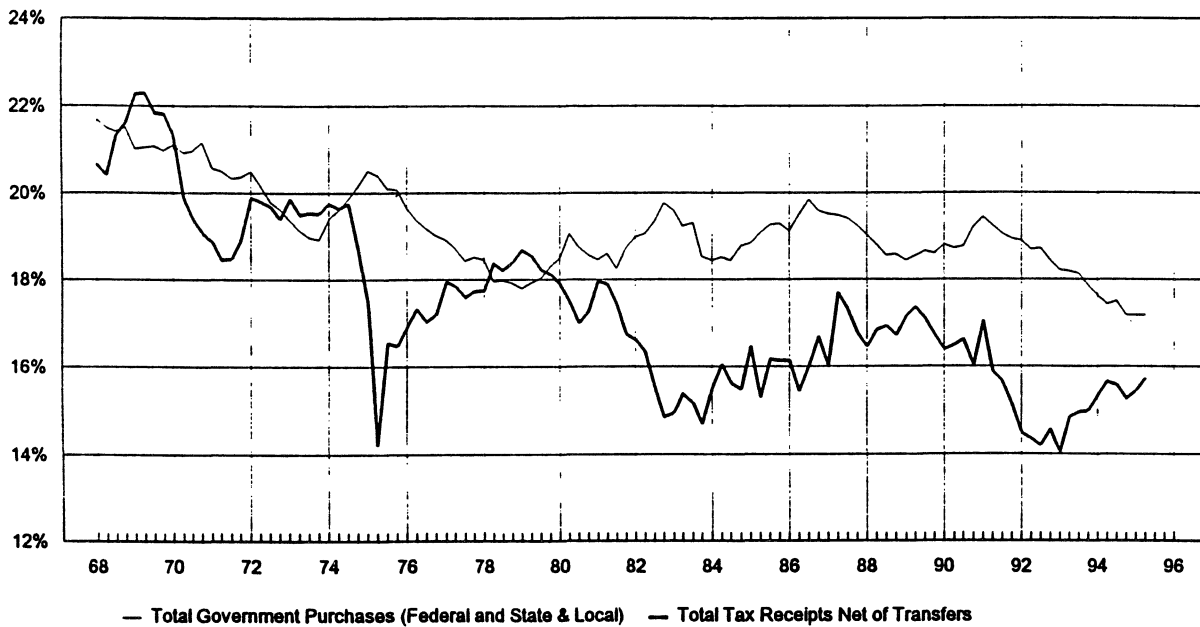


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Chart 11

Government Purchases and Tax Receipts Net of Transfers

Total Government



Federal Government

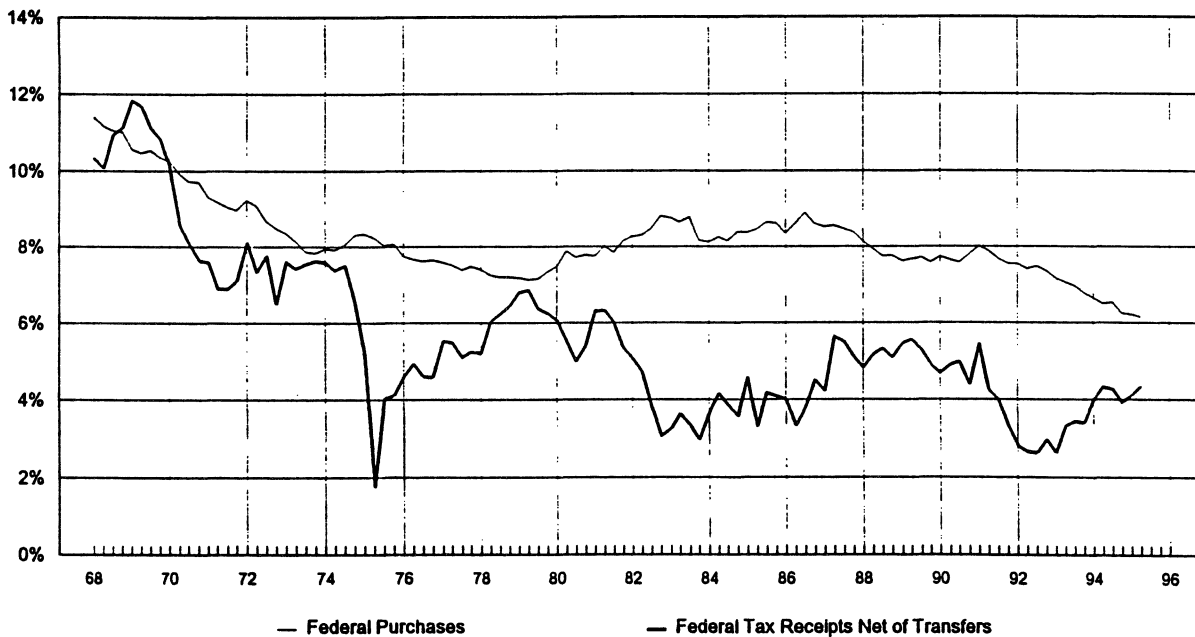


Table 2

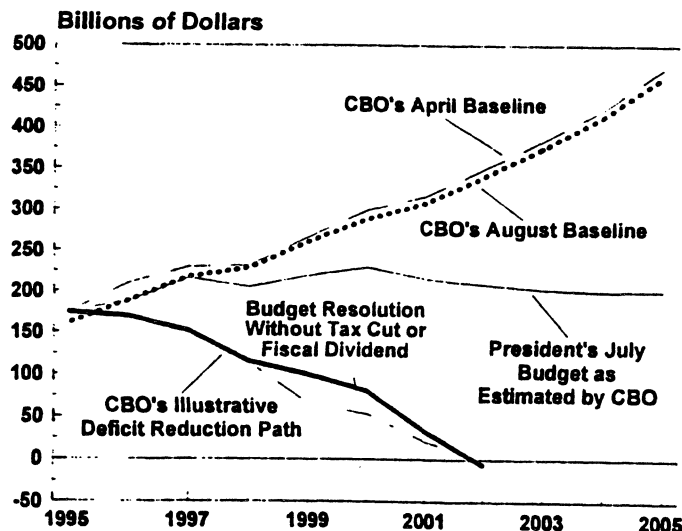
Initiatives to Balance the Budget:  
Congress's Budget Resolution and the President's July Budget

Cumulative Savings 1996-1002		
	President's July Budget Reestimated by CBO	Congress's Budget Resolution
Discretionary Spending *	-208	-440
Mandatory Spending		
Medicare	-124	-270
Medicaid	-54	-182
Other	-32	-175
Subtotal	-211	-626
Revenues	98	-1
Corporate Subsidies	-25	na
Debt Service	-54	-181
Total Changes	-399	-1,248
Memorandum		
Contingent tax cut	na	245
Savings with contingent tax cut	na	-1,003

Sources: Congressional Budget Office; "Mid-Session Review of the 1996 Budget"

Savings are measured from CBO's baseline that assume discretionary spending is equal to the limits that are in effect through 1998 and equal to the 1998 limit adjusted for inflation after that.

Comparison of Projected Deficits (By fiscal year)



SOURCE: Congressional Budget Office.





## THE DOLLAR

William POOLE\*  
Brown University

...[T]hese conclusions suggest that not only many short-run exchange rate movements, but also some of the medium-term swings, simply are not susceptible to explanation in terms of available models. In addition to displaying inexplicable, temporary day-to-day movements, the exchange rate may become substantially “misaligned” over longer periods...through cumulative changes that are difficult to explain either quantitatively or qualitatively in terms of fundamentals. (Maurice Obstfeld, “International Currency Experience: New Lessons and Lessons Relearned,” *Brookings Papers Economic Activity*, 1995:1, p. 138)

The dollar has seen its downs and ups this year. (See figure at the end of this document). Using the Fed’s trade-weighted index, the dollar’s daily high in December of last year was 90.10 (23 December). The index fell to 80.73 on 8 May of this year, and was back to 86.30 by 17 August. Most of the recovery came in August, as the dollar opened the month at 81.60. Do we know what is driving these fluctuations?

No. As indicated by the Obstfeld passage, economists have tied numerous statistical approaches in an effort to link the exchange rate to economic fundamentals of monetary and fiscal policy, productivity growth, real interest rates, and so forth. The bottom line today is that there is no confirmed knowledge showing that the fundamentals are responsible for short-run fluctuations in exchange rates. The modeling problem is extremely difficult because there are many reasonable formulations of the fundamentals, because many countries are involved, and expectations about fundamentals are obviously important but often mistaken (inevitably so). Obstfeld’s exhaustive survey (almost nine pages of references) cited above makes clear just how risky are claims that we know what is driving short run fluctuations in exchange rates.

## IS THE U.S. BUDGET DEFICIT TO BLAME?

Still, economists and others enjoy spinning out explanations for exchange-rate fluctuations, and the most frequently heard arguments concern the U.S. budget deficit. One argument for the decline in the dollar in the first half of this year is that the new Republican Congress made significant and credible progress toward deficit reduction. Another argument is that the Congress has failed to make significant and credible progress toward deficit reduction. Let's review these arguments.

The first argument is usually based on the national accounts identity.

$$GDP = C + I + G + (X - M)$$

Total GDP equals domestic consumption, C, plus domestic investment, I, plus government purchases, G, plus net export, which is the difference between exports, X, and imports, M. Rearranging terms, and subtracting taxes net of transfers, T, from both sides of the equation, we obtain

$$GDP - C - T = I + G - T + (X - M), \text{ or}$$

$$(GDP - C - T) + (T - G) = I + (X - M).$$

Given that GDP is total output, and that C is the part consumed and T the part taxed away, the first term in parentheses is private saving. The second term is government saving, which is negative when the government runs a budget deficit. If the government reduces its deficit and private saving stays the same, then total national saving rises. The increase in national saving must show up in some combination of higher domestic investment, I, and higher net exports, X - M. The conventional argument is that if the budget deficit falls, then to maintain full-employment GDP the Fed must permit some combination of a lower interest rate to obtain more I and a lower dollar to obtain more X - M. (Other things equal, a lower dollar stimulates exports and reduces imports.)

What can go wrong with this argument? For one thing, the government must reduce the budget deficit without reducing private saving by as much. Deficit reduction must reduce the sum of private and government consumption if total national saving is to rise. In fact, almost any outcome is possible depending on *how* the budget deficit is reduced. For example, cuts in government spending accompanied by tax cuts stimulating investment could raise national saving but the incentive effects of tax cuts could so stimulate domestic investment and net exports would fall. The mechanism behind this result is that the higher return on U.S. investment attracts foreign capital, strengthens the dollar, and reduces net exports.

