

Healthy Economic Recovery and Rising Real Interest Rates

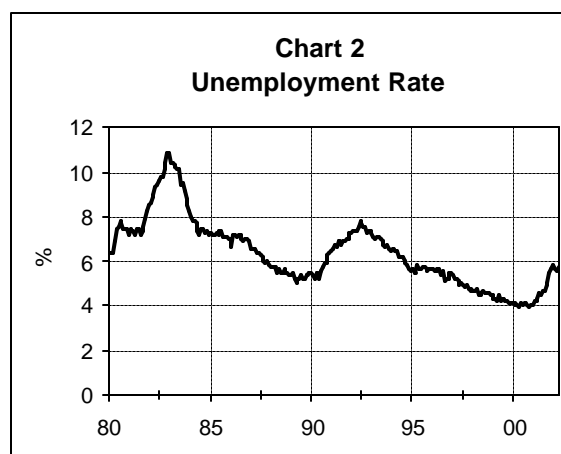
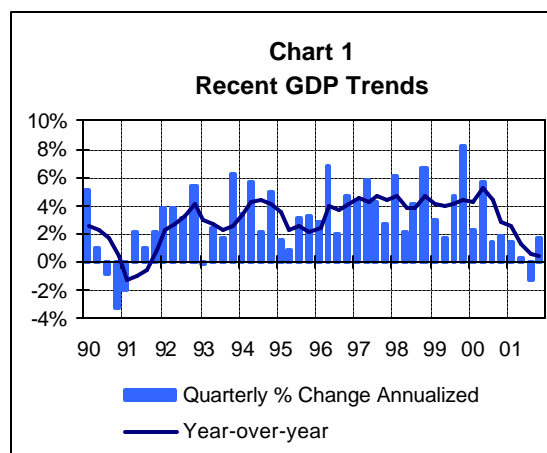
Mickey D. Levy
Chief Economist
Bank of America
Shadow Open Market Committee
April 14-15, 2002

At the last SOMC meeting in mid-October 2001, amid the post-terrorist attack recessionary environment, my forecast was decidedly contrarian and upbeat: "Aggressively stimulative monetary and fiscal policies point toward rebound...The result will be a V-shaped pattern in economic performance," and cautioned that the Federal Reserve's dramatic easing "eventually must be reversed to avoid long-run inflation risks." Indeed, the underlying structure of the economy has proved sound, and the combination of assertive countercyclical economic policies and rapid private adjustments has generated a healthy and rather typical rebound that is expected to gather steam in 2002. Real GDP growth is projected to far exceed its sustainable trend, which raises real interest rates, and nominal GDP growth is projected to accelerate well-above productive capacity, which potentially rekindles inflation pressures. The Fed must promptly raise short-term interest rates. Failure to do so on a timely basis risks exacerbating future swings in interest rates and nominal aggregate demand, generating more erratic economic performance.

Recession Recap: Similarities and Differences to Prior Contractions

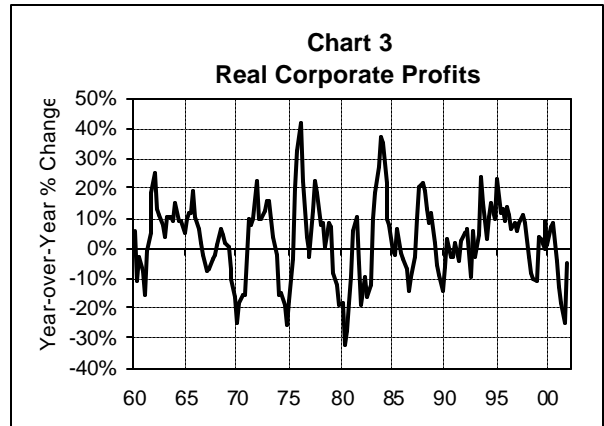
As measured by GDP, the recession was mild: GDP growth decelerated sharply from its robust 4.2 percent pace during 1995Q2-2000Q2, but it incurred only one quarter of decline (2001Q3), and although the unemployment rate rose, it remained relatively low (see Charts 1 and 2). While the recession had several notably unique characteristics, in many regards, it followed a typical cyclical pattern. A brief recap helps identify the bases for recovery.

