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Statement of

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Chairman

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before the

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Since July, when I last reported to you on the conduct of monetary policy, the U.S. economy has gone through a period of considerable strain, with output contracting for a time and unemployment rising. We in the Federal Reserve System acted vigorously to adjust monetary policy in an endeavor both to limit the extent of the downturn and to hasten its completion. Despite the disruptions engendered by the terrorist attacks of September 11, the typical dynamics of the business cycle have re-emerged and are prompting a firming in economic activity. The recent evidence increasingly suggests that an economic expansion is already well under way, although an array of influences unique to this business cycle seems likely to moderate its speed.

At the time of our last report, the economy was weakening. Many firms were responding to the realization that significant overcapacity had developed. The demand for capital goods had dropped sharply, and inventories were uncomfortably high in many industries. In response, businesses slashed production, and the resulting declines in incomes amplified the cyclical downturn. Real gross domestic product did not grow in the second quarter and contracted in the third.

A coincident deceleration in activity among the world economies was evident over the past year, owing, at least in part, to the retrenchment in the high-technology sector and the global reach of the capital markets in which the firms in that sector are valued and funded. However, before the terrorist attacks, it was far from obvious that this concurrent weakness was becoming self-reinforcing. Indeed, immediately prior to September 11, some sectors exhibited tentative signs of stabilization, contributing to a hope that the worst of the previous cumulative weakness in world economic activity was nearing an end.

That hope was decisively dashed by the tragic events of early September. Adding to the intense forces weighing on asset prices and economic activity before September 11 were new

sources of uncertainty that began to press down on global demand for goods and services. Economies almost everywhere weakened further, a cause for increasing uneasiness. The simultaneous further slowing in activity raised concerns that a self-reinforcing cycle of contraction, fed by perceptions of greater economic risk, could develop. Such an event, though rare, would not be unprecedented in business-cycle history.

If ever a situation existed in which the fabric of business and consumer confidence, both here and abroad, was vulnerable to being torn, the shock of September 11 was surely it. In addition to the horrific loss of life, enormous uncertainties accompanied the unfolding events and their implications for the economy. Indeed, for a period of weeks, U.S. economic activity did drop dramatically in response to that shock.

In the immediate aftermath of the strikes, the Federal Reserve engaged in aggressive action to counter the effects of the shock on payment systems and financial markets. We provided a huge volume of reserves through open market operations, the discount window, and other means to facilitate the functioning of the financial system. We worked closely with many market participants, industry groups, and other government officials on a broad range of financial infrastructure problems that needed to be resolved quickly and in the common interest.

Still, market functioning was impaired for a time. The substantial damage to trading, settlement, and communications facilities forced many market participants to their backup sites. Owing in part to careful and thorough contingency planning, many firms, markets, and exchanges were able to resume business within a few hours or days of the attacks. Nonetheless, the episode did reveal threats to, and vulnerabilities of, the operations of financial institutions that had not been previously considered and illustrated the significant interdependence of the modern financial infrastructure. Institutions will need to continue to work diligently toward

ensuring that their backup capabilities are adequate. We at the Federal Reserve have been reexamining intensively our own contingency capabilities to ensure that our central banking functions can be performed in the most pressing of emergency circumstances.

In the weeks following the attacks, along with the drops in activity and confidence, equity prices fell markedly, and lenders became more cautious, boosting risk premiums, especially on credits already considered to be weak. In response, the Federal Reserve reduced short-term interest rates considerably further. Longer-term yields, including mortgage rates, fell to extraordinarily low levels. The monetary stimulus that we provided was visible not only in interest rates but also in a rapid growth of liquidity over the final months of the year, as gauged by the broad monetary aggregates. As the fourth quarter progressed, business and consumer confidence recovered, no doubt buoyed by successes in the war on terrorism. The improved sentiment seemed to buffer the decline in economic activity.

