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**BRADLEY POLICY
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**SHADOW OPEN MARKET COMMITTEE
(SOMC)**

**Policy Statement and Position Papers
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SHADOW OPEN MARKET COMMITTEE

The Shadow Open Market Committee met on Sunday, September 8, 1996 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 9—The Shadow Open Market Committee (SOMC) today congratulated the Federal Reserve on achieving sustained economic expansion without accelerating inflation but noted that price stability had not been achieved. Current policy will not substantially reduce inflation below current levels, the committee said.

The Shadow, a group of academic and business economists who comment regularly on public policy, recommended that “the Federal Reserve reduce the growth rates of the monetary base and other monetary aggregates to achieve zero inflation.” The SOMC noted that the Fed’s central tendency forecast for nominal gross domestic product (GDP) growth “is inconsistent with its commitment to zero inflation.”

The 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 warned the Fed that conducting monetary policy according to a rule described as “opportunistic disinflation policy” would be a serious mistake. The opportunistic policy under discussion ignores longer-term responses to its policy actions and would be procyclical. “The opportunistic policy assumes that reducing inflation is always costly. Current experience shows that this is not so,” the committee said.

The committee noted that “Increases in real wages and minimum wages do not cause inflation.” In the past, wage increases were associated with rising inflation because inflationary Fed policy generated accelerating aggregate demand. “Proper Fed policies break that link.”

The SOMC expressed its dismay that political campaigns often mislead voters, noting that “This year is no exception.” The current debate focuses too much on the near-term budget imbalance, particularly whether the budget will be balanced by 2002, and too little on long-run structural budget problems that require reform.

Neither party addresses the enormous long-term problems posed by the unfunded liability of Social Security, while their recommendations to improve Medicare finances

fall short of necessary reform. The committee urged the Federal Reserve to report its unfunded liabilities and pension obligations using the same standards required of publicly-held companies.

The committee congratulated the Clinton Administration for proposed inflation index bonds. It perceived these bonds as an important option that private markets do not provide.

SHADOW OPEN MARKET COMMITTEE
Policy Statement
September 9, 1996

For five years, Federal Reserve policy has sustained expansion without increasing inflation. This is an historical achievement. There are few comparable periods in the eight-two years of the Fed's existence.

Price stability has not been achieved, however. Inflation has remained in the 2 percent to 3 percent range, a range that once was, and we believe should again be, regarded as too high. We believe that current policy, if maintained, will not substantially reduce inflation below current levels. We recommend that the Federal Reserve reduce the growth rates of the monetary base and other monetary aggregates to achieve zero inflation. Monetary acceleration of the past year should not be permitted to continue.

We believe that the Federal Reserve's central tendency forecast of nominal GDP growth for the year ending fourth quarter 1997, 4 ¼ percent to 5 percent, is too high. This forecast is inconsistent with its commitment to zero inflation.

MONETARY POLICY

Monetary policy has come under close scrutiny this year. Announcements of the employment rate, housing starts, and other variables often result in wide swings in interest rates. Financial market speculators shift from concern that the Fed will tighten to concern that it won't.

The facts are very different from the daily or weekly commentary. The economy grew at a sustainable 2.7 percent rate for the last four quarters, approximately the same average rate experienced in the past two calendar years. There is no clear evidence of sustained acceleration or deceleration of the growth rate; the much-discussed accelerations and decelerations are within the range that should be considered movements around an unchanged trend rate of growth.

Several times this year, release of the monthly employment report has been followed by a frenzy of trading activity and large changes in prices and yields on long-

term bonds and other securities. Chart 1 puts these data in longer-term perspective. This perspective suggests a very different interpretation: the unemployment rate appears to have fluctuated randomly around a constant values for about 18 months. The August unemployment report, reflecting seasonal impacts and showing a 5.1 percent unemployment rate, contains no information to change this perspective. The Federal Reserve should ignore these short-term movements and concentrate on the longer-term persistent changes in nominal growth that produce inflation.

There are three reasons why markets have reacted to short-run changes. First, after thirty years of inflation and disinflation, only a few market participants have any memory of stable growth with low inflation. Unstable policies produce unstable outcomes and heighten interest in guesses and conjectures about the next major change. Good Federal Reserve policy has been rare, so traders and forecasters act as if it cannot happen. They have an incentive to act this way since market volatility creates profit opportunities for nimble traders.

Second, most market participants fail to distinguish between a valid and invalid proposition about cyclical movements of prices and output. Output and prices (or inflation) are related along supply curve, but the supply curve does not tell us that higher output causes higher inflation. Higher inflation is caused by sustained high growth of aggregate demand.

In the 1960s and 1970s, the Federal Reserve was slow to respond to inflation. Economists taught market professionals to associate rising output with higher inflation. But this association is not unconditional; it depends on Federal Reserve actions, such as those made familiar by the neglect of rising monetary growth in the 1960s and 1970s.

Recent Federal Reserve actions have been very different, so the result has been very different. We have had stable real growth of about 2.5 percent and low inflation instead of a temporary surge in growth followed by a surge in inflation followed by a reduction in growth and a reduction in inflation.

Third, the Federal Reserve responds to short-term movements in the economy, so market watchers, who try to guess what the Federal Reserve will do and when, respond to these movements. Chairman Greenspan's Humphrey-Hawkins testimony typically

cites some variable or variables that he watches. Markets concentrate on these variables and respond to their changes because they believe the Fed will respond similarly.

Federal Reserve officials emphasize their commitment to price stability. They profess to follow policies that look ahead a year or two when today's persistent actions will affect inflation. However, Federal Reserve officials talk repeatedly about the significance of short-term changes in real variables. The attention given to short-term changes belies their professed commitment to zero inflation.

Excessive chatter about short-term movements is costly and unnecessary. It increases the likelihood of error when short-term changes are treated as persistent or systematic. Further, variability increases, as this year's changes in interest rates make clear. Society bears the cost of this unnecessary variability.

The Federal Reserve should do what it claims to do—end inflation by concentrating on the long-term effects of its actions. This can be achieved best by controlling the growth rate of monetary aggregates. Monetary aggregates do not explain every movement in the prices indexes. Many of these movements are random fluctuations, or responses to changes in productivity or in exchange rates.

Monetary aggregates explain the longer-term course of inflation, and that is the Fed's main responsibility. The Fed cannot control inflation unless it controls the monetary aggregates.

REAL WAGE INCREASES AND MINIMUM WAGES

Increases in real wages and minimum wages do not cause inflation. Real wage increases are the means by which productivity gains are related. In a productive economy workers' real wages increase over time. Market fears that wage increases trigger inflation are based on the experience since 1965, when inflationary Fed policies accelerated aggregate demand so that productivity growth and inflation occurred together. Proper Fed policies break this link.

OPPORTUNISTIC POLICY

We have long urged the Fed to conduct monetary policy by following a systematic and predictable plan of action—in other words, a rule. We are pleased to find new interest at the Fed in a monetary rule. It would be a serious mistake, however, to adopt the particular rule they have discussed publicly, called opportunistic policy. It is the wrong rule. The proposed policy seeks to achieve permanent reductions in inflation by responding opportunistically to random shocks that lower inflation. Some policymakers at the Federal Reserve are reported to favor this approach.

An opportunistic policy is pro-cyclical. The Federal Reserve would respond slowly or not at all during recessions caused by negative shocks to demand. Commitment to an opportunistic policy, however, neglects an important issue. The Federal Reserve cannot know whether a negative shock will persist. Without such knowledge, opportunistic policy is likely to increase variability.

The case for opportunistic policy is based on a static model that ignores the longer-term responses to its policy actions. Moreover, the policy ignores effects on private behavior. If market participants knew that the Federal Reserve would act hesitantly against recession, long-term interest rates and inflation would reflect these anticipations. Both would fall more slowly on average.

The analysis underlying the case for opportunistic policy presumes that the Federal Reserve knows the responses of inflation and output with precision and can distinguish between persistent and transitory changes. In fact, such distinctions are difficult to make. Once uncertainty about the timing and magnitude of Federal Reserve responses is recognized, the case for opportunistic policy loses validity.

The opportunistic policy implies that reducing inflation is always costly. Current experience shows that this is not so.

THE BUDGET AND THE DEFICIT

Political campaigns often mislead, instead of informing, voters. This year is not an exception. Both major parties confuse and misinform the public.

Chart 2 shows the federal government's budget deficit. It is about the same now as it was in 1990-91. The major problems about the deficit are not the short-term cyclical movements but the longer-term structural changes. These problems must be addressed. Neither political party has done so.

The Republican program and much discussion in the press focus on whether the budget will be balanced in 2002. Both political parties, and the press, choose to ignore the very large, and rising, budget deficits after 2002. Whether or not budget balance is achieved in 2002, without major changes in policy, budget deficits will rise to levels far larger than those experienced in our history.

There are only three possible solutions. (1) The growth rate of government spending on social security and health care must be reduced. (2) Average tax rates must increase far beyond the highest average tax rate in our history. (3) Output growth must rise and remain above the historical experience of the U.S. economy. The three solutions are not exclusive; some combination of higher growth, higher tax rates and reduced growth of government spending, especially entitlement spending, would bring prospective deficits to a manageable range.

The Dole-Keep plan attempts to raise growth, at least temporarily, by reducing taxes and regulation while reducing the growth of government spending. A small increase in growth, if sustained, contributes to the solution of the long-term deficit problem. Senator Dole should emphasize this contribution and the long-term program; he should not base his case for tax reduction on whether the budget is balanced in 2002.

Republicans have taken additional cuts in Medicare "off the table." They cannot. The Medicare program will be out of funds before the end of the century. The next President and Congress will have to act.

This year the Clinton administration adopted one of the most irresponsible budget policies in a country not known for responsible fiscal policies: it refused to reduce entitlement spending now while proposed major reductions in entitlement spending after four years. It discarded the opportunity to begin reducing growth of government spending while sticking the Republicans with the onus of reducing Medicare spending (actually the growth rate of spending).

The republicans offer a vague hope that the economy can grow 3.5 percent a year for the foreseeable future. A 3.5 percent, or higher, rate has been achieved during recoveries from recession, but such a rate is more than 25 percent higher than the average of the U.S. economy of the last 125 years. The U.S. did not achieve sustained growth of 3.5 percent early in this century when there was no income tax and government spending was less than 10 percent of GDP.

Recent budget deficits have been financed in major part by borrowing abroad and selling assets. This opportunity will not be available to finance entitlement spending in the next century. The reason is that all developed countries face the same problem. They, too, face historically high and rising deficits to pay for health care and pensions. Their prospective deficits are larger than ours relative to the size of their economies.

It is regrettable that both political parties choose to evade the issue of long-term spending growth. It is irresponsible for the media to fail to raise these questions with the candidates and the major parties. Publicly-held companies are required to report their unfunded liabilities and pension obligations. The federal government should do the same.

INDEXED GOVERNMENT BONDS

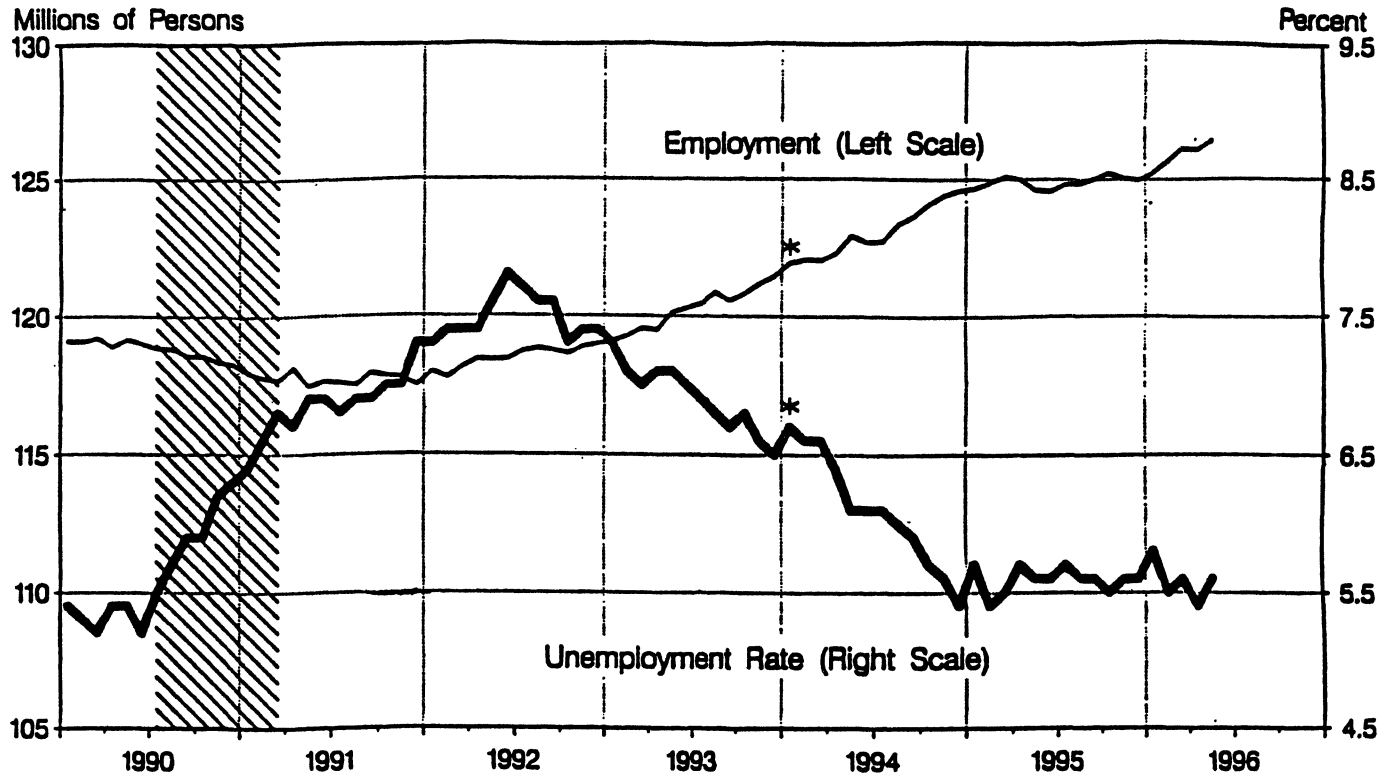
We congratulate the Clinton administration for proposing indexed bonds. These bonds give individuals the opportunity to protect themselves against future unforeseen inflation. This is an important option that private markets do not provide.

Proper design of an indexed and bond raises important issues about the choice of price index, the maturity of the bond, and the taxation of coupons (if any) and payments to compensate for inflation. To date the Treasury has not made public the details of its proposals

We suggest that the indexed bond should be a discount bond—a bond without current interest payments—maturing at the same time as a conventional discount bond.