The main problem with the argument, as applied to this year, is that nothing has yet happened to change the budget deficit. Therefore, the argument must depend on *expectations* that the budget deficit will be cut in the future. Expectations of a weaker dollar in the future depress the dollar today. With lags in the system, no changes in domestic investment or net exports need show up in the short run. However, it seems unlikely that expectations of a lower dollar in the future could be held with much confidence given that deficit reduction is uncertain and the details of how the deficit might be reduced—details that are critical in determining the direction of effect on the exchange rate—are even more uncertain.

We have also heard exactly the opposite argument. There were, the argument goes, great expectations of deficit reduction after the November election. However, Congress has failed to pass any significant legislation so far, and defeated the balanced-budget amendment to the Constitution. This lack of progress has created pessimism about controlling the budget deficit and rising concern about the U.S. economy in the long run. The result has been a weaker dollar. Or so the argument goes. This argument is highly suspect for the same reasons the previous argument is.

Given the failure of econometric studies to show the relative importance of various fundamental conditions in determining short-run fluctuations in exchange rates, are economists doomed forever to engage in unsubstantiated speculation about what is going on? Perhaps.

## WHAT DOES THE MARKET THINK IS GOING ON?

Financial commentators spin out as many explanations as economists do, and then add some more that economists dismiss out of hand. But the traders and portfolio managers actually making the bets and taking the risk clearly respond to current news. Over the period from January 1994 through August 1995, the standard deviation of the daily change in the trade-weighted dollar index was 0.50 percent. I dug out the microfilm of the *Wall Street Journal* for the period when the dollar was falling most significantly—December 1994 through June 1995—and examined what was being reported just after the days when the dollar index changed either up or down by 0.50 percent or more. The table at the end of this memo shows what I found. The table reports the percentage change in the trade-weighted index (TWD) and in the yield on the 30-year government bond. Note that the bond-yield data are percentage changes in the yield and not percentage point changes.

In no case did any news about the budget deficit appear responsible for the changes in the exchange rate I studied, where I mean by “news” congressional action, new data on the deficit, and so forth. From time to time the *Wall Street Journal* might report that some government official expressed worry about the budget deficit, but such expressions appear constantly and are not “news” in the sense of providing genuine information to the market.

The news that seemed to move the market most during this period falls into three categories. The Mexican situation was clearly important; the dollar fell as news of new Mexican problems hit the market, and as the congressional debate on the Mexican bailout proceeded. Mexican news seemed important on 29-Dec-94, 09-Jan-95, 12-Jan-95, 30-Jan-95, 31-Jan-95, 16-Feb-95, 06-Mar-95, and 15-Mar-95. With the exception of 31-Jan-95, these are all dates when the dollar declined. The rise in the dollar on 31-Jan-95 strengthens the case for the Mexican explanation, for on this date it appeared that uncertainties over U.S. policy toward the Mexican bailout would be resolved.

The second-most important determinant of dollar fluctuations seemed to be policy actions (or expectations about them) in Europe and, to a lesser extent, in Japan. Developments in Europe and Japan (including the U.S. auto-trade dispute with Japan)

seemed important on 16-Feb-95, 06-Mar-95, 07-Mar-95, 20-Mar-95, 30-Mar-95, 13-Apr-95, 08-May-95, 10-May-95, 18-May-95, 06-Jun-95, 07-Jun-95, 28-Jun-95, and 29-Jun-95. Through 13-Apr-95, most of these exchange-rate changes were negative. Third, news of the slowing U.S. economy affected the dollar. From 23-Dec 94 to 08-May-95, the long bond fell by 83 basis points, mostly in response to news of a weaker economy.

Central-bank intervention in the foreign-exchange market was the news on several occasions. This intervention—designed to strengthen the dollar during this period of dollar weakness—seemed sometimes successful and sometimes not. For example, on 03-Mar-95, the weak dollar prompted intervention, but the failure of intervention to check the dollar's fall may have contributed to an even larger drop in the dollar than would have otherwise occurred. On 31-May-95, however, intervention seemed to “work.”

Central-bank intervention is more politics than economics. The Fed typically characterizes its intervention in the foreign-exchange market as “buying dollars” or “selling dollars.” The Fed describes domestic open-market operations, however, as buying or selling government securities. Symmetry and clarity call for the Fed's open-market operations in foreign exchange to be labeled “sales of foreign exchange” or “purchases of foreign exchange.” The Fed creates or destroys dollars—it does not sell or buy them.

Beyond this list of events that seemed to move the dollar, another indication that expectations of a lower budget deficit played no role in the dollar's decline this year is that the correlation between exchange-rate changes and interest-rate changes was *negative* instead of positive. The usual story is that a lower budget deficit should reduce domestic interest rates and the dollar together. In fact, between the local peak 23-Dec-94 and local trough 8-May-95 the correlation between *changes* in the dollar and in the bond yield is -0.364, although the correlation between levels is of course positive (0.349) as the exchange rate and the interest rate both trended lower over this period.

In sum, the most plausible story about the dollar in the first half of this year is that it fell because several individually small shocks all worked in the same direction. The Mexican problem, the strong DM against most currencies, the U.S.-Japan trade squabble, and the weakening U.S. economy accompanied by falling U.S. interest rates were the

main factors. In no cases were comments or actions relating to the budget by the President or by congressional leaders cited in the *Wall Street Journal* as reasons for dollar fluctuations.

The events that moved the dollar down would seem to be relatively insignificant and transitory. Why they should have had such an impact on the dollar is unclear, and the lack of logic for such an impact casts some doubt on my analysis. Still, for those who trust the market, evidence on what moves the market should not be dismissed.

## NOTES

\*I thank Data Resources, Inc. for providing access to its data bank, from which I drew the exchange rate and bond yield data used in this memorandum.



# U.S. Dollar, Trade-Weighted Index

Daily, Dec. 1994 - Aug. 1995

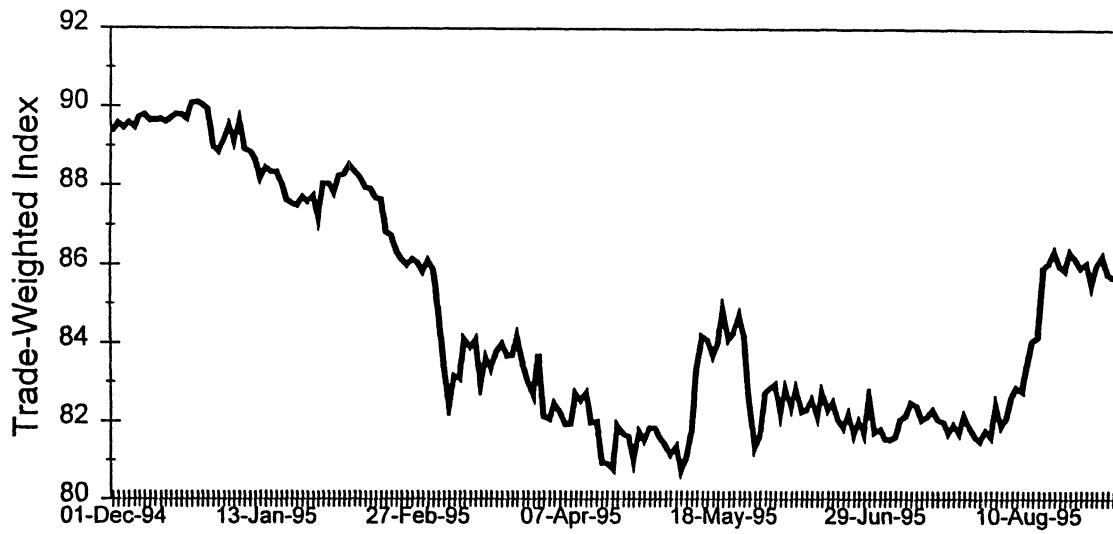


Table  
**Large Changes in Trade-Weighted Dollar Index, December 1994 - June 1995**

<u>Percentage Changes</u>			
<u>Date</u>	<u>TWD</u>	30-Year Bond <u>Yield</u>	<u>News</u>
29-Dec-94	-1.04	0.26	(WSJ, 29 Dec. 94, p. C10) rumors of dollar selling by Latin Am. cen banks; WSJ, 30 Dec. 94, p. C10) dollar decline was in early afternoon Wed. (i.e. 28 Dec.)
06-Jan-95	0.54	-0.51	(WSJ, 9 Jan. 95, p. A2, C15) strong employ report; dollar strength linked to strong employ report.
09-Jan-95	-0.75	0.38	(WSJ, 10 Jan.95, p. A2, C20) Fed intervention to support Mexican peso; DM strong against almost all currencies.
12-Jan-95	-0.51	0.38	(WSJ, 13 Jan. 95, p. A3, C6) plan for expanded financial support for Mexico; mark and yen as havens given Mexican problems
20-Jan-95	-0.50	1.02	(WSJ, 23 Jan. 95, p. C1, C15) stronger than expected Dec. housing starts; concern over all N. Am. currencies
30-Jan-95	-0.59	0.13	(WSJ, 31 Jan. 95, p. A1, C6) peso plunges nearly 10 percent, concern that bailout package might not pass Congress; dollar drops on fears over Mexico
31-Jan-95	0.95	-0.65	(WSJ, 1 Feb. 95, p. A1, C16) Clinton abandons Mexican rescue plan requiring Congressional approval and instead relies on plan not requiring approval; Clinton plan ignites rallies in Mexican stock market and in peso and dollar
16-Feb-95	-0.93	-0.13	(WSJ, 17 Feb. 95, p. A6, C10) peso weak, concerns over Mexican corp bond defaults; DM strong against most currencies
03-Mar-95	-1.22	0.80	(WSJ, 6 Mar. 95, p. C1) dollar weak, futile cen bank intervention
06-Mar-95	-1.66	0.40	(WSJ, 7 Mar. 95, p. C1) peso weak; European currency turmoil, flight to DM
07-Mar-95	-1.24	0.66	(WSJ, 8 Mar. 95, p. A1) most currencies down against DM, gold up, (WSJ, 8 Mar. 95, p. ) no particular news
08-Mar-95	0.91	-1.05	(WSJ, 9 Mar. 95, p. A3) "Fed Chairman Blames Deficit for Dollar's Fall"; no particular news -- technical dollar recovery
10-Mar-95	1.18	-0.93	(WSJ, 13 Mar. 95, p. A1) Feb U rate down 0.3; strong jobs growth.
15-Mar-95	-1.33	0.14	(WSJ, 16 Mar. 95, p. A1, A18) Feb Indus Prod up 0.5%, PPI up 0.3%; "Peso Plunges, Interest Rates Soar in Mexico"
16-Mar-95	0.78	-0.41	(WSJ, 17 Mar 95, p. A2, C15) Feb CPI up 0.3%, Feb housing starts down 2.6%; Bundesbank fails to cut rates -- dollar first fell on this news, and then later rose as U.S. bond market rose
20-Mar-95	0.51	0.41	(WSJ, 21 MAR. 95, p. C15) aggressive dollar buying by BoJ
27-Mar-95	-0.78	-0.68	(WSJ, 28 Mar. 95, p. A1) Feb. existing home sales down
28-Mar-95	-0.52	1.09	(WSJ, 29 Mar. 95, p. A2) FOMC leaves rates unchanged.
30-Mar-95	1.20	0.40	(WSJ, 31 Mar. 95, p. A1) Bundesbank cut rates; BoJ signals it will too.
31-Mar-95	-1.88	0.13	(WSJ, 1 Apr. 95, p. ) no particular news
10-Apr-95	0.90	0.00	(WSJ, 11 Apr. 95, p. ) no particular news
13-Apr-95	-0.90	-0.27	(WSJ, 14 Apr. 95, p. A1) BoJ cuts discount rate; Japan announces fiscal stimulus
17-Apr-95	-1.30	0.68	(WSJ, 18 Apr. 95, p. ) no particular news
20-Apr-95	1.35	-0.27	(WSJ, 21 Apr. 95, p. C1) weak Phila. Fed survey report
25-Apr-95	-0.73	0.14	(WSJ, 26 Apr. 95, p. C15) "Growing Doubts G-7 Will Reach Accord"