Indeed, in the past several months, increasing signs have emerged that some of the forces that have been restraining the economy over the past year are starting to diminish and that activity is beginning to firm. The appearance of these signs, in circumstances in which the level of the real federal funds rate was at a very low level, led the Federal Open Market Committee to keep policy unchanged at its meeting in late January, although it retained its assessment that the risks were tilted toward economic weakness.

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One key consideration in the assessment that the economy is moving through a turning point is the behavior of inventories. Stocks in many industries have been drawn down to levels at which firms will soon need to taper off their rate of liquidation, if they have not already done so. Any slowing in the rate of inventory liquidation will induce a rise in industrial production if

demand for those products is stable or is falling only moderately. That rise in production will, other things being equal, increase household income and spending. The runoff of inventories, even apart from the large reduction in motor vehicle stocks, remained sizable in the fourth quarter. Hence, with production running well below sales, the lift to income and spending from the inevitable cessation of inventory liquidation could be significant.

But that impetus to the growth of activity will be short-lived unless sustained increases in final demand kick in before the positive effects of the swing from inventory liquidation dissipate. We have seen encouraging signs in recent days that underlying trends in final demand are strengthening, although the dimensions of the pickup remain uncertain.

Most recoveries in the post-World War II period received a boost from a rebound in demand for consumer durables and housing from recession-depressed levels in addition to an abatement of inventory liquidation. Through much of last year's slowdown, however, spending by the household sector held up well and proved to be a major stabilizing force. As a consequence, although household spending should continue to trend up, the potential for significant acceleration in activity in this sector is likely to be more limited than in past cycles.

In fact, there are a number of cross currents in the outlook for household spending. In recent months, low mortgage interest rates and favorable weather have provided considerable support to homebuilding. Moreover, attractive mortgage rates have bolstered the sales of existing homes and the extraction of capital gains embedded in home equity that those sales engender. Low rates have also encouraged households to take on larger mortgages when refinancing their homes. Drawing on home equity in this manner is a significant source of funding for consumption and home modernization. The pace of such extractions likely dropped along with the decline in refinancing activity that followed the backup in mortgage rates that

began in early November. But mortgage rates remain at low levels and should continue to underpin activity in this sector.

Consumer spending received a considerable lift from the sales of new motor vehicles, which were remarkably strong in October and November owing to major financing incentives. Sales have receded somewhat, but they have remained surprisingly resilient. Other consumer spending appears to have advanced at a solid pace in recent months.

The substantial declines in the prices of natural gas, fuel oil, and gasoline have clearly provided some support to real disposable income and spending. To have a more persistent effect on the ongoing growth of total personal consumption expenditures, energy prices would need to decline further. Futures prices do not suggest that such an outcome is in the offing, though the forecast record of these markets is less than impressive.

Changes in household financial positions in recent years are probably damping consumer spending, at least to a degree. Overall household wealth relative to income has dropped from a peak multiple of about 6.3 at the end of 1999 to around 5.3 currently. Moreover, the aggregate household debt service burden, defined as the ratio of households' required debt payments to their disposable personal income, rose considerably in recent years, returning last year to its previous cyclical peak of the mid-1980s.

However, neither wealth nor the burden of debt is distributed evenly across households. Hence, the spending effects of changes in these influences also will not be evenly distributed. For example, increased debt burdens appear disproportionately attributable to higher-income households. Calculations by staff at the Federal Reserve suggest that the ratio of household liabilities to annual income for the top fifth of all households ranked by income, who accounted for 44 percent of total after-tax household income last year, rose from about 1.10 at the end of

1998 to 1.20 at the end of the third quarter of 2001. The increase for the lower four-fifths was only about half as large. Although high-income households should not experience much strain in meeting their obligations, others might. Indeed, repayment difficulties have already increased, particularly in the subprime markets for consumer loans and mortgages. Delinquency rates may well worsen as a delayed result of the strains on household finances over the past two years. Large erosions, however, do not seem likely, and the overall levels of debt and repayment delinquencies do not, as of now, appear to pose a major impediment to a moderate expansion of consumption spending going forward.

