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CONDUCT OF MONETARY POLICY

Report of the Federal Reserve Board pursuant to Section 2B of the Federal Reserve Act and the State of the Economy

HEARING

BEFORE THE

COMMITTEE ON FINANCIAL SERVICES

U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

FEBRUARY 27, 2002

Printed for the use of the Committee on Financial Services

Serial No. 107–56

U.S. GOVERNMENT PRINTING OFFICE

78–399 PS WASHINGTON : 2002

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2250 Mail: Stop SSOP, Washington, DC 20402–0001

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CONDUCT OF MONETARY POLICY

WEDNESDAY, FEBRUARY 27, 2002

U.S. HOUSE OF REPRESENTATIVES,
COMMITTEE ON FINANCIAL SERVICES,
Washington, DC.

The committee met, pursuant to call, at 10:05 a.m., in room 2128, Rayburn House Office Building, Hon. Michael G. Oxley, [chairman of the committee], presiding.

Present: Chairman Oxley; Representatives Baker, Bachus, Castle, King, Royce, Kelly, Paul, Cox, Biggert, Hart, Gillmor, Shadegg, Miller, Cantor, Grucci, Capito, Ferguson, Rogers, Tiberi, LaFalce, Frank, Kanjorski, Sanders, C. Maloney of New York, Carson, Sherman, Sandlin, Meeks, Lee, Mascara, Inslee, Schakowsky, Moore, Capuano, Ford, Hinojosa, Watt, Maloney, Hooley, Gonzalez, Tubbs Jones, Lucas KY, Shows, Israel, and Ross.

Chairman OXLEY. The hearing will come to order. Before we formally welcome Chairman Greenspan, I want to take a moment to welcome the Committee back to our newly refurbished Committee room. We've completed the bulk of our renovations to our Committee hearing rooms, which have taken a full year to accomplish.

Over the last 6 weeks, we replaced the original 40-year-old audio system with a state-of-the-art digital sound system. The new system will enable all of us, and the audience, to hear each other clearly for the first time. We also added some multimedia and broadcast capabilities to the tools available to the Committee. All of these improvements will improve the work of this Committee, and make its proceedings even more accessible to the public.

I particularly want to thank Chairman Ney for all of his support and hard work in helping us to complete this project. It probably didn't hurt to have him on the Committee either. I also want to thank all the Members of this Committee for their strong support in making every aspect of this Committee, including our hearing rooms, the best on Capitol Hill.

With that said, good morning, Chairman Greenspan, and thank you for coming here today.

The world economy has been turbulent, and you've had issues to deal with that even you've never seen before. The economy has benefited greatly from your leadership at the Fed. In these uncertain times, experience and steadiness at the helm with the central bank are particularly important, so we're all grateful for your continued service.

Before we begin today, I also wanted to say that this Committee—and the Nation—owes you its appreciation for everything the Fed did in the days immediately following September 11th. The

Fed, working with financial institutions of all kinds, all over the country, made it possible for our system to continue to work flawlessly at a time of great confusion and great peril. It is a great story, one that not enough people know about. And we owe you, and everyone at the Fed, our gratitude and I remember our conversation when you came back from Europe the day after the 11th tragedy, and your experience and dedication are most appreciated.

Terrorism gave our stagnating economy a hard shove, but so far the war has caused no lasting economic damage. In fact, our economy is rebounding from recession despite the war, and despite the difficulties experienced by individual companies in many different markets. This is an amazing testament to our fundamental economic strength.

We look forward to your views on what's happening in the economy and what else can be done to speed the economic recovery. Congress also must do its part in a number of areas. We look forward to your opinions and reactions to many of those issues.

This Committee overseas the growth engine of the economy—the companies that provide the capital for all of our businesses to expand, and to begin. That's why your visit here twice a year, and that's why we always seek your advice on things Congress can do that will help grow the economy.

Our Committee was the most productive in Congress after September 11th. We've enacted bills ranging from the Patriot Act to eliminating excess fees investors pay for operations of the SEC—the second biggest tax cut of this Administration. We passed terrorism insurance legislation and a host of other bills. Throughout it all, we were doing much more than responding to terrorism: we're trying to help the economy recover and grow.

Economic growth remains our Committee's focus today. It's more important than ever for this Committee to focus on all the ways we can remove barriers to economic growth. As you state in your testimony, "deregulation and innovation in the financial sector have been especially important in enhancing overall economic performance."

Congress has made great initial strides in the 1990s. We began to deregulate financial and product markets in Gramm-Leach-Bliley. We made sure the trading on the stock markets occurred in decimals. We worked to help investors get more information from companies so they can make informed decisions about their portfolios.

The result was unprecedented prosperity—and the unprecedented ability to bounce back after a recession after September 11.

But it's no time to rest on those accomplishments. There's a lot more to do. Now more than ever, we need to free up capitol to seed new businesses and expand existing businesses. We need to make sure that the whole value of every business is reflected in its accounting and in its financial statements. We need to increase the transparency and usefulness of financial statements to the investing public so that as much light as possible to be shed on the operations of every company.

We must continue to remove unnecessary economic and regulatory burdens on our businesses so that they can lead the economic recovery. We're trying to do that here, both by reforming the

deposit insurance system and by spearheading regulatory relief for financial institutions.

On these issues, and many others, we look forward, Mr. Chairman, to your continued advice and assistance and we appreciate your appearance here today.

With that, let me yield to the gentleman from New York, Ranking Member, Mr. LaFalce, for an opening statement.

[The prepared statement of Hon. Michael G. Oxley can be found on page 56 in the appendix.]

Mr. LAFALCE. Thank you very much.

Chairman Greenspan, it's always a pleasure to have you before us. I'd like to highlight two areas that I believe are of great importance to the economy today. The fallout from the systemic problem known as Enron, and conditions in both our domestic and global economy.

But first, I want to address monetary policy directly. I do not believe it is now appropriate to raise interest rates. I believe a move to raise rates in the weeks ahead could well jeopardize our fragile recovery in the domestic economy, and would likely have adverse consequences for the global economy. Much of my concern about the performance of the United States economy in the months ahead relates to the aftermath of the stock market bubble, the collapse of Enron, and what both have meant for the soundness of corporate financial statements and corporate governance.

Between 1995 and 2000, you and a few others grew increasingly concerned about the possibility of a stock market bubble. Essentially, the stock valuations did not reflect the underlying earnings of publicly-traded companies. The concern was that the inevitable market correction could be volatile and steep, setting off adverse reactions in investor confidence, consumer confidence, banks' willingness to lend, and so forth.

Then, most recently came Enron. Unfortunately, I believe Enron is too symptomatic of a condition that has spread across corporate America in tandem with the stock market bubble. The desire to meet the expectations of an ever-rising market drove grossly inappropriate accounting and corporate governance practices, and exposed the shortcomings of regulation in these areas.

I warned about these shortcomings shortly after our Committee obtained jurisdiction in January of 2001. I began calling in this Committee, the Rules Committee, the floor of the House, for a 200 to 300 percent increase in the budget of the SEC. In June of 2000, I sent all 600,000 of my constituents a newsletter on this subject dealing with the protection of investments and talking about the need to beware of Wall Street recommendations and to beware of the numbers explaining the earnings manipulation that has been taking place across corporate America, calling the conditions that existed in June 2001 the tip of the iceberg and calling upon our Committee to focus on one issue primarily: accounting.

It took Enron to give this issue the attention it deserves. Unfortunately, I believe we have to be at least as concerned about these very same issues internationally. If the United States purportedly has the highest corporate financial standards in the world, what are we to make of the potential for Enrons in countries like Japan, China, India, even the EU, all of which have well-developed finan-

cial markets but may have less than adequate regulatory standards. And our Big Five accounting firms are in virtually every major city in the world and very often the same auditors of the largest global companies.

With an eye toward the global economy, I now want to go back to the issue of U.S. monetary policy. It's clear to me that U.S. monetary policy has an increasingly long reach, extending well beyond our domestic borders. In particular, I'm concerned about the impact of premature rate increases in the United States on the situations in Japan and in Europe. In Japan, because they've had a stagnant economy for a decade, and are the second largest economy in the world. In Europe, because it's going through the difficult process of solidifying a centralized monetary policy and achieving economic integration while also bringing in about ten new countries into the union. I believe it's critical that the United States be cognizant of any policies that could impact economic conditions globally, especially in Japan and the EU.

With respect to the EU, the member countries of it are in the midst of a grand political, social, and economic experiment not unlike the one our own founding fathers embarked on 226 years ago, and the global economy will be the ultimate beneficiary of successful economic integration. I hope that we, in our monetary and fiscal policy, will do all in our power to help support that endeavor. And Dr. Greenspan, I hope in the course of this morning's dialogue, you'll be able to discuss some of these issues too.

Thank you.

Chairman OXLEY. The Chair is now pleased to recognize the gentlelady from New York, Mrs. Maloney.

Mrs. MALONEY. Thank you.

Good morning, Mr. Greenspan, and thank you for appearing before us today. After eleven interest rate cuts over the last year, we are all hoping that the Fed will report that the country is through the worst of the recession and that growth is ahead. While we're all hoping for a turnaround in the coming months, as many as two million Americans are expected to exhaust their unemployment insurance. These families cannot wait until a rising tide lifts all boats. The combination of the recession and the economic impact of the World Trade Center has made the situation particularly dire for your home State of New York, where 71 percent more people are now on unemployment insurance than at the same time last year.

Last quarter alone, 65,000 New Yorkers exhausted their unemployment insurance benefits. The good news is that both the Democrats and the Republicans agree that we should help these families and pass a 13-week extension of unemployment benefits. I hope the House will soon follow the Senate and pass a clean unemployment extension.

I am concerned that the predictions of some of the economists—and some of them have stated that they are concerned that positive statements from you today could foreshadow increases in interest rates; in fact, futures traders are betting that the Federal fund rate will rise this summer. My concern is that the Fed may reverse direction and begin to put the brakes on the recovery before out-of-work people benefit from the turnaround in our economy.

Other questions that I look forward to hearing from you today are your views on the failure of Enron, and the crisis of confidence it has caused in our financial markets. Also, in New York City, constituents tell me that the lack of terrorism insurance is holding back building projects, causing a credit crunch, and stalling the City's overall recovery. I look forward to your comments on insurance and its impact on our economy.

Finally, since your last appearance, our Government finances have turned 180 degrees. We have shrunk a $5.6 trillion unified surplus by $4 trillion. This is the most radical fiscal reversal in my lifetime. New spending to fight terrorism, to protect the homeland and to rebuild after the attacks is definitely legitimate, but I am very much opposed to the very expensive, retroactive special interest tax breaks that are likewise proposed. One earlier version of the budget even included a tax break for Enron. I look forward to your testimony today, as always. Thank you for being here.

Chairman OXLEY. The gentlelady's time has expired.

We now turn to our distinguished witness, the Chairman of the Federal Reserve, Dr. Greenspan.

STATEMENT OF HON. ALAN GREENSPAN, CHAIRMAN, BOARD OF GOVERNORS, FEDERAL RESERVE SYSTEM.

Mr. GREENSPAN. Thank you very much, Mr. Chairman. I've a rather extended statement and I will excerpt from it, but request that the full statement be included for the record.

Chairman OXLEY. Without objection.

Mr. GREENSPAN. Since last 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. An array of influences unique to this business cycle, however, seems likely to moderate the speed of the anticipated recovery.

One key consideration in the assessment that the economy is close to a turning point is the behavior of inventories. Stocks in many industries have been growing 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, all other things being equal, increase household income and spending.

But that impetus to the growth of that activity will be short-lived unless sustained increases in final demand kick in before the positive effects of the swing from inventory liquidation dissipate. Through much of last year's slowdown, 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.

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, increased debt burdens appear disproportionately attributable to higher income households. As a result, although repayment difficulties have already increased, particularly in the sub-prime markets for consumer loans and mortgages, 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.

We have already seen significant spending restraint among the top fifth of income earners, presumably owing to the drop in equity prices. Moderate income households have a much larger proportion of their assets in homes, and the continuing rise in the value of houses has provider 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.

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 2 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 11th, and the unemployment rate rose sharply. However, layoffs diminished noticeably in January, and 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 unemployment is only temporary.

While the balance of factors influencing consumer demand will have important consequences for the economic outlook in coming months, 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. New orders for equipment and software hesitated in the middle of the year 2000 and then fell abruptly as firms re-evaluated their capital investment programs. For much of the last year, the decline in investment outlays was fierce and unrelenting.

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 past cost increases on to customers.

Business managers, with little opportunity to raise prices, have moved aggressively to stabilize cash flows by trimming work forces. 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.

Part of the reduction in pricing power observed in this cycle should be reversed as firming demand enables companies to take back large price discounts. Though such an adjustment would tend to elevate price levels, underlying inflationary cost pressures should remain contained. 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 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.

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.

Even a subdued recovery beginning soon 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 is drawing 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. The large quantities of data available virtually in real time allow busi-

nesses to 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 was still in the tight regulatory fetters of the 1970s, our flexibility today would be markedly less. Airline, trucking, and rail deregulation has added flexibility to the movement of people and 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—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 15 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 last couple of stressful years, suggests that on balance they have contributed to the development of a far more flexible and efficient financial system.

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.

However, 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 gross domestic product 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 the type of dynamics that amplify 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 macro economy 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, macro economic risks

can emerge if problems at one particular firm tend to make investors and counterparties uncertain about 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. 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.

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 18 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 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.

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 2 years signals subtle changes in the way our system functions.

Although there are ample reasons to be cautious about the economic outlook, the recuperative powers of the United States economy, as I have tried to emphasize in my presentation this morning, have been remarkable. When I reported on monetary policy to the 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.

Thank you very much, Mr. Chairman. I look forward to your questions.

[The prepared statement of Hon. Alan Greenspan can be found on page 59 in the appendix.]

Chairman OXLEY. Thank you, Mr. Chairman, and it's always good to have you here in front of the Committee. Let me begin.

Obviously, your statements regarding Enron were timely and probably predictable as well, and I suspect the questions will be in that regard as well.

In light of recent market movements, in the wake of Enron, it has been suggested by some that ultimately the market does a far better job of deterring abuses than does Government.

What are your thoughts in that regard, and what would be some suggestions that you would give this Committee as we work our way through some of these difficult issues?

Mr. GREENSPAN. I think Enron, as I indicated to the Senate Budget Committee the other day, is not a significantly negative event to the economy and, in fact, in the long run, its emergence may alter the way we govern corporations. That the long history of corporate governance will continue to be a very substantial and positive force for economic growth and productivity. I do believe that something fundamentally different has happened in this most recent period, and I think it's important for us to go back and look at the causes of it.

I would say particularly what has changed from the way I recall corporate governance, stock prices, stock markets, security analysis, years ago, is that in earlier years there was not any really significant emphasis of the type we see today on short-term corporate earnings. Indeed, dividends were exceptionally high. In fact, the yield on dividends before 1950 for several years was 6 percent; it's now a little more than 1 percent. And if most of what you get from a corporation is cash, you don't worry about how it was calculated, you just take the money and that's it. But one with the significant change that occurred with the propensity to buy back stock, which only occurred in the early 1980s with rulings which somehow delimited the concerns that stock buybacks would be perceived as price manipulation. That very act caused a very major shift from cash dividends to stock purchase.

Two other events were very important in that context to create the environment which ultimately led to the Enron debacle. One was the unfortunate reversal of the FASEB ruling in the early 1990s about stock option accounting. We estimate that over the past—or say the period 1995 to the year 2000—almost 3 full percentage points of the annual average gain in earnings resulted from the fact that stock options, rather than cash, was used as compensation amongst our major corporations. This undoubtedly had an effect of accelerating the earnings outlook which in turn had been very significantly propelled upward by the structural change in productivity.

And so what occurred as a consequence of all of these forces was an endeavor to try to game the accounting systemin a manner to

create the perception of short-term earnings growth which would be confused with long-term earnings growth. If long-term earnings growth were properly evaluated over this period, I don't think we would have had very much of the type of problems that we've had, but there's been a significant endeavor to make the data look as though something fundamentally different is going on in corporate America, and that has been unfortunate.

Much of that has already been reversed by the market. There is now a very significant shift toward corporations endeavoring to be far more transparent on what they are doing, the markets are clearly creating price earnings premiums for corporations which are perceived to be without spin, so to speak. And so a goodly part of what needs to be done to restore corporate governance to where it was in earlier years, and I must say back then it did a pretty good job, and the vast majority of corporate governance in today's markets, even with Enron debacle, is of superior nature and indeed far superior than any other place in the world, but we do need to fix what is wrong with our system, and I would suggest that a proper diagnosis is clearly the first step in determining what should be done.

Chairman OXLEY. Thank you, Mr. Chairman. My time has expired.

Let me now yield now to the gentleman from New York, the Ranking Member, Mr. LaFalce.

Mr. LAFALCE. Thank you very much, Mr. Chairman. I disagree with you fundamentally and also with Dr. Greenspan in some of his introductory comments. First of all, I think we've shown that we cannot rely on the unfettered magic of the marketplace alone. That with respect to publicly traded there must be significant regulation. That the SROs, the self-regulatory organizations have not worked. They've not worked with respect to the securities analysts, they've not worked with respect to the accounting firms. We need a significantly enhanced role for the Securities & Exchange Commission. We need to appropriate moneys for pay parity. We need to significantly enhance their resources to do the job, because so many Americans today do have almost all of their wealth in the markets. They have defined contribution plans today rather than defined benefit plans. They're not putting their money in banks where you, Chairman Greenspan, have your examiners there on a daily basis, where the State bank examiners are there on a daily basis. They're in the markets and we need to protect them.

I disagree with you when you say that Enron is not a significant event. I think Enron is a most significant event. I think we can, you know, make lemonade out of lemons to be sure but we can never deal with the fact that four to five trillion dollars of American money has been lost in the markets, a great amount due to the excesses, to the bubble, to the speculation, but a significant amount due to earnings manipulation.

Now, where I do agree with you strongly is with respect to stock options. So much of what took place was done by corporate officers and the audit committees of boards of directors, all with stock options that were interested in one thing and one thing only. And that was enhancing market capitalization so that they could have

a good return on those stock options. And we must deal with all of those.

Now who's we? We is Government. The marketplace will be more vigilant now for a month, for two, maybe a year or so, but nothing can substitute for a strong regulatory environment for our publicly traded companies, and that's what we must achieve. And if anybody thinks that we can achieve the end result of protection of American investors without that, they are deluded.

Now, having said that——

Mr. GREENSPAN. Can I respond?

Mr. LAFALCE. Sure.

[Laughter.]

Mr. GREENSPAN. You are quite correct, I might add, in saying that we need more resources for the Securities & Exchange Commission, especially on the pay parity issue, which I think is long overdue. I did not say, nor do I believe that there are not adjustments that are required and indeed ought to be made and I would start off with the way we account for stock options, I would account for a number of other issues as to the way we have corporate governance, because significant things have happened in the recent decades which require adjustment.

I want to emphasize, however, that the overall level of corporate governance has served us well over recent decades including the current period by the vast majority of corporations who see their, management sees their self-interest as coincident with those of shareholders. I don't want to get into the economics of this, but if we could make that tie locked in some manner or another, we will maximize the allocation of capital in this economy.

There has been a severance, in my judgment, of the interests of the chief executive officer in many corporations from those of the shareholders, and that should be pulled together. Stock options help but not if they are functioning in the manner in which they currently are.

Mr. LAFALCE. Dr. Greenspan, if I could just get one question. Could you comment on the conduct of United States monetary policy within the global context, given the fact that there is now one monetary policymaker in Europe that they are achieving integration with, while at the same time expanding, that Japan has been in the doldrums for a decade or so and the interplay that goes on in your decisionmaking between the domestic and the global economy.

Mr. GREENSPAN. Well, Congressman, as you well know, our mandate is to maximize long-term sustainable economic growth in the United States. I mean, we consider foreign conditions only to the extent statutorily as they impact on us, and obviously as they increasingly do so, we become far more interested in what's going on in the world and respond to it. And indeed, we have. In other words, a considerable part of our analysis of what's been going on in the American economy in recent years has had a very high level of international interrelationship and fallout in certain respects. So we do evaluate the European economy, the Japanese economy, East Asia, Latin America, at a fairly extensive level to make certain that our policy, which is implemented here and focused on the American

system is not going to be deflected by events that we perceive are occurring more abroad.

Chairman OXLEY. The gentleman's time has expired. The Chair is now pleased to recognize the gentleman from New York, Mr. King.

Mr. KING. Thank you, Mr. Chairman. Good morning, Mr. Greenspan. It's always a pleasure to have you here. Let me just at the outset, as a New Yorker and as an American commend you for the critical role you and the Fed played in providing the liquidity that was so important after September 11th. It was very reassuring and I want to thank you for that.

I'm going to focus my questions on the question of interest rates. And this in a way is a follow-up to what Mr. LaFalce was talking about with the Japanese economy being in the doldrums. I would ask you if you could just make some comments on how low interest rates can go before the cutting of the interest rates loses its impact. Now Japan has had low interest rates for a number of years and it appears that has had no impact as far as rebuilding the economy. If you could tell us how close you think we are to that level where perhaps it can't go any lower.

Second, in that regard, even though the rates have gone down, the discount rate has gone down, the long-term rates have not gone down. How essential do you believe the reduction of long-term rates are to the long-term growth of the economy?

Mr. GREENSPAN. Well, Congressman, I would not view the Japanese experience as a general experience with respect to how low interest rates could or could not go. The problem in Japan, as I've indicated on many occasions, is that they have only one major form of financial intermediation, which is their banking system, and their banking system, as you know, is in very serious difficulty, so that the ability of monetary policy to function, in my judgment, is impaired in a manner which makes it very difficult to read what basically the level of rates and the level of economic activity are doing. I think it's very difficult and one should not generalize from the Japanese experience.

The issue of long-term rates is quite an important one because, while undoubtedly short-term rates do have significant impacts on the American economy, far more it relates to longer-term rates. Longer term rates are a function essentially of, one, inflation expectations, and the underlying real rate itself. And what we have observed in this economy is that long-term rates did come down quite materially at the tail end of the year 2000, but have essentially stabilized, as I think you pointed out, for the last year or so. But they have stabilized their relatively low historic rate and indeed one can observe what's occurring in the housing market to basically see the impact of what mortgage rates have done.

So it's a complex issue but at the moment I think that we do not see any really significant inflation premiums embodied in long-term rates and that frankly is a good sign.

Mr. KING. One follow up question, Chairman Greenspan, is regarding the Argentine and Japanese economies. How significant do you think their doldrums are going to have on our prospects for long-term growth?

Mr. GREENSPAN. Well, as difficult as the problems in Argentina are, and they're really having considerable structural problems, and we only hope that they can correct them as quickly as possible, they have not had a contagion effect where one would ordinarily have expected them to have an effect, specifically in Brazil where markets are doing reasonably well and especially in Mexico, which has done quite well. So in Latin America, it's important that Argentina stabilize as quickly as they are capable of doing, but fortunately, there's not been significant fallout.

Japan has been essentially stable for a decade now. Growth has been effectively zero. And it's difficult to read exactly how changes in the Japanese economy impact the rest of the world. Clearly to the extent that they are the second largest economy in the world, they do affect us, and clearly what is going on in Japan is negative to the United States outlook. But I do not perceive it as a major factor containing a recovery in the United States which we believe is just beginning to get underway.

Mr. KING. Thank you, Chairman Greenspan, Mr. Chairman.

Chairman OXLEY. The gentleman's time has expired.

The gentlelady from New York, Mrs. Maloney.

Mrs. MALONEY. Thank you, Mr. Chairman.

Mr. Chairman, I want to likewise thank you for moving quickly and dropping interest rates 50 basis points in the very uncertain environment the day the financial markets opened shortly after September 11th. As New York works to recover from the terrorist attack, it's critical that we have an accurate assessment of the economic damage to our city, State and the private sector.

After having contacted CBO and many other agencies, no single Federal entity is compiling an in-depth analysis of the economic impact on New York and costs to its institutions. I know the New York Federal Reserve has a very large and accomplished research staff and I would like to appeal to you, and will do so separately, to President McDonough, for just such a well-researched economic analysis. New York really needs your help. Could you help us with this?

Mr. GREENSPAN. Well, Congresswoman, I agree with you that the Federal Reserve economic staff is first rate and a considerable part of what they do is a continuous evaluation of the Second District, obviously New York City being a very major part of that district. But I will communicate to them, and I assume you will speak to President McDonough, and my impression is that they probably are fairly far along in examining the type of issues that you think are important to be examined.

Mrs. MALONEY. That would be extremely helpful. As a Representative from New York, I am spending a great deal of my time on the recovery effort. One of the areas that I am hearing tremendous concern from my constituents is the lack of availability of terrorism insurance, the escalating cost of insurance. Many building projects and proposals have not been funded and turned down by the banks as being too risky, and there appears to be a credit crunch that is stalling the recovery of New York City and New York State. I would like to hear your comments on the fallout from the lack of insurance, terrorism insurance, and do you think a Fed-

eral reinsurance program is necessary? Could you share your thoughts?

Mr. GREENSPAN. Well, we have obviously spent a good deal of time on exactly that issue, because it's a crucial aspect of a fairly large segment of the economy. The difficulty that one has when dealing with terrorism insurance is that it is exceptionally difficult for an insurer or even a reinsurer to have any sense whatever of what the probability distribution of a terrorist event is and, more importantly, what is its magnitude. In all insurance, you have to have some general knowledge of what the parameters of what could happen are, or you cannot set premiums. In this case, it is virtually impossible to do so and a number of people have argued I think somewhat effectively that what may be necessary here is for the Congress to stipulate that in the event of a terrorist attack clearly defined as a terrorist attack, that the Federal Government, with some deductible, would cover the cost of that.

The problem that you have with trying to do it before the event is it's almost impossible to know precisely how to construct a response to it, but if individuals know that after the fact that it will, in fact, be covered one may hope that you can construct a means by which there can be some form of reinsurance to remove the types of problems that we see. This is an issue which I think there is considerable dispute on, because we don't know what the nature of what it is we are facing. But I'm one who thinks that we ought to be addressing this not solely because of its impact on the economy, but there is a very difficult problem of how one handles things over which one is not responsible. The issue of home security is now, in fact, indistinguishable from our national defense budgets, and much of that has the same basis of taxation for financing.

Mrs. MALONEY. Thank you very much. And I ask unanimous consent to add additional questions to the record. Thank you.

Chairman OXLEY. Without objection.

The Chair now is pleased to recognize the gentleman from Alabama, the Chairman of the Financial Institutions Subcommittee, Mr. Bachus.

Mr. BACHUS. Thank you, Mr. Chairman.

Chairman Greenspan, first of all I welcome your written testimony on Enron. You're on the President's working group and I think what you said here is very valid as to what happened at Enron.

My question is—I'm not going to ask you for a prediction—I'm going to ask you for what's happening real time. I know you have folks at the Fed who look over data. You spend a lot of time focusing on productivity. My question is a simple one. You talked about through the last decade a surge in productivity. Real time, are we continuing to see an increase in productivity, or is it slackening, is it constant, or is it declining?

Mr. GREENSPAN. Well, Congressman, the data that now appear to be in real time, as you put it, probably are exaggerating the underlying trend in productivity, if for no other reason than the numbers look just too large to be credible. We're going to have another upward revision in the fourth quarter's productivity numbers, and if you take a look at the first quarter, we already have a good deal

of data in on both the numerator and denominator of output per hour. And at this particular stage, unless average hours worked rises very sharply in the February-March period, for which we don't as yet have data, and/or payroll numbers rise significantly, we're going to have a very large increase in the first quarter. So while I doubt very much if they will be representative of the true underlying trend, the do nonetheless confirm that the long-term trend of productivity has managed to sustain itself through these very difficult times of say the second quarter of the year 2000 to date. That doesn't necessarily mean it will continue, but since you didn't ask me for a forecast——

Mr. BACHUS. No, that's right.

Mr. GREENSPAN. And I think the real time data are really quite impressive.

Mr. BACHUS. Thank you very much, appreciate that. I'm going to yield the balance of my time to the gentlelady from Pennsylvania, Ms. Hart.

Ms. HART. Thank you, Mr. Bachus. I have a question actually regarding interest rates. They've obviously been quite helpful to some businesses we've heard. However, in my district there are some smaller and medium-sized businesses that now are having serious trouble getting access to credit caused by the new pressure on loan portfolios. Do you have evidence of the tightening of that kind of credit, particularly available to kind of the main street-type businesses? And if so, do you expect that to have a negative impact on our efforts to pull out of the recession?

Mr. GREENSPAN. Congresswoman, the evidence there is mixed. We are observing certain tightening in some of the banks of a modest type. We've not yet seen, or I don't know whether you could say not yet, but we do not see the general pressure on small business as reported by the National Federation of Independent Business. They have a fairly extensive survey of their members, of credit conditions available to them, and their series have not indicated any really serious concerns. But it's highly unlikely, in a period such as we've been running through, that there wouldn't be some difficulties. Indeed, if somebody told me there were none, I would say the data are wrong. So there clearly are such events.

Hopefully, if the economy continues to show the signs that it has been exhibiting of late, some of that pressure will be removed, and I would hope that the opening up of profit margins and improved balance sheets would bring a number of especially smaller enterprises up to a level where credit availability is no longer a difficulty for them.

Ms. HART. Is there an action regarding that that you think the Fed could take or should take that would be appropriate that would help them?

Mr. GREENSPAN. I don't think that there's anything that we, the Federal Reserve, can do and at the moment frankly I don't think anything really needs to be done because, unless I'm mistaken and this whole change in the economic environment is a false dawn, then things should improve.

Ms. HART. Thank you. Also there was a report released yesterday. This is dealing with the steel issue and all the bankruptcies we've had in the steel industry. American University released a re-

port that if the Administration didn't act strongly regarding the 201 and either implementing a tariff rate of maybe 40 percent or so, that about 325,000 American steel jobs would be lost in the coming months.

Mr. GREENSPAN. How many?

Ms. HART. About 325,000.

Mr. GREENSPAN. There aren't 325,000.

Ms. HART. I think it's steel producing jobs around that industry.

Mr. GREENSPAN. I see.

Ms. HART. Anyway, there already are a significant number of bankruptcies. There are many more companies, especially in the area that I represent, and I think a lot of the areas in the midwest and in the east, that would lose a lot more jobs. And the bankruptcies are also affecting office suppliers and others.

What effect do you think that would also have on the economy in general? Do you think it's large enough to affect it in general? And do you think it would slow our pulling out of the recession as well?

Mr. GREENSPAN. Now, as you know, the President has to make a judgment before March 6th on the 201. It's a difficult decision for lots of obvious reasons. But I think the important issue which is on the table is not only the impact that it has on, one, jobs, and the 600,000 retirees in the steel industry, who have as we call significant legacy costs, but it's also an issue of what a marked increase in steel import prices would do to the costs of steel using industries, of which the numbers are quite significantly larger than the roughly 150,000, 175,000 who work directly in the steel industry.

In my judgment, far more important than that, because neither of those two issues are big as far as the domestic economy is concerned, is the implication for our international trade posture. And here the whole question of the importance of international trade and how we handle it is critical to, in my judgment, the next number of years, because even though I raise the issue of the flexibility and resiliency of our economy being the major reason for the fact that we didn't go into a severe contraction in this most recent period, but what I didn't mention but which is also the case is a very substantial part of the economic growth that we've experienced in the post-World War II period occurs as a consequence of the opening up of international markets for which the United States has been the largest recipient of growth as far as I can evaluate. So I think the President's got a very difficult set of choices before him, and I wish him well.

[Laughter.]

Chairman OXLEY. The gentleman's time has expired.

Ms. HART. Thank you Mr. Bachus, thank you, Mr. Chairman.

Chairman OXLEY. The gentleman from Massachusetts, Mr. Frank.