Table  
(Continued)

<u>Percentage Changes</u>			
<u>Date</u>	<u>TWD</u>	<u>30-Year Bond Yield</u>	<u>News</u>
26-Apr-95	0.85	-0.14	(WSJ, 27 Apr. 95, p. C19) rumors that central banks might intervene
08-May-95	-0.73	0.00	(WSJ, 9 May 95, p. C15) fears of U.S. trade curbs cited (auto trade talks with Japan failed previous week)
10-May-95	0.82	0.43	(WSJ, 11 May 95, p. A1) U.S. says it will impose trade sanctions on Japan unless Japan opens its markets
11-May-95	1.88	0.29	(WSJ, 12 May 95, p. A1) dollar short covering; PPI up 0.5% in May; Fed unlikely to cut rates
12-May-95	1.00	0.14	(WSJ, 15 May 95, p. A1) Apr. CPI up 0.4%
18-May-95	0.97	0.73	(WSJ, 19 May 95, p. C13) worries about political stability in Germany, weak mark
19-May-95	-0.83	0.00	(WSJ, 22 May 95, p. ) no particular news
24-May-95	-0.57	-1.47	(WSJ, 25 May 95, p. A1) Apr. durable goods orders down 4%,
25-May-95	-2.06	-0.59	(WSJ, 26 May 95, p. A1) Apr. sales of existing homes down 6.4%, jobless claims jumped
26-May-95	-1.37	0.30	(WSJ, 30 May 95, p. ) no particular news
31-May-95	1.38	0.00	(WSJ, 1 Jun 95, p. A2) "U.S. and 11 Other Countries Intervene In Currency Markets to Bolster Dollar"
05-Jun-95	-0.85	-0.15	(WSJ, 6 Jun 95, p. ) no particular news
06-Jun-95	0.69	0.00	(WSJ, 7 Jun 95, p. C26) speculation over German rate cut
07-Jun-95	-0.51	0.31	(WSJ, 8 Jun 95, p. A1, C15) Greenspan does not see recession ahead; Bundesbank signals that German rates could go down
09-Jun-95	-0.63	2.26	(WSJ, 12 Jun 95, p. A1) May PPI unchanged
15-Jun-95	0.68	0.61	(WSJ, 16 Jun 95, p. A1) May IP down
16-Jun-95	-0.50	0.15	(WSJ, 19 Jun 95, p. ) no particular news
20-Jun-95	-0.50	0.15	(WSJ, 21 Jun 95, p. ) no particular news
23-Jun-95	-0.60	0.46	(WSJ, 26 Jun 95, p. ) no particular news
28-Jun-95	1.11	-0.61	(WSJ, 29 Jun 95, p. A1) U.S.-Japan trade compromise
29-Jun-95	-1.06	1.97	(WSJ, 30 Jun 95, p. A1, C15) stronger economic news; Bundesbank does not cut rates

## HOW USEFUL AND RELIABLE IS THE UNEMPLOYMENT RATE IN FORECASTING INFLATION?

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The unemployment rate and the growth rate of real GDP have figured prominently in recent discussions of monetary policy and the outlook for future inflation. For example, in February Chairman Greenspan testified “The prospects in this regard [extending the period of low inflation] are fundamentally good, but there are reasons for some concern, at least with respect to the nearer term. Those concerns relate primarily to the fact that resource utilization rates have already risen to high levels by recent historical standards. The current unemployment rate, for example, is only a bit above the average of the late 1980s, when wages and prices accelerated appreciably. The same holds true of the capacity utilization rate in the industrial sector.”<sup>1</sup>

The origin of this concern is the so-called Phillips Curve. Modern Phillips Curve analysis derives from research by Friedman (1968) and Phelps (1970) who postulate a relationship between the deviation of wage (or price) inflation and the expected rate of price inflation and deviations of wage (or price) inflation and the expected rate of price inflation and deviations of unemployment (or employment or real output) from the equilibrium (or natural) rate of unemployment (or employment or real output). This concept admitted a short-run (transitory) trade-off between inflation and unemployment, but denied any long-run (permanent) trade-off between the two variables.

One strand of macroeconometric analysis equates the Friedman/Phelps “expectations augmented Phillips Curve” with a relationship between current wage (or price) inflation, past unemployment rates, and past price inflation (e.g. Fuhrer (1995)):

$$w_t = \alpha + \sum_{i=1}^N \beta_i U_{t-i} + \sum_{j=1}^M \gamma_j p_{t-j} + \varepsilon_t \quad (1)$$

or:

$$p_t = \alpha + \sum_{i=1}^N \beta_i U_{t-1} + \sum_{j=1}^M \gamma_j p_{t-j} + \varepsilon_t \quad (2)$$

where  $w_t$  is the nominal wage rate,  $p_t$  is the price inflation rate and  $U_t$  is the unemployment rate and the coefficients  $\gamma_j$  are restricted to:  $\sum_{j=1}^M \gamma_j = 1.0$ .

This relationship is equated to Phillips Curve under the assumptions that the expected inflation rate at  $t$  based upon information available through  $t-1$  is equal to  $\sum_{j=1}^M \gamma_j p_{t-j}$  and that the unemployment rate affects inflation only with a lag of one period.<sup>2</sup> Whether such an empirical specification is truly the Phillips Curve is problematic and untestable, since the secondary assumptions cannot be validated.

In the form of equation (2), the relationship becomes one between accelerations and decelerations in the inflation rate and the level of the unemployment rate. This result can be seen by rewriting (2) as:

$$p_t - \sum_{j=1}^M \gamma_j p_{t-j} = \alpha + \sum_{i=1}^N \beta_i U_{t-1} + \varepsilon_t \quad (3)$$

and observing that the sum of the coefficients on the contemporaneous and lagged inflation rates is zero given the restriction on the  $\gamma_j$ . Any distributed lag whose coefficients sum to zero can be rewritten as a distributed lag in the differences of the variable:

$$\Delta p_t - \sum_{j=1}^{M-1} \delta_j \Delta p_{t-j} = \alpha + \sum_{i=1}^N \beta_i U_{t-1} + \varepsilon_t \quad (4)$$

If the unemployment rate is constant at a level such that the inflation rate is not changing

( $\Delta p_{t-j} = 0$  for all  $j$ ) then the constant level of the unemployment rate is:  $\bar{U} = \frac{-\alpha}{\sum_{i=1}^N \beta_i}$ .

$\bar{U}$  is referred to as the Non-Accelerating Inflation Rate of Unemployment (NAIRU).

Whether or not this specification represents a Phillips Curve, it certainly offers a forecasting equation for the inflation rate conditional upon information on previous values of the unemployment rate.<sup>3</sup> Fuhrer (1995) argues that “conventional tests of the

stability of the Phillips Curve indicate remarkable stability. There may be no other macroeconomic relationship that could perform as well by these criteria” (p. 49). King and Watson (1994) conclude “a strikingly stable negative correlation exists over the business cycle” (p. 157) between inflation and unemployment. The question addressed here is how useful and/or reliable such a specification is in forecasting inflation.

### **USING THE UNEMPLOYMENT RATE TO FORECAST ONE-PERIOD AHEAD INFLATION**

The starting point for this analysis is one of the models estimated by Fuhrer (1995), though not the one that he analyzes extensively. Rather we investigate the model for the GDP deflator in the Fuhrer’s Table 1c. There are two reasons for this choice. First, it is the simplest of his four models. Second it is the only one that does not utilize the oil price series. Since Fuhrer does not document his source or definition of this variable, it is impossible to replicate his other equations from the published information.

Equation 1 in Table 1 reproduces Fuhrer’s result in Table 1c, but without any restriction on the sum of the lag coefficients on the inflation rate. Inflation is measured in percentages at annual rates. Without restriction, these coefficients sum to 1.09, but this is not significantly different from 1.0 by the conventional “t-test.”<sup>4</sup> Note that the “t-statistics” on lagged inflation rates greater than four lags are generally very small. This is also true of the regression reported by Fuhrer (column 2). In column 3 of Table 1, we report the restricted regression in which all coefficients on inflation lagged more than four periods are restricted to zero, and the remaining four lag coefficients are restricted to sum to 1.0. The nine joint restrictions are not rejected by a standard F test ( $F_{(9,121)}=1.63$ ,  $p=.11$ ). Therefore it is possible to work with a much simpler model than that reported by Fuhrer with almost no increase in the residual variance. The standard error of the residuals of this equation is 1.46 percent per annum compared with the 1.44 percent per annum reported by Fuhrer for his 12 lag equation.

Estimates of the same model for the two subperiods considered by Fuhrer are shown in columns 4 and 6 of Table 1. From these columns it becomes apparent that the “Phillips Curve” is not as robust as sometimes advertised. First the standard error of the

residuals in the 80:1-93:4 subsample is over 30 percent smaller than the standard error of the residuals in the 60:2-79:4 subsample. This can be rationalized by the absence of severe energy shocks during the 80s. More damaging to the stable Philips Curve view is the absence of a significant estimated coefficient on the lagged unemployment rate during the 80s.