Similar to most recessions, the recent one involved a slump in demand, undesired inventory accumulation and the subsequent production and employment adjustments. Robust domestic demand slowed sharply in mid-2000 in response to the Fed's aggressive monetary tightening, rising real interest rates and soaring energy prices. The Fed hiked the funds rate to 6.5 percent, slowed money growth and inverted the yield curve, and contributed to the stock market fall, while oil prices soared to \$35 per barrel. Businesses trimmed production in the second half of 2000, but similar to prior slumps, they underestimated the

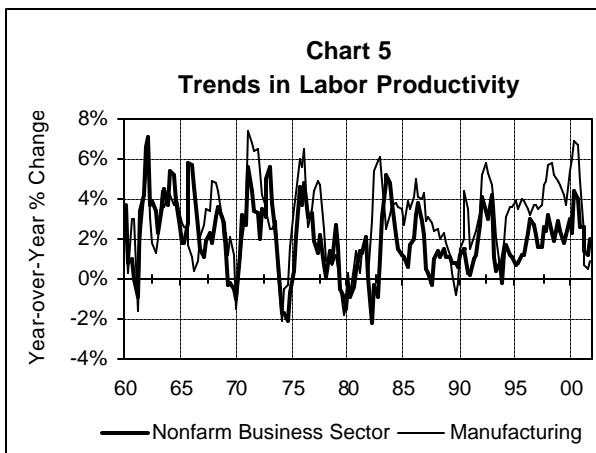
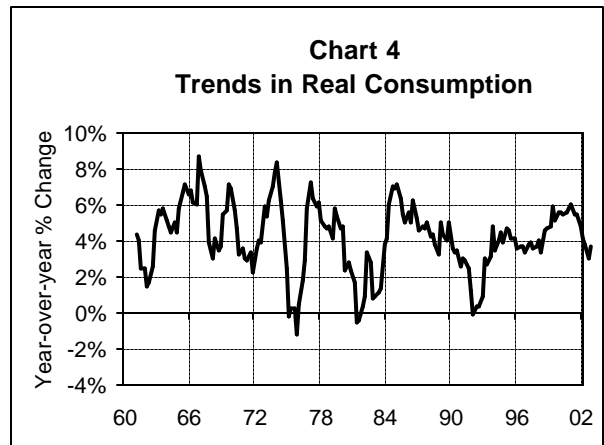


sustained slowdown in demand, resulting in an undesired inventory overhang by year-end 2000.

Following a typical recession pattern in 2001, businesses cut production and liquidated inventories at accelerating rates and reduced investment. Corporate profits also fell sharply--roughly in line with prior recessions--as demand slumped and profit margins were squeezed by higher operating costs and constrained pricing power (see Chart 3). Similar to prior contractions, the yield curve steepened as the Fed eased monetary policy and short-term interest rates fell faster than bond yields; stock valuations fell as profits disappointed expectations; and the government's budget position deteriorated as tax receipts fell while cyclically-sensitive government outlays rose. Despite the budget deterioration, a major fiscal stimulus package was enacted.



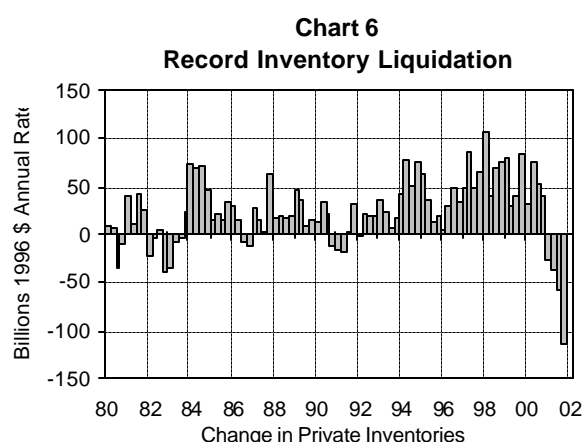
Several unique characteristics stood out as the slump intensified. Real consumption continued to grow, in contrast to the 3 previous recessions (year-on-year spending growth decelerated from 5.1 percent through 2000Q1 to 2.4 percent through 2001Q3; see Chart 4). The resilient consumer perplexed most observers, and the Fed, who seemingly over-weighted the negative wealth impact of the falling stock market and surveys of falling consumer confidence. Apparently, the negative wealth impact was partially offset by the continued rise in disposable personal income and declining interest rates. Associated, the rate of personal saving remained near zero: there was no increase in precautionary saving.