Although the macroeconomic effects of debt burdens may be limited, we have already seen significant spending restraint among the top fifth of income earners, presumably owing to the drop in equity prices. The effect of the stock market on other households' spending has been less evident. Moderate-income households have a much larger proportion of their assets in homes, and the continuing rise in the value of houses has provided greater support for their net worth. Reflecting these differences in portfolio composition, the net worth of the top fifth of income earners has dropped far more than it did for the bottom 80 percent.

As a consequence, excluding capital gains and losses from the calculation, as is the convention in our national income accounts, personal saving for the upper fifth, which had been negative during 1999 and 2000, turned positive in 2001. By contrast, the average saving rate for the lower four-fifths of households, by income, was generally positive during the second half of the 1990s and has fluctuated in a narrow range in the past two years. Accordingly, most of the change in consumption expenditures that resulted from the bull stock market, and its demise, reflected shifts in spending by upper-income households. The restraining effects from the net decline in wealth during the past two years presumably have not, as yet, fully played out and

could exert some further damping effect on the overall growth of household spending relative to that of income.

Perhaps most central to the outlook for consumer spending will be developments in the labor market. The pace of layoffs quickened last fall, especially after September 11, and the unemployment rate rose sharply. However, layoffs diminished noticeably in January, and the reported unemployment rate declined—though adjusting for seasonal influences was difficult last month. Moreover, initial claims for unemployment insurance have decreased markedly, on balance, providing further evidence of an improvement in labor market conditions. Even if the economy is on the road to recovery, the unemployment rate, in typical cyclical fashion, may resume its increase for a time, and a soft labor market could put something of a damper on consumer spending.

However, the extent of such restraint will depend on how much of any rise in unemployment is the result of weakened demand for goods and services and how much reflects strengthened productivity. In the latter case, average real incomes of workers could rise, at least partially offsetting losses of purchasing power that stem from diminished levels of employment. Indeed, preliminary data suggest that productivity has held up very well of late, and history suggests that any depressing effect of rapid productivity growth on employment is only temporary.

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The dynamics of inventory investment and the balance of factors influencing consumer demand will have important consequences for the economic outlook in coming months. But the broad contours of the present cycle have been, and will continue to be, driven by the evolution of corporate profits and capital investment.

The retrenchment in capital spending over the past year and a half was central to the sharp slowing we experienced in overall activity. The steep rise in high-tech spending that occurred in the early post-Y2K months was clearly not sustainable. The demand for many of the newer technologies was growing rapidly, but capacity was expanding even faster, and that imbalance exerted significant downward pressure on prices and the profits of producers of high-tech goods and services. New orders for equipment and software hesitated in the middle of 2000 and then fell abruptly as firms re-evaluated their capital investment programs. Uncertainty about economic prospects boosted risk premiums significantly, and this rise, in turn, propelled required, or hurdle, rates of return to markedly elevated levels. In most cases, businesses required that new investments pay off much more rapidly than they had previously. For much of last year, the resulting decline in investment outlays was fierce and unrelenting. Although the weakness was most pronounced in the technology area, reductions in capital outlays were broad-based.

These cutbacks in capital spending interacted with, and were reinforced by, falling profits and equity prices. Indeed, a striking feature of the current cyclical episode relative to many earlier ones has been the virtual absence of pricing power across much of American business, as increasing globalization and deregulation have enhanced competition. In this low-inflation environment, firms have perceived very little ability to pass cost increases on to customers. To be sure, growth in hourly labor compensation has moderated in response to slowed inflation and deteriorating economic conditions. A significant falloff in stock-option realizations and in other forms of compensation related to company performance has likely been a factor. But over most of the past year, even those smaller hourly compensation increases outstripped gains in output per hour, on balance, precipitating a marked decline in profit margins.