One way to judge the usefulness of this equation as a forecasting device is to compare it against an alternative model. The alternative model estimated in columns 5, 7 and 9 of Table 1 omits the unemployment rate from the regression.<sup>5</sup> The addition of the unemployment rate to the alternative model reduces the residual standard error from 1.69 to 1.67 percent per annum in the 60:2-79:4 subsample and from 1.15 to 1.14 percent per annum in the 80:1-93:4 subsample. These are hardly noticeable improvements in the precision of the forecasting model

A second way to consider the contribution of the unemployment rate to forecasts of the inflation rate is shown in Figure 1a. Here the deviations of the inflation rate from its mean are plotted (solid line) in comparison to the contribution of deviations of the unemployment rate ( $-0.2342U_{t-1}$ ) from its mean.<sup>6</sup> Clearly only a very small proportion of the historical inflation variation is accounted for by unemployment fluctuations.

The corresponding results for the CPI inflation rate and the CPI ex food and energy inflation rate are shown in Figures 1b and 1c, respectively, using the estimated coefficients from Fuhrer (1995) Table 1a and Table 1. In these cases the contribution of deviations of the unemployment rate from its mean is measured as deviations of the estimated distributed lag on the unemployment rate in the “Phillips Curve” equation from its mean. In Figure 1b, the contribution of the unemployment rate to CPI inflation has a much larger variance than in Figure 1a (it is measured as a four period distributed lag on the unemployment rate), but in many cases moves in the opposite direction to the observed inflation rate. In Figure 1c, the measured contribution of the unemployment rate to CPI inflation ex food and energy is quite similar to the contribution measured in Figure 1a; it has very small variation relative to the variation in the observed measure of inflation.

A third way to judge the usefulness of the forecasting model is to consider the range of future inflation rates consistent with an observed unemployment rate and the history of inflation. This is illustrated in Figures 2 and 3. Figure 2 is comparable to Figure 4 in Fuhrer (1995). Actual inflation (the solid line) is plotted against the prediction from the estimated equation (the dashed line) constructed from the estimated coefficients over the 60:2-79:4 subsample (column 4 in Table 1). In addition, a 95 percent confidence interval ( $\pm 1.96$  standard errors of forecast) is plotted around the predicted values (broken lines). This interval indicates clearly the substantial unexplained component of observed inflation. The model estimated over the 60:2-79:4 subsample gives an inflation prediction interval from around 6 percent to less than -1 percent for each quarter in 1994. The same exercise is demonstrated in Figure 3 utilizing the estimates from the 80:1-93:4 subsample to predict inflation during the 60-79 period. The prediction interval here is smaller because the standard error of the residuals in the later subsample is lower, but it still exceeds four percent. The important thing to remember in interpreting both graphs is that essentially the pictures produced by the estimated equations from columns 5 and 7 of Table 1 would be identical. Neither the time series model nor the “Phillips Curve” model produces one period ahead forecasts of inflation that are sufficiently precise to be of use in policy analysis.

## **MULTIPERIOD INFLATION FORECASTS**

As pessimistic as the above conclusion are for one period ahead inflation forecasts from “Phillips Curve” type models, they do not really address the question fundamental to macroeconomics policy discussions, namely what is inflation likely to be over some intermediate horizon. Fuhrer (1995) presents three graphs (his Figures 3, 5 and 6) of “dynamic simulations” of his estimated models. The corresponding graphs for the GDP deflator models in columns 3, 4 and 8 of Table 1 are presented in Figures 4-6). The “dynamic simulation” results are comparable for both price series. The only substantial difference between the graphs shown here and those constructed by Fuhrer is that the dynamic simulation of the GDP deflator starting in 1980 based on the estimated



coefficients from the 60:2-79:4 subsample does not track the decline in inflation in the early 80s as well as the model for the core CPI inflation does.

It is important to distinguish these “dynamic simulations” from multiperiod forecasts of the inflation rate that are conditional only on information known at the beginning of the forecast period. The “dynamic simulations” use only the history of the inflation rate up to the beginning of the simulation period, but they utilize the actual value of the unemployment throughout the simulation period. In effect, these simulations assume perfect foresight with respect to the unemployment rate over the entire simulation period.

To analyze the multiperiod forecasting performance of the “Phillips Curve” model, a joint model of the inflation rate and the unemployment rate is required. King and Watson (1994) propose a bivariate vector autoregression (VAR) for such a model. A slight modification of their approach is adopted here. Estimates of a bivariate VAR model of the inflation rate and the unemployment rate are shown in Table 2.<sup>7</sup> The estimates in column 1 of that table are for an unrestricted VAR in changes in the inflation rate and levels of the unemployment rate with three lags over the full sample period for the Fuhrer “Phillips Curve” regressions. Two features are apparent in these regressions. First, changes in the inflation rate are not significant at any lag in the unemployment rate regressions. This result is analogous to that found by King and Watson. Second, only the first lag in the unemployment rate is significant in the equation for changes in the inflation rate. Therefore, the inflation rate change equation satisfies the restrictions of the equation estimated by Fuhrer and the unemployment rate forecasting equation is equivalent to a simple autoregressive equation. Estimates of the VAR subject to these restrictions appear in the second column of Table 2. Imposition of these restrictions has a negligible effect on the residual variation in both equations. The third and fourth columns of Table 2 indicate the estimates of the restricted VAR for the sample periods that are used by Fuhrer for his out-of-sample dynamic simulation experiments. The estimates of both equations are robust to these changes in sample period, though the significance of the lagged unemployment rate in the inflation change equation is marginal for the 60:2-79:4 sample period.

How well does the unemployment rate really forecast the inflation rate in a multiperiod experiment? The results of the dynamic forecasts of the restricted VAR models from Table 2 are shown in Figures 7-9. These forecasts are joint forecasts of both the unemployment rate and the inflation rate. Figure 7 is constructed from the estimated coefficients of the 60:2-93:4 sample period in column 2 of Table 2. Figure 8 is constructed from the estimated coefficients of the 60:2-79:4 sample period in column 3 of Table 2 and Figure 9 is constructed from the estimated coefficients of the 60:2-87:4 sample period in column 4 of Table 2. Thus the results shown in Figure 7 are within sample forecasts and those in Figures 8 and 9 are true out-of-sample forecasts.

The results in Figures 7-9 contrast dramatically with those in Figure 4-6 and can only be characterized as truly miserable multiperiod forecasts of inflation. The reason for the extremely poor forecasting results is not difficult to determine. Since the unemployment rate equation in the VAR model is a very low order autoregressive process, the prediction of the unemployment rate very quickly approaches a constant level as the forecasting horizon is lengthened. Once the predicted unemployment rate settles down at the steady-state level, the inflation change equation (“Phillips Curve”) behaves like a low order autoregressive process and approaches a steady-state change in the inflation rate. This change will be positive, negative, or zero depending on whether the steady-state unemployment rate implied by the unemployment rate equation is greater than, less than, or equal to the “NAIRU” implied by the inflation rate change equation. In the estimates from the full sample period (Figure 7) the unemployment rate equation implies a steady-state unemployment rate that is slightly lower than the NAIRU implied by the inflation rate change equation, so the multiperiod inflation rate forecasts rapidly settle down to a small negative trend. This small negative trend completely fails to capture the sharp drop in the actual rate of inflation that occurred during 1982.

In the estimates from the sample period ending 79:4, the steady-state unemployment rate is slightly higher than the NAIRU implied by the inflation change equation, so the multiperiod forecasts of the inflation rate in Figure 8 settle down to a small positive trend. Again, this fails to capture the sharp decline in the inflation rate that

occurred in 1982, and by the end of the forecast period (85:4) the predicted inflation rate is almost as high as the actual inflation rate measured in 1980!

In the estimates from the sample period ending in 87:4, the steady-state unemployment rate is almost exactly equal to the NAIRU implied by the inflation change equation. Consequently as the unemployment rate approaches the steady-state value in the multiperiod forecasts, the change in the inflation rate approaches zero. Predicted inflation after 1990 is almost constant and is consistently higher than observed inflation.

## **CONCLUSIONS**

The conclusion from this analysis is that conditional predictions of inflation from a “Phillips Curve” which presumes that the employment rate can be predicted without error are highly misleading. Without a very accurate forecasting model for the unemployment rate, multiperiod forecasts from “Phillips Curve” type equations are effectively useless. The autoregressive model used here to forecast the unemployment rate probably is not the most accurate forecasting model that can be developed for this variable. However, it is unlikely that other forecasting models of the unemployment rate will produce substantially more accurate forecasts, since economists generally have found that simple time series models are difficult to beat in forecasting “horse races.” Therefore, the forecasts shown in Figures 7-9 are likely illustrative of the uselessness of “Phillips Curve” type models in predicting future inflation and in making assessments of appropriate policy actions.

## NOTES

<sup>1</sup>Testimony of Alan Greenspan Chairman, Federal Reserve Board, February 22, 1995. In *Monetary Policy Objectives 1995*, Summary Report of the Federal Reserve Board.

<sup>2</sup>Fuhrer (1995), footnote 13 reports that he was unable to find a statistically significant relationship between inflation and the contemporaneous unemployment rate, a result that he attributes to simultaneous equation bias. Absent a contemporaneous unemployment rate, the instantaneous Phillips Curve is just a horizontal line when inflation is plotted against the unemployment rate, not the familiar negatively sloped line of macroeconomics textbooks.

<sup>3</sup>Note that the Friedman/Phelps Phillips Curve is not a useful forecasting instrument, since it presumes that inflation and unemployment are jointly determined.

<sup>4</sup>Note that the test that these coefficients sum to 1.0 is a test of the hypothesis that the inflation rate has a unit root. Consequently the test statistic does not have a standard distribution. Failure to reject the unit root using the conventional “t-test” implies failure to reject using the appropriate nonstandard distribution. For an investigation that also concludes there is a unit root in U.S. inflation data see King and Watson (1994), Table 3. When the sum of the lagged inflation coefficients is restricted to unity, we reproduce Fuhrer’s estimates exactly.

<sup>5</sup>The alternative model is just an ARIMA (3,1,0) time series model of the inflation rate.

<sup>6</sup>The rationale for this graph is that a least squares regression of the form

$$Y_t = a + b_1 X_{t1} + \dots + b_n X_{tn}$$

can be written as:

$$Y_t = b_1 x_{t1} + \dots + b_n x_{tn}$$

where the lower case variable symbols represent deviations of the variables from their respective means.