Mr. FRANK. This illustrates the dilemma, the colloquy you just had, which is this. You and many others believe, and I share that to some extent, that the increased open trade regime is helpful to the economy. One of the major obstacles is precisely the resistance engendered by the only 175,000 people who may lose their jobs.

They tend not to think of themselves as "only." Well, from the macro standpoint, they're only; for them, they're it.

And I am afraid that we may be exacerbating that. I read the Administration's analytical perspectives on the budget and they, in their analysis on page 24, come back to something we've discussed before, the NAIRU, the non-accelerating inflation rate of unemployment and give it a much higher rate than I think experience has shown. And their projection is that given everything they want to do, this is their optimistic projection. If the Administration gets all that it wants in the budget, unemployment will level off at 4.9 percent for the next decade and stay at 4.9 percent. It's about 25 percent higher than we had managed to get it during the growth. Here's what troubles me.

You say, and I hope you're right and I'm inclined to agree that the productivity gains that we have been having are not going away. It's the productivity gains in part that helped us get the unemployment rate lower consistent with low inflation. If in fact, you're accurate, I hope you're going to tell me you don't agree with this, because if you're going to go to a 4.9 percent best case unemployment, we're talking about 4.9 percent after the recession and full recovery. If that's as low as we can get it, if, in fact, the Administration is correct, and I don't believe they are, that there's an economic rule that says we can't go below 4.9 percent for any considerable period lest we trigger inflation. Then not only is that going to be socially a problem but it's going to exacerbate precisely the resistance to the kind of trade regime you want to see. So I'd be interested in your comment.

Do you agree with them. I know you've been skeptical about the whole concept of NAIRU but is it, in fact, the case that we're going to have 4.9 percent unemployment best case, going out, 25 percent higher than we've been able to get to?

Mr. GREENSPAN. I don't consider the fact that there's a 50,000, 100,000, 175,000 jobs at stake an irrelevant consideration. Indeed, it's much less than that because, as you know, half the industry is minimills, and they're not in the same difficulties that the so-called traditional coke operated and blast-furnace steel type of operation is in.

But my own judgment is that we should focus very significantly on making certain that those, who through no fault of their own lose their jobs because of the opening up of international markets, that we make certain that they are appropriately compensated and taken care of by any number of programs which one can conceive of.

Mr. FRANK. All right, let me just ask in the written part. I want to get to some other questions. I'd be interested if you would give me a list of the ways of compensating people who are getting hurt this way that the Federal Reserve would think was a good idea.

And the problem of course is that we're in a budgetary situation in which some of those things are being cut and not expanded, but I'd be interested in the programs you supported.

Mr. GREENSPAN. Let me put it this way. In this regard, I'm speaking for myself, not the Federal Reserve.

Mr. FRANK. Well, I'll take a few personally. It's OK, the rest are on their own. I'll ask for that from you personally. But do you think

4.9 percent, though—let's get back to the macro question—do you think 4.9 percent is as good as we can do for the next 10 years unemployment?

Mr. GREENSPAN. No, Congressman. I have not changed my view on that since we discussed it last. And I have serious questions about the concept itself, because I don't believe it's a stable number and I don't believe that one can categorize.

Mr. FRANK. Well, I appreciate that and I think having the Administration's official projection be that again, this is assuming that they get everything they want in terms of policy, we're going to be at 4.9 percent. That's very discouraging so I hope the next time you and Mr. Hubbard are talking, you might bring that up.

Let me ask you another question about long-term interest rates. In the written report we got, on page 23, it talks about the failure of long-term rates to continue to drop, although, as you said, they've dropped some, and the report says, "they may also have been held up last year by an increased likelihood of Federal budget deficits and investors' optimism about future economic prospects." Now that's another issue. Some have argued that the budget deficit is irrelevant or has only very slight relevance to long-term interest rates. Would you elaborate on that?

Mr. GREENSPAN. I've always argued that there is a relationship and indeed I think the markets respond as though there is a relationship, and I think quite properly so.

Mr. FRANK. Well if the markets respond that way, then there is obviously.

Mr. GREENSPAN. Of course.

Mr. FRANK. So you think there is a—you're unusually reticent. I hope it's not simply the reluctance to disagree with the Administration that gives us the shortest answer I've ever heard you give on an important issue.

[Laughter.]

Mr. FRANK. Would you elaborate a little more? Do you believe that the switch in the Federal fiscal situation from expected surplus to expected deficit has had an impact in keeping long-term interest rates from dropping as much as they otherwise might?

Mr. GREENSPAN. No. As I've commented and testified previously, I do believe that the extent to which interest rates have not come down as much as they ordinarily would have in a period say such as this is partly the result of a change in the long-term fiscal policy.

Mr. FRANK. That's two things to talk to Mr. Hubbard about.

Chairman OXLEY. The gentleman from Louisiana, Mr. Baker.

Mr. GREENSPAN. I agree with most of what he says, however.

Mr. FRANK. Well, the Republicans can ask you that, Mr. Greenspan.

Chairman OXLEY. Call on Mr. Baker.

Mr. BAKER. Thank you, Mr. Chairman.

Chairman Greenspan, welcome. I wanted to return to what I believe is the underlying economic perspective of the statement this morning which is essentially that an information-based economy must have access to accurate free flow of information in order for it to function properly. Even with the free flow of such accurate information, that would not predetermine the advisability of some

particular capital investment decision, but real time accurate information enables proper balancing of equities to minimize potential market distortions which have resulted from the release of misleading data. Thus, any revision of a rule, regulation, or statute that provides for additional transparency, responsibility for disclosure of material facts, even more forward-looking statement responsibility should, to the contrary opinion of some, minimize, not enhance, market volatilities.

As I understand your statement, reputational capital or the belief that a non-marketed idea has significant value, underscores the need for meaningful corporate disclosure. Additionally, it is appropriate I think for careful review of all corporate governance standards, given the fact that reputation has driven many investment decisions. Some have suggesting that Government regulation can move faster than the markets to preclude unwarranted activity. I don't believe that is well-founded. Certainly smart investment individuals know that Rule 10.b[5] exists and fraudulent conduct can take you directly to jail without going anywhere else first.

And for those who choose to distort and misrepresent, Government can provide for consequences of that inappropriate behavior, but we cannot preclude such behavior. However, real time disclosure of accurate information to the markets provides a much more difficult problem for those who choose to pursue ill advised course, and that is an inability to secure the capital in the first place to engage in an ill advised investment practice. Therefore, my question goes to the advisability of the Committee's future work, not only to examine but to modify where justified disclosure requirements, the nature of the disclosures to be made, the timing of the disclosures, to define more clearly the responsibilities of corporate executives and members of the board, not only to disclose material facts but to ensure the independence of the audit team in reporting of the accurate financial condition of the corporation.

Such a system should ensure that markets, and by that I mean every investor, has a platform to make a decision from which real information leads to sound investment strategies, not always success but the best possible strategy one can devise from his own perspective.

Looking backward, Rule FAS–133, for example, on the treatment of derivatives reporting, even the fair disclosure regulation I would suggest has not resulted in the type of disclosure regimes which I think enable competent investment decisions to be made. And we should be encouraging real time material fact disclosure, forward-looking statements in order to ensure that information flows precedent to the decision being made. Can you comment?

Mr. GREENSPAN. Yes. Congressman, I generally agree with the whole thrust of your remarks. Let me just say this, that it's a very complex issue and clearly as we move toward an increasingly conceptual environment, the values that are relevant to producing future income flows and hence the market value of a firm, depend very much on, as I said in my prepared remarks, ideas which you cannot physically feel.

Mr. BAKER. Let me interrupt on that. Particularly on that point, a report that indicates the historical position of the corporation, which is 90 days old does not indicate where an idea-driven cor-

poration is going in the next 30 days, and the reporting system itself leads to some misrepresentation in the investor's mind.

Mr. GREENSPAN. I think that is a very relevant consideration. I would say that in periods in the past when most wealth was visible, in other words, you had automotive plants, petrochemical feedstock operations, steel mills, there was real assets which one could evaluate and you couldn't spin what your open hearth furnace capacity was, it was real.

In today's environment, it is very important that the form of disclosure essentially fit the nature of the value creation process.

Mr. BAKER. And that the disclosure is complete so there's not off-balance-sheet obligations which do not reflect the true financial condition of the corporation.

Mr. GREENSPAN. I would say, however, that it is important to remember that no matter what you do, unless you changes the incentives to game the GAAP accounting system, it will be gamed.

Mr. BAKER. Well, if an executive has a no-cost——

Chairman OXLEY. The gentleman's time has expired.

Mr. BAKER. Just three seconds. If an executive has a no-cost option, can run up the stock price, capture that, and then do a restatement of earnings 6 months later, the shareholder takes the loss, the executive doesn't, and I think that's something we need to look at.

Mr. GREENSPAN. Agreed.

Chairman OXLEY. The gentleman from Pennsylvania, Mr. Kanjorski.

Mr. KANJORSKI. Thank you, Mr. Chairman.

Mr. Chairman, following up on Mrs. Maloney's question on terrorism insurance, we are going to have a hearing later on this afternoon on that very issue to see what the risk is to the economy. But, I would like to find out whether or not the Federal Reserve has gathered any evidence to demonstrate that this lack of coverage has caused any drag on the economy, or what the potential future of the economy is, and most of all, how you see the potential risk and exposure of our banks? Has there been any use of the failure to acquire terrorism insurance as a default mechanism in some of our financial institutions?

Mr. GREENSPAN. Congressman, we haven't seen any impact of that nature on the banks. Indeed, much of the problem is it's presumed that banks won't lend unless a particular borrower has forms of insurance which previously they did not need. So the problem is not threats to the banking system, the problem basically is whether or not the types of real estate activity which occurred in the past very readily is being held up. Whether construction's being held up, whether, in fact, there's a significant impact on the economy.

To date, in an aggregative sense, it does not appear to be the case. We are still struggling to get enough adequate data to make judgments but clearly there have been effects. What we do not know is what the aggregate size of those effects are because we largely are dealing with anecdotal rather than macro economic data systems. Hopefully at some point, we'll be able to get considerably more information but at this stage, I think it's actually too early to make a judgment of that type.

Mr. KANJORSKI. But could I assume, though, that you feel that the Congress should take action and provide some sort of backstop?

Mr. GREENSPAN. I personally do, yes.

Mr. KANJORSKI. Now, moving to an entirely different matter, the Federal Reserve and the Treasury Department have had under consideration a proposal that would allow national banks and financial holding companies to engage in real estate management and brokerage. The proposal has attracted considerable opposition here on the Hill. As you know, in passing the Gramm-Leach-Bliley Act, Congress did not intend for banks to engage in commerce. But this proposal, in my estimation, would subvert congressional intent. What is the status of this ill-conceived regulation? Could we get a report?

Mr. GREENSPAN. Well, Congressman, as you point out, there has been considerable discussion on this issue, and the consequence of that is an extraordinary amount of comment that we have been getting as a consequence of our request for comment on various different types of rulings. The result is we have a lot of processing to do so we will work through it. And obviously since we have to coordinate with the Treasury Department, we will move as quickly sa we can, but at the moment it's going to be, in my judgment, a while just effectively dealing with the processing of comments that we have so far today.

Mr. KANJORSKI. Thank you, Mr. Chairman. I yield back my time.

Chairman OXLEY. The gentleman yields back.

The Chair now recognizes the gentleman from the First State, Mr. Castle.

Mr. CASTLE. Thank you, Mr. Chairman.

Chairman Greenspan, let me preview a question I'm not going to ask you but I'd like to submit in writing to you. I mean I know you've probably heard it before but it relates to the creation of money and the selling of money by the United States the Bureau of Engraving and Printing and the Mint which, as you know, are done fundamentally differently, and it seems to me that the BEP's methodology is clear, more transparent in terms of what they're doing and also accounts for the dollars in a better sense. The Mint I think the way they do it has a lot of obfuscation to it that perhaps there's some controls on the Mint which are not totally in place, not that they're doing anything wrong with it, and obviously it doesn't score income for Congress and the 50-state quarter program which I was involved with is going to produce now $5 to $10 billion in so-called profits and that's something I think we need to look at. I'll submit in writing.

My question I want to ask you, questions I want to ask you today relate to the economy, if you will. A year ago, your outlook report delivered here predicted, and I quote: "Stronger economic additions to emerge as the year progresses" with the economy growing at a rate of 2 percent to 2.5 percent. The report also said, and I quote again: "an end to the profitable investment opportunities in the technology area does not yet seem to be in sight." I guess that was a longer term than a year statement, since households and businesses are still in the process of putting recent innovations in place. Even without the 9/11 attacks, it does not appear that the

economy would have achieved the results, the 2 percent to 2.5 percent results.

To what do you attribute this under performance?

Mr. GREENSPAN. Well, Congressman, I'm not sure that that statement is accurate.

Mr. CASTLE. You believe it was 2 to 2.5 percent?

Mr. GREENSPAN. Well, no. I think it was less but not all that much less. As we were going into the month of August, the economy was clearly gathering some stability and as we've seen what's happened in the last few months, I'm sure we would not have made the actual, the Federal Market Committee's forecast would have fallen short, but I'm not sure it would have fallen short by a particularly large among.

Mr. CASTLE. So you're saying without September 11th, we would have come close, even though we might not have achieved it?

Mr. GREENSPAN. Clearly, without September the 11th, the third quarter would likely have been no change or maybe a small plus or very small minus, and the fourth quarter would probably have done better. Now whether or not that would have added up to the figures that we have, I don't know, but I think that the quality of the forecast, if I may differentiate from the numbers, was not all that far off in my judgment.

Mr. CASTLE. Well, let me extrapolate all that and carry it to the future which is what I guess we're all more concerned about right now. Economic indicators demonstrate that we're coming out of the recession, at least some of them do that I've seen, if we're not out already on a technical basis. I would like to factor into that what the economic impact of the long term war on terrorism may be, which I think it is going to be, and also the Enron effect, which appears to be reduced capital markets of a substantial nature and other corporate uncertainty which is going on out there. Will these eventually trigger a recession, going back into a recession? If so, what steps should we be taking in Congress to prevent or mitigate this?

Mr. GREENSPAN. Congressman, I think not. Indeed, as I said earlier, I think after the fact, we'll look back on this Enron episode as a period when we put our corporate governance back on track, which would not have happened without it, in my judgment, not fully. That is favorable to the long-term outlook. If it were going to have a significant impact on the economy in the short run, we'd already be seeing it, and we are not. And I don't deny that there may be other Enrons out there which we just have not, have not been exposed, it's conceivable to me, but it cannot be a large issue. It's almost too late for it to have had delayed effects which would be material. If they were going to occur, much of what we would have seen, much of what occurred would have likely occurred earlier rather than later.

Mr. CASTLE. I don't mean to get in an argument with you about this; you know much more than I do, or split hairs, but it does seem to me that some of these effects could be long-term.

Mr. GREENSPAN. Oh, yes.

Mr. CASTLE. Much longer term than we seen so far in terms of the accounting aspect of it, the effect on the corporations, capital markets, just a whole variety of changes which are going to occur.

Mr. GREENSPAN. Congressman, I don't deny that. I'm just basically saying that the order of magnitude is not material for the long term outlook.

Chairman OXLEY. The gentleman's time has expired.

Mr. GREENSPAN. It will affect, there's no question that there will be long-term effects of Enron and I think that's good, not bad.

Chairman OXLEY. The gentleman's time has expired.

The gentleman from Vermont, Mr. Sanders.

Mr. SANDERS. Thank you very much, Mr. Chairman, and it's nice to see you again, Mr. Greenspan.

Mr. GREENSPAN. Thank you.

Mr. SANDERS. Mr. Greenspan, as the Nation's chief economist, I would like to tap your expertise. Over the years, I think, as you know, you and I have disagreed on some major economic issues. As I recall the last time you were here, you informed us, to my amazement, that you actually believe in the abolition of the minimum wage at a time when many of us think we should substantially raise the minimum wage.

I also have a very difficult time in recognizing the kind of rosy economy that you are portraying, and that is not the economy that I see in Vermont and not the economy I think that exists in many areas of this country. The reality is, as you know, the tens of millions of Americans today are working longer hours for lower wages. Twenty-five or 30 years ago, when you and I were a little bit younger, the norm was that in the middle class one breadwinner, one person could earn enough money to take care of the family, and today for the middle class that is very much the exception to the rule. The statistics are amazing about how many two-worker families there are because of the decline in real wages. With a $400 billion trade deficit, some folks my colleagues talked about steel, but it's not just steel. We have lost millions of decent-paying manufacturing jobs to China, Mexico, and elsewhere and they are often being replaced by part time temporary jobs in the service economy which have no benefits, which are low wage. We have 44 million Americans who have no health insurance, millions of senior citizens can't afford their prescription drugs. One end of the country to the other, there's a housing crisis. Middle class families are paying 50 to 60 percent of their incomes for housing. Families are going in debt to pay for college. The childcare situation is a national disgrace. So I don't quite see the economy that you are talking about for the working families of this country.

But, in fact, the issue that I wanted you to comment on had to deal with a front page story that appeared in the *Wall Street Journal* on Monday. And that dealt with the growth of economic oligarchies in this country, and the reality that a small handful of corporate executives have enormous power today over the U.S. economy, and perhaps never before in our history have so few people had so much power over the American economy as is the case today.

The *Wall Street Journal* gave some examples, and let me give some others. Twenty years ago, there were thousands of small cable TV companies; today a pending deal would leave three companies in control of two-thirds of the market. We used to have many defense contractors selling defense products to the Govern-

ment. Today there are five. We used to have many, or at least eight, Baby Bell telephone companies; today there are four. In terms of the media, fewer and fewer giant media corporations control television, radio, newspapers, and magazines. Oil, in the wake of oil company mergers, five companies control more than two-fifths of domestic production. Agribusiness five firms now account for over 80 percent of the beef packing market. Six firms account for 75 percent of pork packing. Airline competition is almost non-existent in many parts of this country.

So my question to you is has the Government been too lax in terms of enforcing antitrust regulations. Have we allowed fewer and fewer corporate executives to have huge amounts of economic power by controlling industry after industry. Is it morally right that CEOs of large corporations now make over 500 times what their workers make, and seem to make more money to the degree that they lay off American workers. Do you have any concern about any of these issues?

Mr. GREENSPAN. Well, Congressman, let me just say there are a few qualifications I would make to the data that you cite. First, to be sure, there has been a very considerable consolidation of defense procurement activities because the defense budget, as a percent of the GDP, is very much smaller than it was in periods past, so when you have a declining industry, you'd expect that to happen.

Mr. SANDERS. Several hundred billion dollars is not insignificant.

Mr. GREENSPAN. Several hundred billion dollars is a good deal less than the—remember we're talking about the relationship within the economy—so that if you go back 20, 30 years, the proportion of the economy which represented defense was much larger and you can afford—or put it this way; there was enough business for a much larger number of companies to function.

Mr. SANDERS. But it's not just defense, Mr. Greenspan.

Mr. GREENSPAN. No, I understand that. Let me go down to—I mean, to be sure, there's been a consolidation in the oil industry, but remember that a very significant change has occurred in the last generation or so when most of the oil, a very significant part of the oil-producing properties have effectively been taken over by host countries, especially in the Middle East, so that the nature of the international oil companies have changed.

Now I'm not going to say what is in the media. The media is a very significantly controlled operation and that really gets down to what Government policy should or should not be. But we have an extraordinarily competitive economy today. It's more competitive than I ever recall it and indeed the international aspects of the competition is one of the reasons why I think, contrary to the remarks that you made, that the standard of living of this country is higher than it's ever been on average, and two——

Mr. SANDERS. I would respectfully disagree with you. I think the facts do not speak to what you say.

Chairman OXLEY. The gentleman's time has expired. Does the Chairman wish to continue?

Mr. GREENSPAN. I just basically wish to stipulate that we have an extraordinary standard of living. I don't deny that there are, as there always will be, significant parts of our population which are basically in difficulty in one form or another with respect to the

economy. I think we ought to work as hard as we can to alleviate that but I don't think it changes the fact that the economy is doing extraordinarily well in an historic context, that all of the data that most economists would adhere to believe the standard of living is higher than ever before on average. And if you wish to dispute that then to be sure we do have a very significant disagreement as we always do.

Chairman OXLEY. The gentleman's time has expired.

The pivoting from one corner of the philosophical divide to another, I now recognize the gentleman from Texas, Mr. Paul.

[Laughter.]

Mr. PAUL. Thank you, Mr. Chairman.

Welcome, Chairman Greenspan. I wanted to start by referring to a speech you gave in January at the American Numismatic Society where you spoke profoundly about monetary policy and said that central bankers have had relative success over the past decades, and it raises hopes that the fiat monetary system can be managed in a responsible way. So I think you're still at the point of hoping that this system will work. I maintain that the jury is still out on whether or not fiat money will work over the long-term.

And then you followed it up by saying, in case it didn't work, and I don't know whether you had tongue-in-cheek or not about this, but you said that we might have to go back to sea shells and oxen as our medium of exchange.

And then you reassured everybody that the discount window would have an adequate supply of oxen. Chairman Oxley, if we get to this point, which I suspect we will someday, I ask you that we have hearings to debate the issue of what medium of exchange we have before the Fed starts using oxen as a medium of exchange.

Chairman OXLEY. Are you referring to the Chairman here?

Mr. PAUL. Yes, I hope that you will at least consider that. But I think it is an important point and I want to relate that to the Enron issue, because in many ways, I think the system that you have been asked to manage is similar to being asked to manage an Enron system. Because Congress is notoriously in favor of deficit spending, we're currently expanding the national debt at $250 billion a year, and we have nearly a $6 trillion debt.

Now we create that debt by buying votes. We spend a lot of money. Then the Federal Reserve comes in and they buy that debt in order to maintain the interest rate that they think is the right interest rate. And they take that and use it as an asset. You put it in the bank. You call this debt that we created an asset, and you use it as collateral for our Federal Reserve notes. So that's a pretty good scheme, and I think in the moral terms, as well as the economic terms, it's very similar to how Enron operates. I'm not convinced the system works very well because a lot of people here praise you for the adequate amount of liquidity and that's what inflation is: create more money, lower interest rates. Every time you ask for liquidity, and every time you ask for lower interest rates, you're asking for inflation of the money supply. I think that what we fail to do is to ask about the cost. Do we ever concern ourselves about the people who have had two-thirds of their income removed because they happened to be savers and living off interest? We gouge them with inflation, the loss of purchasing power, and taxes.

A lot of people in this country have suffered from this particular system.

Now the analogy I would like to draw is something you said in your testimony on page 13, and you have mentioned several times now that Enron may be a good lesson, and I think it is. And I'm not for more of this regulation by SEC. I think you're correct that derivatives provide a market tool that is worthwhile, but you also said the Enron decline is an effective illustration of the vulnerability of a firm whose market value largely rests on capitalized reputation, with very little on no physical assets. That's exactly what our monetary system is all about, and that's why I believe the dollar is vulnerable. We in Congress do not have a responsibility to run Enron. Some other government has the responsibility to deal with fraud. We have a responsibility to the dollar, and I think that's what we fail so often to address around here.

In addition, you said that Enron provides encouragement that the force of market discipline can be counted on over time to foster a much greater transparency. That's exactly what the market does with money. If you look at the rapid and the sudden devaluations of the fiat currencies around the world, such as what happened to us in 1979 and 1980, that was the market coming in and forcing vulnerability and transparency on us. Now gold gives you a hint as to what's happening. Gold has sent a mild message in this past year. In spite of the fact that central banks and others continually sell and loan out gold and push the price of gold down, there is a message there.

So I would ask you, can you see any corollary whatsoever on what you're asked to do in running our monetary system to that which Enron was involved in?

Mr. GREENSPAN. I hope there are fundamental differences. First, dealing with essentially a fiat currency, what it is that we are doing is that the currency is granted value by fiat of the sovereign, as it is said in the textbooks. The issue there is that in years past, there has been considerable evidence that fiat currencies have been mismanaged in general, and that inflation has been too often the result. What I was mentioning in the speech that you were referring to is the fact there is some evidence that we're learning that lesson, learning how to manage a fiat currency. I've always had some considerable skepticism about whether that in the long run can succeed, but I must say to you that the evidence of recent decades is that it has been succeeding. Whether that continues is a forecast which I can't really project on.

The Enron situation is essentially one in which there was an endeavor to imply that earnings were much greater than they really were, that increasing debt was hidden. I can think of no reason to have done what they did with their off-balance sheet transactions other than to obscure the extent of the debt they had, and what essentially was squandered in that process was the reputational capital which they had succeeded in achieving over a period of time. And I don't perceive that anything that we are doing as a Central Bank involves anything related to that. I hope that where we need to be transparent and indicate what we are doing we do so, and we do so except in those areas where it, as I mentioned to

you previously, inhibits the ability to actually function as a Central Bank.

But as I say in summary, I hope your analogy is inappropriate.

Mr. PAUL. I guess we'll all keep hoping.

Chairman OXLEY. The gentleman from California, Mr. Sherman.

Mr. SHERMAN. Thank you.

Thank you, Chairman Greenspan, for an outstanding presentation. As before, I've got far more questions than the 5 minutes allotted so, as in the past, I'd like to start off with some questions that I hope that you and the Fed Staff would respond to for the record.

We met here a year ago. Of course, you come every 6 months, but a year ago is the last time I'd had a chance to ask you a question, and we dealt with the incredible deficit and I'd coin the term "trade debt," that is to say, the trade deficit building up year after year, the transfer of assets abroad, and I'm still amazed that the dollar sells for more than the euro, and that we hope that this trade debt and deficit reach a soft landing. I don't know anyone who could have predicted a decade ago that the country could run a trade deficit as long and as large as we have and still have such a strong currency.

I'd like to restate the concern that I expressed to you in this room a year ago, and echo the comments of Mr. Kanjorski that real estate brokerage was never designed to be something included in the grant of powers to national banks and financial institutions. Not only is it bad public policy, but I think that if the bank regulators go down that road, it will undercut your relationship with Congress. We were in this room for literally hundreds of hours over half-a-dozen or more years trying to paint a picture for ourselves as to what financial reform would mean and under particular statutory text.

None of us in this room ever put forth the idea that the bill we passed would open this huge industry to those insured financial institutions. And I noted that you have not acted precipitously in this area. You indicated that you're going to wait for a chance to respond to all the incoming comment and if what it takes to avoid precipitous action is additional incoming comment that needs response, I'm sure that can be arranged.

First, as to economic stimulus, there's two ways to do it, monetary and fiscal. The monetary has immediate effect. You could meet in the next day. The interest rates are lower. It may not have an immediate impact. Fiscal takes months, it seems, for the IRS to even get the checks out to even have an effect, let alone an impact. Yet it's odd that this country is now thinking in terms of fiscal stimulus and monetary sedative, for want of a word to express the opposite of stimulus. First, let me urge you to consider cutting interest rates one more time instead of increasing them.

But second, putting aside your well-known preference for lower total Federal expenditures, and assuming those expenditures are going to remain the same, does it make any sense for Congress to be thinking of fiscal stimulus while the Fed is at least rumored to be considering monetary sedative?

Mr. GREENSPAN. The problem with fiscal policy, as economists have begun to realize over the decades is that it's very difficult to

implement in a timely manner largely because our capacity to forecast in a specific timeframe itself is limited.

Nonetheless, as I indicated over the last year or two, if it turns out that you can fortuitously time a tax cut in a period of economic weakness, it obviously does do some good. I do think that the tax cuts of last year in the middle of the year did show up as increased expenditures in July and August. That's not the way they were constructed in that timing, but they turned out to be actually quite effective as best I could judge.

But the broader question still remains whether it is possible to implement an effective fiscal policy with the inevitable time lags that are involved. I'm skeptical myself that it is feasible.

Mr. SHERMAN. Do we need stimulus at this time, let alone is there any evidence that we need stimulus 6 months from now, or a year from now?

Mr. GREENSPAN. Well, the question really rests on whether the level of final sales will kick in, as I put it in my prepared remarks, prior to when the obvious significant positive thrust coming from a reduction in inventory liquidation dissipates. It's too soon to make that judgment at this particular point. So one can argue that if one believes that it might not, that as an insurance policy, you might want some fiscal stimulus.

My own impression is that it's probably not necessary, as I indicated in previous testimony. But there is a credible argument for it as an insurance policy for those who believe that the economy may be at risk of not being able to follow through after we get the inventory turnaround.

Chairman OXLEY. The gentleman's time has expired.

Mr. SHERMAN. If I could have just ten seconds, though.

Chairman OXLEY. The gentleman from California, Mr. Cox.

Mr. COX. I'd yield ten seconds to my colleague.

Mr. SHERMAN. I just want to point out that the cheaper insurance policy is for you to cut interest rates which would have the stimulus effect if that was determined to be needed without increasing the national debt. I thank the gentleman.

Mr. COX. Mr. Chairman, welcome. As you point out in your testimony, the proper functioning of our markets depends upon investor confidence. And the Enron debacle, which is in major part an accounting scandal, has eroded public confidence in, among other things, financial reports generally. It has put a glaring light on the role of directors, particularly members of the audit committee. It has cast into doubt the adequacy of the entire accounting profession.

To address these problems you, regulators, Congress, the SROs and the private sector know that we have got to take every responsible step to increase auditor independence, to strengthen the role of the audit committee, of an independent audit committee, to fortify the accounting profession to attract highly skilled, intelligent people of integrity. And yet if we survey the lay of the land today, we know that the market forces, the trends, the incentives are all running in the opposite direction.

At a time when we need the very best people to serve on boards, the risk to such service is greater than ever. We can ask ourselves based on very real experience of late, who would want to volunteer

for service on an audit committee of any large enterprise today? Whereas, 30 years ago, many top graduates of the Nation's business schools headed for the accounting profession. That's no longer the case, and Enron has almost certainly made the problem worse.

The question I'd like to put to you is what we as Congress can do and what the private sector can do, what regulators and SROs can do to address the problem of auditor compensation while still—or not while still, but while actually increasing auditor independence? And what can we do to encourage people of character and reputation to risk those irreplaceable assets to serve on the boards and the audit Committees of the Nation's businesses?

Mr. GREENSPAN. Congressman, this is an issue which the President's Working Group is deeply involved in at this particular stage. One of the things that I think is becoming evident is that the change in corporate governance which has occurred over the generations where you very rarely now have shareholder control in a limited number of hands so that effectively the directors are appointed and work for the shareholders and the CEO is appointed and works for the directors.

The fact that such a substantial amount of shareholding is now for investment and not for control has effectively switched the locus of control from shareholders to the CEO. And if the CEO endeavors to run the company wholly in the interests of shareholders, then there's no loss in the structure of corporate governance. And it's in our judgment that what we have to start to do is to try to find those areas where the CEO's self-interest has diverged from that of shareholders and try to find means and incentives which would restore what, I think, was the case 20 or 30 years ago before short-term earnings expectations became such a critical issue in what individual corporate managements were able to do.

My own judgment is that you have to be careful about trying to presume that directors are really, truly independent. I've served on innumerable boards in the private sector, and there is an asymmetry of information between an insider in a corporation and an outside director which will never be breached, which will never be brought together, I should say.

The result of that is that it is crucially important that the incentives require that the CEO behave in a certain manner or be incentivized in a certain manner. I've served on too many audit committees to know that even though I would consider myself independent, I would consider myself knowledgeable, I did not know what questions to ask the chief financial officer during meetings to find out what it is that conceivably is going wrong in the corporation, and he wasn't about to tell me.

So that there is a very difficult problem that one confronts, and the mere presumption that you somehow make a bunch of people independent and have an independent audit committee, it won't work that simply because if you make everybody on the board independent, what's going to happen is you're going to have competing power centers within a corporation. And in my judgment, corporate governance will suffer as a consequence.

Mr. COX. Mr. Greenspan, I wonder also if—you're making the case for the complexity of the problem. I wonder if you could address the concern which is no matter how we address corporate

governance issues remains, and that is how you attract quality people. Because I think the accounting profession has taken a hit. I think that the ranks of boards and audit committees are going to take a hit. And we've got to have good people in these positions if we're going to lick these problems.