CHART 1

Civilian Employment and Unemployment Rate Seasonally Adjusted



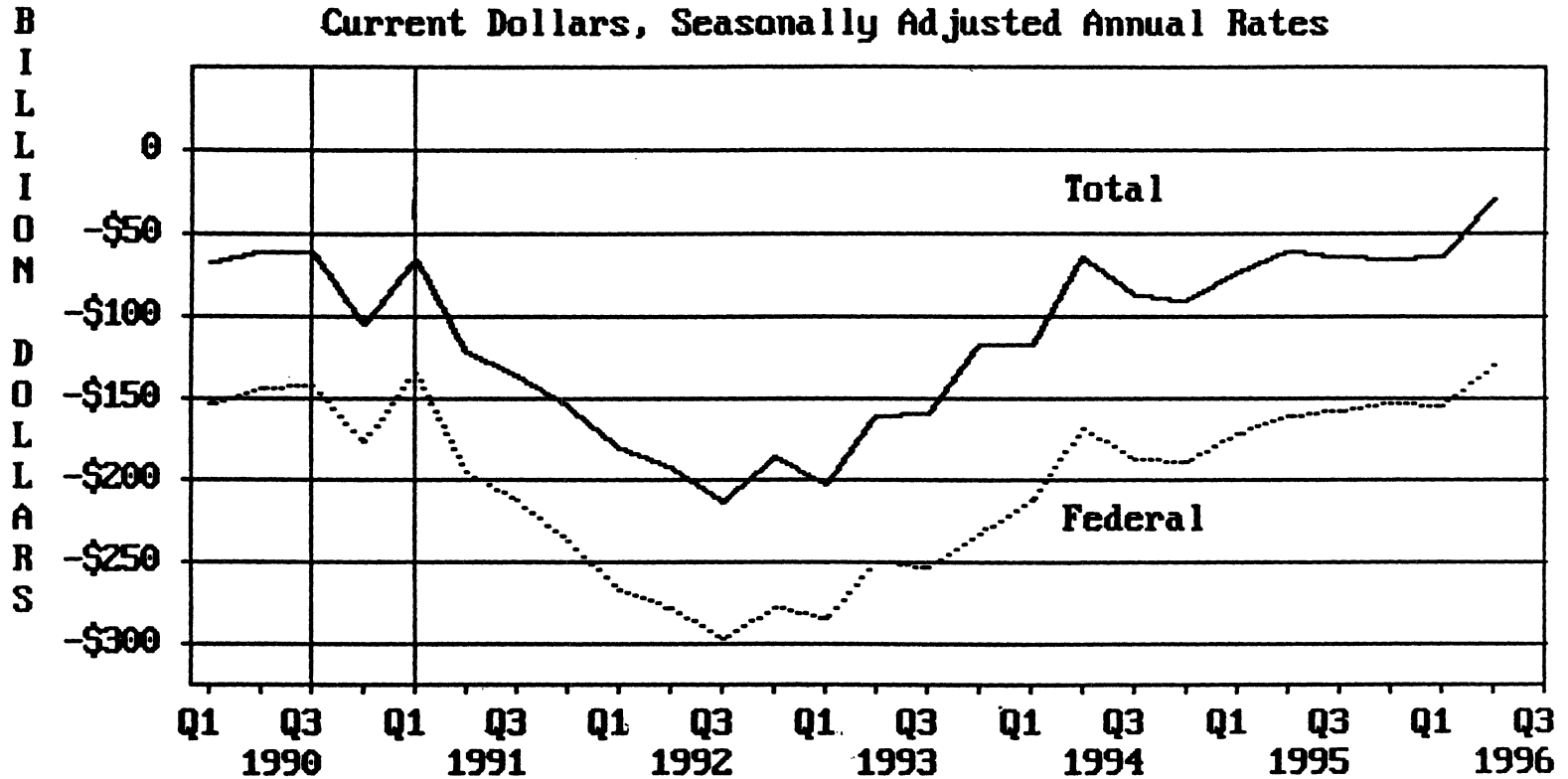
* Break in series. January 1994 figures reflect revised data collection procedures and are not directly comparable with previous data.

Shaded area represents a period of business recession.

Prepared by Federal Reserve Bank of St. Louis

CHART 2
GOVERNMENT DEFICITS (-) OR SURPLUSES (+)

Current Dollars, Seasonally Adjusted Annual Rates



Notes: The chart shows the budget balance for federal, state and local governments (line) and the federal government alone (dot). National income accounts basis, seasonally adjusted annual rates. The vertical lines show the 1990-91 recession.

Sources: Haver Analytics; Heinemann Economic Research

TIGHT MONEY

H. Erich HEINEMANN
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On January 31, 1996, in a move that it described as “a slight easing of monetary policy,” the Federal Reserve cut its target for short-term interest rates by a quarter point to 5.25 percent and cut the discount rate by the same amount to 5 percent.

These actions, still in effect today, had the following result: Total bank reserves, the raw material for the money supply, have dropped at an annual rate of about 9 percent. This contraction, a record for such a period, exaggerates the Fed’s tight money because of distortions created by so-called retail sweep accounts. Retail sweeps are computer-driven manipulations of personal checking accounts that banks use to lower the amount of non-interest-bearing reserves they must keep on deposit at Federal Reserve banks.

Fed policy continues restrictive even after taking retail sweeps into account. Sweep-adjusted total reserves rose at an annual rate of only 1 percent from January through the first half of August, about the same as over the past two years. By historical standards, that fits the definition of tight money.

More critical, the long-term, 36-month growth rate of sweep-adjusted reserves is now just 1.8 percent, down sharply from a peak of almost 14 percent in 1993. A similarly precipitous drop in reserve growth from 1987 through 1990 set the stage for the last recession (chart).

BACKGROUND ON RETAIL SWEEPS

Retail sweeps involve interest-bearing individual demand deposits, which Federal Reserve statisticians inelegantly call “other checkable deposits.” Practically all retail sweep activity is at commercial banks. Thus, changes in other checkables at commercial banks (reported every week in the the H.6 money supply release) provide a useful basis to estimate retail sweeps. The reported level of other checkables at commercial banks has dropped about \$78-billion in the past year, while similar deposits at thrift institutions were unchanged.

In preparing the data that underlie the chart, I subtracted the reported level of other checkables at commercial banks from the peak of slightly more than \$300-billion in July 1994. The resulting data (with sign reversed) track the Fed's official numbers on retail sweeps closely and have the advantage that they are available contemporaneously.

To figure sweep adjusted reserves, I added approximately 8 percent of my estimate of retail sweeps to total adjusted reserves as reported on the Federal Reserve Board's H.3 release. Calculation of this percentage follows the procedure developed by the Federal Reserve Bank of Cleveland.

While most banks using retail sweeps have net transaction deposits of more than \$52-million (and thus are subject to a 10 percent reserve requirement), some of these banks are reported to be "nonbound" (their vault cash satisfies their reserve requirements). In such cases, a reserve adjustment is not appropriate. Moreover, the pattern of long-term reserve growth is similar, whether the reserve adjustment percentage is 8 percent or 10 percent.

As a result of these actions, interest-bearing consumer demand deposits are reclassified as "money market deposits," exempt from reserves, instead of "transaction balances," are subject to a 10 percent reserve. Software promoted by the accounting firm of Ernst & Young has played a key role in this development.

Oliver Ireland, associate general counsel of the Fed, says transactions which put "no practical restrictions on the depositors' access to their funds and serve no business purpose other than allowing the payment of higher interest rates through avoidance of reserve requirements" are not permitted.

Nevertheless, last year the Fed staff—with an explicit OK from Federal Reserve chairman Allan Greenspan—opened the door to explosive growth of retail sweeps. First Union Corporation, based in Charlotte, N.C., reportedly was the first large banking organization to win such approval. In mid-August, retail sweeps totaled roughly \$110-billion, up from \$9.9-billion in early 1995. The effect was to cut required reserves for these banks by almost \$10-billion. That was an overall reduction in required reserves of more than 15 percent.

Fed action to cut reserve requirements by so large an amount would normally signal easier money. However, since the Fed confided its move to a few banks, the economic impact may be muted. Growth in the monetary base (reserves and currency), after adjusting for retail sweeps, was 4 percent in the year ended in mid-August. As the SOMC warned in March, a likely result of such slow growth of the monetary base would “be sluggish growth and possible recession.”

THE ECONOMIC OUTLOOK

The National Bureau of Economic Research, the official arbiter of business ups and downs, says that downturn lasted from July 1990 to March 1991. But the number of nonfarm payroll jobs, the most basic economic indicator, did not turn up for another year. The apparent weakness of the economy in 1992—partly due to lingering aftereffects of tight money—was a major factor in George Bush’s defeat and Bill Clinton’s election.

The Conference Board’s Index of Leading Economic Indicators, which is supposed to provide a short-run forecast of business activity, rose at an annual rate of 4.8 percent in the second quarter, one of its strongest performances since the early 1980s. However, the staff of the Federal Reserve Board—together with most other professional forecasters—expects the economy to slow in the second half of 1996.

Based on the record of Fed’s policy session last month, the inside view is that after a sizable advance in activity in the second quarter, growth should moderate to a pace more or less equal to the economy’s estimated potential of 2.5 percent. Fed staffers expect consumer spending to expand at a more moderate pace in line with the growth of disposable income, a rate of roughly 1.8 percent in the first half of this year.

There are cross-currents. Ample amounts of consumer credit and rising common stock prices (which boosts household wealth) should offset persisting consumer concerns about job and retirement security and the restraining effect of high household debt burdens.

Similarly, the Fed expects the recent increase in residential mortgage rates to put a lid on home-building. Nevertheless, construction should remain at a relatively high level so long as individual incomes continue to grow and home ownership remains affordable.

Fed officials also predict that investment in plant and equipment will slow because firms will probably not have to add significantly to capacity. However, spending for computers is likely to remain buoyant as continuing innovations and declining prices stimulate further solid gains.

The outlook for inflation appears to be a puzzle at the central bank. The party line is that on the basis of history the levels of utilization of capital and labor that have prevailed over the past couple of years should have resulted in rising cost pressures and greater inflation. Whether this was a genuine change in the economy, or simply good luck, Fed officials can't say.

THE MISSING LINK

The impact of prolonged monetary restraint (three-year growth of high powered money of only 1.8 percent) was missing from the Fed's discussion. Rather officials saw "a substantial risk that if economic growth did not slow in line with their current forecasts, the resulting added pressures on resources would at some point translate into higher price inflation. Accordingly, the factors bearing on the outlook for resource use and inflation needed to be monitored with special care in this period."

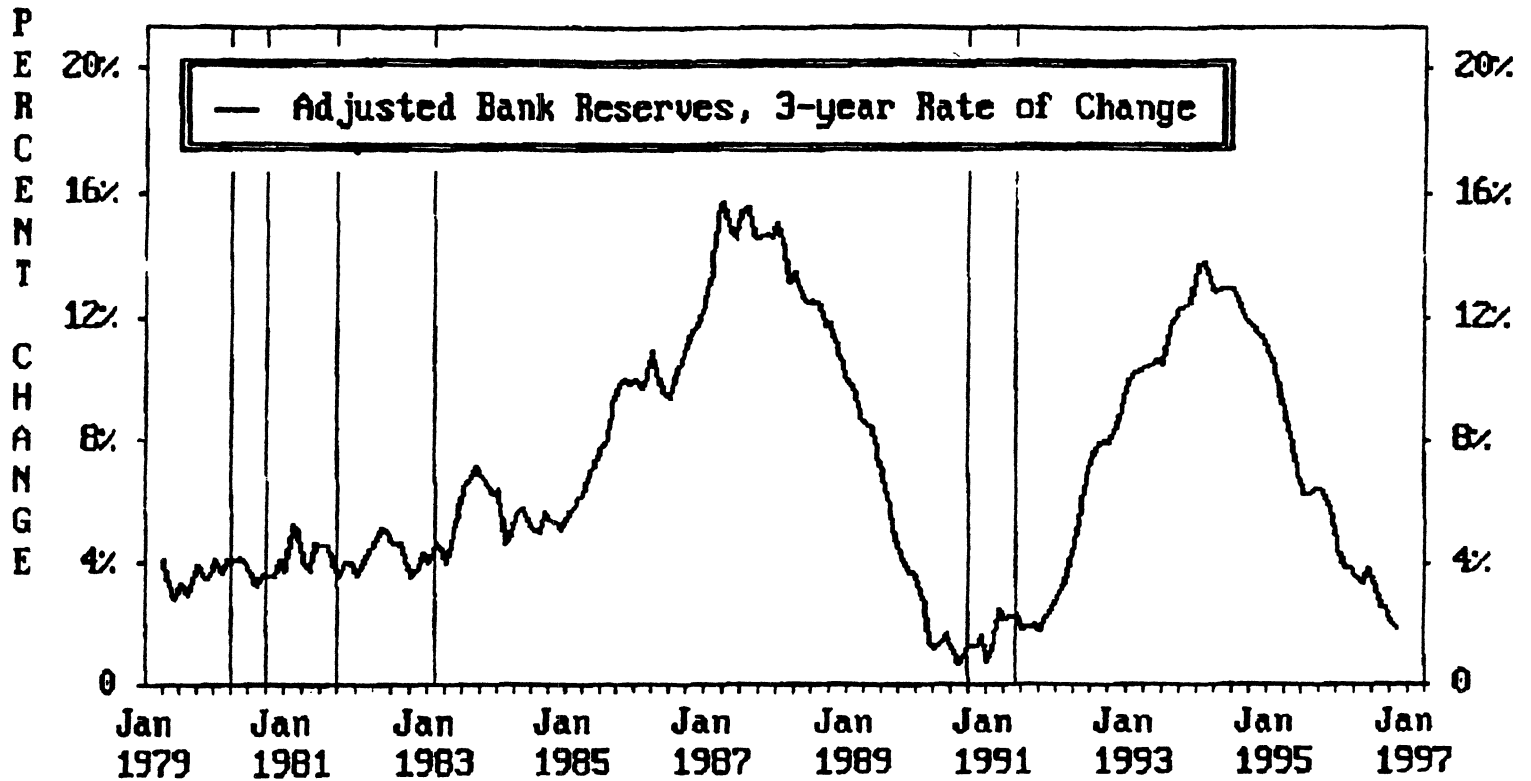
With respect, inflation occurs when the Fed prints too many dollars, not because businesses hire too many workers. The sharp slowdown in monetary expansion during the last three years has already resulted in a parallel deceleration in total spending and a severe profit squeeze in the retail and service industries. These businesses are crucial because they create almost nine of every 10 new jobs in the U.S. As in 1990, when retail and service hiring stops, the overall economy will go into reverse.

At the same time, Washington—which keeps its books by an archaic set of accounting rules that no sensible business would ever use—is obsessed with achieving a "balanced" federal budget.

In reality, the Treasury's operating accounts (revenues minus outlays except for net interest payments) are the best yardstick of the government's impact on the economy. This measure showed a near-record surplus of \$115-billion in the year ended July, a positive swing of more than \$200-billion since President Clinton took office. Investors

should beware. Operating surpluses in the Treasury budget have preceded every recession since World War II.

FULLY ADJUSTED, GROWTH IN BANK RESERVES IS DOWN



Notes: The chart shows the annualized 36-month rate of change in total bank reserves adjusted for shifts in reserve requirements AND retail sweep accounts. FR Board data in current dollars. The vertical lines show periods of recession.