The aggressiveness of business adjustments also stood out as unique. Most notably, labor productivity continued to grow following the robust increases during the 1990s, as businesses slashed labor inputs faster than production. In recessions prior to 1980-1982, labor productivity declined; since then, business production processes and labor markets have become more flexible. This is most apparent in manufacturing: while output was reduced 6.2 percent from 2000Q4 to 2001Q4, the fastest rate since 1980, aggregate hours worked were cut an unprecedented 7.0 percent (see Chart 5). This establishes a solid base for growth in output and employment.

Another outstanding characteristic was the ability of the banking system to remain very sound, with strong capital ratios and liquidity. This stands in sharp contrast to the period surrounding the 1990-91 recession, when banks and other depository institutions incurred disturbingly large credit losses and were sufficiently undercapitalized to hinder lending and economic rebound. The current strength of the banking and financial system assures that the jarring defaults of Argentina, Enron, Global Crossing and others are credit events, with minor, if any, negative feedback on macroeconomic performance.

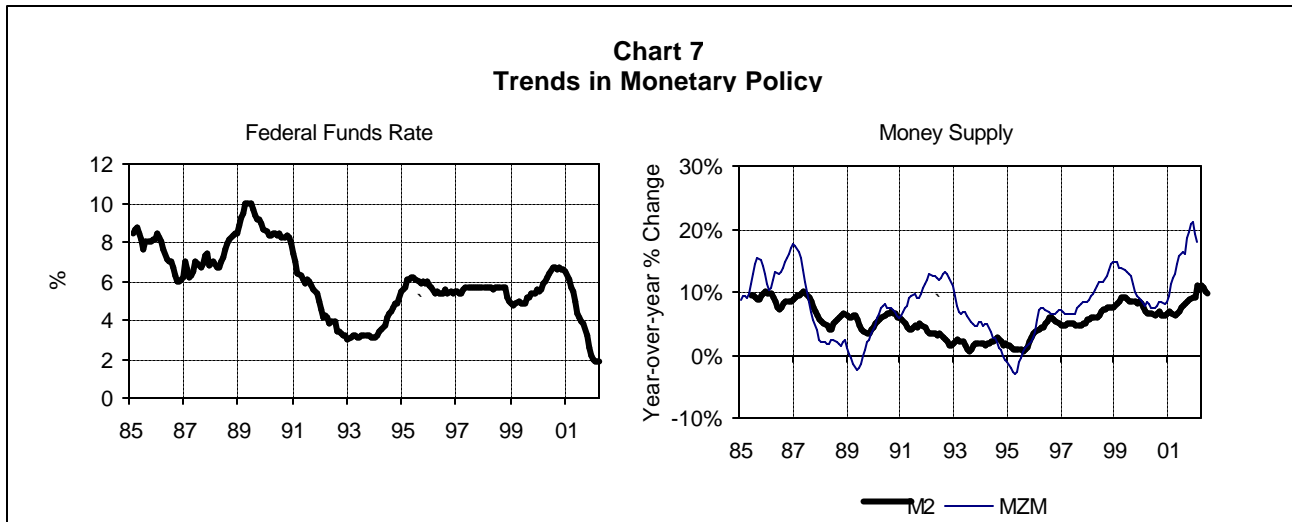
The negative shock of September 11th temporarily staggered an economy that was struggling to stabilize, but it crystallized adjustments in the private sector and elicited rapid economic policy responses, transforming a shallow slump into a full-fledged recession with V-shaped recovery. Businesses slashed industrial production by almost 7 percent annualized in 2001Q4, and aided by lower interest rates, they cut prices to stimulate demand. Energy and commodity prices fell in response to falling global industrial production, raising real purchasing power. Consumer response was startlingly positive: real consumption rose 6.1 percent annualized; to put such rapid growth into context, the consensus forecast in October predicted a 2 to 3 percent decline. As a result, inventories were liquidated at an unprecedented (and unintended) \$120 billion pace in 2001Q4 (see Chart 6). Businesses were even more aggressive in reducing payrolls by 1.2 million and aggregate hours worked by 3.8 percent annualized; initial unemployment claims surged almost 25 percent to a high of 535,000 in late September, the unemployment rate jumped from 4.9 percent in August to 5.8 percent in December. The resulting 5.2 annualized rise in nonfarm labor productivity in 2001Q4 stands out among prior recession experiences.