<sup>7</sup>King and Watson use monthly data and conclude that both the inflation rate and the unemployment rate are subject to permanent shocks (both series are nonstationary). Hence their VARs are estimated on first differences of the inflation rate and the unemployment rate. In the spirit of the Phillips Curve analyses, but at the risk of constructing “spurious regressions,” the VAR analysis presented here is constructed with differences of the inflation rate but with levels of the unemployment rate.

## REFERENCES

Friedman, M. (1968). "The Role of Monetary Policy." *American Economic Review*. May, 1-17.

Fuhrer, J.C. (1995). "The Phillips Curve is Alive and Well." *New England Economic Review*. March/April, 41-56.

King, R.G. and Watson, M.W. (1994). "The Post-War U.S. Phillips Curve: A Revisionist Econometric History." *Carnegie-Rochester Conference Series on Public Policy*. 41, December, 157-220..

Phelps, E.S. (1970). "Money Wage Dynamics and Labor Market Equilibrium." in E.S. Phelps (ed.) *Microeconomic Foundations of Employment and Inflation Theory*. New York: W.W. Norton & Co.

Table 1  
Estimated Models of Inflation

Sample Period	60:2 - 93:4	60:2 - 79:4	80:1 - 93:4	60:2 - 87:4					
Regressor	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
P <sub>t-1</sub>	.286 (3.15)	.297 (3.28)	.346 (3.98)	.315 (2.79)	.341 (3.02)	.461 (3.24)	.512 (3.73)	.343 (3.56)	.504 (3.77)
P <sub>t-2</sub>	.251 (2.70)	.255 (2.74)	.255 (2.85)	.251 (2.16)	.257 (2.19)	.264 (1.79)	.283 (1.92)	.280 (2.52)	.272 (2.69)
P <sub>t-3</sub>	.188 (1.98)	.188 (1.98)	.220 (2.46)	.196 (1.68)	.187 (1.60)	.317 (2.17)	.310 (2.11)	.216 (2.18)	.179 (1.78)
P <sub>t-4</sub>	.164 (1.70)	.162 (1.68)	.179 (1.79)	.239 (2.12)	.215 (1.91)	-.043 (-.29)	-.106 (-.76)	.161 (1.68)	.084 (0.87)
P <sub>t-5</sub>	-.090 (-.93)	-.094 (-.97)							
P <sub>t-6</sub>	-.111 (-1.14)	-.120 (-1.23)							
P <sub>t-7</sub>	.084 (.87)	.075 (.77)							
P <sub>t-8</sub>	-.012 (-.12)	-.021 (-.21)							
P <sub>t-9</sub>	.048 (.50)	.034 (.37)							
P <sub>t-10</sub>	.174 (1.87)	.160 (1.72)							
P <sub>t-11</sub>	.107 (1.20)	.088 (1.00)							
P <sub>t-12</sub>	-.004 (-.05)	-.026 (-.32)							
U <sub>t-1</sub>	-.133 (-3.56)	-.376 (-3.70)	-.234 (-2.75)	-.227 (-1.58)		-.157 (-1.25)		-.224 (-2.38)	
Constant	2.507 (3.80)	2.297 (3.62)	1.424 (2.65)	1.423 (1.74)	.170 (.89)	.885 (1.01)	-.201 (-1.27)	1.394 (2.34)	.504 (1.54)
R <sup>2</sup>	.71	.71	.70	.66	.65	.76	.75	.68	
see	1.43	1.43	1.46	1.67	1.69	1.14	1.15	1.57	
dw	1.95	1.95	1.93	1.94	1.94	1.93	1.99	1.93	

Table 2  
Estimated Vector Autoregressions

	60:2 - 93:4		60:2 - 93:4		60:2 - 79:4		60:2 - 87:4	
	$\Delta p_t$	$U_t$	$\Delta p_t$	$U_t$	$\Delta p_t$	$U_t$	$\Delta p_t$	$U_t$
$\Delta p_{t-1}$	-0.666 (-7.69)	.007 (-.42)	-.652 (-7.67)		-.687 (-6.36)		-.655 (-6.97)	
$\Delta p_{t-2}$	-.397 (-4.04)	-.022 (-1.24)	-.404 (-4.20)		-.434 (-3.51)		-.382 (-3.58)	
$\Delta p_{t-3}$	-.189 (-2.19)	-.004 (-.25)	-.180 (-2.11)		-.246 (-2.27)		-.162 (-1.73)	
$U_{t-1}$	-1.094 (-2.35)	1.670 (19.5)	-.235 (-2.81)	1.603 (24.9)	-.228 (-1.64)	1.592 (18.9)	-.224 (-2.44)	1.598 (22.4)
$U_{t-2}$	1.120 (1.36)	-.802 (-5.3)		-.648 (-10.1)		-.649 (-7.7)		-.641 (-9.0)
$U_{t-3}$	-.255 (-.55)	.088 (1.02)						
$R^2$	.30	.97	.29	.97	.30	.96	.28	.97
see	1.45	.27	1.46	.27	1.67	.27	1.57	.29
dw	1.92	1.92	1.93	1.82	1.92	1.72	1.94	1.82

Figure 1a

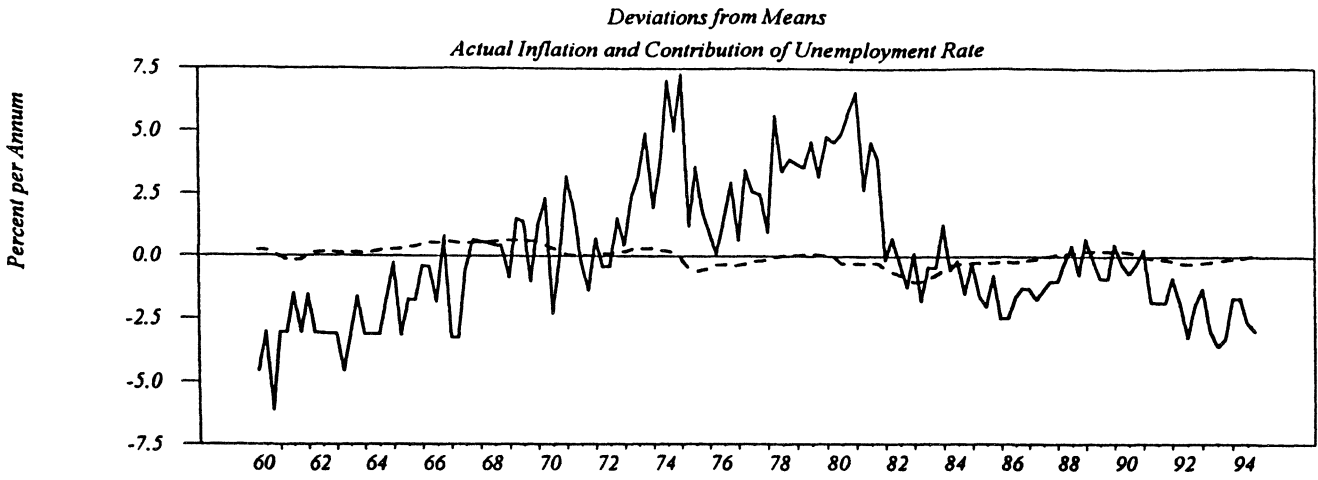


Figure 1b

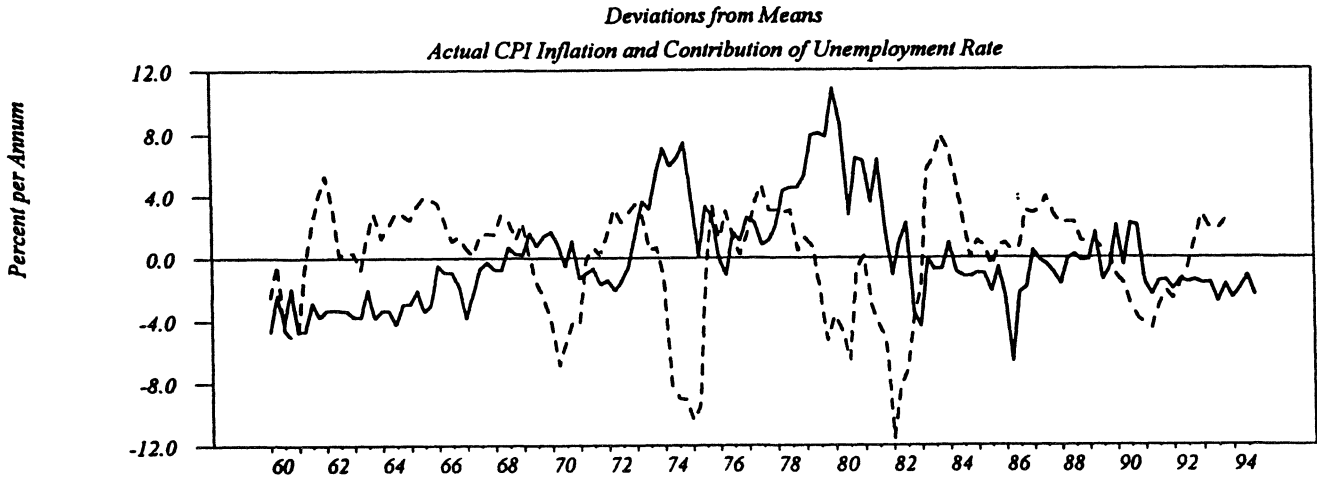


Figure 1c

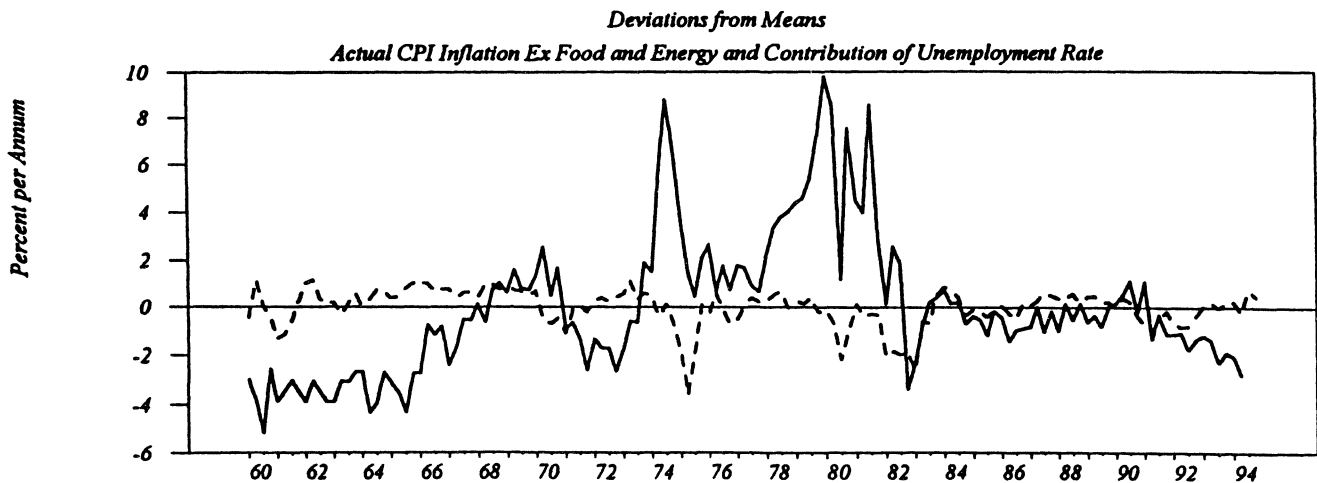




Figure 2

GDP Inflation, Forecasts & Confidence Interval  
Using Coefficients Estimated over 60:2 - 79:4