Sources: Haver Analytics; Heinemann Economic Research

A FAVORABLE OUTLOOK:

CONTINUED ECONOMIC EXPANSION AND LOW INFLATION

Mickey D. LEVY
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The expansion is now in its sixth year, but it remains “young” in character, reflecting the sound structure of the economy. Presently, economic performance is well balanced, with the type of characteristics that may potentially disrupt sustained growth largely absent. In particular, there are no glaring imbalances in the goods, labor or capital markets, inflation remains moderate, monetary policy is close to neutrality, and the Federal Reserve’s heightened inflation-fighting credibility has improved efficiency and helped dampen the magnitude of cyclical fluctuations.

After a robust rebound from the cyclical slowdown in 1995, the economy is beginning to moderate from its 3.4 percent growth rate in the first half of 1996. Real GDP is projected to grow at a 2.25 percent rate in the second half of 1996 and approximately the same in 1997. Inflation is expected to remain flat in the second half of 1996 and recede modestly in 1997. Reflecting these fundamentals and the Fed’s low inflation objective, interest rates are projected to stay low.

Even though the federal budget deficit has receded significantly—it is estimated to be below \$120-billion in fiscal year 1996, or 1.6 percent of GDP, the lowest since 1974—the two largest problems threatening long-run economic performance stem from fiscal policies that require reform: first, the low rate of national saving and the resulting wide current account deficit, which are generated in part by the tax bias against saving and second, the unfunded liability of future Social Security obligations and the projected exploding costs of Medicare and Medicaid. The reduced cash-flow deficit must not impede necessary reform of these entitlements and the tax bias.

HEALTHY ECONOMIC PERFORMANCE

The surprisingly strong economic rebound in the first half of 1996 represented a healthy transition from the cyclical weakness in 1995. Most importantly, it was not

generated by an inappropriate shift to monetary stimulus, but instead has been enabled by the rapid and efficient adjustment in the goods, labor and capital markets. This contrasts favorably to recent rebounds from cyclical slumps that were driven primarily by aggressively stimulative monetary policy that inevitably generated excess demand and imbalances that required monetary reversal.

To be sure, the sharp decline in real interest rates in late 1995 helped stimulate the rebound, but that was a financial market response to the economic slowdown, declining inflation expectations and optimism about the federal budget package; at the same time, the Fed's three easings of the funds rate—from 6 percent to 5.25 percent—involved moving monetary policy from restrictive to neutral, with a moderate acceleration of the monetary aggregates. This financial adjustment was accompanied by a very efficient response by nonfinancial businesses. As the monetary tightness slowed demand in 1995, businesses rapidly trimmed production and labor inputs, with several favorable outcomes. The buildup in undesired inventory building was limited. The entire inventory adjustment process was concluded in 1996 Q1, taking one year rather than the normal two. Productivity continued to grow, in contrast to previous cyclical slumps, constraining unit labor cost inflation and sustaining growth in corporate profits and cash flows. At the same time, real interest rates fell to reflect the cyclical weakness in real economic performance. These rapid adjustments helped to avoid potentially disruptive imbalances and created the healthy basis for economic growth to rebound to trendline. At the same time, the combination of lower rates, corporate efficiencies and healthy profit growth contributed to a strong stock market and rising household financial wealth.

Importantly, the Fed's heightened inflation-fighting credibility played a key role in facilitating the efficient adjustments in the nonfinancial and financial sectors that enabled both the soft-landing in 1995 and the healthy rebound in 1996. By remaining on a predictable, disinflationary path, the Fed has encouraged the business sector to respond quickly and efficiently to changes in overall demand, providing a moderating influence on cyclical fluctuations.

Monetary policy remains close to neutral. Adjusting for the Fed's estimates of the impact of sweep accounts, the monetary aggregates rebounded from their decelerations in

1994-95, but have begun to stabilize, with the exception of the monetary base, which continues to accelerate due to a jump in currency. Sweep adjusted bank reserves have grown 7.8 percent year-over-year, but their 3-month annualized growth has slowed to 3.2 percent; the year-over-year and 3-month growth rates of the monetary base are 4.9 percent and 7.1 percent; M1, 4.7 percent and 3.2 percent; and M2, 4.5 percent and 1.9 percent. The real funds rate remains higher than its long-run average and the yield curve has reassumed a mildly positive slope. These monetary conditions point toward approximately 4.5-5.0 percent growth in nominal GDP, a deceleration from the 6.7 percent annualized growth in 1996 Q2 and consistent with trendline growth and stable inflation. The Fed may need to raise its funds rate target in order to slow nominal demand growth, but current conditions suggest that maintaining a disinflationary monetary policy would require a modest adjustment, if any, rather than a series of tightenings.

In the first half of 1996, domestic final sales rose 4.5 percent annualized, compared to 1.4 percent in the second half of 1995, while final sales including the net export sector rose 3.6 percent, compared to 2.5 percent in the second half of 1995. Real consumption grew at a healthy 3.4 percent pace, while business fixed investment accelerated to 5.9 percent growth. A robust housing market generated strong growth in residential investment. Real government purchases rose at a 4.9 percent clip, more than reversing the decline in the second half of 1995. Following the \$3-billion inventory liquidation in 1996 Q1, capping an inventory adjustment that subtracted 0.8 percent from GDP growth from 1994 Q1 to 1995 Q1, inventories rose a modest \$7.2-billion in 1996 Q2. This reflects the cautious business response to healthier product demand and the rebound of auto production from the weather-related weakness in 1996 Q1.

Labor inputs jumped sharply with the rise in economic activity: monthly employment gains averaged 237,000 in the first half of 1996, compared to 173,000 in the second half of 1995. Employment in manufacturing stabilized, following steep declines. Aggregate hours worked rose at a 2.7 percent annualized rate from 1995 Q4 to 1996 Q2, after rising at a 2.1 percent rate in the second half of 1995. With output growth exceeding the rise in aggregate hours worked, productivity in the nonfarm business sector

rose at an understated 0.8 percent annualized rate; consistent with its recent pattern, productivity in manufacturing remained very strong, growing at a 4.2 percent pace.

The robust growth of domestic final sales is beginning to moderate. With inventories lean and production catching up to demand, the slowdown is unfolding in housing and durable goods consumption, typical swing sectors. In response to the sharp rise in real interest rates, sales of existing and new homes have flattened in recent months, and while still firm, new housing starts have fallen 6.4 percent from their April peak. With a lag, this slowdown in housing activity will extend recent weakness in consumption of household durables.

Real consumption has flattened, with retail sales declining 0.6 percent in June and remaining unchanged in July. In both months, unit auto sales fell and department store sales were sluggish. As a result, through July, real consumption remained below its 1996 Q2 average. However, the weakness in auto sales reflected in part insufficient inventories; as such, the June-July decline overstated the slowdown in demand. Sales rebounded in August, but real consumption growth in 1996 Q3 will be approximately one-half its pace in the first half of 1996.

Real final sales growth is projected to average approximately 2 percent in the second half of 1996. However, real GDP growth should be closer to 2.5 percent, as businesses cautiously build inventories. Based on trendline growth of sales, inventory building must rise simply to prevent a further decline in the inventory/sales ratio.

The underlying sound economic structure and neutral monetary policy support sustained healthy growth, and although economic growth is moderating, factors point toward a subsequent rebound toward trendline rather than a continued deceleration. The Fed seemingly remains committed to low inflation; business production is flexible and inventories are low; rising profits and cash flows are contributing to healthy corporate balance sheets; rising business investment is expanding capacity; employment is growing and labor markets seem more flexible than ever; and the moderate growth of nominal GDP suggests that there is little excess demand in the economy. Of course, an increase in inflationary expectations, a supply shock, or inappropriate economic policies may jar

conditions; regarding the latter, it is imperative that the Fed continue to pursue its low inflation objective in an even-handed manner.

INFLATION FUNDAMENTALS REMAIN FAVORABLE

Following the decline in inflation from its 6.3 percent peak in 1990, the battle against inflation has been marked by three defining events: first, the Fed's pre-emptive tightening in 1994; second, defying virtually all forecasts, the nonacceleration of inflation in 1995; and third and still unfolding, a stable inflation rate while the unemployment rate has fallen well below earlier standard estimates of the nonaccelerating inflation rate of unemployment (NAIRU).

All of these events have been desirable. The first broke the Fed's typical approach of waiting until inflation pressures actually surface before tightening, while stable inflation in 1995 precluded the Fed's tendency to over-tighten during economic upswings. Combined, these breaks with historical cyclical patterns have contributed significantly to the Fed's inflation-fighting credibility and helped it orchestrate an economic soft-landing in 1995. The third has clouded the standard perception that low unemployment rates and strong real economic growth necessarily generate higher inflation and has brought into question the inflation process. We encourage a reevaluation of the standard framework in which inflation forecasts are based primarily on real growth, a comparison of the actual unemployment rate with estimates of the NAIRU, and associated calculations of the GDP gap. Instead, inflation analysis should focus on measures of excess aggregate demand, and the implications of monetary policy for nominal spending growth relative to the economy's growth capacity.

Recently, with the exception of the upward tilt in wages, inflation statistics remain favorable. Consumer price inflation has not accelerated: year-over-year the CPI has risen 2.9 percent and 2.7 percent excluding food and energy, while producer prices for finished goods have risen 2.6 percent, 1.5 percent excluding food and energy. The core PPI for intermediate and crude goods is declining year-over-year, and other indicators of pipeline pressures, such as supplier delivery times and unfilled orders, remain rather subdued. Prices of imported goods and services are also declining, while industrial

commodity prices are close to last year's levels. Finally, increases in the GDP deflator have receded toward 2 percent.

We're not surprised by the favorable inflation news, and project inflation to remain in its recent range through year-end 1996 and dip modestly in 1997. This assessment is based on the Fed's disinflationary monetary policy that has generated moderate growth in nominal GDP and the assumption that the Fed will continue to pursue its low inflation objective.

Inflation is generated by excess demand, not low unemployment or strong economic growth. The Fed's disinflationary monetary policy has slowed nominal spending and squeezed excess demand. Since the early 1980s, each succeeding cyclical peak in nominal GDP growth has been lower, and the 3.8 percent year-over-year growth through 1995 Q4 was not too far above the nation's long-run growth capacity. While nominal GDP growth accelerated to 5.4 percent in the first half of 1996, it is projected to decelerate to approximately 4.5-5 percent in the second half of 1996 and 1997.

The slowdown in demand growth constrains businesses from raising prices without losing market share and forces them to limit unit labor cost increases. Stronger demand for certain goods and services has enabled selective price hikes faster than the CPI, but weaker demand for other goods and services has generated more modest price increases or outright declines. For example, prices of apparel products have declined 0.1 percent in the last year. The 2.0 percent year-over-year decline in prices of nonpetroleum imports indicates that the lack of excess demand in domestic markets, along with the stronger U.S. dollar, similarly has constrained foreign producers.

Tight labor markets have begun to exert modest upward pressures on wage compensation. The employment cost index rose 3.0 percent annualized in the first half of 1996, slightly faster than its 2.6 percent pace in the second half of 1995, but the wage portion of total compensation rose at a faster 3.9 percent annualized rate. While persistently robust productivity gains in the manufacturing sector (4.0 percent in the last year and 3.4 percent annually since 1991) continue to generate declining unit labor costs, more modest productivity gains in the nonfarm business sector (0.7 percent in the last year) have resulted in a modest uptick in ULC inflation—3.1 percent in the last year.

However, there is strong reason to believe that productivity gains in the service-producing sectors are understated, which results in an overstatement of ULC inflation. Illustrating these measurement problems, there are clear inconsistencies between corporate margins and profits on the one hand and official productivity statistics on the other.

Importantly, rising wages are not the source of higher inflation, nor are they a necessary or sufficient condition for higher inflation. Wage increases matched by productivity gains do not push up ULCs. Without excess demand, which is a function of monetary policy, rising wages and ULCs will not generate higher consumer price inflation, but will squeeze profit margins and raise the labor share of GDP at the expense of the capital share.

With labor markets beginning to display signs of tightness, the Fed must continue to pursue its low inflation objective and constrain excess demand. Any sustained acceleration of nominal GDP growth would be conducive to continued wage pressures and rising consumer price inflation. However rising real wages or strong real economic growth do not necessarily imply excess demand, and this distinction is important to the Fed's successful pursuit of low inflation and public support of that objective.

FINANCIAL MARKET TRENDS

Real interest rates rose and the coupon yield curve flattened modestly in the first half of 1996 with the reacceleration of real economic growth and the market's shift from expecting further Fed easing in late 1995 to expecting that the Fed would tighten in Spring 1996. Interest rates have receded from their peaks with the emerging evidence of moderating economic growth and continued signs of stable inflation. While yields are not far from fair value based on current economic and inflation conditions, recently, bond prices have gyrated within a trading range, as the fickle financial markets frequently have shifted their expectations between the need for the Fed to tighten policy and a neutral Fed outlook.

With monetary policy close to neutrality, economic performance healthy with growth moderating and inflation stable, we expect that any change in the Fed's funds rate

target will be modest; current conditions do not merit significant changes. We would encourage the Fed to tighten in response to a sustained pickup in money growth or a sustained acceleration of nominal GDP growth.

One long-run outlook calls for gradually lower Treasury bond yields, reflecting trendline economic growth and the Fed's commitment to low inflation.

FEDERAL BUDGET AND FISCAL POLICY

The federal budget deficit is projected to shrink to approximately \$118-billion in Fiscal Year 1996, or 1.6 percent of GDP, its lowest share since 1974. Excluding net interest outlays, the primary budget is in substantial surplus (approximately \$120-billion); the last primary surplus occurred in 1989. The vast turnaround since the early 1990s is attributable to the reversal of the impact on the cash-flow budget of the RTC bailout of the thrift industry, the significant legislated tax hikes in 1990 and 1993, selected spending cuts (particularly the persistent decline in inflation-adjusted defense outlays), sustained economic growth, and low interest rates. The sharp deficit decline in 1996 stems from the rapid 7.0 percent growth in tax receipts generated by solid employment and personal income growth and the slow 3.1 percent growth in government outlays due to lower-than-expected spending on mandatory medical programs.

Under current law, the budget imbalance is projected to widen in 1997 and beyond. As usual, the primary culprits are spending items: first, projected persistent rapid growth of Medicare and Medicaid will overwhelm the impact of legislated cuts in discretionary programs, and second, spending on discretionary programs is projected to reaccelerate with the scheduled removal of the legislated caps in 1998.

Despite the narrowing of the deficit, key elements of fiscal policy remain misdirected and are obstacles to healthy long-run economic expansion. First, while deficits have shrink, a declining portion of spending is allocated to investment-oriented activities and an ever-larger share goes to transfer payments that fuel consumption. The continued decline of taxes less transfers as a percent of GDP reflects the increasingly redistributive role of the federal budget. At the same time, current tax policy accentuates this misallocation by encouraging consumption, while discouraging work

effort and distorting certain investment decisions. These tax and spending structures sap economic growth. Recent efforts to reduce deficits have contributed to this undesirable allocation of resources by raising taxes while leaving key entitlement programs off the bargaining table, which has resulted in a squeeze on discretionary programs that tend to be investment-oriented.