Chairman OXLEY. If I could interfere just briefly. We have a vote on the floor. Make that the last question. The Chairman could respond and then we'll take a break for the vote.

Mr. GREENSPAN. Why don't I answer it later then, if that's the case?

Mr. COX. Well, I'm happy to put the question to you now and hear your response and not put any further questions so that we can that wrap it up, Mr. Chairman.

Chairman OXLEY. Yes. If the Chairman would like to respond.

Mr. GREENSPAN. Which specific question did you want to ask quickly?

Mr. COX. The burden of my question is, we are seeing increasing risk to the individuals who we want to be even more responsible than they have been in the past, and we've got to attract persons of training and integrity to these positions. What structurally can you recommend to the Congress that we might do to fortify the accounting profession and the ranks of our directors?

Mr. GREENSPAN. It's my impression on the basis of experience I've had in an innumerable number of boards on which I have served that if you get a chief executive officer who looks toward his outside auditor as somebody to tell him what he is doing wrong rather than somebody who should try to acquiesce in a particular set of accounting principles, he will change the whole nature of the relationship between directors, CEOs, and he will certainly create the type of independence of the audit function that will attract numbers of people back into the accounting profession and create the type of directors who will be most effectively helpful to the CEO and to the shareholders in getting appropriate corporate governance.

Chairman OXLEY. The gentleman's time has expired. The Chair would declare a recess of the hearing for the vote, and we will reconvene in 10 minutes.

[Recess.]

Chairman OXLEY. The hearing will come to order. And the Chair now recognizes the gentleman from Pennsylvania, Mr. Mascara.

Mr. MASCARA. Thank you, Mr. Chairman.

I'd like to revisit the steel crisis issue, Mr. Chairman. I come from Southwestern Pennsylvania where steel and coal used to be king. And as we all know, there is an apparent steel crisis. The steelworkers will be here tomorrow at a rally to stand up for steel and I certainly will visit with them.

First of all, I happen to believe that the steel crisis is a microcosm of our failed trade policies. And I don't want to get into that, because that's a long story. But, I respectfully disagree with you in an earlier comment to a question about what effect tariffs would have on steel, and that perhaps prices would increase as a result of even as high as 40 percent. The President, on March the 6th, will make a decision about the percentage of increase on steel tariffs.

I don't believe that I've seen any decrease in the cost of automobiles, appliances as a result of the consumer consumption or the domestic steel users in this country of that cheap steel passing that profit on or any part of it to the people who buy automobiles and appliances. That's one point I want to make. And I'm wondering whether you have any feel for what the President—I'm not asking you to guess the President—but what the President should do in regards to the March 6th decision that he has to make?

On Sunday, I was on KDKA television in Pittsburgh with the CEO of Weirton Steel that employs 3,500 steelworkers. He said that 20 percent would be of no help and that eventually the steel industry would die on the vine, that companies continue to go into Chapter 11. In fact, Wheeling-Pittsburgh Steel plant in my district is now in Chapter 11. And I was wondering whether you had any feel where that number should go from 40 percent down, given that 20 percent won't work.

Mr. GREENSPAN. Well, first of all, I'm not clear as to what you mean if you put a tariff on that the price will not go up. If it doesn't go up then it has no impact on the domestic steel price that the traditional steel operations are still under severe pressure because their margins are not going to change. I'm not sure if a tariff doesn't increase the domestic price its impact on domestic profitability and employment is zero.

Mr. MASCARA. What I said, Mr. Chairman, is that the savings that the domestic users of steel to make their products with, that savings has not been passed on to the consumers.

Mr. GREENSPAN. Well, if it hasn't, then the profits of the steel-using industry must have risen significantly and there's no evidence of that happening, Congressman.

Mr. MASCARA. Well, I don't have those facts here. But there is a concern that the steel industry will cease to exist. Have you considered the national security impact? Bethlehem Steel, which is one of the only producers of the steel that's used in ships and tanks, is also in Chapter 11 now. And do you feel that if the steel industry does, in fact, cease to exist in this country—and those kinds of talks are going on currently—what will we do in the event that we need to produce that kind of steel? Would we have to depend on foreign production of that type of steel?

Mr. GREENSPAN. Are you talking about defense?

Mr. MASCARA. Yes.

Mr. GREENSPAN. You're talking about steel plate and the like?

Mr. MASCARA. Yes.

Mr. GREENSPAN. Well, first of all, I don't believe that it's credible to presume that the steel industry will no longer exist, because half of the mills, as you know, are electric arc furnace, steel scrap consumers and while they're under some pressure because of the obvious weakness in steel prices, they're doing reasonably well. And there's no evidence of which I am aware would suggest that they're going out of business.

The crucial issue that really is involved with the notion of the traditional steel industry is there are certain types of steel which cannot be made effectively in a scrap furnace. In other words, the chemical control that you have of the scrap makes it difficult to cre-

ate the type of steel which for example you need in an automobile for forming purposes and the like.

And so that there is a need in the country for a certain what I would call ore-originated steel, because you can essentially control the metallurgy in an appropriate manner. But that's not a very large number. And indeed, as you know, there's a good deal of slab imports which are made from ore and which are rolled into a type of cold-rolled sheet which the automobile manufacturers need.

As far as steel for defense, the amounts that we need are extraordinarily small. And I'm not convinced, at least from what I understand it, that with the appropriate amount of pellets within say a scrap mix that a goodly part of the actual heavy steel that we need is not available.

But in any event, I mean there's certainly not going to be a disappearance of the traditional steel industry. I do agree with you that it's under severe difficulty and as one who is old enough to have visited the old Homestead Works when they were really extraordinarily effective and productive, I know what it means for that type of industrial structure to fade.

Mr. MASCARA. My time has expired. But apparently we disagree on some issues as it relates to the stability of steel industry. There are hundreds of thousands of retired steelworkers who now may lose their health care and pensions. I think the President ought to do something and do it very quickly. Thank you, Mr. Chairman.

Chairman OXLEY. The gentleman's time has expired.

The gentlelady from New York, Mrs. Kelly.

Mrs. KELLY. Thank you, Mr. Chairman.

Mr. Greenspan, you've been here a long time and so I really want to make this fast. But I noticed something that I wanted to ask you about. We saw in the news this morning the Commerce Department said that durable goods rose by 2.6 percent in January and they rose in December by .9 percent. But in your testimony on page 4, you said, as a consequence, although household spending should continue to trend up, the potential for significant acceleration in activity in that sector—this sector is likely to be more limited than in past cycles.

That seems to be somewhat in conflict with the numbers, and I wanted to know if you believe that this is a trend in durable goods and one that's likely to continue. I wonder if you'd address that for me.

Mr. GREENSPAN. I would say looking at the data that we saw today, clearly it's encouraging that the markets are coming back. But they went down in an awfully extended way and they were under really severe pressure. So I think that it's going to take a while to be sure that we're getting the type of response that we're going to ultimately need.

There are a number of elements in the capital goods markets which are still quite weak. And indeed, some of the anecdotal stuff especially. And in the telecommunications area, for example, orders are not showing very much. They did improve in this morning's numbers and that was encouraging. But all I would say to you is that, yes, the durable goods orders were somewhat better than I would have expected this morning. That if they continue that way, then I think things will clearly improve.

But it's too soon to make those types of judgments. We need a good deal more time to see that this recovery is integrating, is taking shape in an integrated form.

Ms. KELLY. So you don't feel that the numbers over the past—I know the projects in December had projected zero growth or negative, and we got a .9 percent. And here we are in January with a 2.6 percent. You're saying you don't feel that that yet, that that's enough to make a trend?

Mr. GREENSPAN. No. I think it's certainly enough to indicate that the hypothesis that we're coming out of what has been a period of significant stress that the probability is improving. It's nonetheless still early in the sequence.

Ms. KELLY. Let me just throw something else in that equation. According to the National Association of Realtors, existing home sales for January set a monthly record. They topped out a $6 million mark for the first time.

On page 5 of your testimony, you say 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.

With all that said, do you feel that this is a trend in the new home sales and you think that's a sustainable trend for the near future or do you think that trend may slow down?

Mr. GREENSPAN. You mean $6 million annual rate figure? That's clearly not going to be sustained. I mean, there's just no evidence that we're off on a different track. Because remember that existing home sales are essentially a rate of turnover of the existing single family housing stock plus condominiums. And historically, that ratio doesn't change all that much. It's a gradual change in households, and the turnover is related very largely to demographic forces as well as the obvious economic forces which I cited.

So if you're asking me do I think the $6 million number will stay up there, I think unlikely. But nonetheless, it's still impressive.

Ms. KELLY. Would you say that you feel that the trend toward increasing home sales would continue whether it hits that mark or not?

Mr. GREENSPAN. Well, I think the trend of existing home sales has been relatively flat at a reasonably high level for quite a long period of time. And if we can even maintain that, I think we're doing well.

Ms. KELLY. Thank you very much. My time is up. Thank you, Mr. Chairman.

Chairman OXLEY. The gentlelady's time has expired.

The gentleman from Washington, Mr. Inslee.

Mr. INSLEE. Thank you.

Mr. Chairman, we've all been talking about the concerns about Enron and the prospect of other Enrons out there, of other organizations that would overstate revenues and understate costs. And I know of at least one other large organization that's exactly in that position of deceiving essentially their shareholders in that regard. You're smiling. You see where I'm going with this. Which is the United States Federal Government.

And it's my belief that our deceit of our shareholders sort of makes Enron look like small potatoes, considering the phony accounting that we indulge in that I believe is leading us to chronic deficits over the next decade unless something happens. And let me just list three of those that I believe that are phony bookkeeping that disguises the fact that we're going to have these chronic deficits. We're already over $100 billion this year, as you know.

You know, we tell the American people that tax exemptions that are now in the Code aren't going to be renewed when the Administration makes their projections. We all know that's not true. They're going to be renewed. Everybody in this town knows it, including the folks in the White House.

We know that the AMT eventually is going to be fixed, has to be fixed, because so many millions of Americans will be subject to it. Everybody in this town knows that, and yet we don't tell the American people that. We base projections on that phony statement.

We know there's going to be relief for Medicare of some of the cuts that have damaged health care in this country, and everybody in this town knows that this is going to happen.

Now assuming that's true, looking at the numbers, we're in for, at least in my view, long-term deficits somewhat approaching the history of the 1980s, which was a movie we saw once before, of big tax cuts, big defense buildup, and unrestrained domestic spending. And I guess my question to you is, if we end up back in that pickle because of our Enron-like activities at the Federal level, what impact do you think could that have on the U.S. economy in the next decade?

Mr. GREENSPAN. Well, obviously, if we resort to a significant amount of deficit spending, the question essentially is how is it financed? And it's financed basically by extracting capital from the private sector. And to the extent that you do that, obviously, the capital assets which are produced are generally less productive in producing economic goods than is the case when the Government's drain on resources is neutral or zero even or slightly in surplus so that it's merely a simple question of how it's financed and what the implications of that are, and history tells us that it's not very helpful.

Mr. INSLEE. I think there's another downside, too, and let me just ask you about this. And that is that essentially the Administration is financing this budget deficit by raiding Social Security. And of course, Congress and the Administration has told Americans for the last couple of years that raiding Social Security was no longer going to be countenanced in this town, and that's exactly what we're doing.

And now, because of these faulty, phony numbers that we're posing about, we're going to be again raiding Social Security for the next decade to finance this deficit. I've heard it expressed that that in itself is a problem when you talk about Americans' confidence. And I can tell you that people right now, because of that seriously question whether Social Security is going to be there for them.

I was meeting with a group of young people in their early twenties. They honestly don't believe Social Security is going to be there for them. And one of the reasons they do is because of this

budget that the majority—and I'm not a part of that here—as past will put us back in these deficits.

So I guess is that a factor that we should consider when we look at what people are doing in their personal investment decisions?

Mr. GREENSPAN. Well, first of all Congressman, remember that the types of accounts which are kept both at OMB and CBO are reflective of the laws passed by the Congress. In other words, if the statute stipulates that a certain law is to end as of a certain date, it, meaning OMB—well, it's basically CBO, because OMB can assume that and extend it if it wants, but CBO cannot. In other words, it's not making the laws, it's merely registering what the accounts imply under existing statute.

So I would think that if you want to alter that, you're going to have to change the statute or change the rules on which you request CBO to give you the types of data which they do.

With regard to the issue of Social Security, if the Social Security trust fund goes to zero, the chances that benefits will be curtailed in my judgment is zero. And the reason for that is I see no credible scenario in which the Congress would fail to adhere to the benefits as now appear in law. So I don't think it's a credible issue to be concerned about what is happening to the Social Security trust fund if the issue is whether benefits will be continued. Because I've been around this town long enough to know that that's not the way it works and I think if you're talking about making certain we keep the books balanced, I would also suggest that we try to resolve the issues that are real and I don't think it's a real issue, nor do I think the American people have to be concerned about their benefits disappearing if the fund disappears.

Now what I think younger people are concerned about is the rate of return that they're getting in benefits from the numbers that they put in the fund is much lower than, for example, my generation. I mean, if you look at what I put in and what I got out or what I would have gotten out if I retired at 65, is an extraordinary rate of return. And Social Security was remarkably popular for my generation. I don't think it is for the younger generation. But, because of the fact that they're not perceived as getting back an adequate return.

Chairman OXLEY. The gentleman's time has expired.

Mr. INSLEE. Thank you, Mr. Chairman.

Chairman OXLEY. Mr. Chairman, we're glad you didn't retire at 65. The gentlelady from Illinois.

Mrs. BIGGERT. Thank you, Mr. Chairman. And thank you, Mr. Chairman for staying this long to allow us to ask questions.

As you're aware, the electronic transfer of value was not interrupted by the tragedy of September 11th, but as I understand it, for a period after September 11th, many of the banks really didn't know what their true financial position was because it was impossible to move the checks and payments around the country, particularly because of the airlines not flying and for various other reasons.

But is the Fed doing anything to ensure that the payments mechanism really is going toward or using the technology such as electronification of paper checks to facilitate the stability of that system?

Mr. GREENSPAN. We are, Congresswoman. We were sort of taken aback by the extent to which the amount of telephonic exchange and data processing exchange which presumably was supposed to be back up in the lower Manhattan area during the period subsequent to September the 11th, we had assumed that a goodly part of that backup would work. The trouble, unfortunately, is a lot of the backup went over the same cable lines that the original systems went and were quite useless for a while. And as you point out, we had a very significant amount of float in the system as a consequence of the airlines effectively stopping and not delivering.

We have a proposal, I believe it's up to the Hill now, on truncation of checks and the effect of implementation of a significant amount of electronic processing to move the checks through the system in a much more facile way.

Mrs. BIGGERT. Do you think that Congress needs to pass such a bill on check truncation? Or can the Federal Reserve do it through their rules and regulations?

Mr. GREENSPAN. No. I think we need legislation.

Mrs. BIGGERT. Thank you. Let me turn for a minute to trade. I don't think we've talked too much about that. What effect would a free trade area of the Americas have on the U.S. economy? And can we afford to wait for the time that it seems to be taking to get that through?

Mr. GREENSPAN. Well, I think the evidence increasingly is persuasive that the greater the amount of cross-border trade, the higher the standards of living everywhere. And to the extent that we can facilitate the emergence of greater trade irrespective of where, provided that the individual trade groups do not themselves become protectionist, then it's all to the good. And all I can say, Congresswoman, is I trust that we will move forward expanding trade and gain the benefits and recognize that the problems that that invariably creates for a number of our industries which are under severe competitive pressures, that we recognize that we should find ways to assuage those problems.

Mrs. BIGGERT. Is there any difference between bilateral trade agreements or multilateral? Should we be looking if we can't get the free trade area, start with bilateral?

Mr. GREENSPAN. Well, no. I would say that the greater the number of players, if I may put it that way, the better. So multilateral and indeed global is by far the best. Bilateral trade is helpful but only as a fallback position, because it is better than no trade but certainly not as good as global trade.

Mrs. BIGGERT. Thank you. Thank you, Mr. Chairman.

Chairman OXLEY. The gentleman from Kansas, Mr. Moore.

Mr. MOORE. Thank you, Mr. Chairman.

And Chairman Greenspan, I very much appreciate your being with us again today. Secretary Paul O'Neill recently requested that Congress increase the statutory limit on the public debt from $5.9 trillion to $6.65 trillion, about three-quarters of a trillion dollars. I guess my question is, and I don't know if there's any good answer to this, are we opening up the checkbook so to speak if we increase it by three-quarters of a trillion dollars, say, as opposed to $250 billion? Do you have any thoughts about that?

Mr. GREENSPAN. Well, first of all, I think that I'm not a great proponent of this type of legislation to begin with, because I think that the Congress enacts tax structure and it enacts appropriations, and the difference between those two is the change in the debt.

To then have to reauthorize a different level of debt is very much like trying to restructure arithmetic. I mean, you've already done it. And it's not really appropriate to then put on a debt ceiling and then find yourself with contrary law. Because clearly, you cannot simultaneously have your tax legislation, your appropriations and your debt ceiling, they may not be in agreement, in which case some law is being violated, and I think that is inappropriate.

Mr. MOORE. Is there any benefit, though, to such a check and saying we're going to have a public discussion about this before we increase the public debt any more?

Mr. GREENSPAN. Well, first of all, I should hope one does that in the appropriations discussions.

Mr. MOORE. Certainly.

Mr. GREENSPAN. I mean, that's where theoretically it occurs. The problem I have with the specific legislation is that if you're going to do it, and as I say, that's not what I would do, I would put it on the debt to the public, which is truly the difference between receipts and outlays in the unified budget. The inclusion of the two-odd-trillion dollars—a little more than two trillion dollars—in intragovernmental holdings in my judgment serves no useful purpose, and that as a consequence of that, even granting, I mean, even granting that a debt ceiling might be usable, that's not the one I would use.

Mr. MOORE. Chairman Greenspan, you talked about the importance of confidence of people in the economy and how that affects the economy. And I wonder, is there a relationship between fiscal surpluses and/or debts and long-term interest rates? And I've heard some people in the past, for example, say—and maybe this is too simplistic, and you can tell me if it is—that if we're able to pay down $100 billion or $300 billion or a half a trillion dollars in debt, that it would beneficially affect interest, long-term interest rates.

Mr. GREENSPAN. I think that's right. And indeed, just remember, it's other things equal.

Mr. MOORE. Yes, sir.

Mr. GREENSPAN. I think the evidence pretty much is conclusive on that, although I must tell you that there's a very considerable degree of differences amongst economists. And clearly, I don't want to get into the details of it, but you will find people who don't agree with that. And I think everyone agrees that under extreme circumstances where, in fact, you have huge deficits and inflation is being engendered that long-term interest rates go up and indeed, in those types of economies, you cannot sell long-term debt. No one will buy it.

But there is a legitimate dispute as to what the relationship is between surpluses and deficits when those are in a relatively narrow range, is it conceivable that the changes are very modest? And the answer is yes, it is conceivable, and that may indeed be the case.

Mr. MOORE. One of the Members said that they were happy that you hadn't retired when you were 65, and I was listening to NPR this morning. They were talking about the possibility of your departure prior to the expiration of your term. And I for one hope you stay.

Mr. GREENSPAN. Thank you very much.

Chairman OXLEY. The gentleman's time has expired.

The gentleman from California, Mr. Royce.

Mr. ROYCE. Thank you, Mr. Chairman.

Welcome, Chairman Greenspan. What I wanted to ask you about specifically were some of the incentives that are currently in place for management. Incentives, especially in terms of the evolution of compensation packages with stock options, which at times in some firms have management pushing for very aggressive accounting methodologies, and then at the same time have management deciding who is going to do the audit and then trying to influence the outcome of that audit.

And it seems to me that one of the questions would be can we change the structure in some way so that either the audit committee is truly independent and truly picking the auditor, the auditor responding to the audit committee rather than to management, and do you do that by setting up some special regulatory structure where the audit committee reports separately? Or do you do that by maybe requiring audit insurance perhaps rather than the mandate of an outside audit, have the insurer have the vested interest for transparency in the accounting? Or do you look at these public companies that are on the New York Stock Exchange or the Nasdaq and say, all right, give the Exchange the responsibility of picking the auditor?

Any of these approaches might make the audit truly representative, even in these cases like Enron's, because it would change the incentive structure. Either that or change the incentives for management's compensation, which would be another way to approach the same problem and have management act in the interest of the shareholders.

But could you maybe respond to those concepts and whether you think they're viable?

Mr. GREENSPAN. Yes. Well, I do agree that how a firm is audited and by whom is quite important. The issue that I think is crucial here is that if properly constructed and I would say the structure of corporate governance, that it's interest of the CEO to see that you have an effective external audit, remembering that it's an audit of the internal auditing system, you certainly want an auditor who knows your business, knows your company and consequently the reason why it's important to at least have the corporation either choose or acquiesce in a specific choice of an auditor is that it is quite credible to get somebody who doesn't have a clue as to what, in fact, he's auditing.

And the experience of the auditing profession is under such conditions you find that embezzlements occur far more readily in the early years of a new audit system than they do later on. So you have to be careful about unintended consequences of alternating a system which has evolved over the years.

The President's Working Group has been instructed to look into this issue in some considerable detail, and we are in the process of doing that.

My general impression personally, having looked at a whole series of ways of coming at this, that because under the vast majority of corporate relationships with outside auditors, the outside auditor not only is a good independent auditor but also is very helpful to the CEO in overseeing how his own internal system works and suggesting to him what he can do to improve the internal workings of the system. And it's my judgment, having seen this function for decades, it's best when you have a good relationship between the auditor and the CEO.

If, however, it turns out, as I fear regrettably seems to have been the case in the Enron situation, that a number of internal strategies thought up by internal auditors were agreed to by the external auditor only to find later on that it had to be reversed. Now that is very unfortunate circumstance and probably regrettably as a consequence of incentives not being appropriately positioned.

I reemphasize as I've said to your colleagues in earlier questioning, if you can somehow find a way to create a set of incentives for the chief executive officer to function solely in the interests of the long-term values of the shareholders, then the whole issues of independent directors, independent auditors and good corporate governance system comes into play.

Mr. ROYCE. As part of that, just to follow up, would part of that potentially be looking at the way in which proxy votes are manipulated by management and vesting more direct power in the shareholders by making changes or recommending changes in the system where management can't corral basically proxy votes in order to——

Mr. GREENSPAN. Well, that obviously is the type of thing which I think is an appropriate issue for evaluation. The way, regrettably, the system works today is that the vast, vast majority of votes by shareholders are either 99-to-1, 98-to-2 if it's 95-to-5, it's perceived to be a disaster for management.

Now what that clearly tells you is that the slate of directors, the various issues presented to shareholders for authorization, largely comes from the CEO. And unless and until you change the incentives for the CEO to do things in a different way, the issue of gaming the system, gaming the GATT rules, endeavoring to make it appear as though short-term earnings growth reflects longer-term earnings growth, so long as there are incentives for management and specifically the CEO to do that, I don't care what else you do, it will not work.

Chairman OXLEY. The gentleman's time has expired.

Mr. ROYCE. Thank you, Chairman Greenspan.

Chairman OXLEY. The gentleman from Massachusetts, Mr. Capuano.

Mr. CAPUANO. Thank you, Mr. Chairman.

Chairman Greenspan, thank you for that last clarification. You just answered one of the questions I was going to ask you. I don't think your answer earlier was as clear as the answer you just gave in differentiating short-term interests from long-term interests. I think you just did it, and I appreciate that clarification.

One of the questions I do want to ask you, though, is have you had an opportunity to review the CBO report that came out roughly about a month or two ago that looked at the economic stimulus proposals that are currently floating around Capitol Hill?

Mr. GREENSPAN. I'm aware of it, but I must say to you, Congressman, I did not look at it in detail.

Mr. CAPUANO. Fair enough.

Mr. GREENSPAN. I'm familiar with the general procedures.

Mr. CAPUANO. OK. At some point, since you're not familiar, in general their conclusions were that the proposals currently floating around will not sufficiently or accurately stimulate the economy in a short-term basis. I would appreciate it if you and your staff could review that report and comment on it to see if you would agree with their conclusions or not, if that's an appropriate request to make of you.

Mr. GREENSPAN. Well, what I'd like to point out, however, is remember that the agreed procedures in which they make those evaluations are what economists call a static model in which feedback effects are not counted. Everybody who works in this field knows that that's a very major shortcoming of this procedure. But, because there's such dissent as to what to do with respect to the feedbacks, there's sort of a fallback position that we all agree, at least that's the first approximation.

So I think you have to be a little careful about making judgments as to what the economic effects of particular proposals are with a static model. We'll be glad to take a look at that and respond to it, obviously, but I just wanted to clarify that the ability of those models to forecast even in a dynamic sense has not been impressive. And therefore, their ability to project the economic consequences of a program are somewhat marginal.

Mr. CAPUANO. I understand that, and I respect their limitations, but that's why I'm asking you to take a look at it so we can have somebody else with a different view take a look at it.

I guess the thing I always ask you when you come by relates to productivity and a little bit on unemployment. I'd like to start with the unemployment rate. The numbers in the report, not your statement, but the report that accompanies it, cites a 5.6 percent rate in January. Do you know whether that report—I had read earlier that that number did not include 900,000 unemployed people who had been taken off the rolls because they had stopped seeking employment. Is that an accurate belief or an inaccurate belief?

Mr. GREENSPAN. Well, it is certainly the case that the unemployment rate is measured by the number of people who are seeking jobs in a certain actively defined way and that the ratio of those who are employed plus unemployed by that definition is the labor force. And the unemployment rate is the ratio of the unemployment to the total.

To the extent that people withdraw from the labor force—either go back to school or are discouraged workers or have any of a number of reasons not to be seeking a job, according to the definition—they do not appear in the unemployment data.

Mr. CAPUANO. The reason that it concerns me obviously is 900,000 is a big number and any number in addition to that is a big number. But also as the unemployment rate, whatever level it

is, once it levels off, those people, many of them will try to get back into the workforce, therefore extending the length of time that the unemployment rate is high. That's why I wanted to get a clarification.

Mr. GREENSPAN. Let me just say one quick question about the 900,000. That's a sample statistic, and my suspicion is that it's exaggerated, because we only have a 50, 60 thousand sample of households. But the issue you're raising is a valid one.

Mr. CAPUANO. And I guess I'm going to make a comment that I've made to several members of the Administration. That when I read unemployment rates, I hate reading percentages alone, and I would ask that in the future as you talk about them, you talk about absolute numbers. Even a 5.6 percent unemployment rate is 8.1 million Americans, which is larger than the workforce, the total workforce of all but three States, which is larger than the combined workforce of 16 States. It's a huge number of individuals, and I just think that out of respect to them and to get a real handle on what a percentage really means, that absolute numbers should be at least in a footnote someplace.

Mr. GREENSPAN. They actually are reported in some detail in the reports themselves.

Mr. CAPUANO. OK. I didn't see them here.

Chairman OXLEY. The gentleman's time has expired.

Mr. CAPUANO. Thank you, Mr. Chairman.

Chairman OXLEY. The gentlelady from California, Ms. Lee.

Ms. LEE. Thank you, Mr. Chairman.

Good to see you. Let me ask you a couple of things about CRA ratings. but first let me just preface this by saying that we all on both sides of the aisle agree that home ownership is key to the accumulation of wealth, to acquiring equity so that working men and women, working families, minorities, can send their children to college, can start a small business. Equity in one's home is really the primary way that the majority of Americans ever see any wealth in terms of accumulation.

One of the areas which many of us have been concerned about is the disparity in home ownership in the minority community. I believe nationally it's about 47 percent, as compared to white home ownership at about 72 percent. So we've been in touch with you with regard to the lending practices of some of the banks in California which have received very outstanding or highly satisfactory CRA ratings yet have a very poor record or minority lending.

Let me just give you an example of what I'm talking about. Citibank, for example, less than 2 percent of its California conventional home loans were made to African Americans, also for Latinos. Yet it received an outstanding on the lending test. Bank United made less than 1 percent of their homeowner loans to African Americans but also received an outstanding in terms of their CRA ratings. Chase Manhattan received a high satisfactory CRA rating, and I could go on and on. And I thank you for providing the basic raw data for us to compile this analysis which was actually put together by the Greenlining Institute.

So what I'm asking you today, Mr. Chairman, is how do you reconcile these great CRA ratings with the poor lending practices of these institutions and what do you think we can do about it? I ac-

tually wrote to you February 20th and made some suggestions in terms of follow-meeting and to really begin to sort this through. But I'd like to get your take on this.

Mr. GREENSPAN. Let me just say, I just signed off on a response to you and you'll probably be getting it this afternoon. Let me just say briefly that there are a number of issues that we take into consideration by law on CRA rating. More generally, it's got to do with making certain that the individual institution have appropriate credit availability for the total community and that there are a number of other issues involved other than mortgage loans.

Second, as I think we may have discussed with you at another time, it's important in looking at the issue of mortgage extensions to look not only at the bank itself but its subsidiaries, because many banking organizations do a goodly part of their mortgage lending through subsidiaries rather than through the bank itself. And these numbers which you are citing refer to as I recall conventional mortgages only. And you'll find that FHA and VA, which is a fairly significant amount of the lending, show very significantly different figures from the ones that you cited.

Now I don't know what those data will show, because we have not compiled them. But I do suggest to you that before you reach conclusions on this issue that it's probably worthwhile to look at it in the broader sense. There are a number of other technical issues which are involved in our CRA ratings which I try to outline in the letter we're sending up to you and I hope it's a satisfactory response. If not, come back and I'll try to respond again.

Ms. LEE. Thank you, Mr. Chairman. I appreciate that. And let me just, while I still have a couple of seconds left, I would like to just ask you with regard to the issue of housing production as a viable economic stimulus initiative or plan. Housing production creates jobs. Yet we haven't been able to find the resources to establish a massive affordable housing production strategy.

I've introduced a bill with my colleague Congressman Sanders to call for a $15 billion Federal investment in affordable housing production. How do you see this right now in terms of the recession? And does a housing production program make sense in terms of job creation?

Mr. GREENSPAN. Well, Congresswoman, as I mentioned previously, residential building has been holding up remarkably well through this period of contraction. And by all historical standards, it's reasonably high at this stage. And as you know, even though you point out the differentials between minority and non-minority home ownership, both are rising significantly.

You may recall when I was in San Francisco I think I quoted a number of those statistics, and the rise in minority home ownership, the black and Hispanic, is really quite impressive. I mean, I grant you it's still not where I would like to see it. I think that the more people who own homes, the greater their interest in the community in which they function and the more effective they are as citizens. So that's clearly a desire over and beyond the economics that are involved.

But so far as home residential construction is concerned, it's doing reasonably well. And you have to ask yourself in allocating funds as to whether, in fact, that's the most appropriate and effec-

tive use of the funds you're referring to rather than some other priority, and that's a judgment that the Congress has to make.

Ms. LEE. Thank you very much.

Mr. GREENSPAN. You're welcome.

Chairman OXLEY. The gentlelady's time has expired.

The gentlelady from Illinois, Ms. Schakowsky.

Ms. SCHAKOWSKY. Thank you Mr. Chairman.

And Chairman Greenspan, I appreciate your spending so much time with us this morning and that I have the opportunity to ask a few questions. I'm going to ask them all, and if you have time to respond to all of them, fine. Maybe otherwise in writing later, I hope you will.

Last year, you stated some support for a large tax cut, and that support I think was based at least in part about some concerns that you had about too quickly paying down the public debt. I'm assuming that those concerns have changed somewhat, and I wanted to ask you if you have a different view on the wisdom of those large tax cuts, particularly those that go to the very wealthiest of Americans.