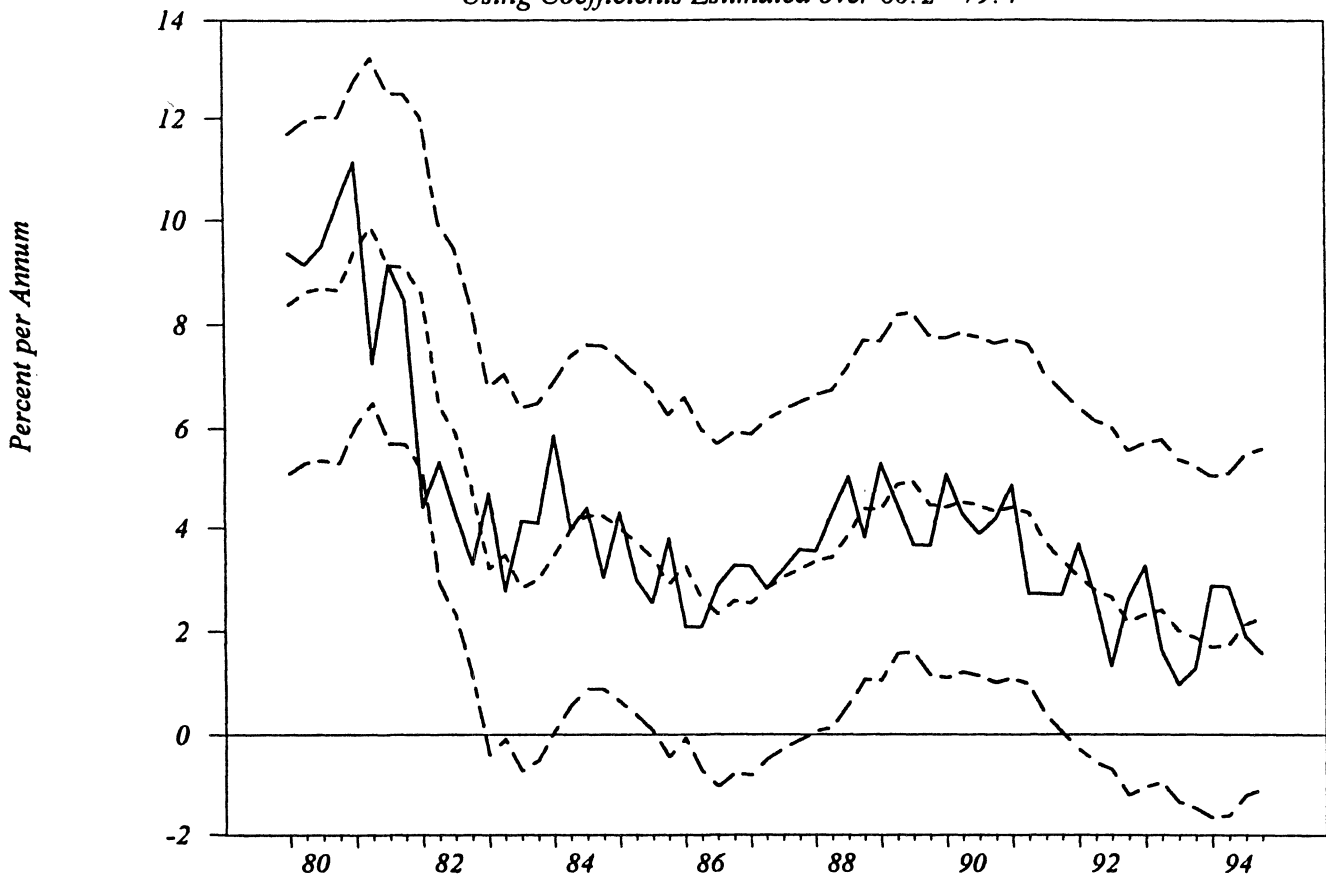


Figure 3

GDP Inflation, Forecasts & Confidence Interval  
Using Coefficients Estimated over 80:1 - 93:4