Second, the tax bias against saving is a primary source of the gap between national saving and investment that underlies the huge current account deficit and the associated reliance on foreign capital inflows. Although the United States has the lowest budget deficit as a percent of GDP among major industrialized nations, it also has the lowest rate of saving and highest current account deficit. We're not surprised: it also has the heaviest reliance on income-based taxation; other nations rely more on consumption-based taxes that reduce the tax bias against saving. In this regard, as we have argued before, the "twin deficit" framework popularized in the 1980s didn't make economic sense, insofar as the gap between national saving and investment (the current account deficit) depends not just on the budget deficit (a proxy for the government's dissaving but on the allocative effects of the tax and spending structures on incentives to save and invest. The Clinton Administration's 1993 deficit-cutting package is illustrative: it contributed to lower deficits, but its heavy reliance on tax increases suppressed private saving, thereby constraining net national saving; its impact has been to redistribute resources, while producing an historically large current account deficit.

Third, while the cash-flow budget deficit has declined, the unfunded liabilities of social security and soaring future costs of Medicare are startlingly large and mounting. They represent such an enormous financial burden on future taxpayers that without corrective action, including major reform of Social Security's current pay-as-you-go funding system and the strict constraints on investing its trust funds, future economic performance will be strangled. In terms of long-run economic performance, the adverse economic consequences presented by the current structure and these unfunded liabilities, even though they do not appear in the budget, dramatically overwhelm the recent shrinkage in the cash-flow deficit.

The final report of the quadrennial Social Security Advisory Council will offer three options, the most promising of which proposes moving toward a two-tiered system, with the first tier providing a flat retirement benefit for full-career workers financed by a portion of the current social security payroll tax, and the second a system of mandatory personal savings accounts that would be the basis for a fully funded retirement system in which participants would be free to choose among an array of investments and financial institutions. This reform would represent a dramatic improvement over the current system that relies on an unstable and unpredictable financing scheme in a number of key respects. Most importantly, it would replace the current, fragile pay-as-you-go financing scheme that is the source of massive unfunded liabilities and undesirable intergenerational inequities with a fully funded system that can withstand shifts in demographic conditions and economic performance. Allowing personal flexibility in investment decisions is highly favorable.

A BRIEF COMMENT ON BOB DOLE'S PLAN FOR ECONOMIC GROWTH

If fully implemented as proposed, Dole's economic plan would raise actual and potential economic growth, although by an uncertain amount, likely by less than advertised. That's okay: a seemingly small increase in economic growth, if sustained, would yield substantial increases in standards of living. For example, raising economic growth by one-quarter of a percentage point per year for 20 years would raise real GDP in the 20th year by 4.75 percent, or as much as \$500-billion in 2016 in 1992 chain-weighted terms.

Lowering marginal income tax rates by 15 percent in three steps would raise after-tax disposable income and encourage work, saving and investment; lowering taxes on capital gains would raise expected after-tax rates of return and positively influence investment, although the magnitude of the impact is uncertain. Dole's \$500 per child tax credit, similar to an earlier proposal of the Clinton Administration, is ill-advised: it is expensive and would only boost disposal incomes of certain taxpayers at the expense of others (current or future) and fuel current consumption (as well as fertility) without lifting long-run economic growth.

Balancing the budget while implementing these tax reductions would necessarily require sizable cuts in entitlement programs; further cuts in discretionary programs would be insufficient while budget projections relying on unrealistically strong economic growth would not be credible. Herein lies a dilemma: while entitlement program reform is necessary, the proper objective of reform is to restructure programs to make them efficient, financially sound, and fair for the long run. Attempts to squeeze short-run savings from these programs may be inconsistent with true reform and fairness. This is particularly true of social security.

The credibility of the plan is crucial to its success in raising long-run economic growth. As we have argued continuously, what is most important for economic performance is how the tax and spending structures allocate national resources and affect incentives rather than the size of the deficit. In this regard, the economic impact of the Dole plan is not dictated by its effect on the deficit. On the other hand, the impact of the economic incentives provided by tax reduction depend on the credibility that those tax cuts are permanent. A tax cut not matched by spending cuts may be perceived as temporary, leading to some short-run stimulative impact on consumption but not raising long-run economic growth. A tax cut perceived as permanent would raise long-run standards of living. Thus, the close popular scrutiny of the deficit requires offsetting credible spending cuts to ensure success.

The Dole plan would reduce but not eliminate the tax bias against saving by lowering marginal rates and reducing capital gains taxation, which crudely (if imperfectly) adjusts for the current overtaxation of capital gains. While ideal tax reform would involve changing the structure to tax consumption rather than income, which would make capital gains taxation a moot issue, the Dole plan is an improvement over current tax policy. The Clinton Administration recommends no material change from current income tax policy.

Neither Dole nor President Clinton proposes social security or Medicare reform. Unfortunately, this reflects another victory for political expediency, as the economic costs of delay continue to mount.

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Economic and Financial Perspectives

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SOMC
SEPTEMBER 8-9, 1996

Table 1
Selected Indicators of U.S. Economic Soundness

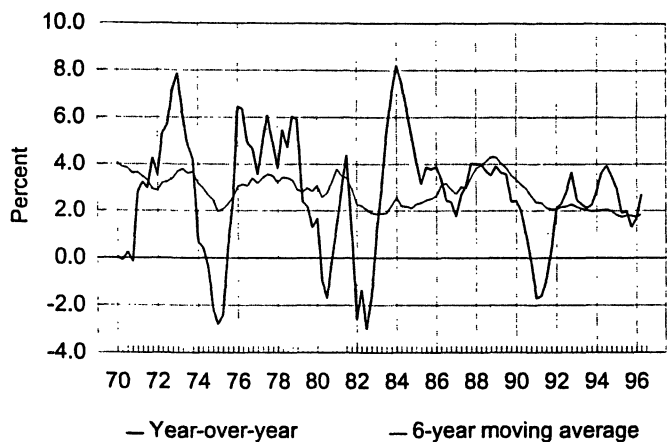
- △ Low unit labor costs in United States versus other G-7 nations
 - △ Low unit labor cost inflation
 - △ Moderate consumer price inflation and Federal Reserve commitment to low inflation
 - △ Low and manageable inventories and flexible production
 - △ Strong corporate profits and cash flows
 - △ Healthy corporate balance sheets
 - △ Healthy and well capitalized banking sector
 - △ Strong business investment expands capacity
 - △ Moderating nominal GDP growth and lack of excess demand
 - △ Flexible labor markets
 - △ Declining federal budget imbalance
- Long-run structural problems
- ▽ Large unfunded liability of Social Security and exploding medical care costs
 - ▽ Tax bias against saving and large current account deficits

Summary: no major imbalances in the goods, labor, or capital markets that would potentially interrupt economic expansion

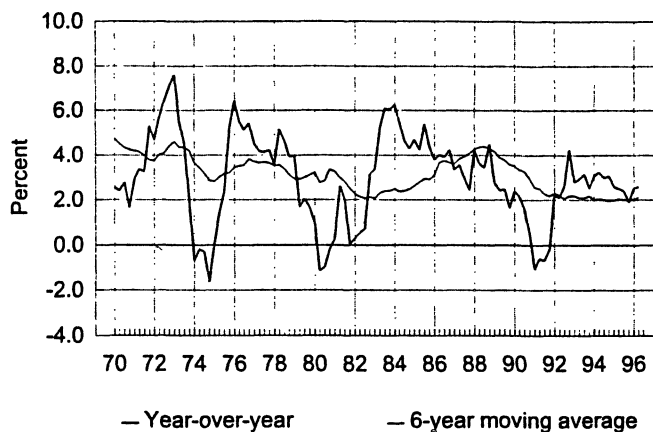
Chart 1

Trends and Cyclical Fluctuations in Economic Performance

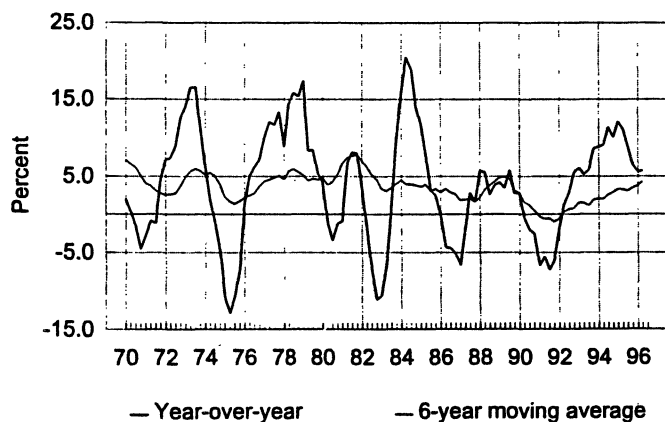
Real GDP



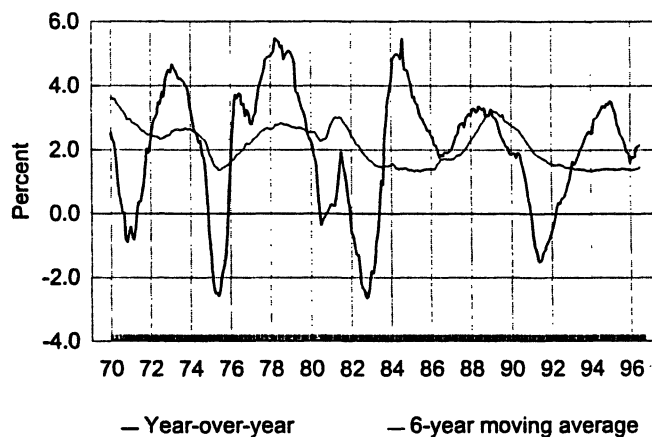
Real Consumption



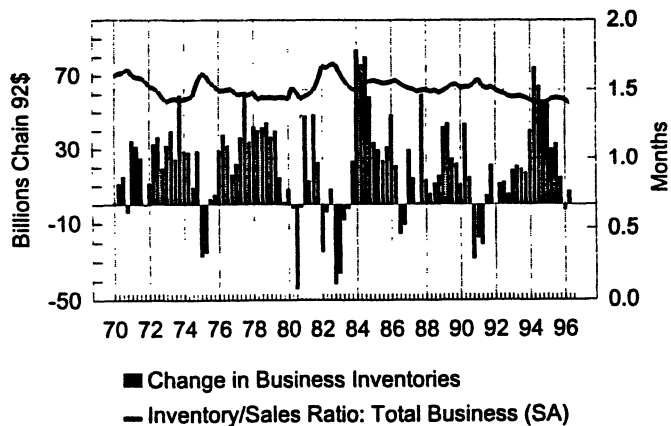
Real Business Fixed Investment



Employment



Inventory Building



Inflation

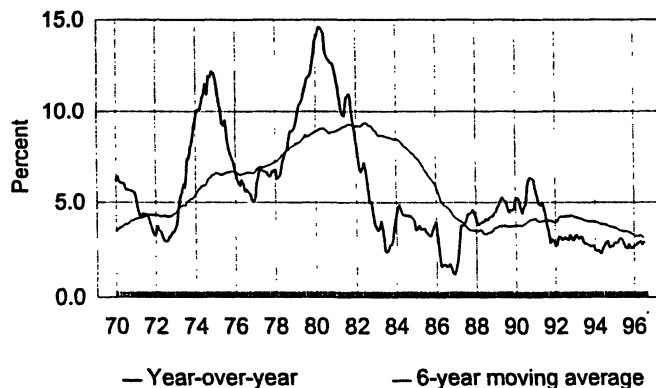
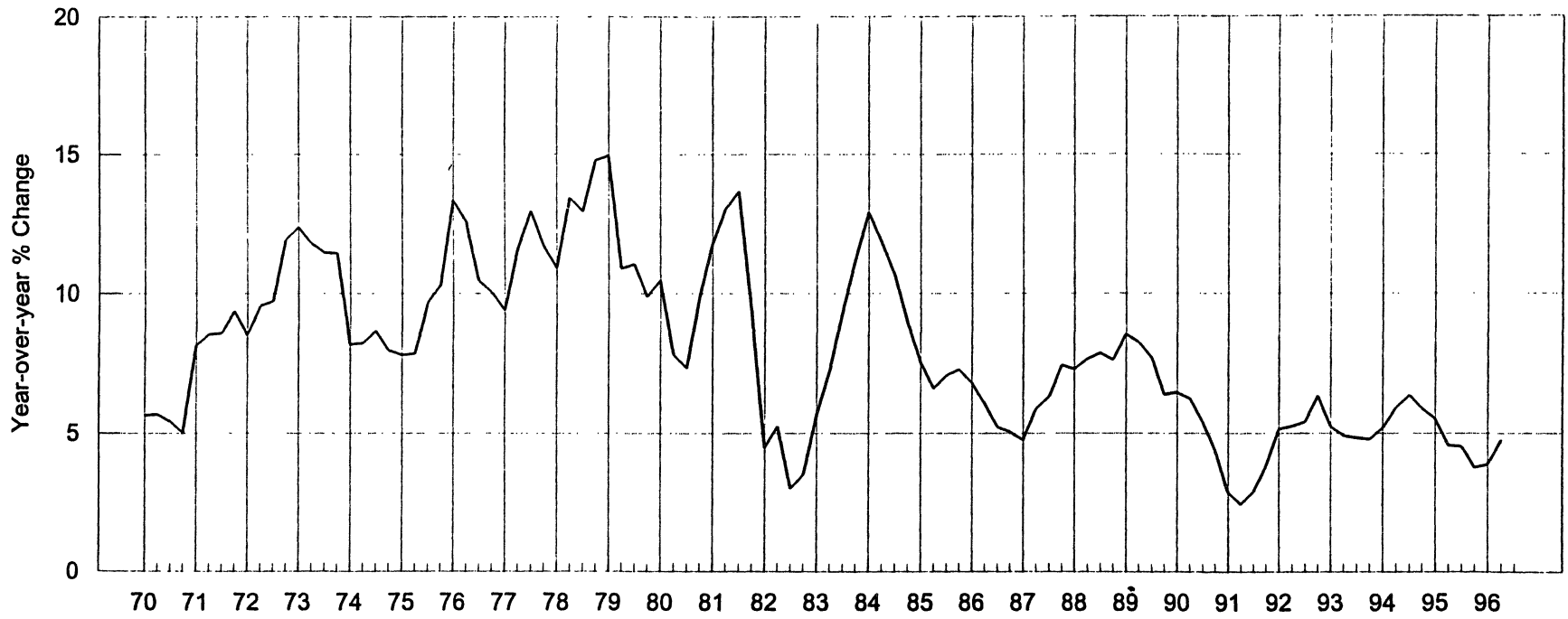