Powerful Countercyclical Economic Policies

Already stimulative monetary policy and sizable tax cuts provided by the Economic Growth and Tax Relief Reconciliation Act of 2001, which had been pointing toward a recovery, were quickly reinforced following September 11th, and overwhelmed the negative shocks of the terrorist attacks. With long-run potential growth little changed, these strong countercyclical policies and rapid endogenous price declines and business adjustments are generating a typical cyclical rebound.

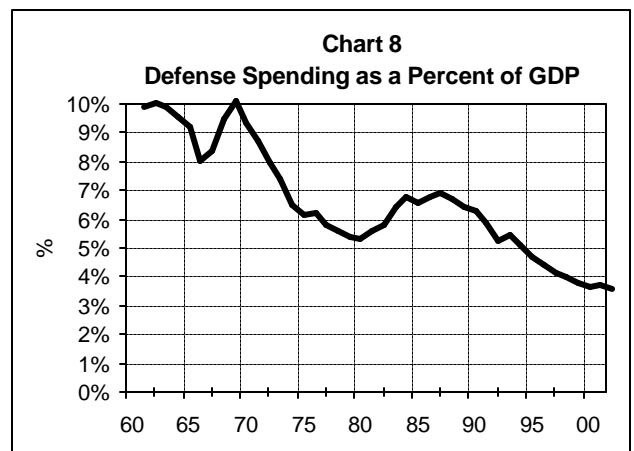
The 2001-2002 pattern of Fed easing, monetary acceleration amid decelerating nominal GDP, and the current rebound provides a virtual textbook case study of the powerful impact of monetary thrust. As the Fed lowered its funds rate target in 2001 from 6.5 percent to 3.5 percent prior to September 11th and then to 1.75 percent, the yield curve steepened dramatically and the growth of both narrow and broad monetary aggregates accelerated to their most rapid rates since 1983. In the year ending December 2001, MZM rose 21.2 percent while M2 rose 10.5 percent; MZM and M2 have slowed sharply, 2.2 percent and 1.9 percent annualized respectively, in the past three months (see Chart 7). In virtual textbook fashion, in 2001 nominal GDP growth decelerated, as the lower interest rates



raised the demand for money and lowered velocity. The rapid liquidity growth in 2001Q4--in banks deposits, mutual funds and elsewhere--has raised prices of financial assets. Always impatient and frustrated with the lags between monetary policy and aggregate demand, and generally dismissive of the powerful lagged impact of monetary thrust, consensus forecasters repeated the tired mantra that monetary policy had lost its power, that this recession was different, and that a long downturn may be in prospect. In predictable fashion, as interest rates stabilized, so did money velocity, and nominal spending growth has begun to accelerate. Money growth has moderated accordingly, but the year-long rapid infusion of liquidity remains in the financial system and monetary thrust remains very stimulative. History suggests that the monetary thrust will continue to generate accelerating demand until the Fed tightens sufficiently.

Last year's tax cuts are expected to have a more significant positive impact in 2002. The \$40 billion of tax relief in 2001, distributed in August-September as advances on the cuts in marginal tax rates on the lowest income bracket retroactive to January 1, 2001, were largely perceived as one-time rebates, and seemed to raise personal saving rather stimulate spending. In contrast, the majority of this year's \$70 billion of personal tax relief comes in the form of reduced withholding consistent with the lower marginal rates, and the greater sense of permanence provided by the higher take-home pay is expected to stimulate consumer spending.