Second, on the economic stimulus package, the one that passed the House and others that have been recommended by the leadership emphasize major tax cuts it seems to me over investment. That is, speeding up the tax cuts that were passed, giving new ones, largely to corporations, some to very profitable corporations. The one that passed the House would have given a rebate of $254 million to Enron. I wondered if you had comments on the thrust of the economic stimulus package, the one that passed and the ones that are being considered in the House.

Third, on the issue of predatory lending, which has been very dear to my heart, I know that the Fed and other regulators have suggested that Congress should act. We haven't acted yet in any way. I'm wondering if you feel that we still should take some steps to deal with that problem.

And finally, I can't stay away from Enron too far. Your Board of Governors disclosed that Ken Lay at some point last October during a period when the company was looking for some help from senior Government officials did make a call to you. I was wondering what he said in that call and what your response was.

Those are my questions.

Mr. GREENSPAN. First of all, the issue that I was concerned about a year ago reflected the notion that if you believe the CBO data that we would create far too rapid a decline in the debt outstanding which would require an accumulation of assets by the Federal Government which I thought was very bad policy.

In the event taxes were cut, spending was increased and that problem was, if you want to put it that way, taken care of. So I no longer have that problem. But it was the tax cuts and the spending increases which obviously obviated further action. So, yes, it is no longer a concern of mine.

Second, on the economic stimulus proposals, as I said previously, it' really comes down to a judgment as to whether you think that the emerging stabilization that has now occurred after the significant weakness in the economy is a prelude to a self-adjusting recovery after the rate of inventory liquidation dissipates. If you be-

lieve that there is not enough potential final demand, then one could argue for some form of stimulus program. I've argued that it's probably not necessary. The economy is very likely to recover without it. And that would be my judgment. But it is a credible argument to stay that stimulus might be helpful in this particular context.

Ms. SCHAKOWSKY. And the stimulus being, as I said, heavily weighted toward tax cuts rather than investment?

Mr. GREENSPAN. I'm sorry. Tax cuts instead of investment?

Ms. SCHAKOWSKY. Instead of, for example, housing, school construction, and so forth.

Mr. GREENSPAN. That's a judgment that the Congress has got to make. I'm not certain that, without getting into the full detail you can very easily determine——

Ms. SCHAKOWSKY. Well, I guess the question is, though, whether or not you believe that tax cuts, speeding up the current tax cuts or giving more corporate tax cuts is viable as an economic stimulus.

Mr. GREENSPAN. If you're asking me would it stimulate the economy, the answer is probably yes.

On the issue of predatory lending, as you know, we have just recently come out with a ruling related to that and the Congress has it under consideration, and it's a disputable issue. Because there's sort of a fairly strong argument that subprime lending as a general issue is not a bad thing under certain conditions. When carried to what we call predatory levels, it is. And a lot of people have difficulty differentiating what is and is not predatory in the subprime categories. And I think that's one of the reasons why it's getting difficult to come to conclusions on this issue.

Chairman OXLEY. The gentlelady's time has expired.

The gentleman from Tennessee.

Mr. GREENSPAN. I'll answer the others for you.

Mr. FORD. Thank you, Mr. Chairman, Mr. Oxley and Chairman Greenspan. In fairness to my good friend Ms. Schakowsky, what you may call "spending" we call "investment" up here, so I think that's what she might have been referring to, Mr. Chairman.

I have two quick questions. Last year before the Committee, at least one of your trips to the Committee, you advocated the idea of a trigger mechanism where tax cuts would be delayed if the fiscal situation worsened, obviously meaning if our projections or expectations of revenues did not meet the grandiose projections made by some of my colleagues.

In your testimony last year, I think you specifically said you supported a trigger mechanism largely because of the uncertainties that one has with respect to 10-year budget forecast are very high. Two parts to the question. In retrospect, with the dramatic reduction or deterioration of projected revenues that we've experienced, do you think a trigger mechanism would have been helpful? And two, there's been considerable talk here from some of my colleagues on the other side of the Hill in the Senate and here regarding efforts to revisit the tax cut and that parts of the tax cut and even to revoke parts of it that have not gone into effect yet.

President Bush has eloquently and forcefully suggested that he would not support such an idea and has even equated a revisiting the tax cut with actually raising taxes. I'd be curious to get your

thoughts on both strands of that question, Mr. Chairman. And I, too, am glad you didn't decide to retire once you reached the eligible age.

Mr. GREENSPAN. Thank you. First of all the trigger I was referring to was a trigger on both taxes and spending initiatives. And the reason for that is that the Federal budgetary process which 15, 20, 30 years ago never really got beyond 1 or 2 years out, largely because the vast proportion of it was discretionary and the Congress could very readily reverse or sunset any type of program it wanted with ease. That's increasingly less credible as the greater proportion of spending outlays become what we used to call uncontrollables, entitlement programs of some form or another.

Under those conditions, you have no choice but to make long-term forecasts, because even if you don't make a forecast, there is an implicit forecast in the actions you're taking in the Congress. So it's better to have a bad forecast than none at all. But those forecasts, as you point out, are bad. And hence, it's far superior to have some form of mechanism which recognizes the fact that if they are really very far off that the actions which were promulgated on them will not take place. So I still believe that that process should still exist.

I have no particular comments on the issue of what one would do or not do about existing programs. But the point that the President is making with respect of changing the existing tax structure now, say, reversing, implying some form of tax increase is correct in the sense that there are some parts of the economy where people are making judgments about the future, making current investments about which are go-no go investments, depending on what the presumed tax structure is in the future.

So if you change rates, if, for example, you had a tax cut pending and you go back to neutral, that effectively creates an effective tax increase for somebody who is making an investment.

Mr. FORD. I understand that. But I guess obviously a lot of things have changed since we passed that tax cut, and as you indicated, the fiscal situation irrespective of what occurred on September 11th has changed things dramatically. And I would imagine as you chair a Board that has consistently lowered short-term rates for a period of time, you are in the business of adjusting. So as much as I appreciate your point, I'm a little confused by it.

I know my time is running and I'd love to maybe get a longer answer from you, Mr. Chairman, on that. But the last time you were before the Committee I raised it, the last time I had an opportunity to address some of my thoughts to you before the Committee, my State of Tennessee, where I'm from, and other States were experiencing enormous budget shortfalls, and we see now that many other States are faced with the same crisis. The National Governors Association met last week here. I don't know if you had an opportunity to address them. I know some of my colleagues and Members of the Administration had that opportunity.

One of the things that they declared, Mr. Chairman, was that the current, quoting, the current fiscal crisis for States compounded by unsustainable growth in the Medicaid program is creating a situation in which States are faced with either making massive cuts in programs or being forced to raise taxes significantly.

My question last time dealt with I couldn't understand for the life of me how you could reconcile the idea of growing exploding surplus projections with the reality of States facing budget shortfalls. And I guess my question is, as those of us at the Federal level try to boost the economy, and you tried to address some of these questions here, while maintaining some fiscal discipline, what will be the effect of the budget problems off the 50 States and will any drastic spending cuts or even tax increases at the State level offset our efforts here at the Federal level? And for that matter, offset the Herculean efforts that your organization has engaged in over the last year.

Mr. GREENSPAN. Well, as I think I may have answered last year, one of the reasons why we had this extraordinary Federal surplus and difficulties in the State areas is that there were a significant amount of tax cuts that occurred within the States to essentially remove considerable surpluses that were emerging. And so when the situation turned around, you would expect, as indeed has happened, States are in far greater difficulty than even the Federal budget system is.

But as you point out, Congressman, from the point of view of looking at the economy overall, you consolidate the Federal and the State and local systems so that clearly cuts in spending in State and local authority or an increase in taxes has the same effect essentially as that which would occur at the Federal level.

Mr. FORD. Mr. Chairman, I know my time is up, but just one last point. You mentioned how there may be those who are depending on the tax cut that was passed and the idea that tax cuts will kick in. I just can't imagine that too many of my friends, at least the ones I've spoken to, and I don't know a lot of friends with big estates, but the or two I do know, they've indicated they've not made any dramatic changes in their estate planning as a result of what we passed last year. So as much as I appreciate that comment, I can't imagine——

Mr. GREENSPAN. I wasn't referring to the estate taxes. I was referring to individual income taxes.

Mr. FORD. Right, fair enough. Fair enough. Thank you for letting me go over my time. Thank you, Mr. Chairman.

Chairman OXLEY. The gentleman's time has expired.

The gentleman from Texas, Mr. Hinojosa.

Mr. HINOJOSA. Thank you, Mr. Chairman.

Chairman Greenspan, could you give us an idea of how the decline in long-term rate would impact the household incomes and possibly what effect it would have on individuals like the one you were just talking about in making decisions to make investments, whether they be in their investment portfolio of securities or businessmen wanting to invest in say equipment and machinery in their factories?

Mr. GREENSPAN. Congressman, in our type of economy, long-term interest rates play a fairly significant role. Most of us deal with it wholly from the mortgage market only and that clearly what the interest rate is on these 30-year fixed rate mortgages has a fairly significant impact on what your monthly payment is and does, has a major effect on how one behaves.

They are also relevant where you are involved in investing in plant and equipment, as you point out, because to the extent that you're borrowing money over the long run, that has very major effect on the potential profitability of that investment and clearly, lower interest rates imply that the profitability under any existing state of technology will be higher for corporations who borrow money to finance it.

So it's generally a very important element within the economy. And one of the reasons why we are so focused on keeping inflation expectations down is inflation expectations are a critical factor in the determination of long-term interest rates. And if inflation expectations go up, it tends to inhibit a lot of economic activity in this country.

Chairman OXLEY. The gentleman's time has expired.

The gentlelady from Indiana, the very patient lady, is now recognized.

Ms. CARSON. Thank you very much, Mr. Chairman.

And thank you very much, Mr. Chairman, for your patience. I'm going to ask you this question because you are perceived—and correctly so—to know everything, and that is a compliment. It is not a put-down at all, and we appreciate very much that you're here today.

Indiana has a spiraling rate of foreclosures, housing, home foreclosures among its citizens. Could you tell me why that is?

Mr. GREENSPAN. Well, I think the foreclosure rate generally, and more importantly, the bankruptcy rate for individuals has been going up recently, in large part because the economy is weak, the unemployment rate has gone up and there's been obviously specific difficulties. I don't know the situation specifically in Indiana, but there's no reason to believe that that is dramatically different.

I should say that the foreclosure rate, while it is up, is not up a great deal as I recall at the national level, and it varies by whether it's FHA, VA, conventional. And as a consequence of that, it's very hard to generalize. But the basic reason is that the economy has been weak.

Ms. CARSON. Do you see, Mr. Chairman, one quick other question, any reversal of that trend, given all of these people that are going to be propelled into homelessness, if you will? These are homeowners. People that were taxpayers. People that were longtime employees and now they're losing their place of abode. Do you see any reversal of the trends that has precipitated that chronic situation among so many people?

Mr. GREENSPAN. I think so, Congresswoman. The evidence that we're seeing nationwide is that we seem to have stabilized. A lot of the weakness that we saw earlier seems to be dissipating. And while I've argued that it's too soon to say that we're on our way back and moving at a reasonable pace, nonetheless, there are signs that those types of improvements are taking place. And if they do, that will be by far the most effective program to address the particular concerns that you have in that regard.

Ms. CARSON. How are they beginning to reverse? And I don't want to hold you. But what signs do you see related to what?

Mr. GREENSPAN. Well, what we see, for example, is that the gross domestic product, which was negative during the third quarter and

appeared to be going into the fourth quarter as a significant negative, at the end turned out to be a small positive. And for the first quarter, the numbers do at this moment appear to be positive as well. So we are beginning to see the forces which engendered the rise of unemployment starting to simmer down, and while we're not to the point where I think you can essentially say that we're over the hump with respect to unemployment, we're approaching it.

Chairman OXLEY. The gentlelady yields back. The Chair now recognizes the gentleman from New York, Mr. LaFalce.

Mr. LAFALCE. Chairman Greenspan, in my introductory remarks I asked some largely global questions which we didn't have an opportunity to get into. Now I'd like to get into some more local and specific questions.

You and I, I'm sure, are equally concerned about unfair and deceptive practices within the field of financial services. It's my understanding that some 25 years or so ago, a law was passed that delegated responsibility to the Federal Reserve Board to promulgate regulations articulating what an unfair and deceptive practice is. Correct me if I've been misinformed. But it's my understanding that we haven't seen regulations in the past 25 years from the Federal Reserve Board.

I've also been advised that the Comptroller of the Currency recently brought a lawsuit saying that we could operate under the aegis of the law itself absent regulations, and that was challenged in the courts by the financial institutions. The initial lower court holding was that indeed the Comptroller was correct. I don't know the status of that case on appeal. But could either you or Mr. Mattingly advise me as to what the status of that is?

Mr. GREENSPAN. I would say you would be much better advised by Mr. Mattingly.

[Laughter.]

Mr. LAFALCE. Virgil?

Chairman OXLEY. Would the gentleman identify himself for the record, please?

Mr. MATTINGLY. Virgil Mattingly. I'm the General Counsel of the Federal Reserve.

Chairman OXLEY. Thank you.

Mr. MATTINGLY. The Comptroller has taken that position, the one you articulated in several cases, and so far, my understanding is he's been upheld on that.

Mr. LAFALCE. OK. But can we go to the first issue, Virgil? And that's what's taken 25 years to articulate those regs?

Mr. MATTINGLY. The Board wasn't required to issue regs. It was given the authority to identify practices for banks that would be unfair and deceptive. And I think the Board has done that my recollection is once, only once.

Mr. LAFALCE. Only once in 25 years. But it's also my understanding that there's an expectation that the Federal Reserve will promulgate regulations. As a matter of fact, that was the gravamen of the argument that was used against the Comptroller, and the Comptroller—nobody seems to dispute that. I mean, 25 years and one example. It seems to me you could be a bit more aggressive.

[Laughter.]

Mr. MATTINGLY. Well, that may be so. But as you are well aware, during that 25 years, Congress itself has passed a lot of laws that have applied to banks.

Mr. LAFALCE. But the unfair and deceptive practices have not been dealt with adequately. You need to become much more aggressive on this. And I would like to have a meeting with Chairman Greenspan and you and the other member of the Federal Reserve Board who is responsible for this issue in order to discuss the possibility of a much more aggressive Federal Reserve Board on this issue.

Mr. MATTINGLY. Certainly.

Mr. LAFALCE. Thank you.

Chairman OXLEY. The gentleman yields back. Let me if I can, Mr. Chairman, use the prerogative of the Chair to ask a few questions as we wrap up here. And you've been very gracious with your time and we most appreciate it.

Recently, Secretary of the Treasury O'Neill suggested that CEOs of public companies be required to personally certify financial statements and such CEOs be held personally liable for such certifications, thereby avoiding or not having the protection of insurance. Do you have any opinion on that proposal?

Mr. GREENSPAN. The general proposal is to switch the onus of decisionmaking with respect to a whole series of corporate governance questions which we've been discussing today to the CEO. I fully support that. I think having served on many boards, indeed, Paul O'Neill and I served on the Alcoa Board together, there's no question in my mind that unless you get the CEO effectively saying not we have met every GAAP requirement and therefore we have no liability further that he has to be able to say that irrespective of any particular GAAP regulation the accounts which we have appropriately certify what this company is all about.

Now the question, getting down to the issue of penalties to induce the CEO to make sure that that is done, gets to the question in his mind on the degree of D&O insurance, director and officer liability insurance. And that there's no doubt in my mind that there's no doubt in my mind that if you created some inability to get fully liability insurance under certain circumstances, it might be helpful. Although the law as I understand it now stipulates that deceptive certifications do not cover you under a particular insurance requirement.

My general view is I think that Secretary O'Neill is definitely going in the right direction on this. There is a question that has arisen with respect to if you construct an issue of increased liability on the part of the CEO that you will engender a huge new flood of lawsuits which clearly will not be to the interests of either the company, the country and I do suspect it's something we ought to try to avoid. So there are possibilities of doing what the Secretary wants to do, but to delimit the way in which the individual CEO's liability is adjudicated.

Chairman OXLEY. Along those lines, some folks have suggested that corporate governance issues should be dealt with at the Federal level as opposed to the traditional State level. Do you have any comments in that regard?

Mr. GREENSPAN. I really don't. I'm aware of the arguments. I don't feel myself sufficiently in control of the facts to make a judgment at this stage.

Chairman OXLEY. That hasn't deterred others from making those same suggestions.

[Laughter.]

Chairman OXLEY. But I'll pass on that. Let me ask you a couple of questions on derivatives since they have been mentioned a number of times in several different areas. In the year 2000, Congress passed the Commodity Futures Modernization Act which exempted or excluded many types of derivatives transactions from the Commodity Exchange Act. Some have recently questioned this decision certainly in the wake of Enron. Is this still sound policy or is it in need of discussion?

Mr. GREENSPAN. I think not, Mr. Chairman. I think that the legislation that you passed in the year 2000 strikes me as appropriate and still valid.

Chairman OXLEY. And why would you say that in light of a great deal of criticism that has come from a number of quarters that at least part of the reason for the Enron collapse was this, quote, "deregulatory move" by the Congress in 2000?

Mr. GREENSPAN. That's not impression of what happened. I mean, what I sense happened is that they ran into losses which they basically endeavored to obscure. And there's nothing that they did which just could not have been done in 20 different ways, had nothing to do with derivatives except that derivatives happened to be one of the vehicles that were involved, but the issue that I'm aware of had nothing to do with the legislation that you passed in the year 2000.

There is a question as to whether the specific issue of exempting over-the-counter energy derivatives from the Commodity Exchange Act. And the argument there is that somehow that Enron was not controlled and it should have been. But what that issue is is in the law that regulation of transactions between professionals is wholly inappropriate in that specific regard. And I see nothing that's changed from the discussions we all had when that particular Act was under review.

Chairman OXLEY. Mr. Chairman, some would say that in the case of Enron that the Enron collapse really began when the price of commodities, particularly oil and gas, declined. And as a matter of fact, you can look at some rather startling charts that indicate that Enron's stock went up almost equally with the commodity prices and then plunged at the same rate. Is that a valid trigger for the Enron collapse, or is there some other theory out there that's just as credible?

Mr. GREENSPAN. Well, as far as I can see, there are two issues involved. One is the underlying earning power that Enron engendered. And I would presume that since they were very heavily in the issue of energy that the higher the price at any fixed margin, the higher would be their earnings. But I think the evidence will probably show when we finally know what all of the evidence is that the triggering point had nothing whatever to do with that. It had to do with the loss of I guess I would call it reputation capital.

That is, as I indicated earlier on, Enron is a classic case of a company whose market value is very significantly dependent on the reputation of the firm. And when it became apparent that the data that they were putting forth as representing their earnings figures were indeed false and had to be recalculated, they lost a very large part of their reputational value and indeed, it was that that ultimately did them in. Had they, for example, recognized the losses that they actually had in these affiliates early on, I have no doubt it would have hit their stock some, but it would have had a negligible impact relative to what actually happened.

It was a very expensive business mistake which they made. I do not think that had they a correct set of accounts that they'd still be in business. Their stock price would be lower. Their stock price would be lower because basically, energy prices are lower, and their margins presumably wouldn't have changed, so their earnings would have been less viable. But they would not be in Chapter 11.

Chairman OXLEY. One of the former officers stated publicly that he thought that the Enron situation was a classic run on the bank and that seems to be what you are referring to. However, I guess there are some differences as to what triggered that run on the bank. Your estimation is that it was this reputational capital that was depleted rapidly, which goes to the whole question of public confidence and the like in the system.

Mr. GREENSPAN. As I said in my prepared remarks, Mr. Chairman, a company whose assets are substantially physical, real, and I used the example of an automobile assembly plant, could conceivably have the reputation of its management sullied considerably or come under a cloud and yet the company would still have sufficient physical assets to engender incomes which would give it a considerable capital value. But that was not the case of Enron. Their actual real assets—pipelines and various energy-related assets—were a relatively small part of the market value of the firm.

Chairman OXLEY. And finally, I couldn't let this pass by, and that is a question on netting. You and I have had these discussions numerous times. And as you know, the netting provisions are currently in the bankruptcy bill that's in the Conference Committee. Mr. LaFalce and I are both conferees, and as you know, Mr. Toomey of our Committee has introduced legislation also in that regard. I know you haven't changed your mind on this, but I'm wondering if you could help us and help the listening public understand the importance of enacting netting legislation this year.

Mr. GREENSPAN. Mr. Chairman, as I indicated in my prepared remarks and later, I think that the extraordinary expansion of derivatives has been a major factor in creating an increased degree of flexibility and resiliency in our system and that they are a very effective tool that used for good is exceptionally effective and used for ill can be just the same. It's neutral with respect to that.

But, because it's such a valuable potential tool, it's important that it function as efficiently as possible. The legal uncertainty that still exists on certain types of derivatives which did not appear in the original act which gave legal certainty to netting are a cloud over these markets which, if we can dissipate sooner rather than later, would be very helpful. There is no downside of which I am aware of in passing this legislation. And as you know, it was in the

bankruptcy legislation there solely for the purpose of trying to integrate something which I presume has fairly broad support in a bill which had some conflicts associated with it.

So I would just merely argue that unless I am mistaken about this issue of there being no downside, there's an awful lot of upside to its enactment.

Chairman OXLEY. Thank you. Let me yield to my friend from New York.

Mr. LAFALCE. I thank the Chair for yielding. Chairman Greenspan, I couldn't agree with you more on the issue of netting. And I don't think there's a controversy about that issue but there is great controversy about the bankruptcy bill. Now in the previous Congress, we separated the netting bill from bankruptcy and passed it independently.

In light of the Enron, Global Crossing and other debacles, don't you think it is advisable to separate the netting bill from the banking conference, pass it separately in the House and separately in the Senate and send it to the President for his signature as soon as possible?

Mr. GREENSPAN. I would agree completely with your remarks, Congressman.

Mr. LAFALCE. Thank you.

Chairman OXLEY. Mr. Chairman, we appreciate your appearance here today. And as always, most enjoyable. And your knowledge is exceeded only by your patience and good will. And we look forward to seeing you in July.

The hearing now stands adjourned.

[Whereupon, at 1:50 p.m. the hearing was adjourned.]

A P P E N D I X

February 27, 2002

Opening Statement

Chairman Michael G. Oxley

Committee on Financial Services

February 27, 2002

Federal Reserve Board
Monetary Policy Report to Congress

Before we formally welcome Chairman Greenspan, I want to take a moment to welcome the Committee back to our newly refurbished Committee room.

We have completed the bulk of our renovations to our Committee hearing rooms, which have taken a full year to accomplish.

Over the last six weeks, we replaced the original 40-year-old audio system with a state-of-the-art digital sound system. The new system will enable all of us, and the audience, to hear each other clearly for the first time. We also added some multimedia and broadcast capabilities to the tools available to the Committee.

All of these improvements will improve the work of this Committee, and make its proceedings even more accessible to the public.

I particularly want to thank Chairman Ney for all of his support and hard work in helping us to complete this project. I also want to thank all the Members of this Committee for their strong support in making every aspect of this Committee, including our hearing rooms, the best on Capitol Hill.

With that said, good morning, Chairman Greenspan. Thank you for coming today.

The world economy has been turbulent, and you've had issues to deal with that even you've never seen before.

The economy has benefited greatly from your leadership at the Federal Reserve. In these uncertain times, experience and steadiness at the helm of the central bank are particularly important. So we are grateful for your continued service.

Before we begin today, I also want to say that this Committee – and the Nation – owes you its appreciation for everything the Federal Reserve Board did in the days immediately following September 11. The Fed – working with financial institutions of all kinds, all over the country – made it possible for our system to continue to work flawlessly at a time of great confusion and great peril. It is a great story – one that not enough people know about. We owe you, and everyone at the Fed, our gratitude.

Terrorism gave our stagnating economy a hard shove. But, so far, the war has caused no lasting economic damage. In fact, our economy is rebounding from recession despite the war, and despite the difficulties experienced by individual companies in many different markets. This is an amazing testament to our fundamental economic strength.

We look forward to your views of what's happening in the economy -- and what else can be done to speed the economic recovery.

Congress also must do its part in a number of areas. We look forward to your opinions and reactions to many of those issues.

This Committee oversees the growth engine of the economy – the companies that provide the capital for all other businesses to expand, and to begin. That's why you visit us twice a year, and that's why we always seek your advice on things Congress can do that will help grow the economy.

Our committee was the most productive in Congress after September 11. We have enacted bills ranging from the PATRIOT Act, to eliminating excess fees investors pay for operations of the SEC – the second biggest tax cut of the Bush Administration. We have passed terrorism insurance legislation, and a host of other bills. Throughout it all, we are doing much more than responding to terrorism: we are trying to help the economy recover and grow.

Economic growth remains our Committee's focus today. It's more important than ever for this Committee to focus on all the ways we can remove barriers to economic growth. As you state in your testimony, "deregulation and innovation in the financial sector have been especially important in enhancing overall economic performance."

Congress made great initial strides in the 1990s. We began to deregulate financial and product markets in Gramm-Leach-Bliley. We made sure that trading on the stock markets occurred in decimals. We worked to help investors get more information from companies so they can make informed decisions about their portfolios.

The result was unprecedented prosperity -- and the unprecedented ability to bounce back after a recession and after September 11.

But it's no time to rest on those accomplishments. There's a lot more to do.

Now more than ever, we need to free up capital to seed new businesses and expand existing businesses.

We need to make sure that the whole value of every business is reflected in its accounting, and in its financial statements. We need to increase the transparency and usefulness of financial statements to the investing public, so that as much light as possible is shed on the operations of every company.

We must continue to remove unnecessary economic and regulatory burdens on our businesses so that they can help lead the economic recovery. We're trying to do that here, both by reforming the deposit insurance system and by spearheading regulatory relief for financial institutions.

On these issues, and many others, we look forward to your continued advice and assistance. We appreciate your testimony here today.

With that, I yield to the gentleman from New York, Mr. LaFalce.

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For release on delivery
10:00 a.m. EST
February 27, 2002

Statement of

Alan Greenspan

Chairman

Board of Governors of the Federal Reserve System

before the

Committee on Financial Services

House of Representatives

February 27, 2002

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. An array of influences unique to this business cycle, however, seems likely to moderate the speed of the anticipated recovery.

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.

* * *

One key consideration in the assessment that the economy is close to 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. 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 as incentives were scaled back, 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 continue declining. 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.

* * *

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 the contraction of investment expenditures in the communications sector, where the amount of overcapacity was substantial, as yet shows few signs of abating, 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 beginning soon 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 is drawing 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.

* * *

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 is for real GDP to rise 2-1/2 to 3 percent during 2002. Such a pace for the growth of real output is 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 is expected initially to lag as firms rely primarily on overtime and shifts from part-time to full-time work. The unemployment rate is anticipated to rise somewhat further over 2002, to the area of 6 to 6-1/4 percent. FOMC members evidently anticipate 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.

For use at 10:00 a.m., EST
Wednesday
February 27, 2002

Board of Governors of the Federal Reserve System

Monetary Policy Report to the Congress

Pursuant to section 2B of the Federal Reserve Act

February 27, 2002

Letter of Transmittal

BOARD OF GOVERNORS OF THE
FEDERAL RESERVE SYSTEM
Washington, D.C., February 27, 2002

THE PRESIDENT OF THE SENATE
THE SPEAKER OF THE HOUSE OF REPRESENTATIVES

The Board of Governors is pleased to submit its Monetary Policy Report to the Congress pursuant to section 2B of the Federal Reserve Act.

Sincerely,

Alan Greenspan, Chairman

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Monetary Policy Report to the Congress

Report submitted to the Congress on February 27, 2002, pursuant to section 2B of the Federal Reserve Act

Monetary Policy and the Economic Outlook

Last year was a difficult one for the economy of the United States. The slowdown in the growth of economic activity that had become apparent in late 2000 intensified in the first half of the year. Businesses slashed investment spending—making especially deep cuts in outlays for high-technology equipment—in response to weakening final demand, an oversupply of some types of capital, and declining profits. As actual and prospective sales deteriorated, many firms in the factory sector struggled with uncomfortably high levels of inventories, and the accompanying declines in manufacturing output steepened. At the same time, foreign economies also slowed, further reducing the demand for U.S. production. The aggressive actions by the Federal Reserve to ease the stance of monetary policy in the first half of the year provided support to consumer spending and the housing sector. Nevertheless, the weakening in activity became more widespread through the summer, job losses mounted further, and the unemployment rate moved higher. With few indications that economic conditions were about to improve, with underlying inflation moderate and edging lower, and with inflation expectations well contained, the Federal Reserve continued its efforts to counter the ongoing weakness by cutting the federal funds rate, bringing the cumulative reduction in that rate to 3 percentage points by August.

The devastating events of September 11 further set back an already fragile economy. Heightened uncertainty and badly shaken confidence caused a widespread pullback from economic activity and from risk-taking in financial markets, where equity prices fell sharply for several weeks and credit risk spreads widened appreciably. The most pressing concern of the Federal Reserve in the first few days following the attacks was to help shore up the infrastructure of financial markets and to provide massive quantities of liquidity to limit potential disruptions to the functioning of those markets. The economic fallout of the events of September 11 led the Federal Open Market Committee (FOMC) to cut the target federal funds rate after a conference call early the following week and again at each meeting through the end of the year (see box "Monetary Policy after the Terrorist Attacks").

Displaying the same swift response to economic developments that appears to have characterized much business behavior in the current cyclical episode, firms moved quickly to reduce payrolls and cut production after mid-September. Although these adjustments occurred across a broad swath of the economy, manufacturing and industries related to travel, hospitality, and entertainment bore the brunt of the downturn. Measures of consumer confidence fell sharply in the first few weeks after the attacks, but the deterioration was not especially large by cyclical standards, and improvement in some of these indexes was evident in October. Similarly, equity prices started to rebound in late September, and risk spreads began to narrow somewhat by early November, when it became apparent that the economic effects of the attacks were proving less severe than many had feared.

Consumer spending remained surprisingly solid over the final three months of the year in the face of enormous economic uncertainty, widespread job losses, and further deterioration of household balance sheets from the sharp drop in equity prices immediately following September 11. Several factors were at work in support of household spending during this period. Low and declining interest rates provided a lift to outlays for durable goods and to activity in housing markets. Nowhere was the boost from low interest rates more apparent than in the sales of new motor vehicles, which soared in response to the financing incentives offered by manufacturers. Low mortgage interest rates not only sustained high levels of new home construction but also allowed households to refinance mortgages and extract equity from homes to pay down other debts or to increase spending. Fiscal policy provided additional support to consumer spending. The cuts in taxes enacted last year, including the rebates paid out over the summer, cushioned the loss of income from the deterioration in labor markets. And the purchasing power of house-

hold income was further enhanced by the sharp drop in energy prices during the autumn. With businesses having positioned themselves to absorb a falloff of demand, the surprising strength in household spending late in the year resulted in a dramatic liquidation of inventories. In the end, real gross domestic product posted a much better performance than had been anticipated in the immediate aftermath of the attacks.

More recently, there have been encouraging signs that economic activity is beginning to firm. Job losses diminished considerably in December and January, and initial claims for unemployment insurance and

Monetary Policy after the Terrorist Attacks

The terrorist attacks on September 11 destroyed a portion of the infrastructure of U.S. financial markets, disrupted communication networks, and forced some market participants to retreat to contingency sites in varying states of readiness. These developments, along with the tragic loss of life among the employees of a few major financial firms, greatly complicated trading, clearing, and settlement of many different classes of financial instruments. Direct dislocations elevated uncertainties about payment flows, making it difficult for the reserve market to channel funds where they were needed most. Depositories that held more reserve balances than they preferred had considerable difficulty unloading the excess in the market; by contrast, depositories awaiting funds had to scramble to cover overdraft positions. As a result, the effective demand for reserves ballooned.