Chart 2

The Growth Rate of Nominal Spending



S N A P S H O T

QUARTERLY DATA	Levels				Quarterly % Change (annualized)				Yr-to-Yr % Change			
	1995		1996		1995		1996		1995		1996	
	Q3-95	Q4-95	Q1-96	Q2-96	Q3-95	Q4-95	Q1-96	Q2-96	Q3-95	Q4-95	Q1-96	Q2-96
Nominal GDP	7309.8	7350.6	7426.8	7547.6	6.0	2.3	4.2	6.7	4.5	3.8	3.9	4.8
GDP	6776.4	6780.7	6814.3	6894.5	3.8	0.3	2.0	4.8	2.0	1.3	1.7	2.7
Domestic Demand	6874.8	6862.9	6914.6	7005.5	2.6	-0.7	3.0	5.4	1.8	1.0	1.4	2.6
Final Sales	6741.4	6764.2	6815.2	6886.4	3.6	1.4	3.1	4.2	2.4	1.9	2.5	3.1
Domestic Final Sales	6839.7	6846.4	6915.5	6997.4	2.4	0.4	4.1	4.8	2.2	1.6	2.2	2.9
Disposable Personal Income	4959.5	5012.9	5037.6	5057.2	4.3	4.4	2.0	1.6	3.1	3.1	2.7	3.1
Consumption	4597.3	4609.4	4649.1	4688.1	2.4	1.1	3.5	3.4	2.4	1.9	2.5	2.6
Residential Investment	262.2	266.3	271.1	281.3	9.2	6.4	7.4	15.9	-3.0	-1.5	2.0	9.7
Business Investment	719.0	723.3	743.5	750.9	4.9	2.4	11.6	4.0	8.9	6.4	5.6	5.7
Inventory Investment	33.0	14.6	-3.0	7.2	NA	NA	NA	NA	NA	NA	NA	NA
Government Purchases	1263.4	1249.6	1254.7	1279.8	-0.5	-4.3	1.6	8.2	-0.6	-1.3	-0.6	1.2
Exports	783.0	803.1	806.7	816.2	10.8	10.7	1.8	4.8	8.8	7.4	7.2	6.9
Imports	884.5	888.0	910.7	931.4	-0.0	1.6	10.6	9.4	6.4	4.2	4.1	5.3
Current Account	(c) -37.7	-30.4	-35.6	NA	3.3	7.3	-5.2	NA	2.3	12.2	3.5	NA
GDP Deflator	107.9	108.4	109.0	109.6	2.3	1.9	2.2	2.2	2.6	2.5	2.2	2.1
Employment Costs (Private)	126.1	126.9	127.8	128.8	2.6	2.6	2.9	3.2	2.7	2.8	2.7	2.8
Unit Labor Costs (Non-Farm)	106.8	108.2	108.6	109.6	1.9	5.3	1.5	3.7	3.2	3.7	2.8	3.1
Productivity (Non-Farm)	101.8	101.5	102.0	102.0	2.0	-1.2	2.0	0.0	0.8	0.3	1.2	0.7
Compensation (Non-Farm)	108.8	109.9	110.7	111.8	4.1	4.1	2.9	4.0	4.0	4.2	3.9	3.8
Corporate Profits A/T	(a) 382.8	385.5	408.8	407.4	2.0	0.7	6.0	-0.3	10.2	7.4	8.4	8.6
Operating Profits A/T	(a) 612.5	611.8	645.1	653.8	8.9	-0.1	5.4	1.3	10.7	7.2	15.2	16.3
Net Cash Flow	(a) 625.8	630.8	654.8	657.6	1.4	0.8	3.8	0.4	5.9	5.0	6.1	6.6
MONTHLY DATA	Levels				Monthly % Change				12 Month % Change			
	May-96	Jun-96	Jul-96	Aug-96	May-96	Jun-96	Jul-96	Aug-96	May-96	Jun-96	Jul-96	Aug-96
	Purchasing Managers Index	49.3	54.3	50.2	52.6	-1.6	10.1	-7.6	4.8	5.3	17.3	-1.6
Non-Farm Payrolls	(b) 119,335	119,554	119,782	120,032	407	219	228	250	2.08	2.10	2.20	2.16
Manufacturing Payrolls	(b) 18,302	18,297	18,270	18,295	19	-5	-27	25	-1.17	-1.06	-0.96	-0.78
Unemployment Rate	(c) 5.6	5.3	5.4	5.1	0.2	-0.3	0.1	-0.3	0.0	-0.3	-0.3	-0.5
Average Workweek (sa)	34.2	34.7	34.3	34.4	-0.3	1.5	-1.2	0.3	0.0	0.9	-0.6	0.0
Avg. Hourly Earnings (sa)	11.73	11.83	11.81	11.87	0.1	0.9	-0.2	0.5	3.3	3.5	3.0	3.6
Total Vehicle Sales, incl. Lt. Truck	15.8	15.1	14.2	NA	9.0	-4.1	-6.1	NA	10.1	1.6	-2.3	NA
Domestic Unit Auto Sales	8.0	7.4	7.0	NA	11.8	-7.2	-6.0	NA	15.9	3.3	-2.2	NA
Industrial Production	125.2	126.0	126.2	NA	0.6	0.6	0.2	NA	3.2	3.8	3.9	NA
Capacity Utilization	83.2	83.4	83.2	NA	0.2	0.2	-0.2	NA	-0.6	-0.1	-0.1	NA
PPI	130.8	131.0	131.0	NA	-0.1	0.2	0.0	NA	2.3	2.7	2.6	NA
PPI Ex. Food & Energy	141.8	142.1	142.2	NA	0.0	0.2	0.1	NA	1.6	1.6	1.5	NA
CPI	156.7	156.8	157.2	NA	0.3	0.1	0.3	NA	3.0	2.8	2.9	NA
CPI Ex. Food & Energy	165.3	165.6	166.1	NA	0.2	0.2	0.3	NA	2.7	2.7	2.7	NA
Retail Sales	205.7	204.5	204.7	NA	0.8	-0.5	0.1	NA	5.7	4.3	4.7	NA
Housing Starts	1478	1474	1455	NA	-2.2	-0.3	-1.3	NA	13.7	13.3	0.3	NA
Permits	1452	1415	1457	NA	-0.5	-2.5	3.0	NA	15.4	9.7	7.3	NA
Federal Budget Surplus/Deficit	(d) -53.3	34.1	-27.1	NA	-13.7	21.3	-13.5	NA	-136.5	-115.2	-128.7	NA
Durable Goods Orders	170.3	170.0	172.9	NA	4.2	-0.2	1.7	NA	7.9	8.8	11.2	NA
Manufacturing Orders	314.2	312.1	317.6	NA	2.3	-0.7	1.8	NA	6.2	6.1	8.2	NA
Personal Income (\$)	6404.9	6460.1	6467.1	NA	0.5	0.9	0.1	NA	5.7	6.0	5.5	NA
Personal Outlays (\$)	5320.2	5302.1	5312.1	NA	0.8	-0.3	0.2	NA	5.2	4.2	4.4	NA
Personal Saving Rate	(c) 4.2	5.3	5.3	NA	0.6	1.1	0.0	NA	0.0	1.2	0.7	NA
Leading Economic Indicators	102.4	102.9	103.1	NA	0.2	0.5	0.2	NA	1.3	1.6	2.0	NA
Total Business Inventories	997.0	997.2	NA	NA	-0.1	0.0	NA	NA	2.8	2.4	NA	NA
Inventory/Total Sales	(c) 1.39	1.40	NA	NA	-0.02	0.01	NA	NA	-0.04	-0.03	NA	NA
International Trade	(c) -10.5	-8.1	NA	NA	-0.9	2.4	NA	NA	-0.1	2.5	NA	NA
3 Month Bill	(c) 5.02	5.09	5.15	5.05	0.07	0.07	0.06	-0.10	-0.65	-0.38	-0.27	-0.35
2 Year Note	(c) 6.10	6.30	6.27	6.03	0.14	0.20	-0.03	-0.24	-0.07	0.58	0.49	0.05
10 Year Note	(c) 6.74	6.91	6.87	6.64	0.23	0.17	-0.04	-0.23	0.11	0.74	0.59	0.15
30 Year Bond	(c) 6.93	7.06	7.03	6.84	0.14	0.13	-0.03	-0.19	-0.02	0.49	0.31	-0.02
DJIA	5616.7	5671.5	5496.3	5685.5	0.7	1.0	-3.1	3.4	27.9	25.7	17.3	22.6
S&P 500	661.23	668.50	644.07	662.68	2.3	1.1	-3.7	2.9	26.2	23.9	15.6	18.5
U.S. Dollar (FRB)	88.3	88.2	87.3	86.5	0.9	-0.1	-1.0	-0.8	6.7	7.2	6.5	2.3
Yen/\$	106	109	109	108	-0.8	2.5	0.2	-1.2	24.9	28.7	24.9	13.9
DM/\$	1.53	1.53	1.50	1.48	1.8	-0.3	-1.7	-1.3	8.7	9.1	8.2	2.6
M1	1117.2	1116.7	1108.5	NA	-0.6	-0.0	-0.7	NA	-2.5	-2.4	-3.2	NA
M2	3730.3	3747.2	3753.6	NA	-0.1	0.5	0.2	NA	5.3	4.9	4.5	NA
Bank reserves	54227	54112	53197	NA	-1.7	-0.2	-1.7	NA	-6.2	-5.7	-7.8	NA
C&I Loans & Non-Financial CP	931.4	935.7	937.4	NA	0.2	0.5	0.2	NA	6.8	6.5	5.9	NA
Consumer Credit	1.1	1.2	NA	NA	0.5	0.7	NA	NA	11.8	11.3	NA	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

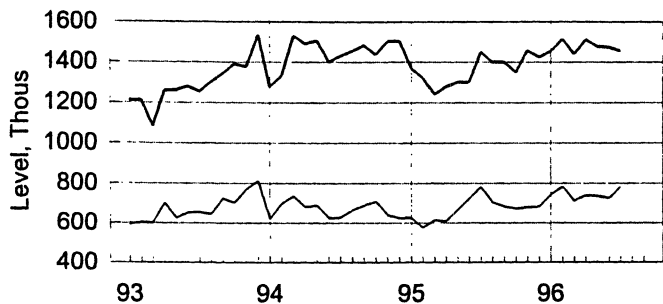
Note: All GDP data reflect chain-weighted measures.

09/06/96

Chart 3

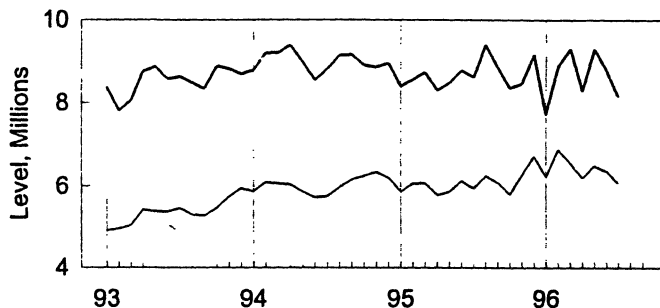
Selected Economic Indicators

Housing Activity



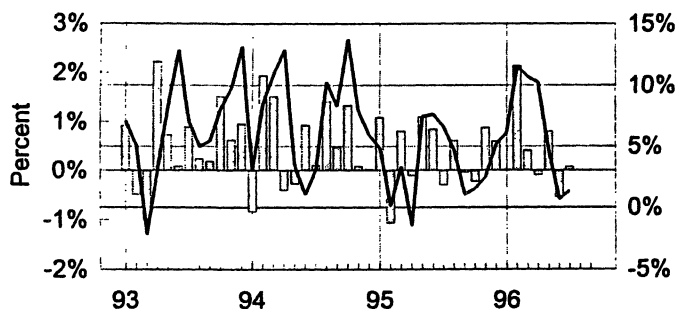
— Housing Starts, Total (SAAR, Thous)
 — New 1-Family Homes Sold

Unit Auto Sales



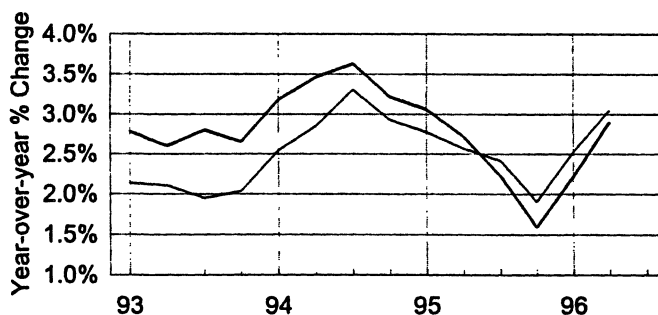
— Unit Auto Sales (SAAR, Mil)
 — Unit Truck Sales: Light, 0-10,000 Lbs (SAAR, Mil.)

Retail Sales



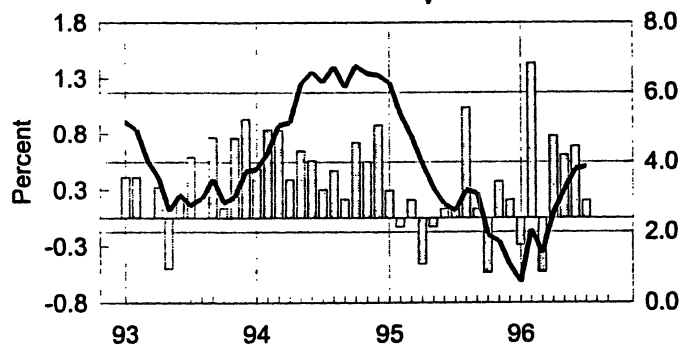
□ Total Retail Sales, Mth/Mth % Change
 — 3-Month Growth Rate (Annualized)

Final Sales



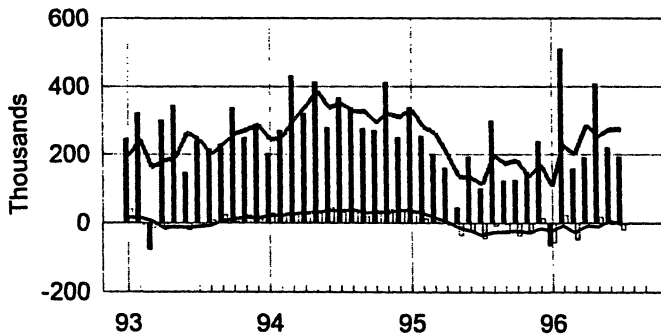
— Final Sales to Domestic Purchasers, SAAR Bil Chn \$92
 — Final Sales of Domestic Product, SAAR Bil Chn \$92