Business managers, with little opportunity to raise prices, have moved aggressively to stabilize cash flows by trimming workforces. These efforts have limited any rise in unit costs, attenuated the pressure on profit margins, and ultimately helped to preserve the vast majority of private-sector jobs. To the extent that businesses are successful in stabilizing and eventually boosting profits and cash flow, capital spending should begin to recover more noticeably.

Part of the reduction in pricing power observed in this cycle should be reversed as firming demand enables firms to take back large price discounts. Though such an adjustment would tend to elevate price levels, underlying inflationary cost pressures should remain contained. To be sure, output per hour is not likely to accelerate this year as much as in a typical recovery because businesses have not delayed, as they have in past recessions, shedding workers at the first indications of weakened demand. But slack in labor markets and further increases in productivity should hold labor costs in check and result in rising profit margins even with inflation remaining low.

Improved profit margins and more assured prospects for rising final demand would likely be accompanied by a decline in risk premiums from their current elevated levels toward a more normal range. With real rates of return on high-tech equipment still attractive, that should provide an additional spur to new investment. Reports from businesses around the country suggest that the exploitation of available networking and other information technologies was only partially completed when the cyclical retrenchment of the past year began. Many business managers are still of the view, according to a recent survey of purchasing managers, that less than half of currently available new, and presumably profitable, supply-chain technologies have been put into use.

Recent evidence suggests that a recovery in at least some forms of high-tech investment could already be under way. Production of semiconductors, which in the past has been a leading indicator of computer production, turned up last fall. Expenditures on computers rose at a double-digit annual rate in real terms last quarter. But investment expenditures in the communications sector, where the amount of overcapacity was substantial, as yet show few signs of turning up, and business investment in some other sectors, such as aircraft, hit by the drop in air travel, will presumably remain weak this year.

On balance, the recovery in overall spending on business fixed investment is likely to be only gradual; in particular, its growth will doubtless be less frenetic than in 1999 and early 2000—a period during which outlays were boosted by the dislocations of Y2K and the extraordinarily low cost of equity capital available to many firms. Nonetheless, if the recent more-favorable economic developments gather momentum, uncertainties will diminish, risk premiums will fall, and the pace of capital investment embodying new technologies will increase.

Even a subdued recovery would constitute a truly remarkable performance for the American economy in the face of so severe a decline in equity asset values and an unprecedented blow from terrorists to the foundations of our market systems. For, if the tentative indications that the contraction phase of this business cycle has drawn to a close are ultimately confirmed, we will have experienced a significantly milder downturn than the long history of business cycles would have led us to expect. Crucially, the imbalances that triggered the downturn and that could have prolonged this difficult period did not fester. The obvious questions are what has changed in our economy in recent decades to provide such resilience and whether such changes will persist into the future.

Doubtless, the substantial improvement in the access of business decisionmakers to real-time information has played a key role. Thirty years ago, the timeliness of available information varied across companies and industries, often resulting in differences in the speed and magnitude of their responses to changing business conditions. In contrast to the situation that prevails today, businesses did not have real-time data systems that enabled decisionmakers in different enterprises to work from essentially the same set of information. In those earlier years, imbalances were inadvertently allowed to build to such an extent that their inevitable correction engendered significant economic stress. That process of correction and the accompanying economic and financial disruptions too often led to deep and prolonged recessions. Today, businesses have large quantities of data available virtually in real time. As a consequence, they address and resolve economic imbalances far more rapidly than in the past.

The apparent increased flexibility of the American economy arguably also reflects the extent of deregulation over the past quarter century. Certainly, if the energy sector were still in the tight regulatory fetters of the 1970s, our flexibility today would be markedly less. That the collapse of Enron barely registered in the relatively recently developed markets for natural gas and electric power was encouraging. Although the terrorist attacks hit air travel especially hard over the past few months, deregulation of that industry has demonstrably increased the quantity and flexibility, if not the profitability, of air travel over the past twenty years. Trucking and rail deregulation has added flexibility to the movement of goods across our nation.