The Federal Reserve accommodated the increase in the demand for reserves through a variety of means, the relative importance of which shifted through the week. On Tuesday morning, shortly after the attacks, the Federal Reserve issued a press release reassuring financial markets that the Federal Reserve System was functioning normally and stating that "the discount window is available to meet liquidity needs." Depository institutions took up the offer, and borrowing surged to a record $45½ billion by Wednesday. Discount loans outstanding dropped off sharply on Thursday and returned to very low levels by Friday. Separately, overnight overdrafts on Tuesday and Wednesday rose to several billion dollars, as a handful of depository and other institutions with accounts at the Federal Reserve were forced into overdraft on their reserve accounts. Overnight overdrafts returned to negligible levels by the end of the week.

Like their U.S. counterparts, foreign financial institutions operating in the United States faced elevated dollar liquidity needs. In some cases, however, these institutions encountered difficulties positioning the collateral at their U.S. branches to secure Federal Reserve discount window credit. To be in a position to help meet those needs, three foreign central banks established new or expanded arrangements with the Federal Reserve to receive dollars in exchange for their respective currencies. These swap lines, which lasted for thirty days, consisted of $50 billion for the European Central Bank, $30 billion for the Bank of England, and an increase of $8 billion (from $2 billion to $10 billion) for the Bank of Canada. The European Central Bank drew on its line that week to channel the funds to institutions with a need for dollars.

By Thursday and Friday, the disruption in air traffic caused the Federal Reserve to extend record levels of credit to depository institutions in the form of check float. Float increased dramatically because the Federal Reserve continued to credit the accounts of banks for deposited checks even though the grounding of airplanes meant that checks normally shipped by air could not be presented to the checkwriters' banks on the usual schedule. Float declined to normal levels the following week once air traffic was permitted to recommence. Lastly, over the course of the week that included September 11, as the market for reserves began to function more normally, the Federal Reserve resumed the use of open market operations to provide the bulk of reserves. The open market Desk accommodated all propositions down to the target federal funds rate, operating exclusively through overnight transactions for several days. The injection of reserves through open market operations peaked at $81 billion on Friday. The combined infusion of liquidity from the various sources pushed the level of reserve balances at Federal Reserve Banks to more than $100 billion on Wednesday, September 12, about ten times the normal level. As anticipated by the FOMC, federal funds traded somewhat below their new target level for the rest of the week. By the end of the month, bid–asked spreads and trading volumes in the interbank and other markets receded to more normal levels, and federal funds consistently began to trade around the intended rate.

The Federal Reserve took several steps to facilitate market functioning in September in addition to accommodating the heightened demand for reserves. The hours of funds and securities transfer systems operated by the Federal Reserve were extended significantly for a week after the attacks. The Federal Reserve Bank of New York liberalized the terms under which it would lend the securities in the System portfolio, and the amount of securities lent rose to record levels in the second half of September. For the ten days following the attacks, the Federal Reserve reduced or eliminated the penalty charged on overnight overdrafts, largely because those overdrafts were almost entirely the result of extraordinary developments beyond the control of the account holders. In addition, the Federal Reserve helped restore communication between market participants and in some cases processed bilateral loans of reserves between account holders in lieu of market intermediation.

the level of insured unemployment have reversed their earlier sharp increases. Although motor vehicle purchases have declined appreciably from their blistering fourth-quarter pace, early readings suggest that consumer spending overall has remained very strong early this year. In the business sector, new orders for capital equipment have provided some tentative indications that the deep retrenchment in investment spending could be abating. Meanwhile, purchasing managers in the manufacturing sector report that orders have strengthened and that they view the level of their customers' inventories as being in better balance. Indeed, the increasingly rapid pace of inventory runoff over the course of the last year has left the level of production well below that of sales, suggesting scope for a recovery in output given the current sales pace. Against this backdrop, the FOMC left its target for the federal funds rate unchanged in January. However, reflecting a concern that growth could be weaker than the economy's potential for a time, the FOMC retained its assessment that the risks were tilted unacceptably toward economic weakness.

The extent and persistence of any recovery in production will, of course, depend critically on the trajectory of final demand in the period ahead. Several factors are providing impetus to such a recovery in the coming year. With the real federal funds rate hovering around zero, monetary policy should be positioned to support growth in spending. Money and credit expanded fairly rapidly through the end of the year, and many households and businesses have strengthened their finances by locking in relatively low-cost long-term credit. The second installment of personal income tax cuts and scheduled increases in government spending on homeland security and national defense also will provide some stimulus to activity this year. Perhaps the most significant potential support to the economy could come from further gains in private-sector productivity. Despite the pronounced slowdown in real GDP growth last year, output per hour in the nonfarm business sector increased impressively. Continued robust gains in productivity, stemming from likely advances in technology, should provide a considerable boost to household and business incomes and spending and contribute to a sustained, noninflationary recovery.

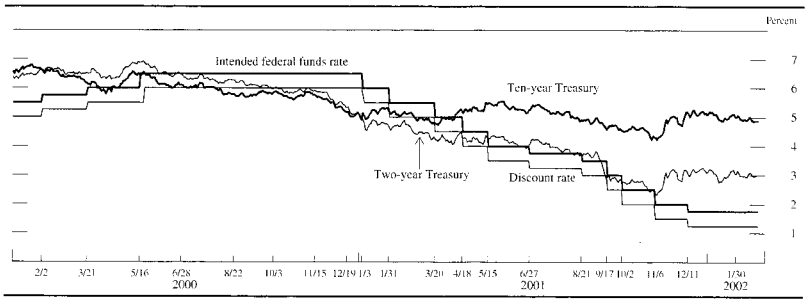
Still, the economy faces considerable risk of subpar economic performance in the period ahead. Because outlays for durable goods and for new homes have been relatively well maintained in this cycle, the scope for strong upward impetus from household spending seems more limited than has often been the case in past recoveries. Moreover, the net decline in household net worth relative to income over the past two years is likely to continue to restrain the growth of spending in coming quarters. To be sure, the contraction in business capital spending appears to be waning. But spending on some types of equipment, most notably communications equipment, continues to decline, and there are few signs yet of a broad-based upturn in capital outlays. Activity abroad remains subdued, and a rebound of foreign output is likely to follow, not lead, a rebound in the United States. Furthermore, lenders and equity investors remain quite cautious. Banks have continued to tighten terms and standards on loans, and risk spreads have increased a little this year. Stock prices have retreated from recent highs as earnings continue to fall amid concerns about the transparency of corporate financial reports and uncertainty about the pace at which profitability will improve.

Monetary Policy, Financial Markets, and the Economy over 2001 and Early 2002

As economic weakness spread and intensified over the first half of 2001, the FOMC aggressively lowered its target for the federal funds rate. Because firms reacted unusually swiftly to indicators that inventories were uncomfortably high and capital was becoming underutilized, the drop in production and business capital spending was especially steep. Moreover, sharp downward revisions in corporate profit expectations caused equity prices to plunge, which, along with a decline in consumer confidence, pointed to vulnerability in household spending. Meanwhile, a significant deceleration in energy prices, after a surge early in the year, began to hold down overall inflation; the restraining effect of energy prices, combined with the moderation of resource utilization, also promised to reduce core inflation. Responding to the rapid deterioration in economic conditions, the FOMC cut its target for the federal funds rate 2½ percentage points—in 5 half-point steps—by the middle of May. Moreover, the FOMC indicated throughout this period that it judged the balance of risks to the outlook as weighted toward economic weakness. The Board of Governors of the Federal Reserve System approved reductions in the discount rate that matched the Committee's cuts in the target federal funds rate. As a result, the discount rate declined from 6 percent to 3½ percent over the period.

At its June and August meetings, the FOMC noted information suggesting continued softening in the economy and a lack of convincing evidence that the end of the slide in activity was in sight. Although consumer spending on both housing and nonhousing

Selected interest rates



Note. The data are daily and extend through February 21, 2002. The dates on the horizontal axis are those of scheduled FOMC meetings and of any intermeeting policy actions.

items—buoyed by the tax cuts and rebates, low mortgage interest rates, declining energy prices, and realized capital gains from home sales—remained fairly resilient, economic conditions in manufacturing deteriorated further. Firms continued to reduce payrolls, work off excess inventories, and cut back capital equipment expenditures amid sluggish growth in business sales, significantly lower corporate profits, and greater uncertainty about future sales and earnings. With energy prices in retreat, price inflation remained subdued. In reaching its policy decisions at its June and August meetings, the FOMC took into account the substantial monetary policy stimulus already implemented since the start of the year—but not yet fully absorbed by the economy—and the oncoming effects of stimulative fiscal policy measures recently enacted by the Congress. Consequently, the Committee opted for smaller interest rate cuts of ¼ percentage point at both the June and August meetings, which brought the target federal funds rate down to 3½ percent; as earlier in the year, the FOMC continued to indicate that it judged the balance of risks to the outlook as weighted toward economic weakness. After both meetings, the Board of Governors of the Federal Reserve System also approved similar reductions in the discount rate, which moved down to 3 percent.

After the terrorist attacks on September 11, the available Committee members held a telephone conference on September 13, during which they agreed that the financial markets were too disrupted to allow for an immediate alteration in the stance of monetary policy. However, the members were in agreement that the attacks' potential effects on asset prices and on the performance of the economy, and the resulting uncertainty, would likely warrant some policy easing in the very near future. Accordingly, the FOMC, at a telephone conference on September 17, voted to reduce its target for the federal funds rate ½ percentage point, to 3 percent, and stated that it continued to judge the risks to the outlook to be weighted toward economic weakness.

Over subsequent weeks, heightened aversion to risk, which caused investors to flock from private to Treasury and federal agency debt, boosted risk spreads sharply, especially on lower-rated corporate debt. Increased demand for safe and liquid assets contributed to selling pressure in the stock market. At its October 2 meeting, the FOMC had little hard information available on economic developments since the attacks. However, evidence gleaned from surveys, anecdotes, and market contacts indicated that the events of September 11 had considerable adverse repercussions on an already weak economy: Survey indicators of consumer confidence had fallen, and consumer spending had apparently declined. At the same time, anecdotal information pointed to additional deep cutbacks in capital spending by many firms after an already-significant contraction in business fixed investment over the summer months.

When the FOMC met on November 6, scattered early data tended to confirm the information that the decline in production, employment, and final demand had steepened after the terrorist attacks. Although an economic turnaround beginning in the first half of 2002 was a reasonable expectation according to the Committee, concrete evidence that the economy was stabilizing had yet to emerge. Meanwhile, the marked decrease in energy prices since the spring had induced a decline in overall price inflation, and inflation expectations had fallen. Accordingly, the FOMC voted to lower its target for the federal funds rate

½ percentage point at both its October and November meetings and reiterated its view that the risks to the outlook were weighted toward economic weakness. The sizable adjustments in the stance of monetary policy in part reflected concerns that insufficient policy stimulus posed an unacceptably high risk of a more extended cyclical retrenchment that could prove progressively more difficult to counter, given that the federal funds rate—at 2 percent—was already at such a low level.

By the time of the December FOMC meeting, the most recent data were suggesting that the rate of economic decline might be moderating. After plunging earlier in the year, orders and shipments of nondefense capital goods had turned up early in the fourth quarter, and the most recent survey evidence for manufacturing also suggested that some expansion in that sector's activity might be in the offing. In the household sector, personal consumption expenditures appeared to have been quite well maintained, an outcome that reflected the continuation of zero-rate financing packages offered by the automakers, widespread price discounting, and low interest rates. In an environment of very low mortgage interest rates, household demand for housing remained at a relatively high level, and financial resources freed up by a rapid pace of mortgage refinancing activity also supported consumer spending.

Nonetheless, the evidence of emerging stabilization in the economy was quite tentative and limited, and the Committee saw subpar economic performance as likely to persist over the near term. Moreover, in the probable absence of significant inflationary pressures for some time, a modest easing action could be reversed in a timely manner if it turned out not to be needed. In view of these considerations, the FOMC lowered its target for the federal funds rate ¼ percentage point, to 1¾ percent, on December 11, 2001, and stated that it continued to judge the risks to the outlook to be weighted mainly toward economic weakness. As had been the case throughout the year, the Board of Governors approved reductions in the discount rate that matched the FOMC's cuts in the target federal funds rate, bringing the discount rate to 1¼ percent, its lowest level since 1948.

Subsequent news on economic activity bolstered the view that the economy was beginning to stabilize. The information reviewed at the January 29–30, 2002, FOMC meeting indicated that consumer spending had held up remarkably well, investment orders had firmed further, and the rate of decline in manufacturing production had lessened toward the end of 2001. With weakness in business activity abating, and monetary policy already having been eased substantially, the FOMC left the federal funds rate unchanged at the close of its meeting, but it continued to see the risks to the outlook as weighted mainly toward economic weakness.

Economic Projections for 2002

Federal Reserve policymakers are expecting the economy to begin to recover this year from the mild downturn experienced in 2001, but the pace of expansion is not projected to be sufficient to cut into the margin of underutilized resources. The central tendency of the real GDP growth forecasts made by the members of the Board of Governors and the Federal Reserve Bank presidents is 2½ percent to 3 percent, measured as the change between the final quarter of 2001 and the final quarter of this year. The pace of expansion is likely to increase only gradually over the course of the year, and the unemployment rate is expected to move higher for a time. The FOMC members project the civilian unemployment rate to stand at about 6 percent to 6¼ percent at the end of 2002.

A diminution of the rate of inventory liquidation is likely to be an important factor helping to buoy production this year. In 2001, businesses cut inventories sharply so as to avoid carrying excessive stocks relative to the weaker pace of sales, and although this process of liquidation probably is not yet complete in many industries, the overall pace of reduction is likely to slow. Then, as final demand strengthens, liquidation should give way to some restocking later in the year.

As noted above, the forces affecting demand this year are mixed. On the positive side are the stimulative effects of both fiscal policy and the earlier monetary policy actions. A gradual turnaround in employ-

Economic projections for 2002

Percent

Indicator	Memo: 2001 actual	Federal Reserve Governors and Reserve Bank presidents	
		Range	Central tendency
Change, fourth quarter to fourth quarter[1]			
Nominal GDP	1.9	3½–5½	4–4½
Real GDP	.1	2–3½	2½–3
PCE chain-type price index	1.3	1–2	About 1½
Average level, fourth quarter			
Civilian unemployment rate	5.6	5¾–6½	6–6¼

1. Change from average for fourth quarter of previous year to average for fourth quarter of year indicated.

ment and a strengthening of the economies of our major trading partners should provide some lift to final demand, and spending by both households and businesses ought to be supported by robust productivity growth. On the other hand, the problems facing the high-tech sector have not yet completely receded, and indications are that spending on other types of capital equipment remains lackluster. The surprising strength of household spending through this period of economic weakness suggests a lack of pent-up consumer demand going forward. In addition, consumers likely will not benefit from declining energy prices to the extent they did last year, and the net decline in equity values since mid-2000 will probably continue to weigh on consumption spending in the period ahead.

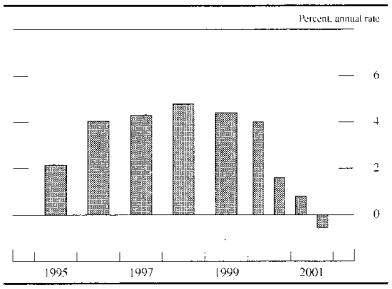
Federal Reserve policymakers believe that consumer prices will increase slightly more rapidly in 2002 than in 2001, as last year's sharp decline in energy prices is unlikely to be repeated. The central tendency of the FOMC members' projections for increases in the chain-type price index for personal consumption expenditures (PCE) is about 1½ percent; last year's actual increase was about 1¼ percent. Nevertheless, diminished levels of resource utilization, the indirect effects of previous declines in energy prices on firms' costs, and continued competitive pressures all ought to restrain the pace of price increases outside of the energy sector this year.

Economic and Financial Developments in 2001 and Early 2002

In 2001, the economy turned in its weakest performance in a decade. Real GDP increased at an annual rate of ¾ percent in the first half of the year and, according to the advance estimate from the Commerce Department, declined at a ½ percent annual rate in the second half. Although the effects of the weakening economy were broadly felt, the factory sector was especially hard hit. Faced with slumping demand both here and abroad, manufacturers cut production aggressively to limit excessive buildups of inventories. Moreover, businesses sharply reduced their investment spending, with particularly dramatic cuts in outlays for high-technology equipment. By contrast, household spending was reasonably well maintained, buoyed by lower interest rates and cuts in federal taxes. Firms trimmed payrolls through most of the year, and the unemployment rate moved up nearly 2 percentage points to around 5¾ percent by year-end. Job losses were especially large following the terrorist attacks of September 11, which had extremely adverse effects on certain sectors of the economy—most notably, airline transportation and hospitality industries. Nevertheless, by early this year some signs appeared that the economy was beginning to mend.

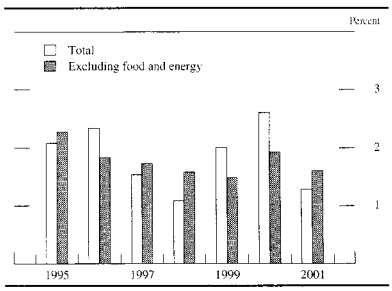
Inflation declined last year, pulled down by a sharp drop in energy prices. Excluding food and energy items, consumer price inflation leveled off and, by some measures, moved lower last year. Weakening economic activity, the indirect effects of declining energy prices on firms' costs, and continued strong competitive pressures helped keep a lid on core consumer price inflation.

Change in real GDP



Note. Here and in subsequent charts, except as noted, annual changes are measured from Q4 to Q4, and change for a half-year is measured between its final quarter and the final quarter of the preceding period.

Change in PCE chain-type price index



Note. The data are for personal consumption expenditures (PCE).

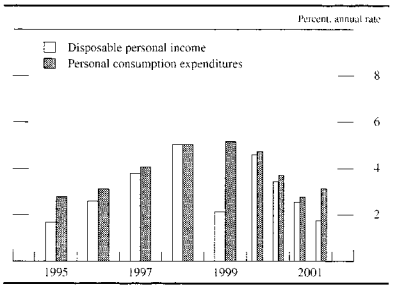
The Household Sector

Consumer Spending

Growth in consumer spending slowed last year but remained sufficiently solid to provide an important source of support to overall final demand. Personal consumption expenditures (PCE) increased 3 percent in real terms in 2001 after having advanced 4¼ percent in 2000 and around 5 percent in both 1998 and 1999. The deceleration in consumer spending was widespread among durable goods, nondurable goods, and services. However, motor vehicle expenditures remained strong through most of the year and surged in the fall as consumers responded enthusiastically to automakers' aggressive expansion of financing incentives. After September 11, spending declined in certain travel- and tourism-related categories, including air transportation, hotels and motels, and recreation services such as amusement parks; spending in these categories has recovered only partially since then.

Last year's downshift in consumption growth reflected the weakening labor market and associated deceleration of income as well as the erosion in household wealth since the middle of 2000. With employment declining over much of last year, real personal income rose only about 1¾ percent after a gain of 4½ percent in 2000. The slowing of income growth was even sharper in nominal terms, but price declines for gasoline and other energy items in the latter half of the year substantially cushioned the blow to real incomes. A continued rise in house prices supported the wealth position of many households; in the aggregate, however, household wealth deteriorated further as equity prices moved lower, on net. The decline in wealth since mid-2000 likely exerted a notable restraining influence on household spending last year.

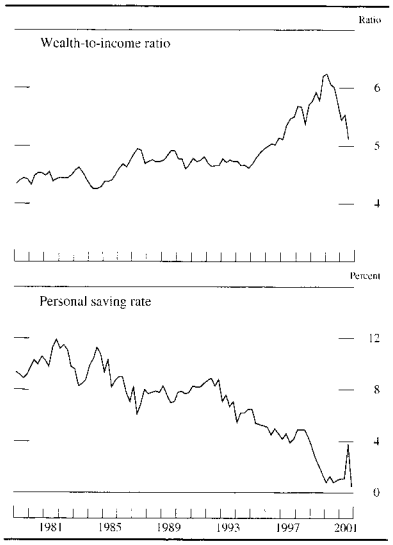
Change in real income and consumption



Both monetary and fiscal policy supported consumer spending over the past year. Low interest rates helped enable motor vehicle finance companies to offer favorable financing on new vehicles. In addition, low mortgage rates led to a spate of mortgage refinancing that lasted most of the year, lowering payments and freeing cash to be used by households for other spending needs. Indeed, many households apparently used these refinancings as an opportunity to extract equity from their homes, a move that further accommodated consumer spending. Furthermore, the first wave of tax reductions from the Economic Growth and Tax Relief Reconciliation Act of 2001—including the $300 and $600 rebate checks mailed last summer—likely helped to boost spending in the latter part of the year. The continued phase-in of the tax reductions enacted last year should provide further stimulus to income and consumption this year.

The personal saving rate, which had declined through 1999, leveled off in 2000 and in the first half

Wealth and saving



Note. The data are quarterly. The wealth-to-income ratio is the ratio of household net worth to disposable personal income and extends through 2001:Q3; the personal saving rate extends through 2001:Q4.

of 2001. The saving rate moved erratically in the second half of the year but rose on average. It shot up in the summer as households received their tax rebates; it then declined later in the year as households spent some of the rebates and as purchases of new motor vehicles soared in response to the incentives.

Consumer sentiment, as measured by both the University of Michigan Survey Research Center (SRC) and the Conference Board, had been running at extremely high levels through most of 2000 but fell considerably near the beginning of last year as concerns about the economy intensified. By the spring, measures of sentiment leveled off near their historical averages and well above levels normally associated with recessions. Sentiment dropped in September. The SRC measure recovered gradually thereafter, while the Conference Board index fell further before turning up later in the year; by early 2002, both sentiment measures again stood near their historical averages.

Residential Investment

As with consumer spending, real expenditures on housing were well maintained last year, buoyed by favorable mortgage interest rates. Interest rates on thirty-year fixed-rate mortgages, which had been as high as 8½ percent in the spring of 2000, hovered around the low level of 7 percent in the first half of 2001. They moved down further to 6½ percent by late October, before backing up to 7 percent again by December as prospects for the economy improved. As monetary policy eased, contract rates on adjustable-rate mortgages moved down sharply to very low levels in the fourth quarter and into early 2002. According to the Michigan SRC survey, declining mortgage rates have helped elevate consumers' assessments of homebuying conditions substantially since mid-2000.

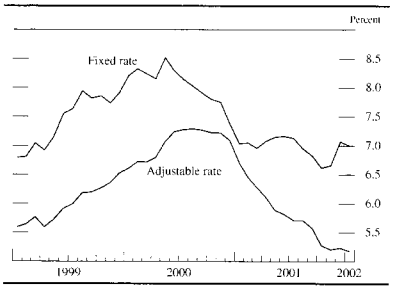
In the single-family sector, 1.27 million new homes were started last year, 3½ percent more than in 2000, when activity had been held down by higher mortgage rates. The pace of starts moved up further in January 2002, in part because of unusually favorable weather. Furthermore, sizable backlogs of building permits early this year suggest that construction activity will remain solid. Sales of new homes were elevated throughout 2001—indeed, for the year, they were the highest on record—and sales of existing homes remained strong as well. Meanwhile, the increase in home prices moderated last year. The constant-quality price index of new homes, which attempts to control for the mix of homes sold, rose only 1½ percent last year, down from a 6 percent gain in 2000.

In the multifamily sector, starts averaged 328,000 units last year, a rate close to the solid pace of the past several years. Conditions are still relatively favorable for the construction of multifamily units. In particular, vacancy rates have remained low, although rents and property values increased at a slower rate last year than in 2000.

Household Finance

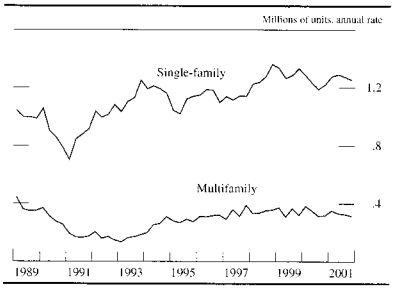
Households continued to borrow at a brisk pace last year, increasing their debt outstanding an estimated 8¾ percent, a rate about 1 percentage point faster

Mortgage rates



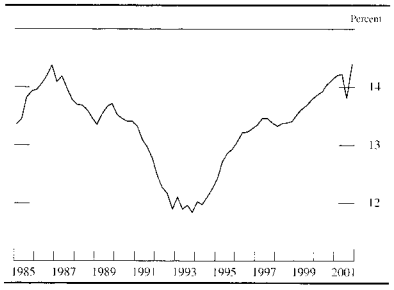
Note. The data, which are monthly and extend through January 2002, are contract rates on thirty-year mortgages from the Federal Home Loan Mortgage Corporation.

Private housing starts



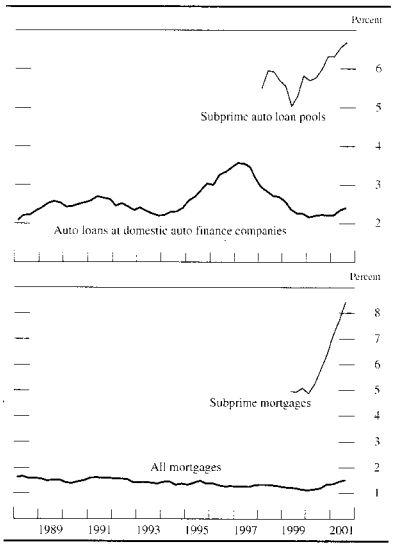
Note. The data are quarterly.

Household debt service burden



Note. The data are quarterly; 2001:Q4 is a preliminary estimate. Debt burden is an estimate of the ratio of debt payments to disposable income; debt payments consist of the estimated required payments on outstanding mortgage and consumer debt.

Delinquency rates on selected types of household loans



Note. The data are quarterly and extend through 2001:Q3.
Source. For auto loans, the Big Three automakers and Moody's Investors Service; for mortgages, the Mortgage Bankers Association and the Mortgage Information Corporation.

than the average growth over the previous two years. The cumulative declines in mortgage interest rates encouraged households to take on large amounts of mortgage debt, both by fostering homebuying and by making it attractive to refinance existing mortgages and extract some of the accumulated equity; indeed, the Mortgage Bankers Association (MBA) refinancing index in October reached the highest level since its inception in January 1980. The frenzied pace of refinancing activity tailed off some later in the fourth quarter, when fixed mortgage interest rates backed up. All told, mortgage debt grew an estimated 9 percent last year. Strength in durable goods outlays supported growth in consumer credit (debt not secured by real estate) in the first quarter of 2001, but as consumption spending decelerated over the next two quarters, the expansion of consumer credit slowed sharply. However, consumer credit growth surged in the fourth quarter, in large part because of the jump in motor vehicle sales. For the year as a whole, the rate of expansion of consumer credit, at 6¼ percent, was well below the 10¼ percent rate posted in 2000.

Hefty household borrowing outstripped the growth of disposable personal income in 2001. As a result, despite lower interest rates, the household debt-service burden—an estimate of minimum scheduled payments on mortgage and consumer debt as a share of disposable income—finished the year near the peak recorded at the end of 1986. Measures of household credit quality deteriorated noticeably last year. According to the MBA, delinquency rates on home mortgages continued to trend higher from their historic lows of the late 1990s, and auto loan delinquencies at finance companies edged up, although they too remained at a relatively subdued level. The economic slowdown and the rise in unemployment significantly eroded the quality of loans to subprime borrowers, and delinquency rates for both mortgages and consumer credit in that segment of the market moved sharply higher.

The Business Sector

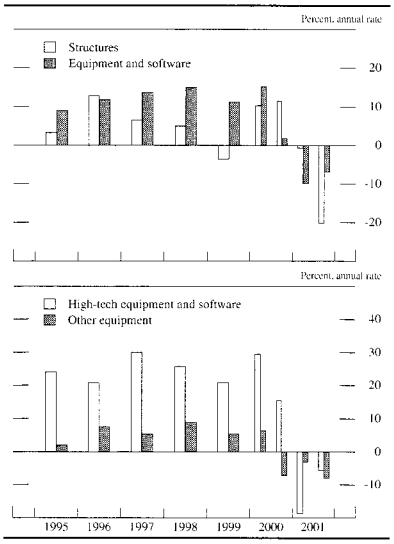
Much of the weakness in activity last year was concentrated in the business sector. In late 2000, manufacturers had begun to cut back production in an effort to reduce an undesired build-up of inventories, and sharp inventory liquidation continued throughout last year. Moreover, the boom in capital outlays that had helped drive the expansion through the late 1990s gave way to a softening of spending in late 2000 and to sharp declines last year. Spending dropped for most types of capital equipment and structures; cutbacks were especially severe for high-tech equip-

ment, some types of which may have been overbought. A sharp reduction in corporate profits and cash flow contributed to last year's downturn in capital spending, as did general uncertainty about the economic outlook. Despite the reduction in interest rates, which helped restrain businesses' interest expenses, financing conditions worsened somewhat, on balance, given weaker equity values, higher borrowing costs for risky firms, and some tightening of banks' lending standards.

Fixed Investment

Real spending on equipment and software (E&S) declined 8½ percent in 2001 after an increase of the same amount in 2000 and double-digit rates of increase for several preceding years. Spending on high-tech equipment, which has accounted for about 40 percent of E&S spending in recent years, dropped especially sharply last year. Outlays for computers and peripheral equipment, which had risen more than 30 percent in each of the preceding seven years, fell 9 percent in 2001. Spending on communications equipment swung even more severely, moving from increases of more than 20 percent on average from 1998 to 2000 to a decline of more than 30 percent last year. Business spending on software held up comparatively well, falling only 2½ percent in 2001 after having risen around 12 percent in 1999 and 2000.

Change in real business fixed investment



Note. High-tech equipment includes computers and peripheral equipment and communications equipment.

A number of factors may have weighed on outlays for high-tech equipment, including businesses' decisions to lengthen the replacement cycle for computers in light of weak economic conditions and the absence of new applications requiring the most up-to-date machines. But in addition, the magnitude by which these categories of expenditure had increased in preceding years, together with the abruptness of their downturn, suggests that firms may have been too optimistic about the immediate profitability of some types of high-tech capital; as these expectations were revised, businesses viewed their previous investment as more than sufficient to meet anticipated demand. This possibility is especially likely in the case of communications equipment, for which expectations about prospects for growth in demand appear to have been disappointed. Some of the cutbacks may have reflected a general pulling back in an environment of greater uncertainty. The sharp rise and subsequent decline of equity values in the high-tech sector mirrors the pattern of rising and slowing investment and provides some support for the notion that earnings expectations may have been overly upbeat in the past.

Under the influence of ongoing weakness in the market for heavy trucks, business spending on motor vehicles declined through most of the year. But spending stabilized in the fourth quarter, as the generous incentives on motor vehicles may have helped boost spending by small businesses as well as consumers. Domestic orders for new aircraft declined last year, especially after the terrorist attacks last fall, but these lower orders had not yet affected spending by year-end because of the very long lags involved in producing planes. Apart from spending on transportation and high-tech equipment, real outlays declined 7½ percent last year after having increased 6 percent in 2000, with the turnaround driven by a sharp swing in spending on many types of industrial machinery and on office furniture.

Late last year, conditions in some segments of the high-tech sector showed signs of bottoming. Developments in the semiconductor industry have improved, with production increasing during the fall. Some of the improvement is apparently coming from increased demand for computers. In the advance estimate from the Commerce Department for the fourth

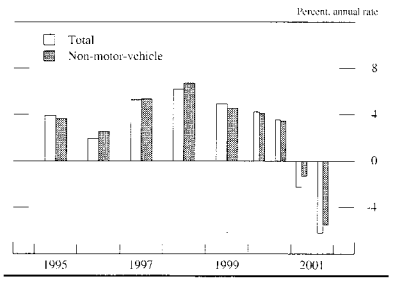
quarter, real spending on computers and peripheral equipment was reported to have surged at an annual rate of 40 percent. However, spending on communications equipment, for which evidence of a capital overhang has been most pronounced, continued to decline sharply in the fourth quarter, and orders for communications equipment have yet to display any convincing signs of turning around. As for other types of capital equipment, spending continued to decline in the fourth quarter, but a moderate rebound in new orders for many types of capital goods from their autumn lows hinted that a broader firming of demand may be under way.