In late September 2001, Congress authorized an additional \$40 billion in spending for national security and emergency relief and a separate \$15 billion subsidy for airlines. In February 2002, the Bush Administration's Fiscal Year 2002 Budget requested an additional \$48 billion in defense spending. These increases are the initial stage of an expected rebuilding, in light of renewed global conflict that follows the significant downsizing of U.S. defense spending in the post-Cold War 1990s (from 1989 to 1999, defense spending declined an average of 0.9 percent per year, reducing it from 26.5 percent to 16.3 percent of total government outlays and from 5.6 percent to 3.0 percent of GDP; see Chart 8).



Virtually all increases in spending for national defense and security, as well as the emergency cleanup, are calculated as government consumption (purchases). The authorized funds are reflected in GDP as they are spent. Recent military action in Afghanistan, the calling up of reserves to active duty, and the nationalization of airport security are part of this trend. (The \$15 billion bailout of the airline industry is a financial transfer and is not counted in GDP).

In March 2002, after months of partisan debate about the merits and composition of an additional fiscal stimulus package, and amid clear signs of economic rebound, the "Job Creation and Worker Assistance Act of 2002" was enacted with little fanfare. Its two main provisions are an acceleration of depreciation (an additional 30 percent first year tax deductions) of certain types of new business investment (including computers, office machinery and software, motor vehicles and selected machinery, etc.) through September 2004, and an extension of unemployment compensation. It is estimated to provide business tax relief and more generous unemployment compensation of \$51 billion in FY2002 and a total of \$94 billion during FY2002-2006. With consumer spending rising solidly but unemployment higher and capital spending struggling to stabilize, the final legislation is much better focused than the broader stimulus packages that had been under consideration.

Characteristics of the Recovery

Real GDP is projected to grow about 4.5 to 5 percent from 2001Q4 to 2002Q4, a sharp reacceleration from its anemic 0.5 percent growth in 2001. This reflects only a modest acceleration of consumer spending growth, a typical cyclical rebuilding of inventories and moderate pick up in business investment in 2002H2, firm residential construction, a sizable increase in government purchases and a modest deterioration in the trade deficit. The risks are decidedly toward stronger growth, since consumption typically accelerates sharply during recovery, and the substantial monetary and fiscal stimulus point in that direction.

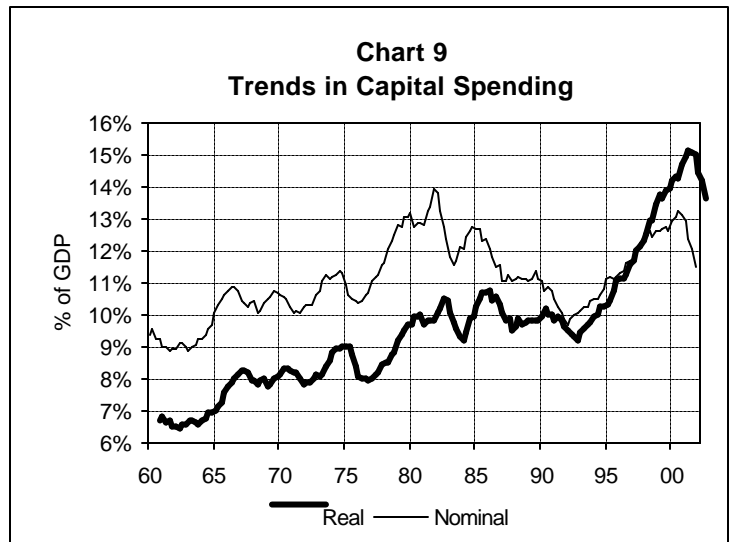
In typical fashion, consumer spending and housing have led the economic recovery. Led initially by the boom in zero percent financed auto sales, ex-auto retail sales and consumption of services have accelerated. Consumer spending is expected to continue to grow, which will restore business confidence and spur increases in production, inventories, and investment. The recovery will be sustained by growing demand, and will not be a short inventory adjustment, as skeptics contend.