Industrial Production



□ Month-over-month % Change
 — Year-over-year % Change

Employment

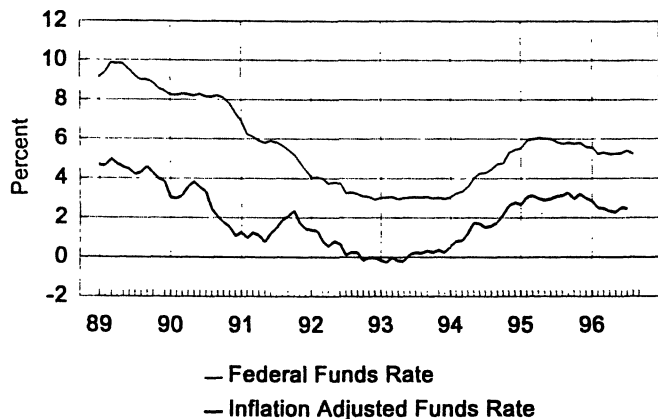


■ Non-Farm Employ □ Manufacturing Employ
 — 3-Month Avg — 3-Month Avg

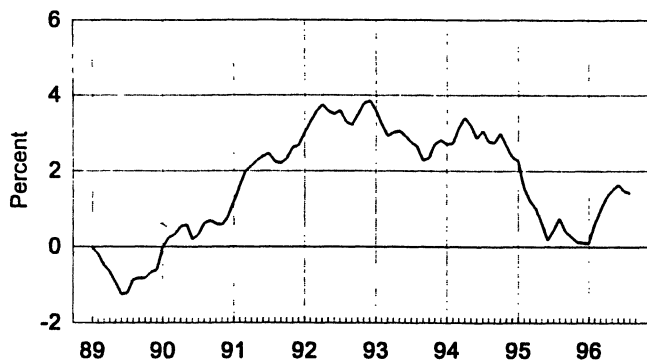
Chart 4

Measures of Monetary Thrust

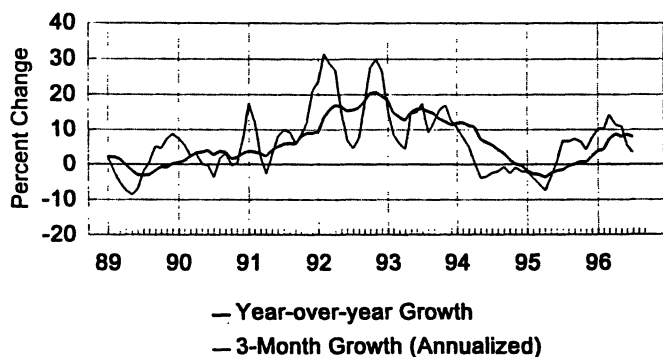
Nominal and Real Federal Funds Rate



10-Year Treasury Bond/Federal Funds Spread

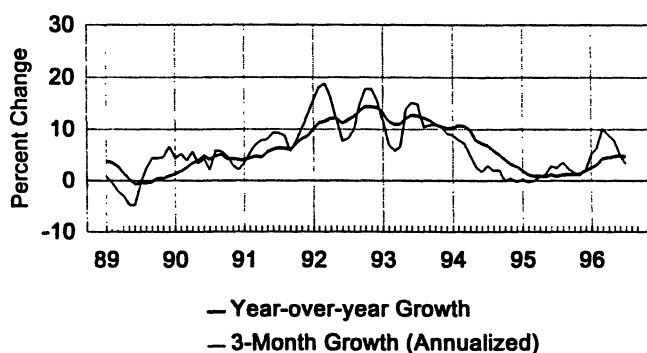


Bank Reserves Adjusted for Sweep Accounts *



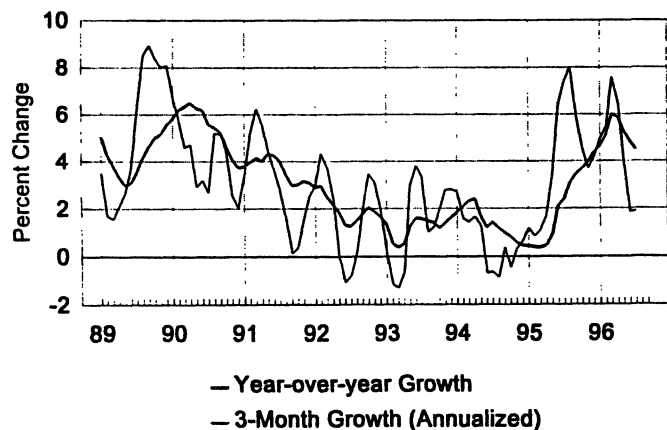
* Based on FRB estimates.

M1 Adjusted for Sweep Accounts *



* Based on FRB estimates.

M2



MZM

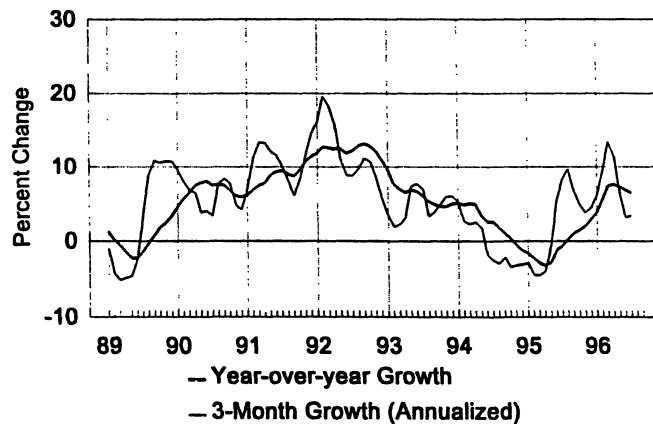
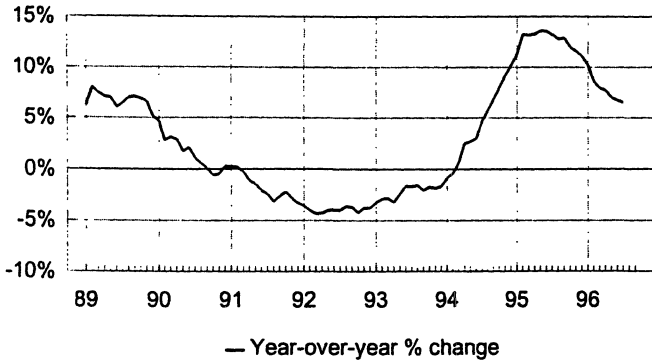


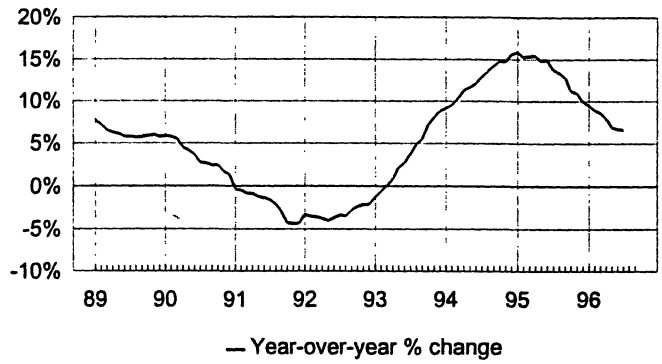
Chart 5

Bank and Credit Market Conditions

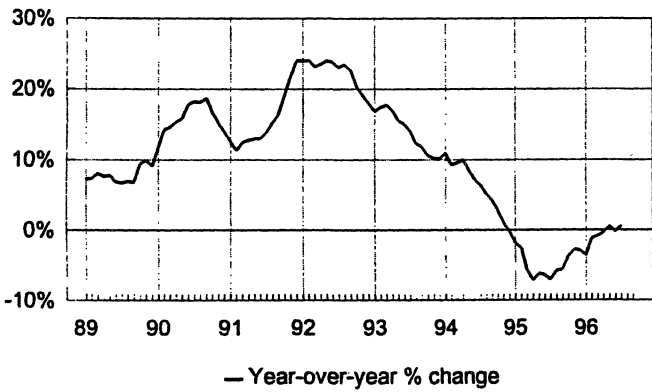
C & I Loans:
All Commercial Banks



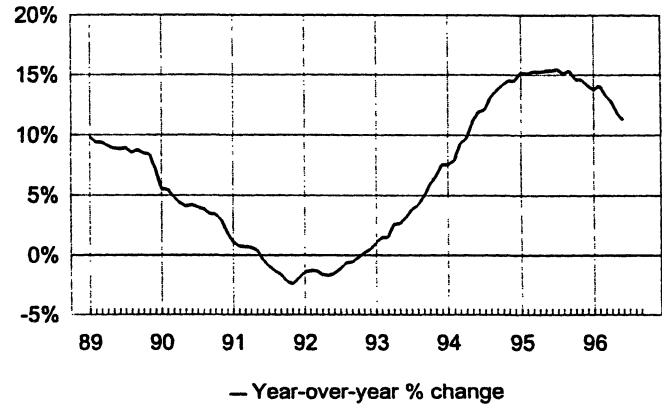
Consumer Loans:
All Commercial Banks



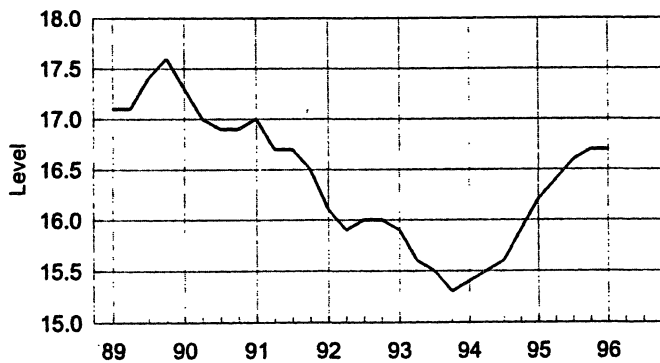
Government Securities:
All Commercial Banks



Consumer Credit Outstanding



**Total Debt Service Payments
as % of Disposable Personal Income**



**Loan Delinquency Rate: Consumer Loans:
All Insured Comm'l Banks (SA,%)**

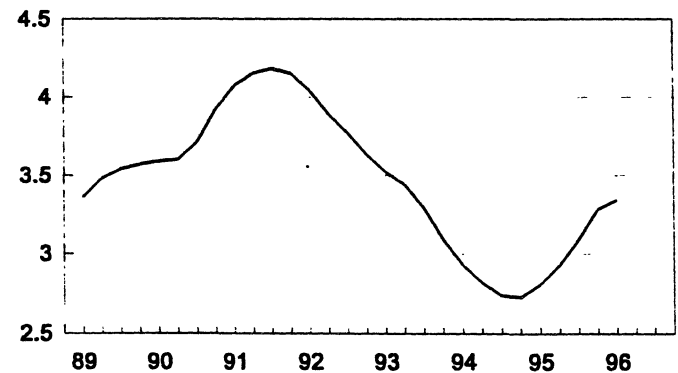
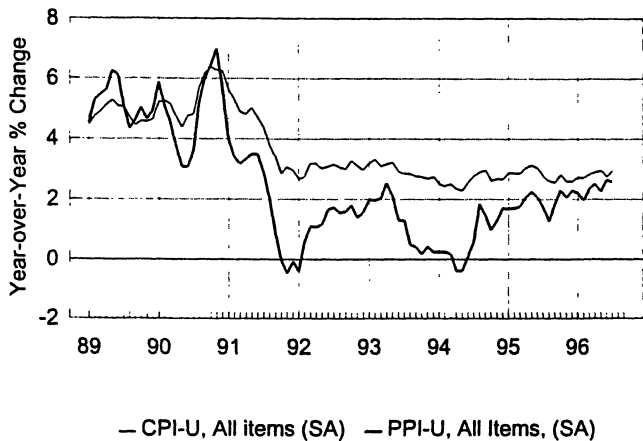