Both deregulation and innovation in the financial sector have been especially important in enhancing overall economic resilience. New financial products—including derivatives, asset-backed securities, collateralized loan obligations, and collateralized mortgage obligations, among others—have enabled risk to be dispersed more effectively to those willing to, and

presumably capable of, bearing it. Shocks to the overall economic system are accordingly less likely to create cascading credit failure. Lenders have the opportunity to be considerably more diversified, and borrowers are far less dependent on specific institutions for funds. Financial derivatives, particularly, have grown at a phenomenal pace over the past fifteen years, evidently fulfilling a need to hedge risks that were not readily deflected in earlier decades. Despite the concerns that these complex instruments have induced (an issue I will address shortly), the record of their performance, especially over the past couple of stressful years, suggests that on balance they have contributed to the development of a far more flexible and efficient financial system—both domestically and internationally—than we had just twenty or thirty years ago.

As a consequence of increased access to real-time information and, more arguably, extensive deregulation in financial and product markets and the unbundling of risk, imbalances are more likely to be readily contained, and cyclical episodes overall should be less severe than would be the case otherwise. If this is indeed the case—and it must be considered speculative until more evidence is gathered—the implied reduction in volatility, other things equal, would lower risk and equity premiums.

Other things, however, may not be wholly equal. The very technologies that appear to be the main cause of our apparent increased flexibility and resiliency may also be imparting different forms of vulnerability that could intensify or be intensified by a business cycle.

From one perspective, the ever-increasing proportion of our GDP that represents conceptual as distinct from physical value added may actually have lessened cyclical volatility. In particular, the fact that concepts cannot be held as inventories means a greater share of GDP is not subject to a type of dynamics that amplifies cyclical swings. But an economy in which concepts form an important share of valuation has its own vulnerabilities.

As the recent events surrounding Enron have highlighted, a firm is inherently fragile if its value added emanates more from conceptual as distinct from physical assets. A physical asset, whether an office building or an automotive assembly plant, has the capability of producing goods even if the reputation of the managers of such facilities falls under a cloud. The rapidity of Enron's decline is an effective illustration of the vulnerability of a firm whose market value largely rests on capitalized reputation. The physical assets of such a firm comprise a small proportion of its asset base. Trust and reputation can vanish overnight. A factory cannot.

The implications of such a loss of confidence for the macroeconomy depend importantly on how freely the conceptual capital of the fading firm can be replaced by a competitor or a new entrant into the industry. Even if entry is relatively free, macroeconomic risks can emerge if problems at one particular firm tend to make investors and counterparties uncertain about other firms that they see as potentially similarly situated. The difficulty of valuing firms that deal primarily with concepts and the growing size and importance of these firms may make our economy more susceptible to this type of contagion.

Another, more conventional determinant of stability will be the economy's degree of leverage—the extent to which debt rather than equity is financing the level of capital. The proper degree of leverage in a firm, or in an economy as a whole, is an inherently elusive figure that almost certainly changes from time to time. Clearly, firms find some leverage advantageous in enhancing returns on equity, and thus moderate leverage undoubtedly boosts the capital stock and the level of output. A sophisticated financial system, with its substantial array of instruments to unbundle risks, will tend toward a higher degree of leverage at any given level of underlying economic risk. But, the greater the degree of leverage in any economy, the greater its vulnerability to unexpected shortfalls in demand and mistakes.

Indeed, on a historical cost basis, the ratio of debt to net worth for the nonfinancial corporate business sector did rise, from 71 percent at the end of 1997 to about 81 percent at the end of the third quarter of last year, though it is still well below its level at the beginning of the recession in 1990. The ratio of interest payments to cash flow, one indicator of the consequence of leverage, has crept up in recent years, reflecting growth in debt. However, owing to lower interest rates, it remains far below its levels of the early 1990s.