The pickup in consumption defied the skeptics and consensus forecasters who once again underestimated the powerful lagged impact of monetary stimulus. The rise in consumption unfolded as employment was falling (no surprise: consumption leads and employment lags the cycle), and it occurred despite high levels of consumer debt and low levels of personal saving. Although debt levels are high, the fall in interest rates has moderated the rise in the ratio of household debt service-to-disposable income, and consumer credit quality has remained healthy. Although the low rate of personal saving receives significant attention, it is an unreliable and potentially misleading measure of household finances: based on flows (it measures the change in disposable income minus consumption), it excludes changes in the value of household wealth (stock market and bonds, savings accounts and pensions, real estate, etc.) that generated so much wealth in the 1990s. However, consumption is not expected to return to its nearly 5 percent growth of the late-1990s, when it was fueled by the confluence of a unique set of circumstances.

Housing activity and real estate values have remained firm despite recession, supported by sharp declines in interest rates. New and existing home sales in 2002Q1 have been very healthy, and in response to low inventories of unsold homes, a recent surge in housing starts, over 1.7 million units, points to rising first-half residential building. The strength in housing activity provides support for durable goods consumption. Real estate activity is projected to slow modestly in the second half of the year in response to rising interest rates. Again, this would be a typical cyclical pattern.

Typically, the adjustment from the peak pace of liquidation to moderate inventory building sufficient to stabilize the inventory-to-sales ratio takes 4-6 quarters. Measured from 2001Q4, this would add approximately 1.5 percent to GDP. The quarterly contributions to GDP growth likely will vary widely: 2002Q1 growth was boosted substantially by the significantly slower pace of liquidation.

Business investment is beginning to stabilize following 6 quarters of decline, and is projected to rise approximately 5 percent in 2002H2. While the 7.4 percent annualized decline in business investment from 2000Q3 to 2001Q4 was similar in magnitude to prior recessions, it followed the unique capital spending boom of the 1990s (see Chart 9). From 1991Q1 to 2000Q3, real business investment rose at an 8.8 percent average annual rate, and 64 percent of the growth was investment in information processing equipment and software.



From 1991Q1 to 2000Q3, real business investment rose at an 8.8 percent average annual rate, and 64 percent of the growth was investment in information processing equipment and software. In addition to high-and-rising profits, the low costs and ready availability of capital associated with high stock valuations fueled the high tech capital spending boom, suggesting a more moderate recovery in business investment. However, several other factors support solid rebound. Much of the new investment in the 1990s embodied technological innovations that replaced old capital, and involved relatively short-lived capital. Faced with rapid obsolescence, businesses must continue to invest to maintain stable inputs of capital and labor. Moreover, much new capital has been characterized by declining prices: the deflator for computers and software has declined steadily, inducing stronger demand. In the pressured environment to increase productive efficiencies, businesses have the incentive to replace labor, whose wages are rising, with capital whose prices are declining.

The outlook for capital spending varies for different sectors: investment in basic industries and transportation is projected to rebound strongly, in a typical cyclical pattern; investment in software, which has already stabilized, is also expected to grow, but not attain the robust pace of the 1990s; investment in computers should grow modestly; and investment in telecommunications structures, burdened by over-capacity, is expected to continue to decline through 2002. Investment in structures, which tends to lag, is projected to decline in 2002H1, before slowly recovering in the second half.

The outlook for capital spending varies for different sectors: investment in basic industries and transportation is projected to rebound strongly, in a typical cyclical pattern; investment in software, which has already stabilized, is also expected to grow, but not attain the robust pace of the 1990s; investment in computers should grow modestly; and investment in telecommunications structures, burdened by over-capacity, is expected to continue to decline through 2002. Investment in structures, which tends to lag, is projected to decline in 2002H1, before slowly recovering in the second half.