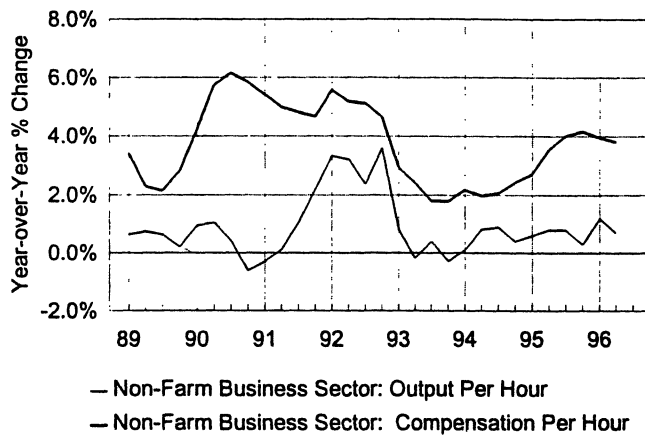
Chart 6

Selected Measures of Inflation and Prices

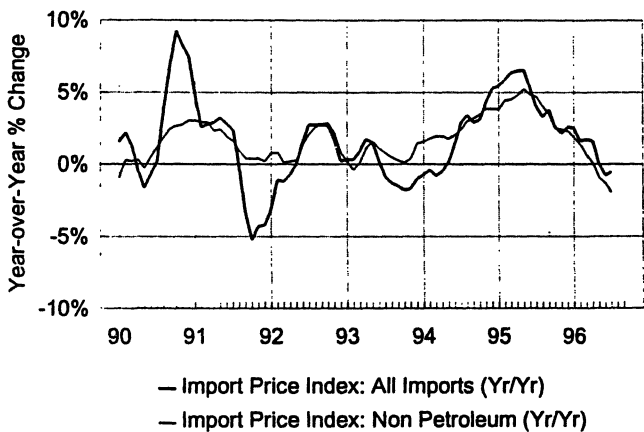
Consumer & Producer Price Indexes



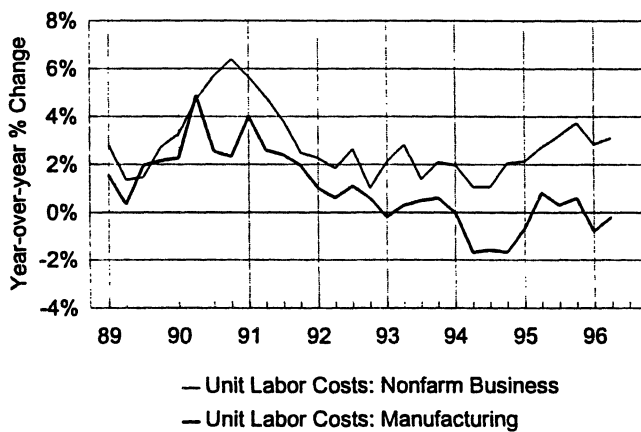
Compensation and Productivity



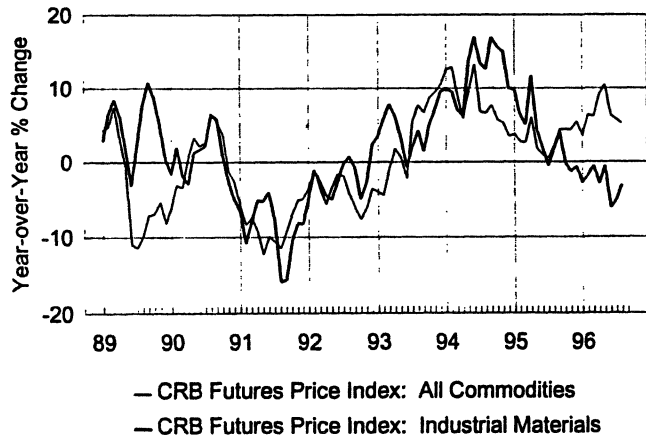
Import Price Index



Unit Labor Costs



Commodity Prices



NAPM: Survey of Prices

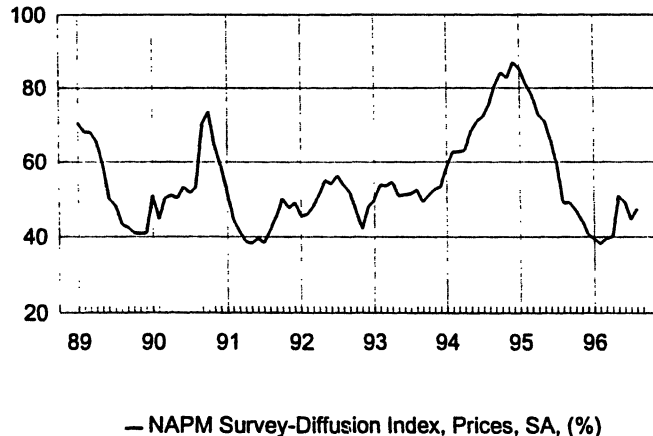


Chart 7

Selected Interest Rates and Yield Spreads

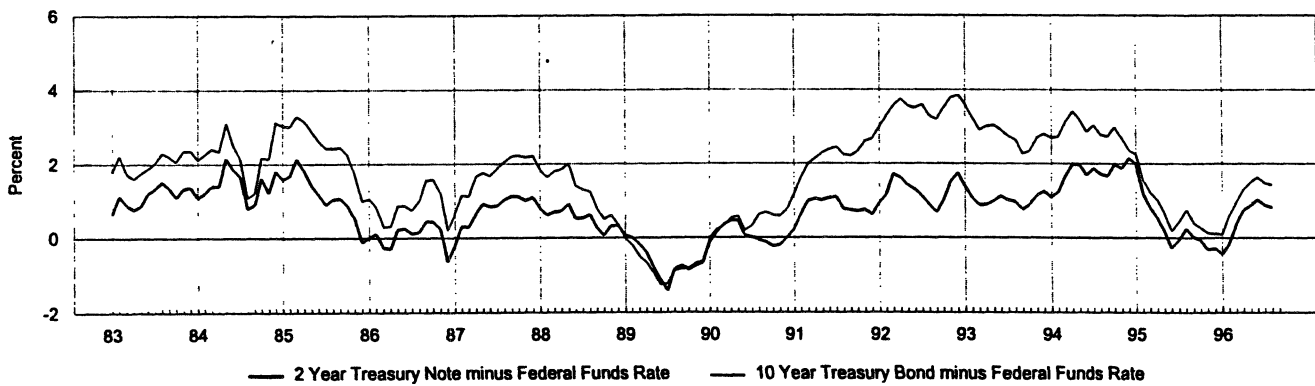
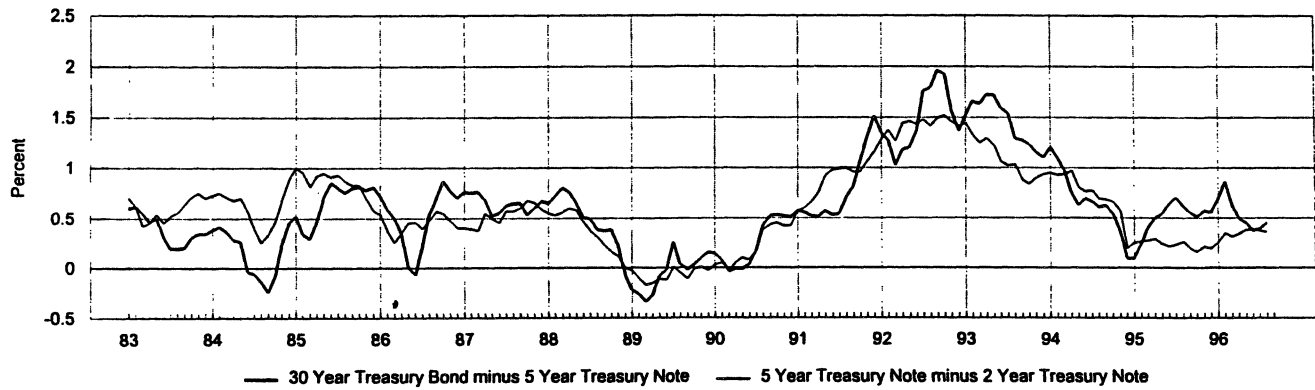
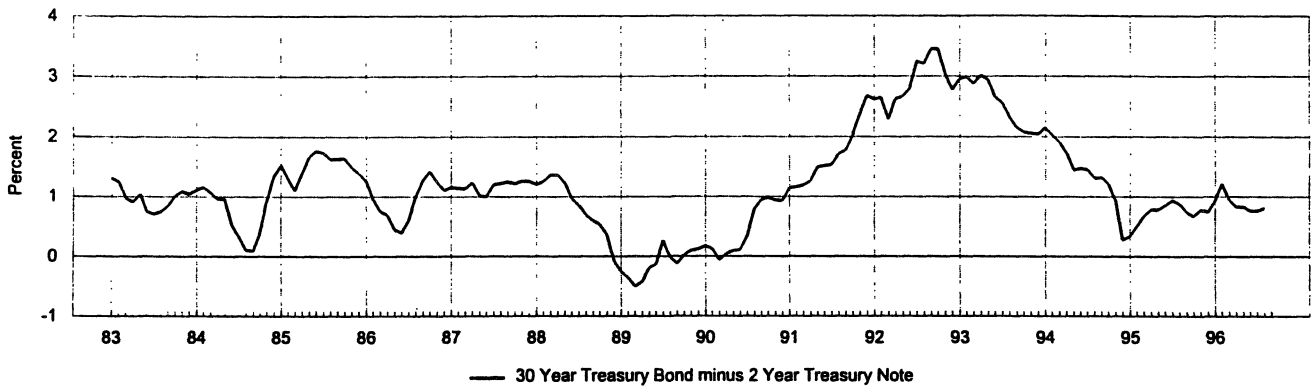
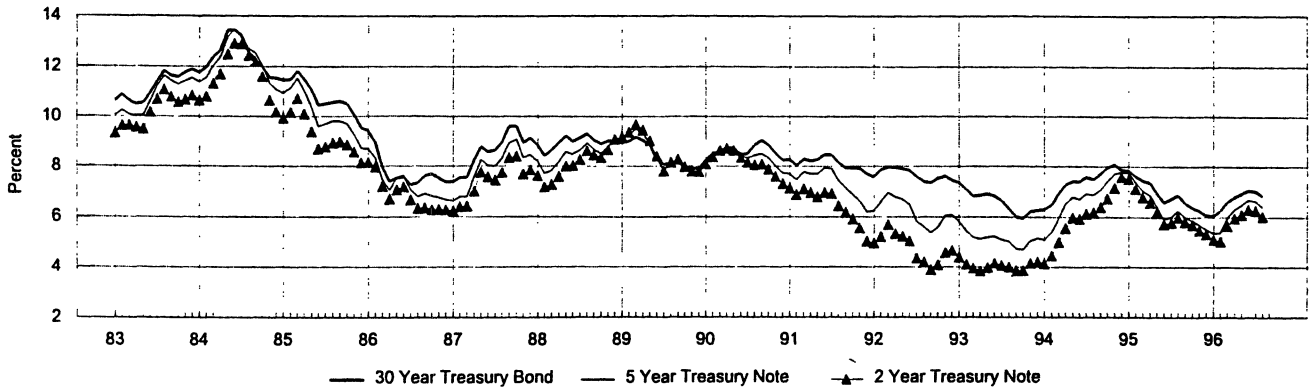


Table 2

I. Federal Reserve Objectives and Actual Performance

	Central Tendency Forecasts			Actual Performance	
	Q4:95-Q4:96		Q4:96-Q4:97	Q4:95- Q2:96	Yr/Yr Q2:96
	Feb. 96 Est.	July 96 Est.	July 96 Est.		
Real GDP	2% to 2.25%	2.5% to 2.75%	1.75% to 2.25%	3.4	2.7
CPI Inflation	2.75% to 3%	3% to 3.25%	2.75% to 3%	3.5	2.9
Nominal GDP	4.25% to 4.75%	5% to 5.5%	4.25% to 5%	5.4	4.8
Unemployment Rate (4th Qtr.)	5.5% to 5.75%	about 5.5%	5.5% to 5.75%	5.1% currently	na

II. The Fed's Money Targets and Actual Trends

	Money Supply Targets*	Annualized % Change		
	Q4:95 - Q4:96	Last 3 Months	Last 6 Months	Yr/Yr
Bank Reserves†	Not Targeted	3.2	7.2	7.8
M1†	Not Targeted	3.2	6.0	4.7
M2	1% to 5%	1.9	4.2	4.5
M3	2% to 6%	3.7	5.8	5.6
Debt	3% to 7%	4.1	4.8	4.6

*Source: Board of Governors of Federal Reserve System, 1996 Monetary Policy Report to the Congress, February 1996 and July 1996.

† Adjusted for FRB estimates of sweep accounts

INDEXED BONDS

William POOLE
Brown University

Earlier this year the U.S. Treasury announced plans to issue indexed bonds. However, the Treasury did not announce the details of the bonds, or the amount to be issued. These matters were subject to public comments and further consideration.

Most economists have long favored Treasury issuance of indexed bonds. The Treasury itself and some securities firms have resisted this step. My purpose here is to review the case for indexed bonds and discuss the characteristics such bonds should have to provide the greatest possible benefits.

BASIC DESIGN

Bond principal and interest can be indexed, or tied, to one or more of a variety of variables. The Treasury plan, and the only plan to be discussed here, would tie bonds to a general price index, such as the Consumer Price Index. One of the issues yet to be resolved is the choice of the price index.

A simple design would have the dollar interest and principal payments escalated by the current value of the CPI relative to the value of the CPI at the time the bond was issued. Suppose a bond had a 3 percent interest coupon rate at the time of issuance, which I'll denote "TI." If the CPI had risen by 20 percent between TI and time t , then the interest payment due at time t , per \$100 face value of the bond, would be $\$3(1+0.2)=\3.60 . An interest payment due 15 November, for example, would probably be based on the September CPI because the release date for the October CPI would be too close to 15 November to make indexing to October data practicable. The principal repaid on the bond's maturity would be calculated the same way. If the CPI rises by 80 percent between time TI and maturity, then principal repayment would be \$180 per \$100 face value of the bond.

FUNCTIONS OF INDEXED BONDS FOR INVESTORS

An indexed bond protects investors against unforeseen inflation. Suppose the Treasury simultaneously issues a conventional 30-year bond and an indexed 30-year bond, and suppose that investors believe that the inflation rate will average 4 percent per year over the next 30 years. Ignoring risk for the moment, investors would be indifferent between buying the conventional bond at an interest rate of 7 percent and an indexed bond at a rate of 3 percent. The indexed bond would in fact pay out a dollar return of 7 percent consisting of the contract rate of 3 percent and indexation payments averaging an additional 4 percent.

Over the next thirty years, however, the inflation rate might turn out to be either above or below 4 percent. If the inflation rate turned out to be 6 percent, then the indexed bond would have a total dollar return of 9 percent consisting of the contract rate of 3 percent plus the indexed adjustments averaging 6 percent. The conventional bond would continue to pay a constant 7 percent. The indexed bond compensates investors for the inflation above the amount initially expected. Looked at another way, the inflation-adjusted, or real, return on the indexed bond is 3 percent no matter what happens to the actual inflation rate whereas the real return on a conventional bond will vary with the inflation forecasting errors. In the example just considered, an actual inflation rate of 6 percent when 4 percent had been anticipated will leave the investor with a real return of only 1 percent—the contract rate of 7 percent less the inflation rate of 6 percent.

Of course, an inflation rate less than anticipated—2 percent instead of an anticipated 4 percent, say—would generate a higher real return for the conventional bond. The indexed bond maintains its 3 percent real return no matter what the inflation rate, whereas in this example the conventional bond would have a real return of 5 percent — the contract rate of 7 percent less the inflation rate of 2 percent.

Indexed bonds will play an important role in protecting investors against unforeseen inflation. The protection will be especially valuable for less sophisticated investors who have neither the assets nor the background to pursue complex investment strategies designed to minimize the impact of inflation on investment returns. Indexed bonds will protect against inflation in the same way the current indexed Social Security

system protects this stream of core retirement income from inflation. Indeed, it seems probable that almost every investor will want to hold some indexed bonds in a retirement portfolio for there is no way to provide protection against inflation with as much certainty as with an indexed U.S. Treasury bond.

Conventional Treasury bonds are issued in a minimum denomination of \$1000, and such a minimum will be excessive for some investors. We can be confident, however, that indexed-bond mutual funds will spring up, providing small investors with convenient denominations and convenient investment and redemption options.

INFORMATION ROLE OF INDEXED BONDS

Economists have long been interested in an additional advantage of indexed bonds—the provision of reliable information on investors' inflation expectations. An increase in inflation expectations is a matter of grave concern to economic policymakers, requiring prompt remedial action. Unfortunately, policymakers do not now have direct evidence on investors' expectations. Indexed bonds would provide that information.

Suppose the U.S. Treasury finds it can auction 30-year indexed bonds at a 3 percent contract rate of interest. At the same time, suppose the auction of conventional 30-year bonds comes up with a 7 percent rate. Then, the difference reflects the sum of the average investor's inflation expectation and inflation risk premium. This risk premium reflects the extra payment an investor demands to assume the inflation risk of owning a conventional 30-year bond. For example, the average investor might expect 3.5 percent inflation on the average over the next 30 years and demand a risk premium of 0.5 percent, so that the conventional bond would have a total yield 4 percentage points higher than the indexed bond. For simplicity, it is convenient to call the difference between the nominal and indexed yield the "nominal yield premium" which consists of the inflation expectation and risk premium.

If the Treasury auctions conventional and indexed bonds regularly, then it will obtain readings on those dates of investors' inflation fears. Moreover, secondary-market trading of seasoned issues will provide information on changing inflation fears day by

day. I say “inflation fears” because the nominal yield premium reflects the sum of expected inflation and the inflation risk premium.

A reasonable hypothesis, at least until we have enough experience to study the matter carefully, is that changes in the nominal yield premium will reflect primarily changes in inflation expectations. However, the policy significance of a rising nominal yield premium is little affected by whether inflation expectations or the inflation risk premium is rising. In either case, policymakers should act to reassure markets that inflation will not be permitted to rise in a sustained way.

Finally, data from indexed bonds will provide rich opportunities for economic research to deepen knowledge about many different features of the economy. By studying market responses, we will be able to discover the market’s verdict on likely effects on real returns and inflation of proposed changes in tax law, in regulation, and in monetary policy. Effects of events in the private economy will also register in both the conventional and indexed markets, allowing study of the effects on real interest rates of major technological developments, natural disasters, and so forth. With indexed bonds outstanding, any event that moves the nominal rate of interest can be studied for its separate effects on the real rate of interest and the nominal rate premium.