Real business spending for nonresidential structures also declined sharply in 2001. Construction of office buildings dropped last year after having increased notably for several years; industrial building remained fairly steady through the first half of last year but plummeted in the second half. Vacancy rates for these two types of properties rose considerably, and by year-end the industrial vacancy rate had reached its highest level since mid-1993. Meanwhile, spending on non-office commercial buildings (a category that includes retail, wholesale, and some warehouse space) decreased moderately last year. Investment in public utilities moved down as well, a decline reflecting, in part, a cutback in spending for communications projects such as the installation of fiber-optic networks. Investment in the energy sector was a pocket of strength last year. Construction of drilling structures surged in 2000 and much of 2001, as the industry responded to elevated prices of oil and natural gas. However, with oil and natural gas prices reversing their earlier increases, drilling activity turned down in the latter part of the year.

Inventory Investment

By late 2000, manufacturers were already cutting production to slow the pace of inventory accumulation as inventories moved up relative to sales. Production cuts intensified in early 2001, and producers and distributers liquidated inventories at increasing rates throughout the year. The runoff of inventories was a major factor holding down GDP growth last year. Indeed, the arithmetic subtraction from real GDP growth attributable to the decline in nonfarm inventory investment was 1½ percentage points over the four quarters of 2001. However, because sales also were weakening, inventory-sales ratios remained high in much of the manufacturing sector, and in some portions of the wholesale sector as well, throughout the year.

Change in real nonfarm business inventories



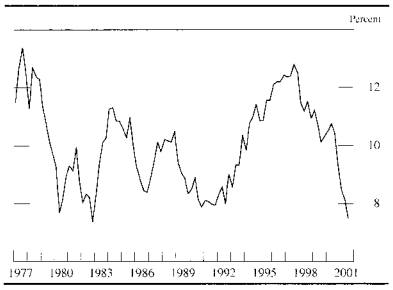
The motor vehicle sector accounted for about one-quarter of last year's overall inventory drawdown. Late in 2000 and early last year, automakers cut production in an attempt to clear out excess stocks held by dealers. By the spring, vehicle assemblies had stabilized, and the automakers instead dealt with heavy stocks by further sweetening incentives to boost sales. By the end of the year, inventories of cars and light trucks stood at a relatively lean 2¼ million units, nearly 1 million units fewer than were held a year earlier.

Corporate Profits and Business Finance

The profitability of the U.S. nonfinancial corporate sector suffered a severe blow in 2001. The profit slump had begun in the fourth quarter of the previous year, when the economic profits of nonfinancial corporations—that is, book profits from current production with inventory and capital consumption adjustments compiled by the Commerce Department—plummeted almost 45 percent at an annual rate. The first three quarters of 2001 brought little respite, and economic profits spiraled downward at an average annual rate of 25 percent. The ratio of the profits of nonfinancial corporations to the sector's gross nominal output fell to 7½ percent last year, a level not seen since the early 1980s. Earnings reports for the fourth quarter indicate that nonfinancial corporate profits continued to fall late in the year.

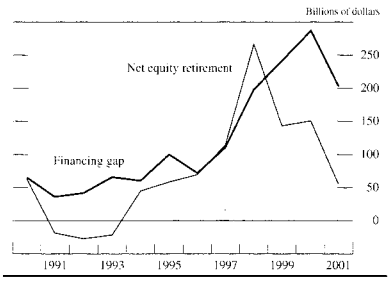
Business borrowing slowed markedly last year because firms slashed investment in fixed capital and inventories even more than the drop in profits and other internally generated funds. Business debt expanded at a 6¼ percent annual rate in 2001, well below the double-digit rates of the two previous

Before-tax profits of nonfinancial corporations as a percent of sector GDP



Note. The data are quarterly and extend through 2001:Q3. Profits are from domestic operations of nonfinancial corporations, with inventory valuation and capital consumption adjustments.

Financing gap and net equity retirement at nonfarm nonfinancial corporations

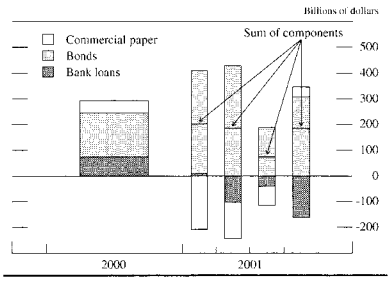


Note. The data are annual: 2001 is based on partially estimated data. The financing gap is the difference between capital expenditures and internally generated funds. Net equity retirement is the difference between equity retired through share repurchases, domestic cash-financed mergers, or foreign takeovers of U.S. firms and equity issued in public or private markets, including funds invested by venture capital partnerships.

years, and its composition shifted decidedly toward longer-term sources of funds. Early in the year, favorable conditions in the corporate bond market, combined with firms' desire to lock in low interest rates, prompted investment-grade firms to issue a high volume of bonds. They used the proceeds to strengthen their balance sheets by repaying short-term debt obligations, refinancing other longer-term debt, and building up liquid assets. Junk bond issuance was also strong early in 2001, as speculative-grade yields fell in response to monetary policy easings, although investors shunned the riskiest issues amid increasing economic uncertainty and rising defaults among below-investment-grade borrowers.

The heavy pace of bond issuance, along with a reduced need to finance capital investments, enabled firms to decrease their business loans at banks and

Major components of net business financing

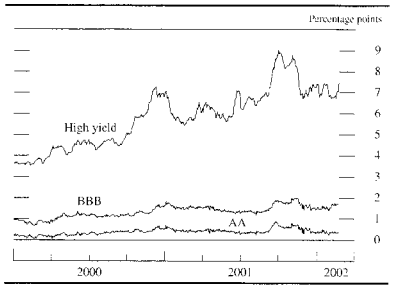


Note. Seasonally adjusted annual rate for nonfarm nonfinancial corporate business. The data for 2001:Q4 are estimated.

their commercial paper outstanding. The move out of commercial paper also reflected elevated credit spreads between high- and low-tier issuers resulting from the defaults of California utilities and several debt downgrades among prominent firms early in the year. Announcements of new equity share repurchase programs thinned considerably in the first half of the year, as firms sought to conserve their cash buffers in response to plummeting profits. A significant slowdown in cash-financed merger activity further damped equity retirements, although these retirements still outpaced gross equity issuance, which was restrained by falling share prices. Over the summer, issuance of investment-grade bonds dropped off appreciably. Moreover, market sentiment toward speculative-grade issues cooled, as further erosion in that sector's credit quality took its toll. Business loans and outstanding commercial paper continued to contract, and with share prices in the doldrums, nonfinancial firms raised only a small amount of funds in public equity markets in the third quarter.

The terrorist attacks on September 11 constricted corporate financing flows for a time. The stock market closed for that week, and trading in corporate bonds came to a virtual halt. After the shutdown of the stock market, the Securities and Exchange Commission, in an effort to ensure adequate liquidity, temporarily lifted some restrictions on firms' repurchases of their own shares. According to reports from dealers, this change triggered a spate of repurchases in the first few days after the stock markets reopened on September 17. When full-scale trading in corpo-

Spreads of corporate bond yields over the ten-year swap rate



Note. The data are daily and extend through February 21, 2002. The spreads compare the yields on the Merrill Lynch AA, BBB, and 175 indexes with the ten-year swap rate.

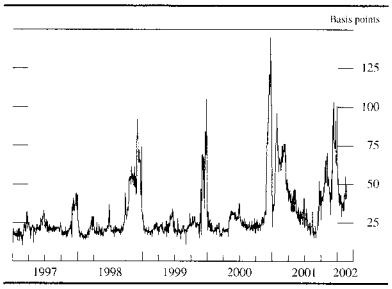
rate bonds resumed on September 17, credit spreads on corporate bonds widened sharply: Risk spreads on speculative-grade private debt soared to levels not seen since late 1991, and spreads on investment-grade corporate bonds also moved higher, although by a considerably smaller amount. Against this backdrop, junk bond issuance nearly dried up for the rest of the month. Commercial paper rates—even for top-tier issuers—jumped immediately after the attacks, as risk of payment delays increased. In response to elevated rates, some issuers tapped their backup lines at commercial banks, and business loans spiked in the weeks after the attacks. Risk spreads for low-tier borrowers in the commercial paper market remained elevated, even after market operations had largely recovered, because of ongoing concerns about credit quality and ratings downgrades among some high-profile issuers in the fall.

By early October, the investment-grade corporate bond market had largely recovered from the disruptions associated with the terrorist attacks, and bond issuance in that segment of the market picked up considerably. Firms capitalized on relatively low longer-term interest rates to pay down short-term obligations, to refinance existing higher-coupon debt, and to boost their holdings of liquid assets. With high-yield bond risk spreads receding moderately, issuance in the speculative-grade segment of the corporate bond market stirred somewhat from its moribund state, although investors remained highly selective. Public equity issuance, after stalling in September, also regained some ground in the fourth quarter, spurred by a rebound in stock prices. As was the case for most of the year, initial public offerings and venture capital financing remained at depressed levels.

Commercial paper issuance recovered somewhat early in the fourth quarter as firms repaid bank loans made in the immediate aftermath of the terrorist attacks and as credit spreads for lower-rated issuers started to narrow. However, the collapse of the Enron Corporation combined with typical year-end pressures to widen quality spreads in early December. All told, the volume of domestic nonfinancial commercial paper outstanding shrank by one-third over the year as a whole. Business loans at banks fell further in the fourth quarter; for the year, business loans contracted 4¼ percent, their first annual decline since 1993.

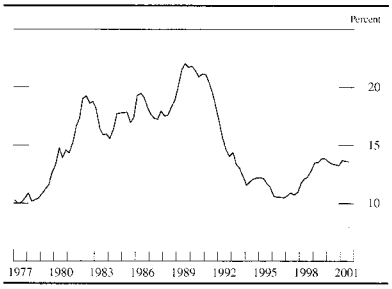
The slowing of sales and the drop in profits caused corporate credit quality to deteriorate noticeably last

Spread of low-tier CP rates over high-tier CP rates



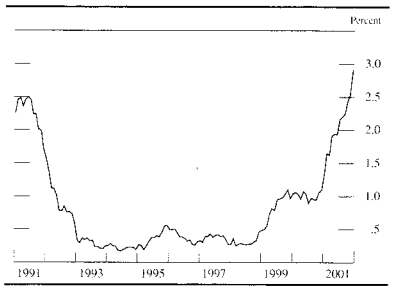
Note. The data are daily and extend through February 21, 2002. The series shown is the difference between the rate on A2/P2 nonfinancial commercial paper and the AA rate.

Net interest payments of nonfinancial corporations relative to cash flow



Note. The data are quarterly and extend through 2001:Q3.

Default rate on outstanding bonds



Note. The data are monthly; the series shown is a twelve-month moving average.

year. In part because of the decline in market interest rates, the ratio of net interest payments to cash flow in the nonfinancial corporate sector moved only modestly above the relatively low levels of recent years, and most firms did not experience significant difficulties servicing their debt. However, many firms were downgraded, and evidence of financial distress mounted over the course of the year. The twelve-month trailing average of the default rate on corporate bonds nearly tripled last year and by December ran almost ½ percentage point higher than its peak in 1991. Delinquency rates on business loans at banks also rose, although not nearly as dramatically. The amount of nonfinancial debt downgraded by Moody's Investors Service last year was more than five times the amount upgraded; downgrades were especially pronounced in the fourth quarter, when ratings agencies lowered debt ratings of firms in the telecommunication, energy, and auto sectors.

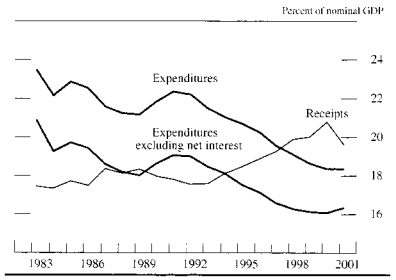
Commercial mortgage debt, supported by still-strong construction spending, expanded at a brisk 10 percent pace over the first half of 2001. The growth of commercial mortgage debt edged down only ½ percentage point in the second half, despite a sharp slowdown in business spending on nonresidential structures. As a result, the issuance of commercial-mortgage-backed securities (CMBS) maintained a robust pace throughout the year. Available data indicate some deterioration in the quality of commercial real estate credit. Delinquency rates on commercial real estate loans at banks rose steadily in 2001 and have started to edge out of their recent record-low range. In addition, CMBS delinquency rates increased, especially toward the end of the year, amid the rise in office vacancy rates. Despite the erosion in credit quality in commercial real estate and heavy issuance of CMBS, yield spreads on investment-grade CMBS over swap rates were about unchanged over the year, suggesting that investors view credit problems in this sector as being contained. Commercial banks, however, stiffened their lending posture in response to eroding prospects for the commercial real estate sector; significant net fractions of loan officers surveyed over the course of the year reported that their institutions had firmed standards on commercial real estate loans.

The Government Sector

Federal Government

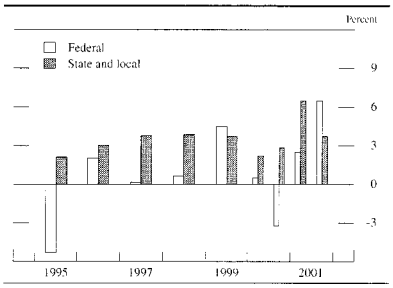
Deteriorating economic conditions and new fiscal initiatives have led to smaller federal budget surpluses than had been anticipated earlier. The fiscal 2001 surplus on a unified basis was $127 billion, or about 1¼ percent of GDP—well below both the record $236 billion surplus recorded in fiscal 2000 and the $281 billion surplus that the Congressional Budget Office had anticipated for fiscal 2001 at this time last year. Receipts, which had increased at least 6 percent in each of the preceding seven fiscal years, declined around 2 percent in fiscal 2001; the rise in individual tax receipts slowed dramatically and corporate receipts plunged 27 percent. The lower receipts reflected both the weakening economy—specifically, slow growth of personal income, the drop in corporate profits, and a pattern of declines in equity values that led to lower net capital gains realizations—and changes associated with the Economic Growth and Tax Relief Reconciliation Act of 2001. Some provisions of the act went into effect

Federal receipts and expenditures



Note. The data are from the unified budget and are for fiscal years.

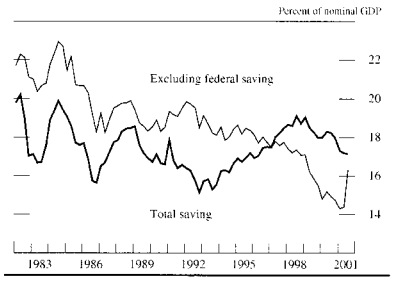
Change in real government expenditures on consumption and investment



immediately, including the rebate checks that were mailed last summer. In addition, the act shifted some corporate tax payments into fiscal 2002.

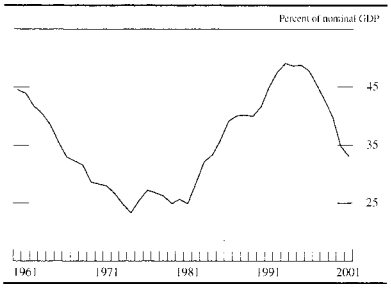
Meanwhile, outlays were up 4 percent in fiscal 2001; abstracting from a decline in net interest payments, outlays increased nearly 6 percent, a second year of increases larger than had prevailed for some time. Outlays have increased across all major categories of expenditure, including defense, Medicare and Medicaid, and social security. As for the part of federal spending that is counted in GDP, real federal outlays for consumption and gross investment increased somewhat more rapidly than in recent years through the first three quarters of 2001 as defense expenditures picked up. Spending rose faster still in the fourth quarter because of increases for homeland security and the additional costs associated with the war in Afghanistan.

National saving



Note. The data are quarterly and extend through 2001:Q3. National saving comprises the gross saving of households, businesses, and governments.

Federal government debt held by the public



Note. The data are as of the end of the fiscal year. Excludes debt held in federal government accounts and by the Federal Reserve System.

The existence of surpluses through fiscal 2001 meant that the federal government continued to contribute to the pool of national saving. Nevertheless, gross saving by households, businesses, and governments has been trending down over the past few years from the recent high of around 19 percent of GDP in 1998.

The Treasury used federal budget surpluses over the first half of the year to pay down its outstanding marketable debt. In the third quarter, however, the cut in personal income taxes and a weakening in receipts as the economy contracted led the Treasury to reenter the credit markets as a significant borrower of new funds. The Treasury's budget position swung back into surplus late in the year owing to somewhat stronger-than-expected tax receipts, which helped push fourth-quarter net borrowing below its third-quarter level. Despite the increase in the Treasury's net borrowing over the second half of the year, publicly held debt remained at only about one-third of nominal GDP last year, its lowest level since the mid-1980s and well below the 1993 peak of almost 50 percent.

The terrorist attacks on September 11 and the associated disruptions to financial markets had some spillover effects on Treasury financing. On the day of the attacks, the Treasury cancelled its scheduled bill auction; over the next several days, it drew down nearly all of its compensating balances with commercial banks—about $12½ billion in total—to meet its obligations. On Thursday of that week, the settlement of securities sold the day before the attacks eased the Treasury's immediate cash squeeze, and the incoming stream of estimated quarterly personal income tax payments provided additional funds. Infrastructure problems involving the trading and clearing of Trea-

sury securities were largely resolved over the following week, and when the Treasury resumed its regular bill issuance on September 17, exceptionally strong demand for bills pushed stop-out rates—that is, the highest yield accepted during the auction—to their lowest level since 1961. Although the Treasury cancelled debt buybacks scheduled for late September to conserve cash, it later announced that buyback operations would begin again in October.

With its credit needs still limited, the Treasury announced on October 31 that it was suspending issuance of nominal and inflation-indexed thirty-year securities. Subsequently, the thirty-year Treasury bond yield fell sharply, bid-asked spreads on outstanding bonds widened, and liquidity in the bond sector deteriorated. Although bid-asked spreads narrowed over the balance of the year, market participants reported that liquidity in the bond sector remained below its level before the Treasury's announcement. The announcement on October 31 also indicated that after the January 2002 buyback operations, the Treasury would determine the amount and timing of buybacks on a quarter-by-quarter basis, thereby fueling speculation that future buybacks might be scaled back in light of the changed budget outlook.

State and Local Governments

Real expenditures for consumption and gross investment by states and localities rose 5 percent last year after an increase of 2½ percent in 2000. Much of the acceleration reflected a burst of spending on construction of schools and other infrastructure needs. In addition, outlays at the end of last year were boosted by the cleanup from the September 11 attacks in New York. As for employment, state and local governments added jobs in 2001 at a more rapid pace than they did over the previous year and thereby helped to offset job losses in the private sector.

The fiscal condition of state and local governments has been strained by the deterioration in economic performance. State governments are considering a variety of actions to achieve budget balance in the current fiscal year. Most states are intending to cut planned expenditures, and many are considering drawing down rainy-day funds, which governments had built up in earlier years. According to the National Conference of State Legislators, these rainy-day funds stood at the relatively high level of $23 billion at the end of fiscal 2001 (June 30). Moreover, some states that had planned to fund capital expenditures with current receipts appear to be shifting to debt financing. Finally, a few states are considering actions such as postponing tax cuts that were enacted earlier.

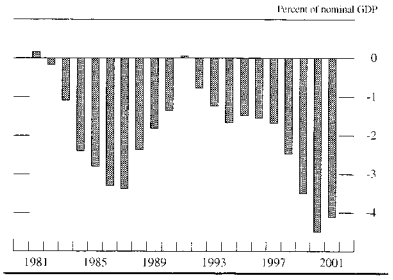
Debt of the state and local government sector expanded rapidly last year after slow growth in 2000. Gross issuance of long-term municipal bonds accelerated over the first half of 2001 as state and local governments took advantage of lower yields to refund outstanding debt. Spurred by falling interest rates and declining tax revenues, these governments continued to issue long-term bonds to finance new capital projects at a rapid clip over the second half of the year. Despite a deterioration in tax receipts, credit quality in the municipal market remained high in 2001. Late in the year, however, signs of weakness had emerged, as the pace of net credit-ratings upgrades slowed noticeably. Especially significant problems continue to plague California and New York, both of which saw their debt ratings lowered in November. In California, the problems were attributed to declining tax revenues and difficulties related to the state's electricity crisis earlier in the year, while New York's slip in credit quality resulted not only from deteriorating tax receipts but also from fears of higher-than-expected costs related to clean up and rebuilding after the terrorist attacks.

The External Sector

Trade and the Current Account

The U.S. current account deficit narrowed significantly during 2001, with both imports and exports of goods and services falling sharply in response to a global weakening of economic activity. The deficit in

U.S. current account



Note. The observation for 2001 is the average of the first three quarters.

goods and services narrowed to $333 billion at an annual rate in the fourth quarter of 2001 from $401 billion at the end of the previous year. In addition, the deficit was temporarily reduced further in the third quarter because service import payments were lowered by a large one-time estimated insurance payment from foreign insurers (reported on an accrual basis) related to the events of September 11.[1] Excluding the estimated insurance figure, the current account deficit was $434 billion at an annual rate over the first three quarters of the year, or 4¼ percent of GDP, compared with $445 billion and 4½ percent for the year 2000. Net investment income payments were about the same during the first three quarters of 2001 as in the corresponding period a year earlier; higher net payments on our growing net portfolio liability position were offset by higher net direct investment receipts.

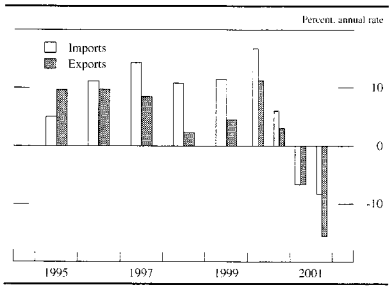
U.S. real exports were hit by slower growth abroad, continued appreciation of the dollar, and plunging global demand for high-tech products. Real exports of goods and services fell 11 percent over the four quarters of 2001, with double-digit declines beginning in the second quarter. Service receipts decreased 7 percent; all of the decline came after the events of September 11. Receipts from travel and passenger fares, which plunged following the terrorist attacks, were about one-fourth lower in the fourth quarter than in the second quarter. Receipts from foreigners for other services changed little over the year. Exports declined in almost all major goods categories, with the largest drops by far in high-tech capital goods and other machinery. Two exceptions were exports of automotive products, which rose during the second and third quarters (largely parts to Canada and Mexico destined ultimately for use in U.S. markets, and vehicles to Canada), and agricultural goods. About 45 percent of U.S. exports of goods were capital equipment; 20 percent were industrial supplies; and 5 percent to 10 percent each were agricultural, automotive, consumer, and other goods. The value of exported goods declined at double-digit rates for almost all major market destinations. Even exports to Canada and Mexico declined sharply, despite support from two-way trade with the United States in such sectors as automotive products.

As growth of the U.S. economy slowed noticeably, real imports of goods and services turned down and declined 8 percent for 2001 as a whole. Service payments dropped 15 percent last year. The plunge in outlays for travel and passenger fares after September 11 held down total real service payments, bringing their level in the fourth quarter 15 percent below that in the second quarter. Spending on services other than travel and passenger fares changed little during the year.[2] Imported goods fell 6 percent last year, with much of the decrease in capital goods (computers, semiconductors, and other machinery). In contrast, real imports of automotive products, consumer goods, oil, and other industrial supplies were little changed, and imports of foods rose. The pattern of import growth appears to have shifted toward the end of the year. Imports of real non-oil goods declined at about a 10 percent annual rate during the first three quarters of the year but fell less rapidly in the fourth quarter. The price of imported non-oil goods, after rising in the first quarter, declined at an annual rate of about 6 percent from the second quarter through the fourth quarter, led by decreases in the price of imported industrial supplies.

The value of imported oil fell more than one-third over the four quarters of 2001, a drop resulting almost entirely from a sharp decline in oil prices. The spot price of West Texas intermediate (WTI) crude decreased about $10 per barrel during the year, with much of the decline occurring after September 11. During the first eight months of 2001, the spot price of WTI averaged $28 per barrel as weakened demand for oil and increased non-OPEC supply were largely

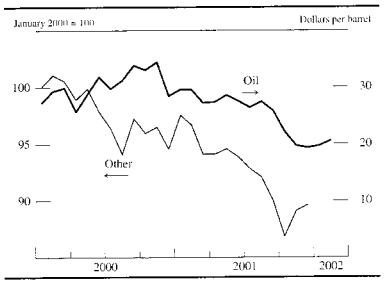
1. The "insurance payment" component of imported services is calculated as the value of premiums paid to foreign companies less the amount of losses recovered from foreign companies. In the third quarter, the estimated size of losses recovered far exceeded the amount paid for insurance premiums, resulting in a negative recorded insurance payment. According to NIPA accounting, the entire amount of a recovery is recorded in the quarter in which the incident occurred.

Change in real imports and exports of goods and services



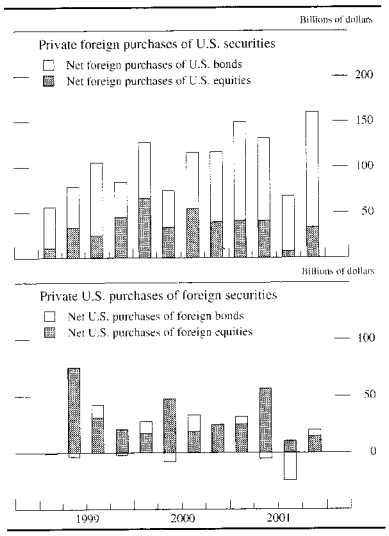
2. According to NIPA accounting, the value of the one-time insurance payments by foreign insurers is not reflected in NIPA real imports of services. The deflator for service imports was adjusted down for the third quarter to offset the lower value of service imports; the deflator returned to its usual value in the fourth quarter.

Prices of oil and of other commodities



Note. The data are monthly: the last observation for oil is the average of trading days through February 21, 2002; the last observation for other commodities is December 2001. The oil price is the spot price of West Texas intermediate crude oil. The price of other commodities is a weighted average of thirty-nine nonfuel primary-commodity prices from the International Monetary Fund.

U.S. international securities transactions



Source. Department of Commerce and the Federal Reserve Board.

offset by OPEC production restraint. In the wake of the terrorist attacks, oil prices dropped sharply in response to a decline in jet fuel consumption, weaker economic activity, and reassurance from Saudi Arabia that supply would be forthcoming. Oil prices continued to drift lower during the fourth quarter, reflecting OPEC's apparent unwillingness to continue to sacrifice market share in order to defend higher oil prices. In late December, however, OPEC worked out an arrangement in which it agreed to reduce its production targets an additional 1.5 million barrels per day, contingent on the pledges from several non-OPEC producers (Angola, Mexico, Norway, Oman, and Russia) to reduce oil exports a total of 462,500 barrels per day. Given the uncertainty over the extent to which these reductions will actually be implemented and the comfortable level of oil inventories, the spot price of WTI remained near $20 per barrel in early 2002.

Financial Account

The slowing of U.S. and foreign economic growth over the course of last year had noticeable effects on the composition of U.S. capital flows, especially when the slowing became more pronounced in the second half. On balance, net private capital flowed in at a pace only slightly below the record set in 2000, including unprecedented net inflows through private securities transactions.

During the first half of 2001, sagging stock prices and signs of slower growth brought a shift in the types of U.S. securities demanded by private foreigners but did not reduce the overall demand for them. Indeed, during the first half, foreign private purchases of U.S. securities averaged $137 billion per quarter, a rate well above the record $109 billion pace set in 2000. A slowing of foreign purchases of U.S. equities, relative to 2000, was more than offset by a pickup in foreign purchases of corporate and agency bonds. In addition, private foreigners, who had sold a significant quantity of Treasury securities during 2000, roughly halted their sales in the first half of 2001. The increased capital inflows arising from larger foreign purchases of U.S. securities in the first half was only partly offset by an increase in the pace at which U.S. residents acquired foreign securities, especially equities.

The pattern of private securities transactions changed significantly in the third quarter: Foreign purchases of U.S. equities slowed markedly, and U.S. investors shifted from net purchases of foreign securities to net sales. However, the reduced flows in the third quarter seem to have reflected short-lived reactions to events in the quarter. Preliminary data for the fourth quarter show a significant bounceback in

foreign purchases of U.S. securities and a return to purchases of foreign securities by U.S. residents.

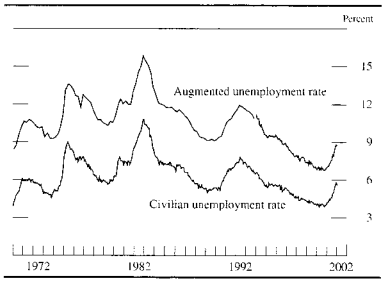
The changing economic climate also affected direct investment capital flows. During 2000, foreign direct investment in the United States averaged more than $70 billion per quarter. These flows slowed to less than $60 billion per quarter in the first half and then dropped to only $26 billion in the third quarter (the last available data). The drop resulted in part from a decline in the outlook for corporate profits and a significant reduction in general merger and acquisition activity. By contrast, U.S. direct investment abroad picked up over the course of 2001. The third quarter outflow of $52 billion—a record—reflected both a large merger and robust retained earnings by the foreign affiliates of U.S. firms. Capital inflows from official sources were relatively modest in 2001, totaling only $15 billion, compared with $36 billion in 2000.

The Labor Market

Employment and Unemployment

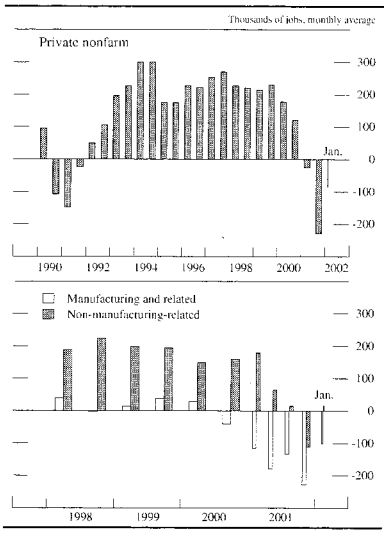
Last year's weakening in economic activity took its toll on the labor market. Payroll employment edged up early last year and then dropped nearly 1½ million by January 2002. Declines were particularly large in manufacturing, which has shed one in twelve jobs since mid-2000. Job cuts accelerated in the months following the terrorist attacks of September 11, with declines occurring in a wide variety of industries. The unemployment rate moved up from 4 percent in late 2000 to 5.8 percent by December 2001. In January 2002, the unemployment rate edged down to 5.6 percent.

Measures of labor utilization



Note. The data extend through January 2002. The augmented unemployment rate is the number of unemployed plus those who are not in the labor force and want a job, divided by the civilian labor force plus those who are not in the labor force and want a job. In January 1994, a redesigned survey was introduced: data for the augmented rate from that point on are not directly comparable with those of earlier periods. For the augmented rate, the data are quarterly through December 1993 and monthly thereafter; for the civilian labor force rate, the data are monthly.

Net change in payroll employment



Note. Manufacturing and related industries includes establishments in manufacturing, wholesale trade, and help supply services. Non-manufacturing-related industries includes the remainder of private nonfarm establishments.

Early last year, employment in manufacturing, which had been trending down for several years, began to decline more rapidly. Job losses were widespread within the manufacturing sector but were most pronounced in durable-goods industries, such as those producing electrical and industrial machinery and metals. Employment at help supply firms and in wholesale trade—industries that are directly related to manufacturing—also began to decline. Outside of manufacturing and its related industries, private payrolls continued to increase robustly in the first quarter of last year, but hiring then slowed, although it remained positive, on net, in the second and third quarters. Construction payrolls increased into the spring but flattened out thereafter. Employment at retail trade establishments also continued to increase moderately through the spring but began to decline in the late summer. In services industries other than help

supply firms—a broad group that accounted for nearly half of the private payroll increases over the preceding several years—job gains slowed but remained positive in the second and third quarters of last year. In all, private payroll employment declined about 115,000 per month in the second and third quarters, and the unemployment rate moved up steadily to 4½ percent by the spring and to nearly 5 percent by August.