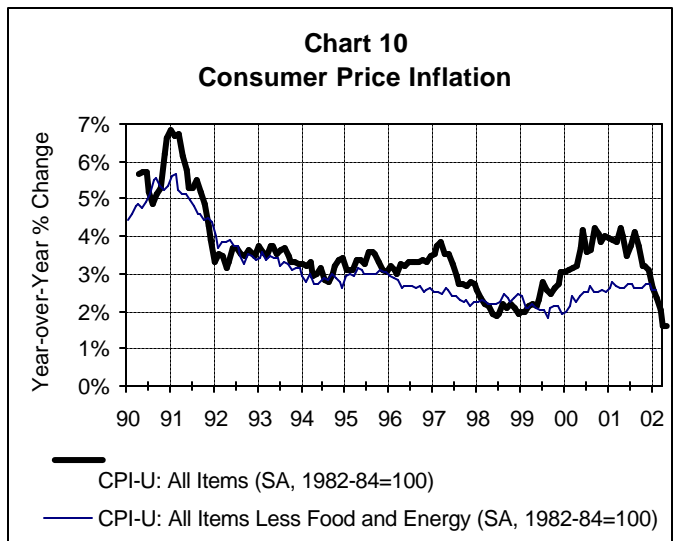
The low level of capacity utilization will not deter a pick up in business investment, and that measure will prove to be as unreliable in predicting future investment as it has in predicting inflation. The sharp decline in measured capacity utilization (74.8 percent in February, down from a peak of 82.8 percent in June 2000) reflects the Fed's estimates of rising capacity as well as reduced production. The rapid pace of technological innovation, the increasing reliance on new short-lived capital to replace older capital, and the equally rapid transformation of production processes diminish the meaning of measured capacity and capacity utilization. Presumably, some portion of the capital spending that boosted estimated capacity is already obsolete. The demand for investment in key selected industries is improperly captured by the low measured capacity utilization.

Government purchases directly absorb national resources, but with nominal GDP accelerating in response to monetary stimulus, the expanding government sector will not crowd out private sector activities in the near term and likely will add over 1 percent to GDP in 2002-2003. In the longer run, after GDP growth stabilizes in response to anticipated monetary tightening and rising real interest rates, the permanent rise in defense spending and government purchases will crowd out private consumption and investment. Then, it will have a more noticeable impact on the composition of economic activity, and by absorbing a rising share of national productive capacity, it will exert modest downward pressure on private labor productivity and potential growth.

The trade deficit, which was largely unchanged in 2001 and had little impact on GDP as both imports and exports fell by similar magnitudes, is expected to widen in 2002 and modestly dampen domestic production. In 2001, declining business investment accentuated the negative impact of weak domestic demand on imports; as demand rebounds and capital spending stabilizes, imports are projected to grow approximately 4.5 to 5 percent. Exports, which fell 10.9 percent from 2000Q4 to 2001Q4 in response to weak international economic conditions and the strong U.S. dollar, are expected to rebound only modestly in 2002, as recession continues in Japan while economic recovery in Europe is moderate.

The Inflation Outlook

While the post-September 11th fall in energy prices suppressed headline inflation, core inflation did not recede in response to recession: the CPI excluding food and energy has trended sideways in a narrow range of 2.6 to 2.8 percent year-over-year, while the median CPI has drifted up to 3.9 percent (see Chart 10). (So much for the Phillips Curve-based prediction several years ago by Alan Blinder, former Vice Chairman of the Federal Reserve System, that "the economy is one recession away from price stability"). In the near term, the rise in energy prices will push headline inflation above the core rate, while core inflation is projected to drift sideways to



moderately lower. The Fed's aggressive monetary stimulus has provided a powerful countercyclical balance to the negative shock of September 11th, but it raises long-run inflation risks.

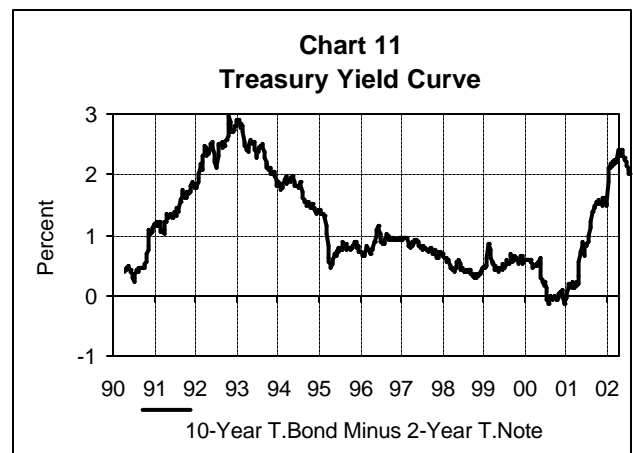
The sharp deceleration of aggregate demand during 2000Q2-2001Q4 that temporarily eliminated excess demand relative to productive capacity points toward lower near-term inflation pressures. Measured year-over-year, nominal GDP growth slowed from 7.6 percent to 2.3 percent, below potential growth of approximately 3.25-3.5 percent. A persistent squeeze of excess demand would lower price pressures. Moreover, anticipated stronger productivity gains in 2002, as businesses increase production faster than hours worked, will constrain unit labor costs and producer prices.