EFFECT ON INTEREST EXPENSE OF FEDERAL GOVERNMENT

If inflation and nominal interest rates fall, then the government will save on interest expense by issuing indexed bonds; if inflation and interest rates rise, the government will lose. The Federal Reserve has said that it would like to see inflation lower than the rate of about 3 percent observed in recent years. Given biases in the CPI, it seems likely that effective price stability would be achieved if inflation as measured by the CPI were reduced to 1-2 year percent per year. My guess is that the long-term bond market today reflects investor expectations of continuing inflation at a rate of 3-4 percent per year. Thus, if the Fed does indeed reduce the rate of inflation to 1-2 percent, the federal government could reduce its interest expense by 1-3 percentage points by issuing indexed bonds. Savings at the lower end of this range seem more likely than at the upper

end of the range. Of course, if the inflation rate rises, then indexed bonds will increase the government's interest expense rather than reduce it.

In passing, it is hard to resist the observation that indexed bonds, had they been issued in the early 1980s, would have saved the federal government many billions of dollars of interest expense. In the early 1980s, the market did not anticipate the sustained decline in inflation that actually occurred. If indexed bonds had been issued in 1981, the savings would have been 6 percentage points or so, which could easily have amounted to several hundred billion dollars of savings up to this day. The savings would have continued into the future because many of the long-term bonds issued in the early 1980s are still outstanding.

Initial issues of indexed bonds today may be so popular that they will bear an unusually low rate of interest, perhaps in the range of only 1-2 percent. Once issued in large volume, the real yields are likely to be 3-4 percent. If the federal government can sell indexed debt for a low yield, it certainly ought to do so. However, issuance should not stop when the yields are higher, because indexed bonds have many desirable characteristics for the economy.

The government might be tempted to play budget accounting games with indexed debt. For the most part, the budget is measured on a cash basis, with little attention to accrual accounting concepts. Substituting indexed bonds for conventional bonds would lower cash outlays in the early years of the life of the bonds; in the later years, cash outlays would be larger than on conventional bonds as inflation adjustments led to ever increasing nominal interest payments. To avoid misstating nominal interest expense, the budget should include the increase in the principal owed each year by virtue of the rise in the price level even though that increase does not lead to a cash outlay until the bonds mature. If this accounting practice is not followed, all the increase in the nominal principal would show up as an outlay when the bonds mature, with the effect of pushing outlays beyond the five-year budget horizon at the time long-term indexed bonds are issued.

TAXATION OF INDEXED BONDS

The two basic alternatives for taxing indexed bonds are: 1) tax only the real interest part of the bond return; and 2) tax the nominal return on indexed bonds, treating them the same as conventional bonds. I favor the second alternative.

The case for the alternative stems from the fact that for indexed bonds to provide a true inflation hedge, government should tax only the real return on these bonds. If taxes are levied on the inflation adjustment, then the return on the bond is obviously reduced by the amount of the tax and the after-tax real return is lower the higher the inflation rate.

Taxing only the real return on indexed bonds would have appeal if the rest of the system of capital taxation were neutral with respect to inflation. In fact, higher inflation yields higher taxes, depressing real returns, on most capital assets. Some examples: in the corporate income tax system, depreciation is not indexed; conventional bond interest is taxed without regard to the portion of the interest that reflects the inflation premium; capital gains are not indexed, with the result that nominal capital gains reflecting general inflation are taxed, lowering the real return on capital assets. Economists have argued for years that the U.S. system of taxation of capital is biased against capital formation, in part because of the taxation of nominal gains that simply reflect general inflation.

Although the case for reform of the taxation of capital is strong, reform should not proceed on a piecemeal basis. Taxing real interest only on indexed bonds might open up opportunities for tax arbitrage between conventional and indexed bonds. Indexed bonds, as with municipal bonds, might be held mostly by higher-income individuals. Being tax-advantaged relative to other capital assets, indexed bonds would sell for low before-tax real yields. The bonds would not, then, be particularly desirable investments for lower-income taxpayers who, in general, are most in need of protection from inflation.

Another problem with taxing indexed bonds differently from conventional bonds is that the nominal yield differential would reflect three instead of two considerations: the expected inflation rate, the inflation risk premium, *and* the marginal income tax rate. Using conventional and indexed bonds to track changes in expected inflation would be complicated by changes in expectations about marginal tax rates. Given the frequency of changes in the income-tax system over the past quarter century and likelihood of

continuing changes in the future, changes in the nominal yield premium would often reflect the changes in expectations about income tax rates. I suspect that the value of indexed bonds in providing information on inflation expectations would be largely destroyed by giving these bonds tax-favored status relative to other capital assets.

DESIGN OF INDEXED BONDS—SOME IMPORTANT DETAILS

To attract a wide following, index bonds will have to be easily understood by investors. Moreover, investors must have confidence that the inflation adjustment is not subject to manipulation in any way. Finally, the inflation adjustment must be administratively simple to keep the cost of servicing the bonds low.

The Consumer Price Index is by far the most attractive price index to use for indexed bonds. The CPI is the most widely followed price index, and has long been used in indexed labor contracts. Indeed, the Bureau of Labor Statistics, in its design of the CPI, has been sensitive to the needs of labor contracts with cost-of-living adjustments (“COLAs”). Of special importance is the fact that when the BLS revises the CPI, it does not change the historic official CPI series, other than to change the base year for which the index equals 100. Other price indexes, such as the consumption deflator in the national income accounts, are revised back many years when new data and new methods are introduced. Revisions in the historical series are awkward when contract payments have already been made. Although investors might in principle be brought to an understanding of these issues, as a practical matter it will only damage confidence in indexed bonds if they are tied to a price index subject to revision historically. If a revision of some price index shows that inflation was higher than originally thought, then investors may feel cheated if they are not compensated with additional payments. If a revised calculation shows less inflation than originally reported, then some in Congress and the general public may feel that the indexed bonds cheated the taxpayers, who would have paid less based on the revised index.

Public confidence in indexed bonds is so important that the Treasury should work closely with the BLS in selecting interest dates of indexed bonds. The BLS routinely makes small revisions in the monthly CPI to reflect changed estimates of seasonal factors

and other such minor matters. For such technical reasons, it might be more desirable, say, to issue indexed bonds with interest paid May and November rather than February and August, or vice versa. Because minor revisions in the CPI are unavoidable, the Treasury should make clear that all indexation payments are final. Investors will simply have to understand that revisions in the CPI may show from time to time the indexation payments were a bit too high or too low because they are necessarily based on the CPI data available at the time payments were due rather than on the revised CPI.

ISSUE MATURITIES AND VOLUME

Ideally, economists would like to be able to observe indexed bonds over the entire maturity distribution from, say, three months to 30 years, or longer. However, 95 percent of what economists can learn from indexed bonds will come from any single maturity from 1 to 30 years. My preference would be a long maturity, for the most important issues concern investor expectations of inflation over a long horizon.

Indexed bonds will be an important innovation only if the Treasury issues enough of them to satisfy investor demand and to lead to significant secondary market trading. Because no existing financial instrument duplicates the characteristics of indexed Treasury bonds, it seems likely that initial investor demand will be strong. That means that the bonds will sell for a relatively low yield, benefiting taxpayers, and will trade relatively infrequently. Many investors will want to buy these bonds and simply hold them in their retirement portfolios.

Bonds that are infrequently traded will be less useful than bonds with an active secondary market. Liquidity requires active trading. Moreover, obtaining good information on inflation expectations from indexed bonds will require an active market. If the Treasury issues a 30-year indexed bond, then it would be better to add to that particular maturity (November 2026, say) over the next year or two than have smaller, more fragmented issues every six months with maturities 30 years from date of issue. Indeed, issuing bonds with maturities every other year (2026, 2028, 2030, and so forth) will in time provide a very rich menu of indexed bond information and at the same time will promote an active market by standardizing on a relatively few maturities.

INDEXED BONDS AND THE POLITICAL ECONOMY OF INFLATION

Some economists have opposed indexed bonds, and indexation of wages, Social Security and anything else, on the ground that indexation reduces the pain of inflation, and therefore makes society more tolerant of inflation. Other economists argue that issuance of indexed bonds will have the opposite effect, because of the effects of indexation on the government.

The argument that indexation makes people more tolerant of inflation, because they can escape some of its effects by holding indexed bonds, has some validity. The political power of senior citizens and the groups that represent them is considerable. Of course, Social Security has long been indexed. If private pensions were also completely indexed, then the opposition of senior citizens to inflation might be considerably lessened.

However, there is no prospect that all or most private pensions will be indexed. Income from Treasury bonds will not be a major source of retirement income, simply because privately issued assets, both bonds and equities, will remain large, and there is very little indexation of privately issued assets. These are the assets held in retirement plans, for the most part.

Still it has to be admitted that indexation of some Treasury debt does work in the direction of reducing the pain of inflation. Because those most concerned about inflation are especially likely to buy indexed debt, the pain reduction will probably be larger than the raw volume of indexed debt might suggest.

Two considerations work in the other direction. First, indexed debt will increase the cost to the Treasury of inflationary policies. Higher inflation increases revenues and most outlays other than interest roughly in proportion to the inflation. However, interest on conventional long-term bonds is fixed and so is reduced in real terms by inflation. Short-term interest rates respond quickly to inflation, and by indexing a portion of long-term Treasury debt some of the interest on long-term bonds will also respond to inflation. I am inclined to believe that this incentive effect operating on the government itself is more important than the incentive effect operating on the general public.

The second consideration flows from the information value of indexed bonds. Government actions or proposed actions that raise investor fears of inflation will immediately show up in a higher nominal interest premium. In the absence of indexed bonds, increases in nominal interest rates can often be plausibly argued to reflect increases in real interest rates rather than inflation fears. With indexed bonds outstanding, investor fears of inflation will be directly measurable. Market feedback on inflationary policies is especially valuable because it reduces the chance that such policies will ever be put into effect, or allowed to continue unchecked. Moreover, there is no offsetting incentive effect in the private sector, as there is when indexation kicks in because inflation actually rises.

I am persuaded that the information value of indexation in tending to discourage inflationary policies is much more powerful than most observers realize. Government officials are already quite sensitive to the impact of their words and actions on interest rates and the stock market; adding the information in inflation expectations from indexed bonds can only strengthen the discipline on the political process from the financial markets.

OPPORTUNISTIC APPROACH TO DISINFLATION

Robert H. RASCHE
Michigan State University

Several weeks ago, after the Humphrey-Hawkins testimony of Chairman Greenspan, an analysis by Orphanides and Wilcox (1996) on “The Opportunistic Approach to Disinflation” received considerable attention in the press. The study attempts to provide an analytic framework in which a monetary authority would respond aggressively to upward shocks to inflation, but would assume a relatively passive, if not completely passive, posture towards the pursuit of reductions in inflation.

The authors cite as the origin of this modeling effort remarks by President Boehne and former Vice Chairman Blinder which they interpret as arguing for a monetary policy designed to hold the line against positive shocks to inflation, but to in large part wait until a negative shock to inflation is experienced before establishing a lower inflation target.

The authors construct a model in which the monetary authority behaves in this fashion from three assumptions.

- An expectations augmented Phillips Curve (an aggregate supply curve) that expresses deviations of actual from expected inflation as a function of deviations of output from “natural output.”
- An aggregate demand function that relates deviations of real output from natural output to deviations of the real interest rate from the “natural real rate.”
- A Fisher equation that defines the current nominal interest rate as the real rate plus the current expected rate of inflation.
- A monetary authority loss (objective) function which is quadratic in deviations of inflation from the “intermediate target for inflation” but depends positively upon both the square of deviations of output from “natural output” and on the absolute value of deviations of output from “natural output.”

The key to understanding how this framework generates “the opportunistic approach to disinflation” is the specification of the loss function. In a model with no uncertainty, there is by construction a discontinuity in the marginal loss with respect to

deviations from real output at zero, while the marginal loss from deviations of inflation from the short-run inflation objective is linear. This generates a range of inflation deviations in which the marginal loss from inflation is always less in absolute value than the corresponding deviation of output from natural output along the short-run Phillips curve. Within this range minimizing the loss function involves minimizing deviations of output without consideration of the inflation consequences. Outside of this interval the monetary authority will focus on both output deviations and inflation, with the relative importance determined by the parameters of the loss function. The framework is sufficiently general that the hypothetical monetary authority could be seen as switching from a policy that focuses exclusively on output deviations to one that focuses exclusively on inflation targeting.

To the extent that the assumptions of the analysis are accepted, the conclusions follow. The critical question is whether the assumptions of the analysis are appropriate to the U.S. economy, or any other economy. Some critical assumptions that significantly affect the conclusions or usefulness of the analysis are:

- The basic model does not deal with uncertainty. In an extension of the model the authors introduce additive shocks to the model, but no uncertainty in the parameters of the model. With this relatively minor modification of the model, unless it is assumed that the monetary authority can control real output exactly, the certainty equivalent framework in which the basic result is derived no longer holds. The authors show that under these conditions the discontinuity of the marginal loss function of real output that generates the opportunistic behavior no longer holds (their Figure 5).
- The authors are careful to point out that their analysis of uncertainty does not include the case of parameter (slope) uncertainty. Given the lack of agreement among economists on the size and stability of the short-run Phillips Curve relationship, generalization of the analysis to incorporate an estimate of the Phillips Curve slope with a sizable variance is certainly appropriate, if not necessary. Clearly certainty equivalence will not hold in such an environment and

hence it may prove very difficult to characterize “the opportunistic approach to disinflation” in such an environment.

- The analysis is constructed in a single period, static framework. However monetary policy is conducted, it is assumed that the effects of such policy on the the economy are felt fully and immediately and are not distributed over time. There are no “lags in monetary policy” either short or long and variable. Since there is no dynamic structure to the framework, issues such as instrument instability are assumed away.

- There is no model of inflation expectations. Since the analysis is constructed in a single period framework, inflation expectations can be taken as predetermined and there is no need to specify how such expectations are formed. This seems to be a major shortcoming of the analytic framework. The authors note “Perhaps the most striking implication of the opportunistic approach concerns the timing of the attainment of price stability. Under a conventional policy (and assuming that the Phillips curve is linear), the expected time to attainment of price stability can be computed even in the absence of information about the distribution of shocks hitting the economy. This is not the case if the monetary authority is pursuing the opportunistic approach. Indeed, this is the feature of the opportunistic approach that has led former Vice Chairman Blinder on many occasions to remark that the U.S. economy is ‘one recession away from price stability’” (page 23).

This feature of the “opportunistic approach” suggests that serious difficulties might arise from following such a policy in a different economic structure than that envisioned by the authors. Assume an economy in which aggregate demand responds to the long-term real interest rates. Assume that in this economy agents form expectations in a forward looking fashion and that the rational expectations theory of the term structure determines the long-term interest rate. Further assume that the “opportunistic” monetary authority focuses on adjusting the short-term real interest rate. Since in this environment it will be difficult if not impossible to forecast changes (up or down) in future inflation rates, the best forecast of future inflation may well be the inflation rate that private agents

perceive as the upper bound of the current tolerance region of the monetary authority for inflation. Under these conditions, the current long-term nominal and real interest rates may be very insensitive to the manipulation of short-term real interest rates by the monetary authority. Hence in such an economy long-term nominal rates might well become “stuck” at levels that seem to reflect relatively high expected inflation rates and to change only infrequently when large negative shocks to observed inflation are experienced.

REFERENCES

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