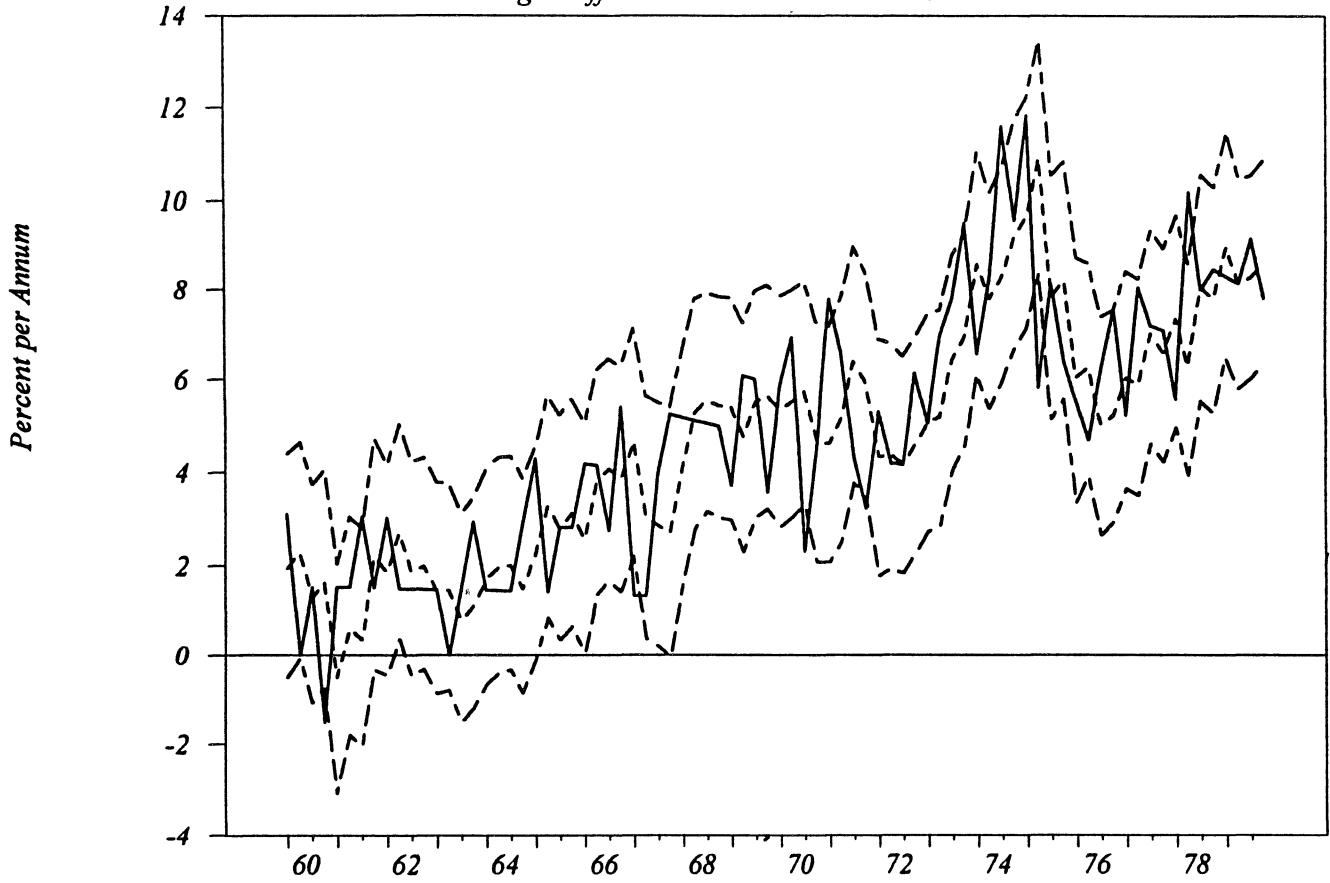


Figure 4

Dynamic Simulation of GDP Inflation  
Estimated over 60:2 - 93:4

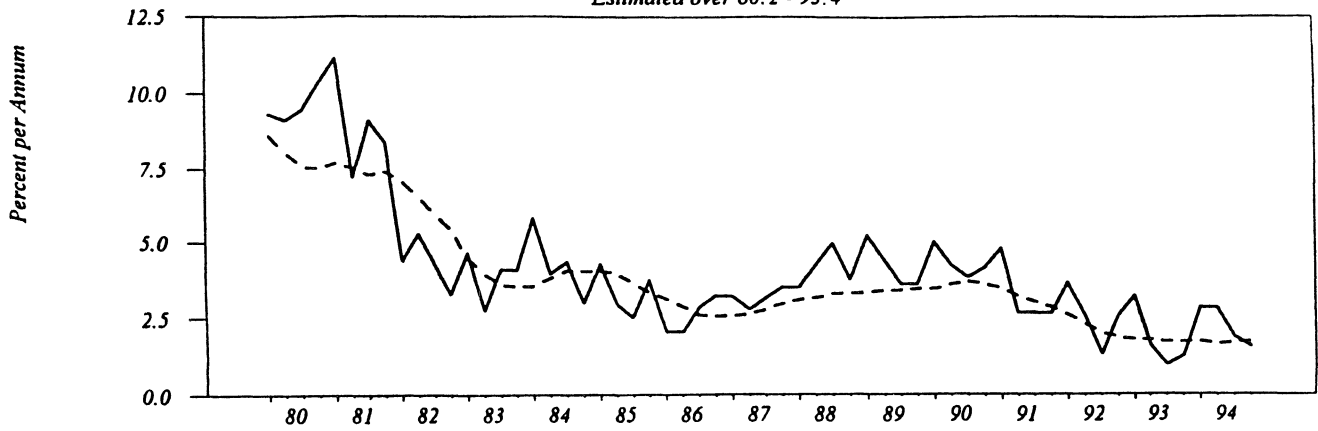


Figure 5

Dynamic Simulation of GDP Inflation  
Estimated over 60:2 - 79:4

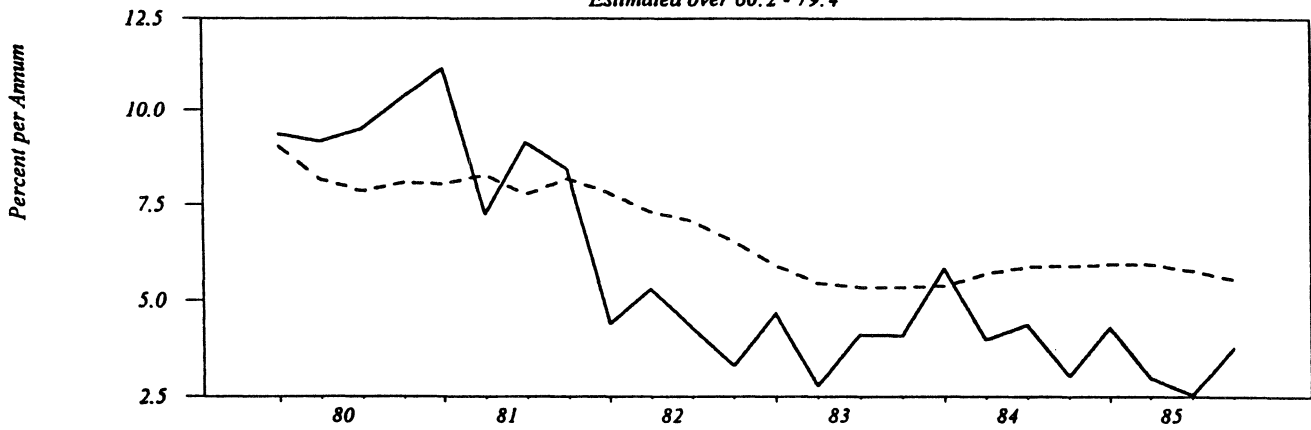


Figure 6

Dynamic Simulation of GDP Inflation  
Estimated over 60:2 - 87:4

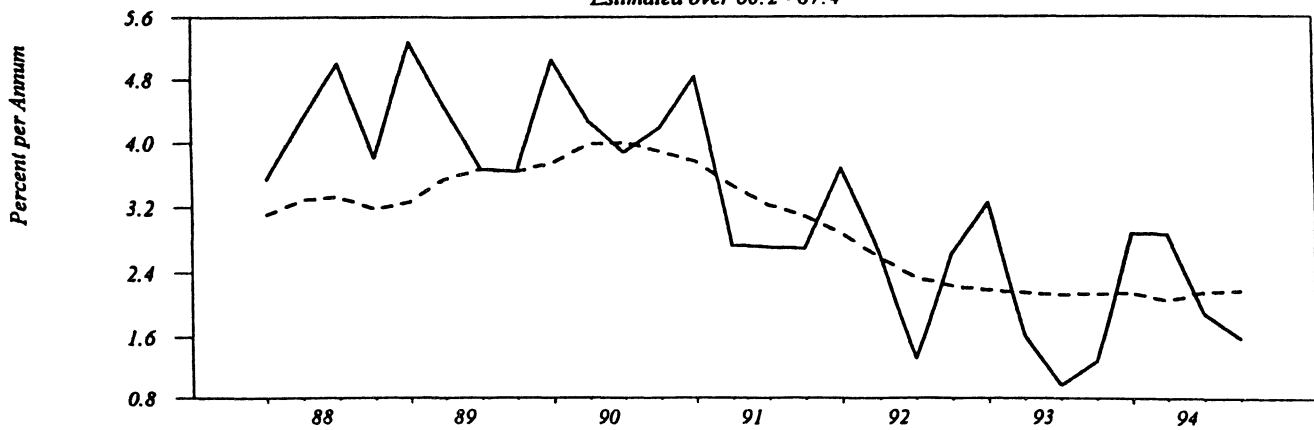


Figure 7

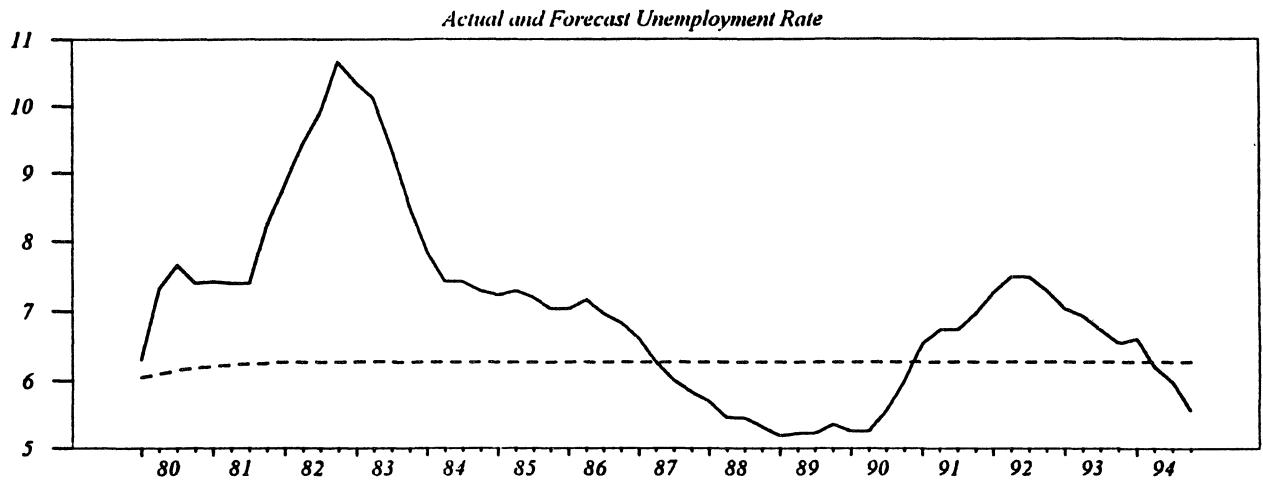
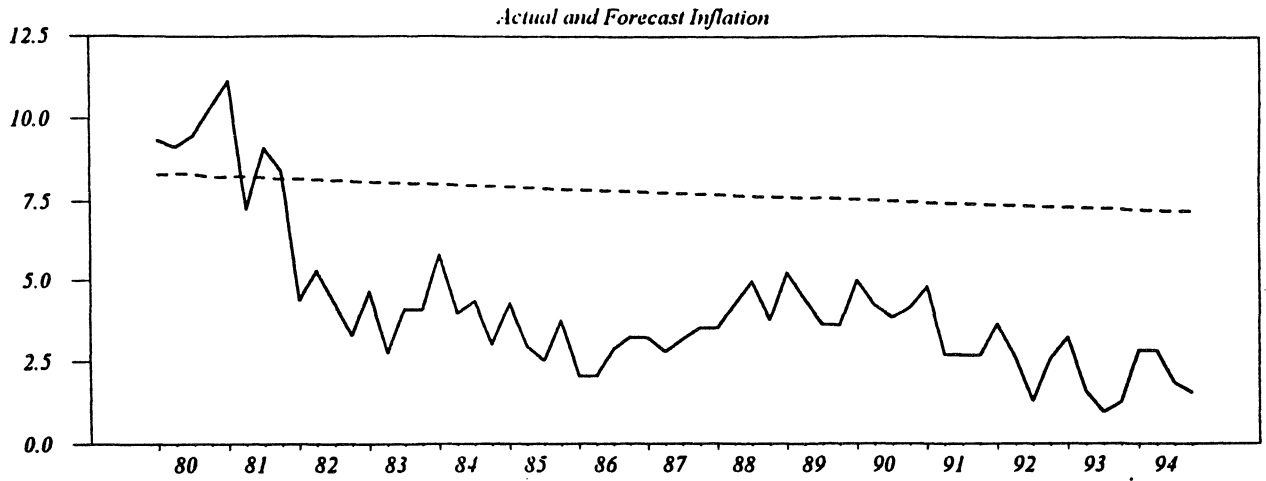