However, the recent behavior of inflation, influenced strongly by positive momentum in several service categories, will likely limit any near-term reduction, while monetary stimulus and accelerating demand point toward rising longer-run inflation risks. Mirroring economic performance in 2000-2001, prices of manufactured goods have declined 1.7 percent in the past 12 months, and fallen 0.9 percent excluding food and energy. In sharp contrast, service prices are up 3.2 percent, 4.1 percent excluding energy. An assessment of prices of selected components of the CPI is disturbing. Prices of the shelter component of housing expenditures, which comprise 31.5 percent of the total CPI, have accelerated from a 3.0 percent pace in early 2000 to 4.3 percent (the acceleration in owners' equivalent rental prices has been sharper). Prices of fuels and utilities in housing expenditures, which constitute another 4.5 percent of the CPI, are expected to reverse their 7.7 percent year-over-year decline, and transportation prices will rise. Prices of medical care, which constitute 5.8 percent of the CPI, have accelerated to 4.5 percent from 3.7 percent in early 2000, and government subsidies of medical expenditures point to sustained rises. Prices of educational services have also accelerated, and demand for such services are relatively price inelastic.

As aggregate demand has slumped, the U.S. economy has experienced a combination of declining output and/or easing price pressure across the large variety of goods and services, depending on differing price elasticities of demand and degrees of price flexibility. The anticipated sharp acceleration of nominal spending growth and renewed excess demand now pose inflation risks. Nominal GDP is projected to grow near 7 percent in 2001Q4-2002Q4, based on recent monetary stimulus and rising government purchases. Such excess demand would generate higher inflation unless the Fed reverses monetary policy.

Financial Market Outlook and Policy Recommendation

Fixed income markets in 2002 are expected to follow the opposite pattern as 2001. Last year, as economic performance deteriorated, real interest rates receded, the Fed eased monetary policy and the yield curve steepened as short-term rates fell faster than bond yields, and spreads on corporate bond yields relative to Treasury yields widened as falling corporate profits and jarring defaults raised risk premiums (see Chart 11). The negative shock of September 11th accentuated these trends.



Negative real short-term interest rates, a very steep yield curve and rapid money growth are consistent with recession and countercyclical monetary policy, but they are incompatible with trendline growth and low inflation. Real rates already have risen and the yield curve has flattened with signs of economic rebound. As the recovery matures, the Fed will need to raise short-term rates, and the term structure will flatten substantially further. Recovering profits and diminishing defaults will raise perceived creditworthiness and narrow corporate bond spreads.

Although the Enron default and associated heightened credit risks will not adversely affect macroeconomic performance, it likely will lead to selected corporate debt restructuring toward more conservative financing. Debt leverage will be lowered, and a greater reliance on longer-term bonds will reduce dependence on commercial paper.

The stock market has rebounded from last Fall as aggressive Fed easing and the associated prospects of recovery have lifted P/E multiples and outweighed falling profits. As the economy and profits rebound, the stock market will be strongly influenced by the path of Fed tightening and bond yields. Timely tightening that paves the way for sustainable growth with low inflation would provide a firm basis for the market; on the other hand, a sharp rise in inflationary expectations and bond yields would force the stock market lower.

As real rates rise with the recovering economy, the Fed must raise its funds rate target to drain excess liquidity. Failure to tighten and reverse its crisis-related easing eventually would generate excess demand and inflation, a recent concern in the bond markets. Moreover, with policy aggressively accommodative, prompt but steady reversal is preferable to a delayed but subsequently very sharp tightening. The latter would generate undesired wide swings in monetary policy, interest rates and demand that would harm economic performance. This scenario must be avoided.