The labor market was especially hard hit by the terrorist attacks. Although labor demand was weak prior to the attacks, the situation turned far worse following the events of September 11, and private payrolls plunged more than 400,000 per month on average in October and November. Employment fell substantially not only in manufacturing and in industries directly affected by the attacks, such as air transportation, hotels, and restaurants, but also in a wide variety of other industries such as construction and much of the retail sector.

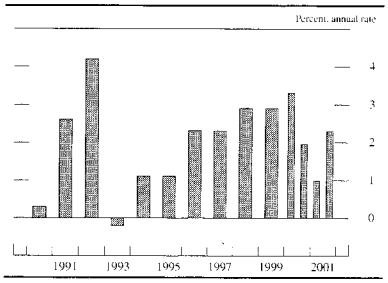
Employment continued to decline in December and January but much less than in the preceding two months. Manufacturing and its related industries lost jobs at a slower pace, and employment leveled off in other private industries. The unemployment rate moved up to 5.8 percent in December but then ticked down to 5.6 percent in January. The recent reversal of the October and November spikes in new claims for unemployment insurance and in the level of insured unemployment also point to some improvement in labor market conditions early this year.

Productivity and Labor Costs

Given economic conditions, growth of labor productivity was impressive in 2001. Productivity growth typically drops when the economy softens, partly because businesses tend not to shed workers in proportion to reduced demand. Last year, however, output per hour in the nonfarm business sector increased a relatively solid 1½ percent, according to the advance estimate, after having risen 2½ percent in 2000—a mild deceleration by past cyclical standards. Indeed, productivity is estimated to have increased at an annual rate of more than 2 percent in the second half of the year, an impressive performance during a period when real GDP was, on net, contracting. The buoyancy of productivity during 2001 provides further support to the view that the underlying trend of productivity growth has stepped up notably in recent years.

Hourly labor compensation costs increased more slowly last year than in 2000, although different

Change in output per hour

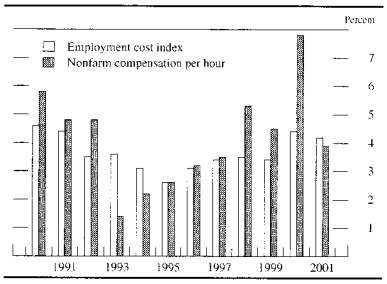


Note. Nonfarm business sector.

compensation measures paint different pictures of the magnitude of that deceleration. The slowing likely reflected the influence of the soft labor market, energy-driven declines in price inflation toward the latter part of the year, and subdued inflation expectations. Compensation probably was also held down by a reduction in variable pay, such as bonuses that are tied to company performance and stock-option activity.

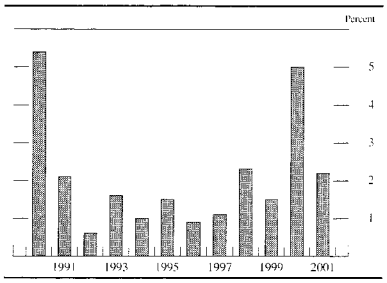
According to the employment cost index, hourly compensation costs increased 4¼ percent during 2001, down from a 4½ percent increase in 2000; both the wages and salaries and benefits components recorded slightly smaller increases. The deceleration in the index for wages and salaries was concentrated among sales workers, whose wages often include a substantial commission component and so are especially sensitive to cyclical developments. Although

Measures of the change in hourly compensation



Note. For the employment cost index (ECI), change is from December to December; for nonfarm compensation, Q4 to Q4. The ECI is for private industry excluding farm and household workers. Nonfarm compensation per hour is for the nonfarm business sector.

Change in unit labor costs



Note. Nonfarm business sector.

the increase in employers' cost of benefits slowed overall, the cost of providing health insurance increased more than 9 percent last year; the rise continued this component's accelerating contribution to labor costs over the past few years after a period of restrained cost increases in the mid-1990s.

An alternative measure of hourly compensation is the BLS's measure of compensation per hour in the nonfarm business sector, which is derived from compensation information in the national accounts; this measure increased 4 percent last year, a very large drop from the 7¾ percent increase registered in 2000. One reason that these two compensation measures may diverge is that only nonfarm compensation per hour captures the cost of stock options. Although the two compensation measures differ in numerous other respects as well, the much sharper deceleration in nonfarm compensation per hour may indicate that stock option exercises leveled off or declined in 2001 in response to the fall in equity values. However, because nonfarm compensation per hour can be revised substantially, one must be cautious in interpreting the most recent quarterly figures from this series.

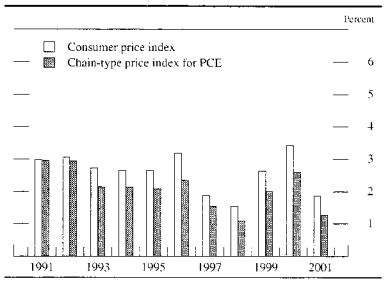
Unit labor costs, the ratio of hourly compensation to output per hour in the nonfarm business sector, increased about 2 percent last year. Although down from a huge 5 percent increase in 2000 that reflected that year's surge in nonfarm compensation per hour, the figure for 2001 is still a little higher than the moderate increases seen over the preceding several years. Last year's increase in unit labor costs was held up by the smaller productivity increases that accompanied weak economic activity; accordingly, subsequent increases in unit labor costs would be held down if output per hour begins to increase more rapidly as the economy strengthens.

Prices

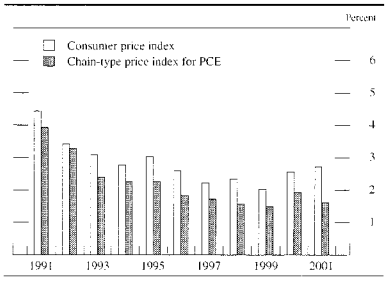
Inflation declined in 2001 largely because of a steep drop in energy prices. The chain-type price index for personal consumption expenditures (PCE) increased 1.3 percent last year after having increased 2.6 percent in 2000; the turnaround in consumer energy prices accounted for almost all of that deceleration. Increases in PCE prices excluding food and energy items also slowed a little last year after having moved up in 2000. The chain-type price index for gross domestic purchases—the broadest price measure for domestically *purchased* goods and services—decelerated considerably last year. The small increase in this index reflected both the drop in energy prices and a resumption of rapid declines for prices of investment goods, especially computers, following a period of unusual firmness in 2000. The price index for GDP—the broadest price measure for domestically *produced* goods and services—posted a smaller deceleration of about ½ percentage point between 2000 and 2001 because lower oil prices have a smaller weight in U.S. production than in U.S. purchases.

Consumer energy prices continued to move higher through the early months of 2001 before turning down sharply in the second half of the year. Despite the fact that crude oil prices were declining over the first half of the year, retail gasoline prices increased at an annual rate of 8 percent during that period. The sizable increase in margins on gasoline reflected both refinery disruptions and low inventory levels going into the summer driving season. But gasoline prices fell sharply thereafter as refineries came back on line, imports of gasoline picked up, and crude oil prices moved considerably lower over the latter half of the year. In all, gasoline prices were down 19 percent over the year as a whole. Heating oil prices reflected

Change in consumer prices



Change in consumer prices excluding food and energy



crude oil developments more directly and declined sharply through most of the year. Meanwhile, spot prices of natural gas peaked in January 2001 at the extraordinarily high level of nearly $10 per million BTUs, and prices at the consumer level continued to surge in the first few months of the year. These increases reflected the pressure from ongoing strength in demand coupled with unusually cold weather early last winter that left stocks at very low levels. But the situation improved as expanded supply allowed stocks to be replenished: Spot prices reversed those earlier increases, and prices of consumer natural gas declined substantially through the rest of the year.

In contrast, electricity prices rose through most of last year. The increases reflected the effects of the earlier rises in the prices of natural gas and coal on fuel costs of utilities as well as problems with electricity generation in California. California was able to avoid serious power disruptions last summer because high electricity prices, weak economic activity, and moderate weather all helped keep demand in check.

Consumer food prices increased more rapidly last year, rising about 3 percent after having risen only 2½ percent in 2000. Early in the year, strong demand, both domestic and foreign, led to large increases in livestock prices—especially beef. But these prices softened later in the year under the influence of higher supplies, lower domestic demand, and foreign outbreaks of mad cow disease, which apparently damped demand for beef no matter where produced.

Alternative measures of price change

Percent

Price measure	2000	2001
Chain-type		
Gross domestic product	2.4	1.8
Gross domestic purchases	2.5	1.1
Personal consumption expenditures	2.6	1.3
Excluding food and energy	1.9	1.6
Fixed-weight		
Consumer price index	3.4	1.9
Excluding food and energy	2.5	2.7

NOTE. Changes are based on quarterly averages and are measured to the fourth quarter of the year indicated from the fourth quarter of the preceding year.

Excluding food and energy items, PCE prices rose 1.6 percent last year, a small deceleration from its 1.9 percent increase over 2000. That deceleration was concentrated in prices of goods, with prices especially soft for motor vehicles and apparel. By contrast, prices of many services continued to accelerate last year. In particular, shelter costs—which include residential rent, the imputed rent of owner-occupied housing, and hotel and motel prices—increased 4¼ percent last year after having risen 3½ percent in 2000.

Standing somewhat in contrast to the small deceleration in core PCE prices, the core consumer price index (CPI) increased 2¾ percent last year, about the same rate as in 2000. Although components of the CPI are key inputs of the PCE price index, the two price measures differ in a variety of ways. One important difference is that the PCE measure is broader in scope; it includes expenditures made by nonprofit institutions and consumption of items such as checking services that banks provide without explicit charge. Prices for the PCE categories that are outside the scope of the CPI decelerated notably in 2001 and accounted for much of the differential movements of inflation measured by the two price indexes. Another difference is that the CPI places a larger weight on housing than does the PCE price index, and last year's acceleration of housing prices therefore boosted the CPI relative to the PCE measure.

The leveling off or decline in core consumer price inflation reflects a variety of factors, including the weakening of economic activity and the accompanying slackening of resource utilization; the decline in energy prices that reduced firms' costs; and continuing intense competitive pressures in product markets. These factors also likely helped to reduce inflation expectations late last year, and this reduction itself may be contributing to lower inflation. According to the Michigan SRC, median one-year inflation expectations, which had held near 3 percent through 2000 and into last summer, moved down to 2¾ percent in the third quarter and plummeted to 1 percent or lower in October and November. Falling energy prices and widespread reports of discounting following the September 11 attacks likely played a role in causing this sharp break in expectations. Part of this drop was reversed in December, and since then, inflation expectations have remained around 2 percent—a rate still well below the levels that had prevailed earlier.

Meanwhile, the Michigan SRC's measure of longer-term inflation expectations, which had also remained close to 3 percent through 2000 and the first half of 2001, ticked down to 2¾ percent in October and stood at that level early this year.

U.S. Financial Markets

As a consequence of the Federal Reserve's aggressive easing of the stance of monetary policy in 2001, interest rates on short- and intermediate-term Treasury securities fell substantially over the course of the year. Longer-term Treasury bond yields, however, ended the year about unchanged, on balance. These rates had already fallen appreciably in late 2000 in anticipation of monetary policy easing. They may also have been held up last year by an increased likelihood of federal budget deficits and, except in the immediate aftermath of the terrorist attacks, by investors' optimism about future economic prospects. Despite this optimism, the slowdown in final demand, a slump in corporate earnings, and a marked deterioration in credit quality of businesses in a number of sectors made investors more wary about risk. Although interest rates on higher-rated investment-grade corporate bonds generally moved in line with those on comparably dated government securities, lower-rated firms found credit to be considerably more expensive, as risk spreads on speculative-grade debt soared for most of the year before narrowing somewhat over the last few months. Interest rates on commercial paper and business loans fell last year by about as much as the federal funds rate, but risk spreads generally remained in the elevated range. In addition, commercial banks tightened standards and terms for business borrowers throughout the year. Equity prices were exceptionally volatile and fell further, on balance, in 2001.

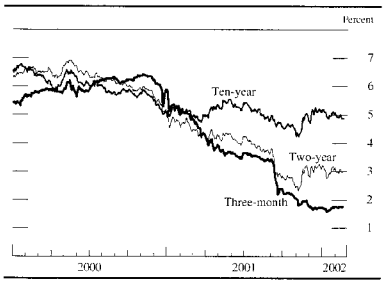
Increased caution on the part of lenders did not appear to materially damp aggregate credit flows. Private borrowing was robust last year, especially when compared with the marked slowing in nominal spending. Relatively low long-term interest rates encouraged both businesses and households to concentrate borrowing in longer-term instruments, thereby locking in lower debt-service obligations. The proceeds of long-term borrowing were also used to strengthen balance sheets by building stocks of liquid assets. A shift toward safer and more liquid asset holdings showed through in rapid growth of M2, which was spurred further by reduced short-term market interest rates and elevated stock market volatility.

Interest Rates

Short-term market interest rates moved down with the FOMC's cumulative cut in the target federal funds rate of 4¾ percentage points, and yields on intermediate-term Treasury securities declined almost 2 percentage points. Longer-term interest rates had already fallen in the latter part of 2000, when investors began to anticipate significant policy easing in response to weakening economic growth. As the FOMC aggressively eased the stance of monetary policy during the winter and spring, investors' expectations of a prompt revival in economic activity took hold and were manifested in a sharp upward tilt of money market futures rates and an appreciable rise in longer-term interest rates over the second quarter. However, signs of the anticipated economic turnaround failed to materialize as the summer progressed. Indeed, the weakening in economic activity was becoming more widespread, which prompted expectations of further monetary policy easing over the near term, and longer-term interest rates turned down again.

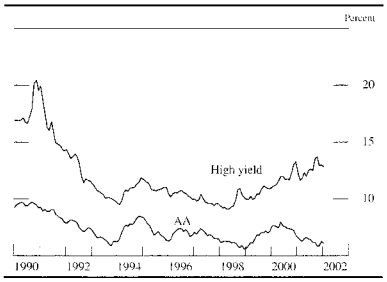
The terrorist attacks of September 11 dramatically redrew the picture of the nation's near-term economic prospects. Market participants lowered markedly their expected trajectory for the path of the federal funds rate in the immediate aftermath of the attacks, and revisions to policy expectations, combined with considerable flight-to-safety demands, cut short- and intermediate-term Treasury yields substantially over subsequent days. The FOMC, confronted with evidence of additional weakness in final demand and prices, eased policy further over the balance of the year, and short-term market interest rates continued to decline. In early November, however, intermediate- and long-term interest rates turned up,

Rates on selected Treasury securities



Note. The data are daily and extend through February 21, 2002.

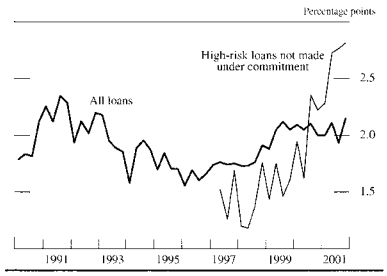
Corporate bond yields



Note. The data are monthly averages and extend through January 2002. The AA rate is calculated from bonds in the Merrill Lynch AA index with seven to ten years remaining maturity. The high-yield rate is the yield on the Merrill Lynch 175 high-yield index.

as it became apparent that the economic fallout from the attacks would be more limited than some had originally feared, and as military success in Afghanistan bolstered investors' confidence and moderated safe-haven demands. By the end of the year, yields on intermediate-term Treasury securities had reversed about half of their post–September 11 decline, while yields on longer-term Treasury securities had risen enough to top their pre-attack levels. In early 2002, however, yields on intermediate- and longer-term Treasuries edged down again, as market participants trimmed their expectations for the strength of the economic rebound, and the Congress failed to move forward with additional fiscal stimulus.

Spread of average business loan rate over the intended federal funds rate



Note. The data are for loans made by domestic commercial banks and are based on a survey conducted in the middle month of each quarter; the final observation is for November 2001. High-risk loans are those in categories "moderate" and "acceptable."

Source. Federal Reserve Survey of Terms of Business Lending.

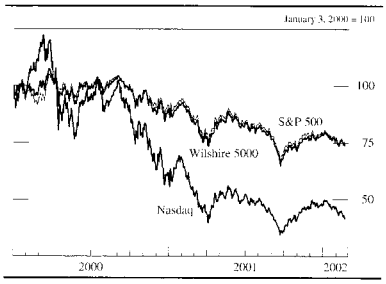
Yields on higher quality investment-grade corporate bonds generally followed those on comparably dated Treasury securities last year, although risk spreads widened moderately before narrowing over the last few months. In contrast, interest rates on speculative-grade corporate debt increased steadily in 2001, as risk spreads ballooned in response to mounting signs of financial distress among weaker firms. Even with a considerable narrowing over the final two months of the year, risk spreads on below-investment-grade bonds remained quite wide. Spreads for high-yield bonds edged down further in 2002 after rising sharply in early January, when several important technology and telecommunications companies revised down their earnings forecasts or released corrections to past earnings statements. Interest rates on commercial and industrial (C&I) loans at banks fell last year by about as much as the federal funds rate. According to the Federal Reserve's quarterly Survey of Terms of Business Lending, the spread over the target federal funds rate of the average interest rate on C&I loans varied somewhat over the year, falling for a while then rising sharply between August and November; nonetheless, it has generally remained in the elevated range that has persisted since late 1998. The same survey also indicated that over the course of last year commercial banks, like other lenders, have become especially cautious about lending to marginal credits, as indicated by the average spread on riskier C&I loans not made under a previous commitment, which soared in 2001.

Equity Markets

The exceptional volatility of equity prices in 2001 likely reflected the dramatic fluctuations in investors' assessment of the outlook for the economy and corporate earnings. Share prices tumbled early last year, as pessimism and uncertainty about the direction of the economy were intensified by a spate of negative earnings announcements and profit warnings in February and March. The pronounced sell-off of equities came to a halt at the end of the first quarter, with the Wilshire 5000—a very broad index of stock prices—down about 13 percent, while the tech-heavy Nasdaq ended the first quarter at its lowest level since 1998 and more than 60 percent below its record high reached in March of 2000.

Companies, especially in the technology sector, reported weak profits for the first quarter, but their announcements generally surpassed analysts' sharply lowered expectations. With the 1 percentage point

Major stock price indexes



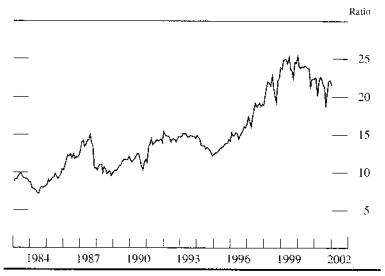
Note. The data are daily and extend through February 21, 2002.

reduction in the federal funds rate over March and April, investors became more confident that an improvement in economic conditions was in train, and equity prices rallied; the rebound was particularly strong for technology companies—the Nasdaq rose almost 40 percent between April and the end of May. The forward momentum in equity markets was checked in June, however, in part because analysts slashed their estimates for near-term corporate earnings growth. Although the stock market initially proved resilient in the face of the bleak profit news, suggesting that weak earnings had been largely anticipated by investors, the steady barrage of dismal economic news—particularly in the technology and telecommunications sectors—started to exert downward pressure on share prices by early August. The slide in stock prices intensified in early September, with technology stocks taking an exceptional drubbing. By September 10, the Wilshire 5000 was down almost 10 percent from the end of July, while the Nasdaq had lost more than 16 percent.

The attacks on September 11, a Tuesday, caused stock markets to shut down and to remain closed for the rest of that week. Trading resumed in an orderly fashion on Monday, September 17, but the day ended with the market as a whole down about 5 percent—with airline and hotel stocks pounded most—and trading volume on the New York Stock Exchange hitting a record high. Major stock price indexes, which sagged further in subsequent days and weeks, were weighed down by investors' more pessimistic evaluation of the near-term economic outlook and by sizable downward revisions to analysts' earnings projections for the rest of 2001. By the third week of the month, broad stock price indexes had fallen a total of 12 percent from their levels on September 10.

In late September, stock prices staged a comeback that lasted through the fourth quarter, as incoming information suggested that the economy had proven remarkably resilient and economic prospects were improving. On the perception that the worst for the technology sector would soon pass, share prices of firms in technology industries jumped sharply, lifting the Nasdaq more than 35 percent from its September nadir. On balance, last year's gyrations in stock prices left the Wilshire 5000 down about 10 percent, while the Nasdaq fell 20 percent. The widespread decline in equity prices through the first three quarters of 2001 is estimated to have wiped out nearly $3½ trillion in household wealth, translating into 8¼ percent of total household net worth. Of this total, however, about $1¼ trillion was restored by the stock market rally in the fourth quarter. Moreover, the level of household net worth at the end of last year was still almost 50 percent higher than it was at the end of 1995, when stepped-up productivity gains had begun to induce investors to boost significantly their expectations of long-term earnings growth. In January and early February of 2002, investors reacted to generally disappointing news about expected earnings, especially in the telecommunications sector, and to concerns about corporate accounting practices by erasing some of the fourth-quarter gain in equity prices. Despite this decline, the price-earnings ratio for the S&P 500 index (calculated using operating earnings expected over the next year) remained close to its level at the beginning of 2001. The relatively elevated ratio reflected lower market interest rates as well as investor anticipation of a return to robust earnings growth.

Price–earnings ratios for the S&P 500



Note. The data are monthly and extend through January 2002. The ratios are based on I/B/E/S consensus estimates of earnings over the coming twelve months.

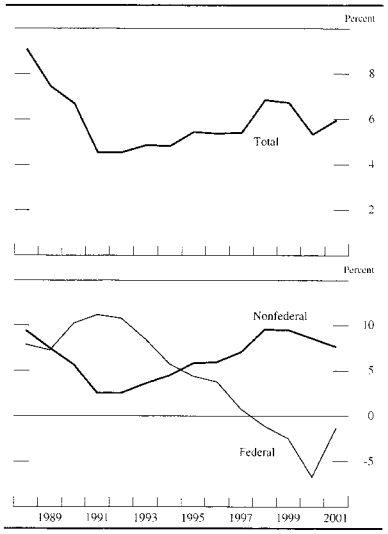
Debt and Depository Intermediation

The growth of the debt of nonfederal sectors was strong over the first half of the year, as the decline in longer-term interest rates during the final months of 2000 prompted some opportunistic tapping of bond markets by businesses and helped keep the expansion of household credit brisk. However, the combination of a stepdown in the growth of consumer durables purchases, a further drop in capital expenditures, and a substantial inventory liquidation over the second half of the year resulted in a significantly slower pace of private borrowing. On balance, growth of nonfederal debt retreated about 1 percentage point in 2001, to 7½ percent. Federal debt continued to contract early last year; it then turned up as the budget fell into a deficit reflecting the implementation of the tax cut, the effect of the weaker economy on tax receipts, and emergency spending in the wake of the terrorist attacks. As a result, the federal government paid down only 1¼ percent of its debt, on net, over 2001, compared with 6¾ percent in the previous year. With nominal GDP decelerating sharply, the ratio of nonfinancial debt to GDP moved up notably in 2001, more than reversing its decrease in the previous year.

The economic slowdown and the decline in market interest rates last year left a noticeable imprint on the composition of financial flows, with borrowing by businesses and households migrating toward longer-term bond and mortgage markets. As a consequence, credit at depository institutions expanded sluggishly over the year. Growth of loans at commercial banks dropped off sharply, from 12 percent in 2000 to 2¼ percent in 2001. The slowdown in total bank credit—after adjustments for mark-to-market accounting rules—was less severe, because banks acquired securities, largely mortgage-backed securities, at a brisk pace throughout the year. A healthy banking sector served as an important safety valve for several weeks after September 11, as businesses tapped backup lines of credit to overcome problems associated with the repayment of maturing commercial paper and issuance of new paper. Moreover, with payment flows temporarily interrupted by the terrorist attacks, a substantial volume of overdrafts was created, causing a spike in the "other" loan category that includes loans to depository institutions. By the end of October, however, the disruptions to business financing patterns and payment systems that bloated bank balance sheets had largely dissipated, and loans contracted sharply.

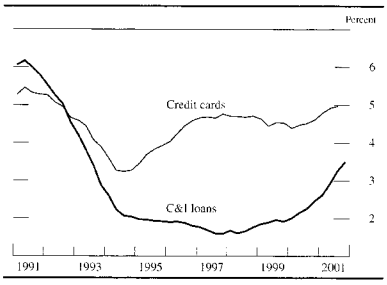
Commercial banks reported a marked deterioration in loan performance last year. Delinquency and charge-off rates on C&I loans trended up appreciably, although they remained well below rates recorded during the 1990-91 recession. Delinquency rates on credit card accounts increased for the second year in

Growth of nonfinancial debt



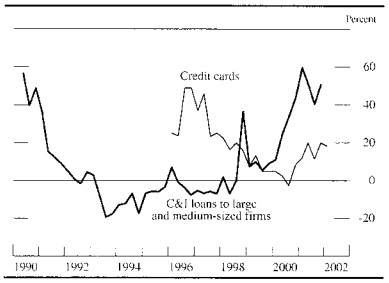
Note. The data are monthly. Annual growth rates are computed from fourth-quarter averages. Domestic nonfinancial debt consists of the outstanding credit market debt of governments, households, nonprofit organizations, nonfinancial businesses, and farms.

Delinquency rates on commercial and industrial and credit card loans at banks



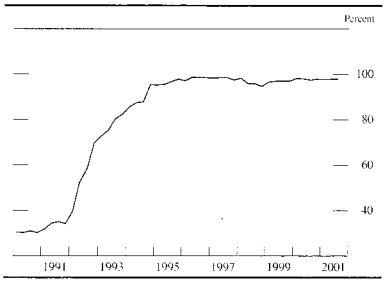
Note. The data, from bank Call Reports, are quarterly, seasonally adjusted and extend through 2001:Q3.

Net percentage of domestic banks tightening standards on credit card and selected commercial and industrial loans



Note. The data extend through January 2002 and are based on a survey generally conducted four times per year. Large and medium-sized firms are those with annual sales of $50 million or more. Net percentage is percentage reporting a tightening less percentage reporting an easing.
Source. Federal Reserve Senior Loan Officer Opinion Survey on Bank Lending Practices.

Percent of all U.S. commercial bank assets at well-capitalized banks



Note. The data are quarterly and extend through 2001:Q3. Capital status is determined using the regulatory standards for the leverage, tier 1, and total capital ratios.

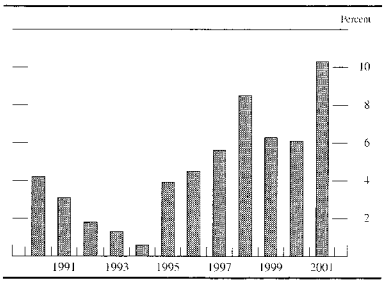
a row, reaching 5 percent for the first time since early 1992. Banks responded to the deteriorating business and household balance sheets by tightening credit standards and terms for both types of loan, according to the Federal Reserve's Senior Loan Officer Opinion Survey on Bank Lending Practices. Banks indicated that they had tightened business lending policies in response to greater uncertainty about the economic outlook and their reduced tolerance for risk. Similarly, the net fractions of banks reporting that they had tightened standards for both credit card and other consumer loans rose markedly over the first half of last year. As household financial conditions continued to slip, the net proportion of banks that tightened standards on consumer loans remained at an elevated level in the second half of the year.

In response to rising levels of delinquent and charged-off loans, commercial banks significantly boosted the rate of provisioning for loan losses last year, which, along with reduced income from capital market activities, cut into the banking sector's profits. Nonetheless, through the third quarter of 2001—the latest period for which Call Report data are available—measures of industry profitability remained near the elevated range recorded for the past several years, and banks continued to hold substantial capital to absorb losses. Indeed, virtually all assets were at well-capitalized banks at the end of the third quarter, and the substitution of securities for loans on banks' balance sheets also helped edge up risk-based capital ratios. In the fourth quarter, a number of large banks saw their profits decline further because of their exposure to Enron and, to a lesser extent, Argentina. On the positive side, wider net interest margins helped support profits throughout 2001.

The Monetary Aggregates

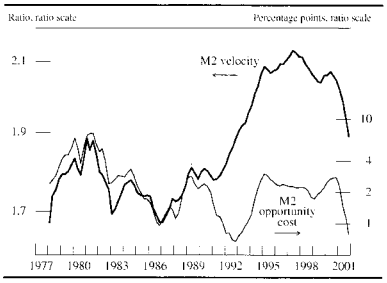
The broad monetary aggregates grew very rapidly in 2001. Over the four quarters of the year, M2 increased 10¼ percent, a rate significantly above the pace of the past several years. Because the rates of return provided by many components of M2 move sluggishly, the swift decline in short-term market interest rates last year significantly lowered the opportunity cost of holding M2 assets, especially for

M2 growth rate



Note. M2 consists of currency, travelers checks, demand deposits, other checkable deposits, savings deposits (including money market deposit accounts), small-denomination time deposits, and balances in retail money market funds. Annual growth rates are computed from fourth-quarter averages.

M2 velocity and opportunity cost

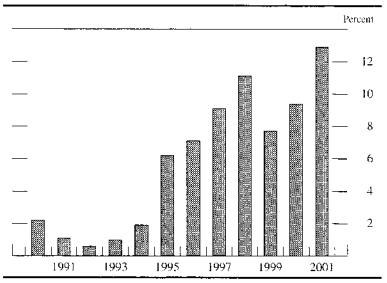


Note. The data are quarterly. The velocity of M2 is the ratio of nominal gross domestic product to the stock of M2. The opportunity cost of holding M2 is a two-quarter moving average of the difference between the three-month Treasury bill rate and the weighted average return on assets included in M2.

its liquid deposits (the sum of checking and savings accounts) and retail money funds components. Moreover, negative returns and elevated volatility in equity markets likely raised household demand for M2 assets through the fall. An unprecedented level of mortgage refinancing activity (which results in prepayments that temporarily accumulate in deposit accounts before being distributed to investors in mortgage-backed securities), as well as increased foreign demand for U.S. currency, also bolstered the growth of M2 over the course of the year.

Involuntary accumulation of liquid deposits resulting from payment system disruptions after the terrorist attacks, combined with elevated safe-haven demands, caused M2 to surge temporarily in the weeks following September 11. At the same time,

M3 growth rate



Note. M3 consists of M2 plus large-denomination time deposits, balances in institutional money market funds, repurchase-agreement liabilities (overnight and term), and eurodollars (overnight and term). Annual growth rates are computed from fourth-quarter averages.

plunging equity prices led to a sharp step-up in the growth of retail money market mutual funds. After a substantial unwinding of distortions to money flows in October, M2 growth over the balance of the year was spurred by further declines in its opportunity cost resulting from additional monetary policy easings and by heightened volatility in equity markets. The hefty advance in M2 last year outpaced the anemic expansion of nominal income, and M2 velocity—the ratio of nominal GDP to M2—posted a record decline.

M3—the broadest monetary aggregate—grew 13 percent over 2001. In addition to the surge in its M2 component, huge inflows into institutional money funds boosted M3 growth. Investors' appetite for these instruments was enormous last year because their returns were unusually attractive as they lagged the steep decline in market interest rates. The slowdown in the growth of bank credit over the summer, which resulted in a contraction in managed liabilities, damped the rise in M3 somewhat. The velocity of M3 dropped for the seventh year in the row, to a record low.