Although the fears of business leverage have been mostly confined to specific sectors in recent years, concerns over potential systemic problems resulting from the vast expansion of derivatives have reemerged with the difficulties of Enron. To be sure, firms like Enron, and Long-Term Capital Management before it, were major players in the derivatives markets. But their problems were readily traceable to an old fashioned excess of debt, however acquired, as well as to opaque accounting of that leverage and lax counterparty scrutiny. Swaps and other derivatives throughout their short history, including over the past eighteen months, have been remarkably free of default. Of course, there can be latent problems in any market that expands as rapidly as these markets have. Regulators and supervisors are particularly sensitive to this possibility. Derivatives have provided greater flexibility to our financial system. But their very complexity could leave counterparties vulnerable to significant risk that they do not currently recognize, and hence these instruments potentially expose the overall system if mistakes are large. In that regard, the market's reaction to the revelations about Enron provides encouragement that the force of market discipline can be counted on over time to foster much greater transparency and increased clarity and completeness in the accounting treatment of derivatives.

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How these countervailing forces for stability evolve will surely be a major determinant of the volatility that our economy will experience in the years ahead. Monetary policy will have to be particularly sensitive to the possibility that the resiliency our economy has exhibited during the past two years signals subtle changes in the way our system functions.

Our most recent experiences underscore this possibility, along with the persistence of a long list of older, well-tested, economic verities. Inventories, especially among producers and purchasers of high-tech products, did run to excess over the past year, as sales forecasts went badly astray; alas, technology has not allowed us to see into the future any more clearly than we could previously. But technology did facilitate the quick recognition of the weakening in sales and backup of inventories. This enabled producers to respond forcefully, as evidenced by output adjustments that have resulted in the extraordinary rate of inventory liquidation we experienced late last year.

For the period just ahead, the central tendency of the forecasts of the members of the Federal Open Market Committee prepared earlier for our monetary policy report to the Congress was for real GDP to rise 2-1/2 to 3 percent during 2002. Such a pace for the growth of real output would be somewhat below the rates of growth typically seen early in previous expansions. Certain factors, such as the lack of pent-up demand in the consumer sector, significant levels of excess capacity in a number of industries, weakness and financial fragility in some key international trading partners, and persistent caution in financial markets at home, seem likely to restrain the near-term performance of the economy.

In line with past experience during the early stages of expansion, labor market performance was expected initially to lag as firms rely primarily on overtime and shifts from part-time to full-time work. The unemployment rate was anticipated to rise somewhat further

over 2002, to the area of 6 to 6-1/4 percent. FOMC members evidently anticipated that slack in resource utilization, the lagged effects of past declines in energy prices, and productivity growth will keep inflation low this year, with the price index for personal consumption expenditure increasing about 1-1/2 percent.

Despite its forecast that economic growth is likely to resume at a moderate pace, as I already noted, the Federal Open Market Committee at its meeting on January 30 saw the risks nonetheless as continuing to be weighted mainly toward conditions that may generate economic weakness in the foreseeable future. In effect, the FOMC indicated that until the dynamics of sustained expansion are more firmly in place, it remained concerned about the possibility of weak growth for a time, despite the very low level of the federal funds rate.

Although there are ample reasons to be cautious about the economic outlook, the recuperative powers of the U.S. economy, as I have tried to emphasize in my presentation, have been remarkable. When I presented our report on monetary policy to this Committee last summer, few if any of us could have anticipated events such as those to which our nation has subsequently been subjected. The economic consequences of those events and their aftermath are an integral part of the many challenges that we now collectively face. The U.S. economy has experienced a substantial shock, and, no doubt, we continue to face risks in the period ahead. But the response thus far of our citizens to these new economic challenges provides reason for encouragement.