Figure 8

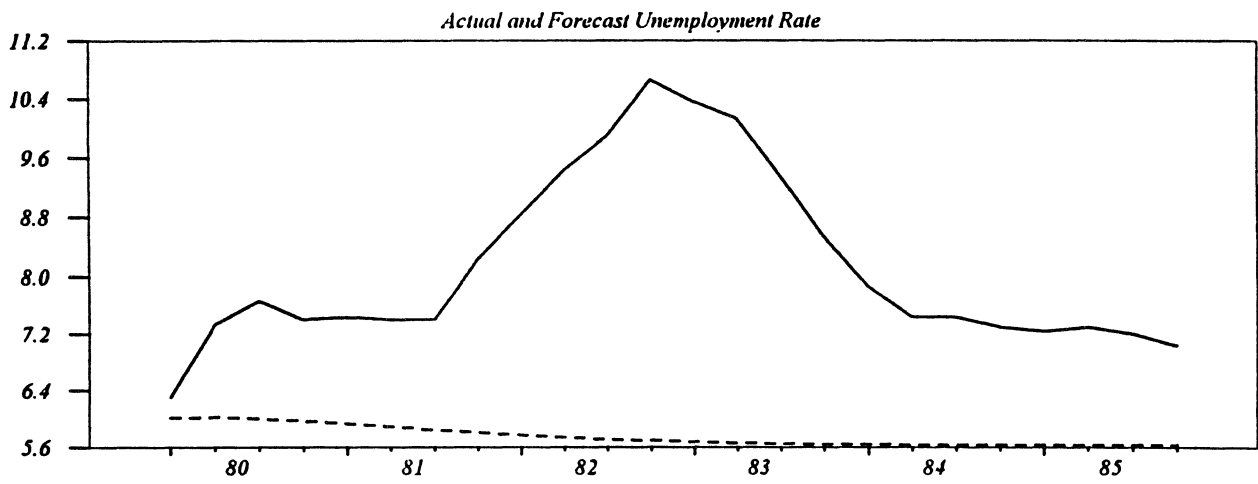
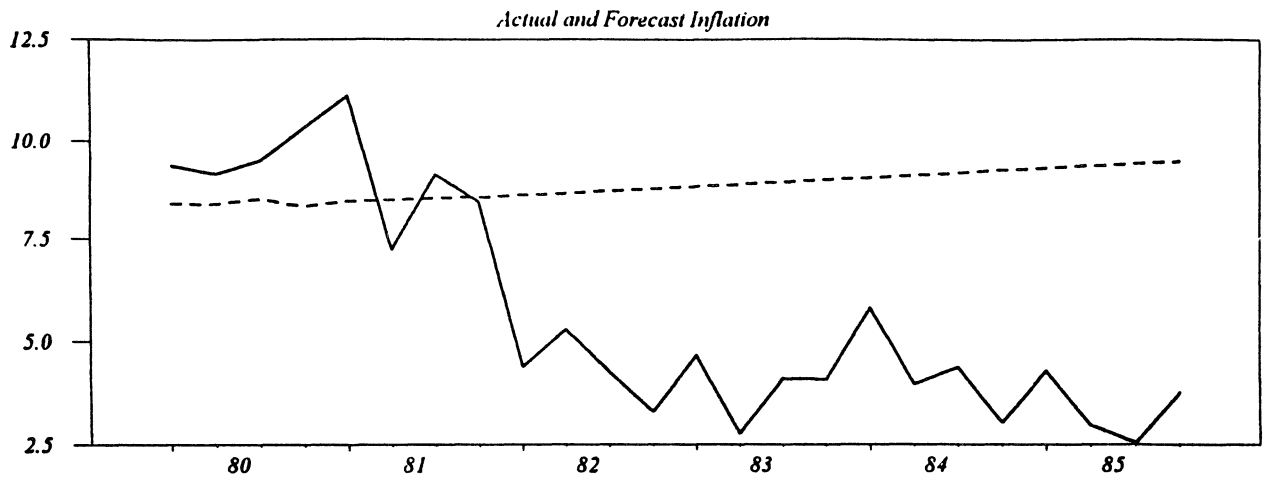
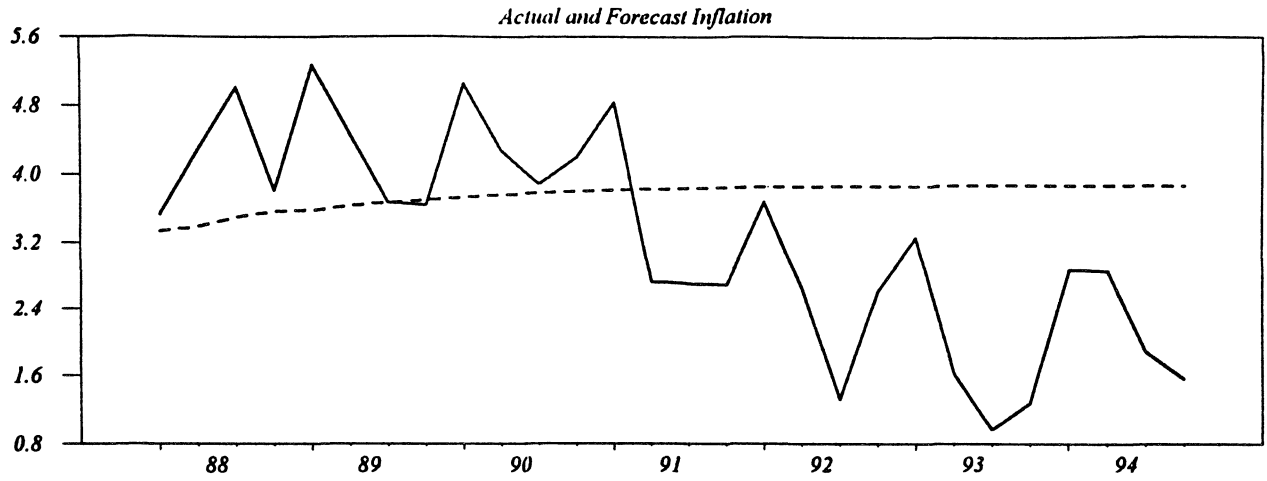


Figure 9





## **G-7 COUNTRIES AT HALIFAX SUMMIT REPEAT THE MEXICAN MYTH**

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In an 11-page single-spaced communique, listing 50 pronouncements on 12 subjects, issued by the G-7 countries following the June 15-17 Halifax Summit, what is most striking is that included among the pieties expressed in the document is the myth about Mexico's financial debacle in 1994-95.

### **THE MEXICAN MYTH**

The myth comes in two parts. Part One is that overreaction by foreign investors to a run of bad news undermined an essentially vibrant economy. Part Two is that the United States did the right thing in organizing a \$50 billion rescue plan. Part One of the myth has spawned an IMF report, "International Capital Markets: Developments, Prospects and Policy Issues," issued in August, that advises developing countries to consider imposing temporary controls on inflows of foreign capital. The advice presupposes that the central problem in Mexico and by extension in other developing countries is the behavior of foreign investors rather than the behavior of policymakers in Mexico and elsewhere.

### **PARTS ONE AND TWO OF THE MYTH IN THE COMMUNIQUE**

Both parts of the myth, as noted, are enshrined in the communique. On the subject, "Meeting the Challenges of the 21st Century," and the subhead, "Strengthening the Global Economy," pronouncements 14-18 read as follows:

"14. The growth and integration of global capital markets have created both enormous opportunities and new risks. We have a shared interest in ensuring the international community remains able to manage the risks inherent in the growth of private capital flows, the increased integration of domestic capital markets, and the accelerating pace of financial innovation."



“15. The development in Mexico earlier this year and the repercussions have sharpened our focus on these issues. We welcome the recent positive turn of events in Mexico, as well as the positive developments in a number of emerging economies. [On August 16, the Mexican government announced a 10.5% decline from a year ago in second-quarter economic output.]”

“16. The prevention of crisis is the preferred course of action. This is best achieved through each country pursuing sound fiscal and monetary policies. But it also requires an improved early warning system, so that we can act more quickly to prevent or handle financial shocks...”

“17. If prevention fails, financial market distress requires that multilateral institutions and major economies be able to respond where appropriate in a quick and coordinated fashion. Financing mechanisms must operate on a scale and with the timeliness required to manage shocks effectively. In this context, we urge the IMF to:

•establish a new standing procedure—“Emergency Financing Mechanism”—which would provide faster access to Fund arrangements with strong conditionality and larger upfront disbursements in crisis situations.”

“18. To support this procedure, we ask:

•the G-10 and other countries with the capacity to support the system to develop financing arrangements with the objective of doubling as soon as possible the amount currently available under the GAB (\$28 billion) to respond to financial emergencies.”

Two highly questionable assumptions underlie these pronouncements. One is that Mexico’s financial crisis, triggered by devaluation of the peso on December 20, 1994, was attributable to an overreaction by foreign investors who immediately withdrew their short-term portfolio capital, and that the crisis had contagious effects on other countries. The second questionable assumption is that a bailout of the scale that the United States arranged was required to control the damage.

## **WHAT PART ONE ASSUMES**

Although one communique rightly states that the best way to prevent a crisis is for each country to pursue sound fiscal and monetary policies, it does not then proceed to indict Mexico for the policies it adopted in 1994 that landed it in trouble. The communique further neglects to state what the IMF report referred to above concedes: capital flight from Mexico in late 1994 was initiated not by foreign investors but by Mexican residents, a sure indication that it was internal misguided policies that created the crisis. In addition, the evidence for contagious effects of the Mexican crisis, which the communique takes for granted, is weak at best.

## **WHAT PART TWO ASSUMES**

It is the second assumption that is most offensive. For whose benefit was the \$50 billion plus bailout arranged? Mexico has acquired a massive debt, but the funds paid out have not been available for its internal use. They have been transferred to U.S. creditors who had dollar claims. It is hypocrisy for the United States to act as if it was rescuing Mexico, when in fact it was bailing out U.S. private investors. Gunboat diplomacy is out of fashion, but loading up an LDC with debt to pay off developed country private investors is apparently okay. Comment on the episode neglects this feature.

Even worse, the communique endorses the provision of billions of dollars in new loans comparable to what was done in Mexico for the next country in financial distress. Whether the money will actually be available for such lending is a different matter—the communique expresses the pious hope that the G-10 will respond “as soon as possible.” But the issue the communique does not address is the message this proposal conveys. The message to the countries that are likely candidates for rescue is, it’s all right to mismanage your economy; borrow as much as you can, we won’t let you default; and to the lenders, don’t worry, we have the money to pay you back.

## **OTHER PROPOSED SOLUTIONS**

Press comment in advance of the Halifax Summit had anticipated some reference in the communique to two recommendations by Jeffrey Sachs of Harvard as solutions for financial crises: the IMF should serve as an international lender of last resort or, preferably, as a bankruptcy court. There is no direct statement in the communique on either of these recommendations, but an ambiguous item 20 may be hinting at one or both:

“20. Solid progress on the elements discussed above should improve our ability to cope with future financial crisis. Nevertheless, these improvements may not be sufficient in all cases. In line with this, and recognizing the complex legal and other issues posed in debt crisis situations by the wide variety of sources of international finance involved, we would encourage further review by G-10 Ministers and Governors of other procedures that might also usefully be considered for their orderly resolution.”

## **THE IMF AS AN INTERNATIONAL LENDER OF LAST RESORT?**

If “other procedures” includes transforming the IMF into an international lender of last resort to prevent banking panics, how to go about it would require solving some thorny issues. A lender of last resort has the capacity to create high-powered money. It doesn’t need permission from an outside source to do so. The IMF can issue SDRs but only if authorized by the member countries and the distribution among the members is again what the members authorize. An SDR is not any member country’s high-powered money but, when issued, a member country can convert its holdings into its own local money.

A lender of last resort is autonomous, deciding on the spot that the situation requires an infusion of high-powered money. Would the member countries agree to empower the IMF to create SDRs on its own initiative, and to distribute them to whichever country it deemed was confronting a domestic panic? A lender of last resort

can withdraw high-powered money once a panic has subsided to remove possible inflationary effects. Would the IMF have comparable authority as an international lender of last resort?

More basic questions, however, remain. Are banking panics at the core of financial crises in developing countries? What can an international lender of last resort accomplish that is not attainable by each individual country's lender of last resort?

### **THE IMF AS A BANKRUPTCY COURT**

If "other procedures" includes transforming the IMF into a bankruptcy court, complex legal issues are obviously involved. Assuming the possibility of resolving them, sovereign countries in distress that would file for bankruptcy could enjoy the solution of corporate and municipal bankruptcy law: priority lending, debt restructuring, and debt standstills. What is in doubt is whether such provisions are in the interest of the sovereign borrowers. Bankruptcy arrangements for sovereign debtors might impact their future ability to borrow rather than be a source of support when they are in financial distress.

### **CONCLUSION**

The Halifax Summit did not provide a dispassionate account of what went wrong in Mexico in 1994. The remedial action of massive lending to a sovereign debtor in distress that the Summit endorsed in line with the U.S. loan arrangement for Mexico does not address the problems in developing countries that occasion loss of their creditworthiness.