International Developments

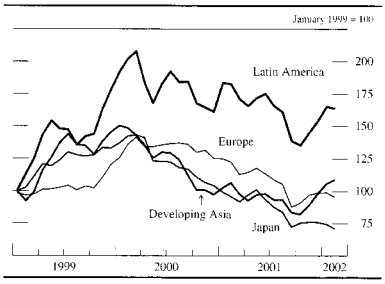
Economic activity in foreign economies weakened substantially in 2001. Early in the year, activity abroad was depressed by high oil prices, the global slump in the high-tech sector, and spillover from the U.S. economic slowdown. The September terrorist attacks further heightened economic uncertainty. On average, foreign economic activity was about flat over the year. The weakest performer among industrial economies was Japan, where output declined. The euro area eked out a slight increase in its real GDP. Activity in most emerging market economies in both Asia and Latin America declined. Asian developing economies were particularly hard hit by the falloff in demand for their high-tech exports. In Latin America, the output decline in Mexico largely reflected sharply reduced export demand from the United States; Argentina's financial crisis precipitated a further sharp drop in output in that country. An easing of average foreign inflation reflected the weakness of activity as well as a net decline in global oil prices over the course of the year.

In response to the pronounced weakness in economic activity, monetary authorities in the major industrial countries eased policy throughout the year. Nevertheless, interest rates on long-term government securities showed little net change from the beginning to the end of the year in most major industrial

countries. Weak economic conditions tended to put downward pressure on long-term rates, but moves toward more stimulative macroeconomic policies appeared to encourage market participants to expect economic recovery, thereby supporting long-term interest rates. Following the terrorist attacks in September, interest rates declined around the globe as expected economic activity weakened and demand shifted away from equities and toward the relative safety of bonds. However, toward year-end, as the period of crisis passed, long-term interest rates rebounded strongly.

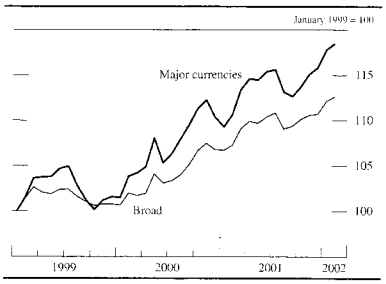
Overall stock indexes in foreign industrial economies declined for the second consecutive year as activity faltered and actual and projected corporate earnings fell sharply. Technology-oriented stock indexes again fell more than the overall indexes. Among emerging market economies, the performance of stocks was mixed; stock indexes in several Asian emerging market economies rebounded strongly late in the year, a move possibly reflecting market participants' hopes for a revival in global demand for the high technology products that feature prominently in these countries' exports. Argentine financial markets came under increasing pressure throughout the year because of growing fears of a debt default and the end of the peso's peg to the dollar. Near year-end, Argentine authorities in fact suspended debt payments to the private sector and, early in 2002, ended the one-to-one peg to the dollar. There was limited negative spillover to other emerging financial markets from the sharp deterioration in Argentina's economic and financial condition, in contrast to the situation that prevailed during other emerging market financial crises of recent years.

Foreign equity indexes



Note. The data are monthly. The last observations are the average of trading days through February 21, 2002.

Nominal U.S. dollar exchange rate indexes



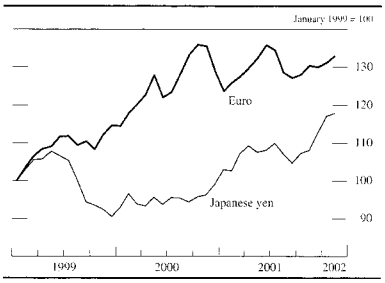
Note. The data are monthly. Indexes are trade-weighted averages of the exchange value of the dollar against major currencies and against the currencies of a broader group of important U.S. trading partners. Last observations are the average of trading days through February 21, 2002.

The dollar's average foreign exchange value remained strong through most of 2001. The dollar continued to rise despite mounting evidence of weakening U.S. economic activity and the significant easing of monetary policy by the FOMC. Market participants may have felt that the falloff in economic growth in foreign economies and expectations that the United States offered stronger prospects for economic growth in the future outweighed disappointing U.S. economic performance in the near term. The dollar's average foreign exchange value against the currencies of other major industrial countries recorded a net increase of 8 percent over 2001 as a whole. The dollar also strengthened, but by a lesser amount, against the currencies of our most important developing country trading partners. So far this year, the dollar's average value has risen further on balance.

Industrial Economies

The dollar showed particular strength against the Japanese yen last year, appreciating nearly 15 percent. The weakness of the yen reflected serious ongoing structural problems and the relapse of the Japanese economy back into recession. Early in the year, in response to signs of renewed weakening of the economy, the Bank of Japan announced that it was easing policy by shifting its operating target from the overnight rate—already not far above zero—to balances held by financial institutions at the Bank of Japan. Policy was eased further and more liquidity was injected into the banking system when the balances target was raised three times later in the year.

U.S. dollar exchange rate against the euro and the Japanese yen



Note. The data are monthly. Exchange rates are in foreign currency units per dollar. Last observations are the average of trading days through February 21, 2002.

The yen received a temporary boost when Junichiro Koizumi, widely seen as more likely to introduce economic reforms, became prime minister in April. The yen again strengthened in the immediate wake of the September terrorist attacks, prompting the Bank of Japan to make substantial intervention sales of yen. However, later in the year, amid signs of a renewed deterioration of economic conditions, the yen again started to weaken significantly.

For the year as a whole, Japanese real GDP is estimated to have declined more than 1 percent, a reversal of the rebound recorded the previous year. Private investment declined and private consumption moved lower, as households curtailed spending in the face of rising unemployment and falling real income. The winding-down of the large-scale public works programs of recent years more than offset the effect on growth from the additional spending contained in several supplemental budgets. Last year marked the third consecutive year of deflation, with the prices of both consumer goods and real estate continuing to move lower.

The dollar's movements against the euro in 2001 appear to have been mainly influenced by market perceptions of the strength of economic activity in the United States relative to that in the euro area. In the early part of the year, the euro weakened as evidence mounted that the economic slowdown that was already apparent in the United States as the year began was also taking hold in Europe. During the summer, the euro rose against the dollar as market participants appeared to revise downward their expectation of an early U.S. recovery. Then, later in the year, with more signs of a further weakening of activity in Europe, the euro again declined. On balance, the dollar appreciated more than 5 percent relative to the euro over the course of the year. Real GDP in the euro area is estimated to have increased at less than a 1 percent rate in 2001, a sharp slowing from the nearly 3 percent growth rate of the previous year. Fixed investment and inventory investment both are estimated to have made negative contributions to the growth of real GDP, whereas consumption growth remained near the rate of the previous year. The slowing of growth in the euro area was not uniform across countries, with weakness being more pronounced in Germany and less so in France.

The European Central Bank (ECB) held off easing monetary policy in the early months of the year, restrained by the euro's weakness, growth of M3 that remained in excess of the ECB's reference value, and a euro-area inflation rate above its 2 percent target ceiling. In May, evidence of slowing activity prompted the ECB to reduce its key policy rate 25 basis points. Three additional reductions followed later in the year, as activity weakened further and the inflation rate receded toward its target ceiling. The total reduction in the ECB's key policy rate over the course of the year was 150 basis points. The beginning of 2002 saw the introduction of euro notes and coins, a process that proceeded smoothly.

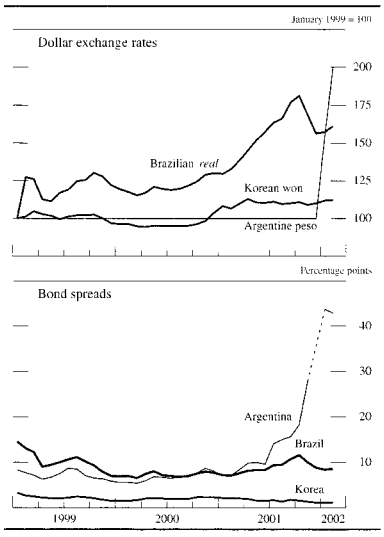
The dollar appreciated 6 percent against the Canadian dollar in 2001 as the Canadian economy slowed abruptly. Real GDP in Canada is estimated to have been about flat last year after growing more than 3 percent in 2000. A key factor in this slowing was the sharp drop-off in Canadian exports to the United States. An inventory correction also depressed output. Earlier in the year, consumption was buoyed by continued employment growth, tax cuts, and a housing boom. However, later in the year, growth of consumption faltered as employment prospects worsened and asset prices weakened. The Bank of Canada has moved aggressively to counter the slowing of economic activity by lowering its key policy interest rate nine times in 2001 and once in January 2002 for a cumulative total of 375 basis points.[3] When the Bank of Canada initiated easing moves early in 2001, inflation was slightly above the Bank's target range of 1 percent to 3 percent; but by the end of the year, slack activity and falling energy prices had pushed the inflation rate down to near the bottom of the range.

3. Among these reductions was one on September 17, when the Bank of Canada (along with the ECB) announced a reduction of its policy rate by 50 basis points, following the 50 basis point reduction in the federal funds rate announced by the FOMC earlier in the day.

Emerging Market Economies

Argentina was a main focus of attention among emerging market economies in 2001. In the first part of the year, worse-than-expected data on the fiscal situation and concerns that the government would be unable to implement announced fiscal measures heightened doubts about whether Argentina would be able to avoid a default on its debt. Argentine financial markets received only temporary support from a large-scale debt exchange completed in June and an enhancement of IMF support approved in September. With financial market confidence eroding, conditions took a dramatic turn for the worse late in the year; financial asset prices fell sharply, and funds moved out of the banking system as the government moved to restructure its debt and the one-to-one peg to the dollar looked increasingly precarious. In early December, the government imposed capital controls, including limits on bank account withdrawals. These restrictions led to widespread protests, which triggered the resignation of President de la Rua and an interval of political turmoil. After the resignation of President de la Rua, the government announced it would suspend debt payments to the private sector. The government of the new president, Eduardo Duhalde, suspended Argentina's currency board arrangement and established a temporary dual exchange rate system. In early February, the dual exchange rate system was abandoned, and the peso's floating rate moved to about 2 pesos per dollar amid continuing economic uncertainty. For 2001 as a whole, Argentine real GDP is estimated to have fallen at well over a 5 percent rate, and prices declined further.

Selected emerging markets



Note. The data are monthly. Exchange rates are in foreign currency units per dollar. As of January 2002, the Argentine peso rate is the floating rate. Bond spreads are the J.P. Morgan Emerging Market Bond Index (stripped Brady-bond) spreads over U.S. Treasuries; the dotted line is a break in the series for Argentina in December 2001. Last observations are the average of trading days through February 21, 2002.

To date, the negative spillover from events in Argentina to other emerging financial markets has been limited, possibly because market participants had been well aware of Argentina's problems for some time and viewed them as largely confined to that country. Brazil was probably most heavily affected by events in Argentina, and the bond spread on Brazilian debt showed a net increase of about 110 basis points over the course of last year while the spread on Argentina debt exploded upward. Other important factors weighing on Brazilian economic activity last year likely were weak growth in the United States—Brazil's most important export market—and the emergence of an energy shortage as drought limited hydroelectric output. For the year as a whole, Brazilian real GDP is estimated to have risen at less than a 1 percent rate after growing at a 4 percent rate the previous two years. The Brazilian currency registered a net depreciation against the dollar of about 16 percent over the course of last year, while stock prices declined more than 10 percent. The Brazilian central bank tightened policy last year in an effort to hold down the inflationary impact of currency depreciation.

Real GDP in Mexico declined about 1 percent in 2001, a sharp reversal from the 5 percent growth rates recorded in the previous two years. The falloff in activity was mainly a reflection of the negative effects on direct trade and confidence in Mexico arising from the slowdown of the U.S. economy. In light of the marked weakening of activity, declining inflation, and a strong peso, the Bank of Mexico started to loosen the stance of monetary policy in May, and short-term interest rates continued to decline over the rest of the year. In February 2002, the Bank of Mexico moved to tighten monetary conditions, citing concerns that an increase in administered prices would raise inflation. Mexican financial markets fared quite well last year, with the peso

appreciating 5 percent against the dollar and stock prices rising nearly 15 percent. The effect on Mexican financial markets from Argentina's difficulties appeared to have been quite limited, as indicated by the net decline of the Mexican debt spread by 80 basis points over the course of the year.

Economic growth in the Asian emerging market economies turned negative last year. On average, real GDP in developing Asia is estimated to have declined about 1 percent in 2001, compared with average growth of 6 percent in the previous year. A key factor in this slowing was the sharp falloff in global demand for the high-tech products that had fueled rapid export growth in the region in recent years.

The economies of Taiwan, Singapore, and Malaysia are highly dependent on exports of semiconductors and other high-tech products, and as global demand for these goods was cut back sharply, real GDP in these countries declined by an estimated 5 percent on average last year. Indonesia and Thailand, both relatively less dependent on high-tech exports and experiencing some reduction in political tension over the course of the year, managed to record small positive real GDP growth rates last year, albeit well below rates of the previous year.

Korean real GDP is estimated to have increased about 2 percent in 2001. While in an absolute sense Korea is an important exporter of high-tech products such as semiconductors, it has a relatively more diversified economy than most of its Asian neighbors, and thus the magnitude of its slowdown last year was somewhat muted. Government moves toward monetary and fiscal policy stimulus over the course of the year helped support domestic demand in Korea.

In China, recorded growth of real GDP remained robust last year. China's lesser dependency on exports in general, and high-tech exports in particular, cushioned it from last year's global slowdown, and the government stepped up the pace of fiscal stimulus to offset weakening private demand. Hong Kong, with exports not heavily concentrated in high-tech goods and an economy closely integrated with a rapidly growing Chinese economy, is nevertheless estimated to have experienced a decline in real GDP last year. The peg of Hong Kong's currency to a strengthening U.S. dollar put pressure on its competitive position, and domestic price deflation continued.

Conditions in financial markets in emerging Asia were, for the most part, not particularly volatile last year. Debt spreads were little changed on average for the region as a whole, exchange rates against the dollar generally moved lower, and stock indexes declined somewhat on average.

BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

ALAN GREENSPAN
CHAIRMAN

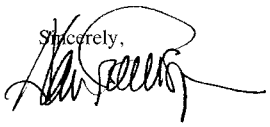
May 29, 2002

The Honorable Michael G. Oxley
Chairman
Committee on Financial Services
House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

I am pleased to enclose my responses to the written questions you submitted in connection with the Committee's semiannual hearing on the conduct of monetary policy.

Sincerely,



Enclosure

Responses to Questions for the record to Chairman Greenspan
Following the Semiannual Report to Congress on Monetary Policy
February 27, 2002

1. In the past the Fed has been reluctant to be seen as participating in the bursting of a market bubble. Has that role been reassessed? What is your current stance?

The role of asset prices in setting Federal Reserve policy has not changed in recent years. The effects of monetary policy on spending and inflation are neither immediate nor certain. As a result, to further the ultimate goals of maximum employment and stable prices, the Federal Reserve tries to act in advance to offset potential slack or pressure on resources. But acting in that preemptive manner requires making forecasts of future economic outcomes. Asset prices, including the value of equities, enter into that process to the extent that they are important determinants of current and future spending and so of pressures on inflation.

2. The Enron crisis has prompted some investors to question the reliability of analyst reports. Is this a valid concern and, if so, how would you recommend that Congress address it?

The reliability of analyst reports is a valid concern. However, market discipline is already working to improve the information in analyst reports, and Congress should evaluate the effectiveness of these changes before taking any action. Among the changes now occurring, the recent joint initiative by the National Association of Securities Dealers and the New York Stock Exchange requires brokerage firms to include in research reports the distribution of the firm's "buy," "sell," and "hold" ratings, so that investors can see whether the firm is consistently optimistic. Moreover, in response to market pressure, many brokerage firms have either prohibited their analysts from owning shares of the companies they cover or have required that any such ownership be disclosed in reports. Looking ahead, it is likely only a matter of time before independent firms publish ratings of individual analysts in a form that will make it easy for investors to determine whether the analysts' recommendations are credible. Information of this type would provide strong incentives for analysts to improve the accuracy of their reports.

3. Should Congress be looking at some sub-regulatory model for the rating agencies? For example?

Concerns about the slowness of the rating agencies to downgrade firms with deteriorating financial conditions have engendered discussion of the need for a change in the regulatory model applied to the agencies. However, independent of any regulatory changes, the rating agencies have strong financial and reputational incentives to improve

their processes. Indeed, those incentives are already in evidence as the agencies have announced reviews of various aspects of their ratings processes. Such changes resulting from market discipline can be implemented quickly. Congress should evaluate the results of this market discipline before pursuing a new regulatory model.

4. Do you believe rating agencies intentionally bias ratings upwards?

As noted in the response to the previous question, rating agencies have strong incentives to publish ratings that accurately reflect their assessment of a company's credit risk. A rating agency that systematically inflated its ratings would quickly lose credibility in the marketplace, and--as illustrated by the Enron debacle--companies that lack credibility cannot survive.

5. How does the Fed examine both U.S. and foreign-owned banks in its purview for problems such as Allfirst's? Will changes in the exam process be made in response to this event?

The Federal Reserve evaluates the corporate governance, risk management, and accounting and internal controls, including audit programs, of all banks under its supervision. When we encounter situations like the trading loss at Allfirst, the Federal Reserve's first priority is to ascertain and address the impact on the financial institution. We also undertake reviews of all relevant facts in the case and, based on our findings, determine appropriate actions to be taken and lessons to be learned. We are conducting a review of our examination assessment of Allfirst's management and controls over trading activities, as well as our supervisory strategy and related procedures. Once this is complete, we will make a determination as to whether there should be changes made to the examination process in response to this event.

6. Are there any aspects of financial modernization that Congress should revisit in the wake of Enron?

No. The Gramm-Leach-Bliley Act enacted a number of reforms to the banking laws that were badly needed to allow our financial markets to remain competitive and our laws to reflect changes in the marketplace for financial services. These changes do not appear to have played any role in the matters under review relating to Enron.

7. In light of its extensive derivatives investments, does Enron's collapse lend new urgency to the effort to pass the netting bill currently pending before Congress?

Enron was an active dealer in OTC energy derivatives with many counterparties, and despite its major role, the closeout of Enron's positions by its counterparties appears to

have gone relatively smoothly. That said, however, netting remains an important tool for counterparties to manage their credit risk. The legal system in the United States should support this tool, and the netting bill currently pending before Congress would be a valuable step in furthering this public policy goal.

8. One of the many issues that led to the problems at Enron was what might be called "mark-to-model" accounting, as opposed to mark-to-market. Since the Enron failure, has there been internal discussion at the Fed about insisting on the most accurate accounting convention possible, as opposed to "mark-to-model" or historical cost accounting?

The Fed recognizes the dangers of using models to price financial instruments, but also recognizes their necessity because of the lack of active markets for many traded instruments. (It should be noted that "modeling" can range from adjusting available quotes to compensate for minor differences between the maturity dates of nearly identical exchange-traded instruments and over-the-counter instruments, to attempts to value very complex options or long-dated forwards that do not have exchange-traded analogues.) For example, banks generally determine the value-at-risk (VaR) of their trading operations based, in varying degrees, on market values of financial instruments that are determined by models rather than market quotes (because of illiquidity or the custom nature of individually negotiated contracts). The Fed's market-risk capital rule is based in large part on banks' calculations of VaR, and the rule does not generally distinguish between trading instruments whose values are determined with models versus those having market quotes. Concerns over the potential for misplaced reliance by supervisors on banks' modeling was an important motivation for requiring stringent backtesting of VaR estimates as a condition to applying the market risk rule.

For trading activities, we believe that fair value is an extremely relevant measure of performance and risk exposure. That relevance is, however, tempered with potential problems in the reliability of fair value estimates, as connecting the value of more exotic financial instruments to pricing information about instruments traded in active markets becomes more difficult. In this regard, we have encouraged FASB (through comment letters on various accounting proposals) to work on providing guidance that will yield more consistent and reliable fair value estimates as a predicate to expanding fair value accounting. We also believe that audit standards and training need to be strengthened and updated to adequately address the expanding use of fair value as a basis of presentation in financial statements.

9. Do you endorse the Basel Committee approach to operational risk-based capital?

The Basel Committee's approach to operational risk-based capital is still the subject of active negotiation. A great amount of work is being expended to make the 1988 Accord more risk-sensitive by unbundling the risks by major risk categories. Work with the banking industry suggests that these risk categories include credit, operational and market risks.

An approach to operational risk-based capital that would be acceptable to the Federal Reserve would include incentives for banks to collect loss event data and analyze it using their own measurement approaches subject to qualifying criteria and supervisory review. Banks would be expected to include as part of their analysis consideration of adverse loss event scenarios as well as qualitative self-assessments of their internal management and control process.

10. Are modifications being considered that might allay the concern that--implemented in its current form--the Basel proposal would undermine the competitiveness of the U.S. financial services industry?

The Federal Reserve will not accept any aspect of the revised Basel Accord that would undermine the competitiveness of the U.S. financial services industry. With regard to the operational risk proposal, a number of modifications are being considered that would allay industry concerns. Most importantly, these include elimination of a specific floor capital requirement for operational risk.

11. In the wake of the September 11th, 2001 terrorist attacks, the Federal Reserve established several temporary swap facilities with the European Central Bank, the Bank of Canada, and the Bank of England, in order to facilitate the functioning of the marketplace at a time of significant uncertainty. Does the Fed have sufficient statutory authority to implement these or other contingency plans in the future or does the Fed need augmented authority of some type?

The swaps arrangements the Federal Reserve arranged with the European Central Bank and the Bank of England and the augmentation of the existing line with the Bank of Canada fell within our existing authority. Therefore, no change in statutory authority in this regard is necessary.

12. Banks have been able to protect themselves by creating credit derivative structures such as those created by Citigroup with Enron. This can protect the safety and soundness of the institution and the insurance fund. However, is there any chance that bond ratings might be altered on the basis that a big bank continues lending to a company even though the bank's real exposure is much less than it might seem?

The answer is no. Credit derivatives simply redistribute the risk of a particular borrower or group of borrowers from the bank to other financial institutions or companies. Essentially, if a large bank scales back its exposure to a borrower through credit derivatives, other institutions are exhibiting their willingness to expand their risk to this institution by entering into the credit derivative. Consequently, the use of credit derivatives is not necessarily a signal that a company is less creditworthy or needs a change in agency credit rating. Rather, it illustrates that the magnitude and variety of risk appetite for a particular borrower varies from institution to institution. For example, if the large bank had an exposure to energy companies, it might want to reduce this concentration through credit derivatives regardless of the creditworthiness of the particular borrower. In addition, the yield that firms wish to be paid for taking on a particular firm's risk is available by observing traded credit default swap spreads.

13. What measure do you use for unemployment--is it more like the U6 level rather than the commonly reported figure? Is that more useful, and if so why?

The Labor Department regularly publishes six alternative measures of labor underutilization. We tend to follow most closely the official unemployment rate (U-3) and measures similar to the published U-5 and U-6 rates. The official unemployment rate has the advantages of being relatively clear about the degree of underutilization it represents, being the best studied, and providing a relatively consistent measure over a long period of time (roughly since 1948). However, there is little doubt that the official unemployment rate fails to capture some important sources of available but un-utilized labor, notably individuals who are not actively searching for employment (and are consequently officially not in the labor force) but report that they want and are available for work, and those working part-time for economic reasons. Therefore, we also track alternative rates that add in these potential and current workers. Nonetheless, while we view something like the published U-6 rate to be perhaps a more comprehensive measure of overall labor underutilization, no single rate is uniquely correct; accordingly, we try to integrate signals from various measures to form our judgments about the state and direction of the labor market.

14. What level of unemployment on the conventional scale do you consider to represent full employment? Would it be fantasy to imagine we would ever get near the 3.9 percent rate again any time soon?

The nation's maximum sustainable level of employment depends on a host of factors, including the rate at which businesses are expanding and contracting, the skills and employability of the labor force, and the occupational and geographic mix of job seekers relative to job vacancies. These factors all change over time, and they are complex enough

that it is difficult to know with any precision the unemployment rate consistent with maximum sustainable employment. In the late 1990s, economic growth was sufficiently rapid to push the unemployment rate to 4 percent without generating imbalances severe enough to lead to higher inflation. We cannot rule out that such a performance could be repeated with today's labor market structure, though it remains an open question. Accordingly, we carefully monitor a wide range of indicators in both labor and product markets--rather than any single indicator--in assessing possible imbalances and pressures in the economy.

15. To what extent do the Fed's economic models rely on Commerce Department data, and how reliable is that data?

The Federal Reserve's economic models use data from many public agencies as well as private sources, but data from the Commerce Department are among the most important that the Fed analyzes. For example, the Department's Bureau of Economic Analysis produces the National Income and Product Accounts, and the Department's Bureau of the Census reports on retail sales, construction spending, shipments of business equipment, and other items. These aggregate data are constructed in large part from the responses by businesses to government surveys, so the reliability of the data depends importantly on the completeness and accuracy of these survey responses. Although these surveys undoubtedly impose burdens on respondents, they provide information that is critical to the decisions of households, businesses and government policymakers.

16. Have you perceived any systemic bias in the data--does it overshoot, or undershoot, causing a systemic bias?

Some recent research suggests that initial estimates of aggregate output do not fully capture accelerations and decelerations in economic activity; that is, the initial estimates show some tendency to partly miss economic turning points. However, this research also suggests that better use of contemporaneous data that are publicly available would not substantially improve the quality of the initial estimates. Rather, improving those initial estimates to any significant extent would require the collection of additional raw source data, presumably in part through more complete or additional government surveys.

17. Do you have a view that the Fed, and the U.S. government, should be able to have real-time economic indicators, instead of ones that are often issued days or weeks late and then often revised?

Timely and accurate economic indicators are of paramount importance in the conduct of monetary policy. Although some financial data are available in real time, initial data on real economic activity generally are available with a lag of several weeks, and

these data are sometimes revised substantially months or years later. Accurate real-time economic indicators would obviously be useful for policy, but so far it is unclear whether it would be practical to collect real-time data that would be of sufficient quality to provide a useful signal of true economic activity. Indeed, even existing survey information sometimes suffer from such measurement errors. The statistical agencies are working hard to try to improve the accuracy and timeliness of the data that they currently produce, and it seems to me that our first priority should be to encourage these efforts.

18. The percentage of trade data as part of the GDP has grown in the last two decades yet that data is consistently reported long after all other sectors. Does that hamper your forecasting and what could be changed about this system?

While it is true that the trade data are one of the last pieces of information received each quarter for putting together U.S. GDP, they have the virtue that they usually are not revised to any significant extent after their initial publication.

In forecasting, the sooner accurate data are available, the better. However, there is an important trade-off between timeliness of the data and their quality or accuracy.

19. Canada seems to issue monthly GDP data. Would that be more useful in economic modeling?

In principle, monthly data on gross domestic product would be useful to economists and policymakers. The pattern of economic activity is obviously not constant over a quarter, and knowledge of how GDP is evolving on a monthly basis would help in assessing the current state of the economy. In practice, however, it may be very difficult to obtain high-quality estimates of GDP on a monthly basis. Not all of the needed source data presently exist on a monthly basis--particularly on the income side of the accounts. In addition, the production of monthly GDP likely would require an expansion--perhaps significantly--of the budgets of our statistical agencies. Given these considerations, I believe that it is probably more worthwhile to improve the quality of existing statistical programs than to create a new monthly GDP program.

20. You have commented before on defects in the Consumer Price Index as a component of GDP. What are your current thoughts on the matter?

The Bureau of Labor Statistics has made important progress over the past five years in improving the quality of the consumer price index, and they are to be commended for their work. However, I believe that the CPI still overstates increases in the cost of living. The CPI is a fixed-weight index and hence is subject to substitution bias as consumers shift their expenditure patterns in response to changes in relative prices; other indexes, such as

the PCE chain-weight price index, do not have this problem. The weighting scheme used in the CPI to aggregate individual price indexes utilizes the Consumer Expenditure Survey, which has the disadvantage of relying on respondents' memories of their actual expenditures. In contrast, the weighting scheme used in the PCE chain price index is based on business surveys, which provide a reasonably comprehensive record of expenditures. Adjustments for changes in the quality of goods and services also is an ever-present problem for both the CPI and PCE price measures; additional work is needed to reduce this bias.

21. Given the rapid real depreciation of high-tech equipment, does the GDP really capture a good picture of the economy anymore, or should we be using something like a Net Domestic Product measure instead?

Gross domestic product and net national product really are designed to measure different things, and each concept is useful for different purposes. Gross domestic product measures the gross output produced in our economy during a particular time period. Net national product adjusts GDP for the consumption of capital inputs used up in the production process. While there are always improvements that can be made, I believe that the series on real GDP produced by the Bureau of Economic Analysis gives a reasonably accurate picture of the value of goods and services produced by the economy during a particular time period. Net domestic product also is a useful concept, but it is better suited to measuring the level of output that is available for use by the population--that is, after subtracting the depreciation of the capital stock from gross output.

22. Especially in the booming economy of the last half of the 1990s, with rapid change-out of high-tech equipment increasing productivity, would an NDP measure of the economy have presented a more-accurate picture?

I do not think so. Depreciation is very difficult to measure accurately, and this is especially true for high-tech equipment. Under these circumstances, it is not at all clear NDP would have given a more accurate picture of the economy in the late 1990s than GDP.

23. If Congress starts imposing sweeping new privacy regulations, will that not have a negative effect on productivity?

As part of the Gramm-Leach-Bliley Act, Congress enacted important new privacy provisions that address the sharing of nonpublic personal information by financial institutions. The federal banking agencies, along with the Federal Trade Commission, the Securities and Exchange Commission, and the Commodity Futures Trading Commission, issued final rules implementing these provisions shortly after enactment of the GLB Act.

Financial institutions were required to issue privacy notices and implement privacy policies under these rules for the first time beginning last July. We are still assessing the adequacy of these privacy provisions and their usefulness to consumers.

We believe that Congress would benefit from allowing the agencies, the financial services industry and consumers a reasonable opportunity to operate under the statutory framework recently established by the GLB Act. Changes in the statutory framework governing privacy inevitably impose costs on both the industry and consumers as the balance is changed between efficient use of customer information to market products that individual customers want and the benefits of protecting the privacy of personal information. A customer is best able to protect his or her own interests when the customer understands and is able to compare policies and options. Changes in the statutory framework that establishes those policies and options require re-education and may leave customers in a more vulnerable position unable to respond effectively until consumers and the industry become familiar with and learn how to evaluate and respond to new requirements.

24. While you say the Fed does not manage U.S. dollar exchange rates, please detail your view on the proper relationship between the dollar and the yen? The dollar and the Euro?

25. Does it really matter if the exchange rate is not one-to-one?

26. Do the large yen-dollar and Euro-dollar exchange-rate differentials hold long-term peril for the U.S. export economy?

27. How long will it take, if ever, for the Euro to become truly competitive with the U.S. dollar as an alternative reserve currency for international transactions?

The U.S. Treasury Secretary speaks for the U.S. monetary authorities on the subject of the foreign exchange value of the dollar.

It does not matter if an exchange rate is not one to one. In today's sophisticated economy, flexibility of exchange rates to respond immediately to market developments contributes importantly to economic stability and efficiency.

The euro is now established as an important international currency and to a large extent is already an alternative reserve currency for international transactions. However, the process by which a currency assumes the preeminent role in international financial markets is subtle and may be gradual and slow-paced. Therefore, it is difficult to know

when, if ever, the euro would rival the U.S. dollar as the preeminent reserve currency for international transactions.

28. How important for U.S. creditors is an international work-out mechanism such as the IMF bankruptcy proposal?

All creditors, including U.S. creditors, would benefit from arrangements that would facilitate the orderly resolution of a sovereign debtor's liquidity and solvency problems.

The international financial community has been working on these issues for several years, and practices and procedures have evolved over time.

However, more work is clearly needed in this area. The IMF proposal is one idea that has been put forward. Further study of such approaches is to be welcomed.

29. How would you rate the efforts of U.S. institutions to reorder their compliance priorities to meet the challenge of detecting and combating terrorist financing?

Over the past several months, Federal Reserve staff has seen a keen interest on the part of banking organizations to take the appropriate steps to address terrorist financing activities. Numerous joint industry-governmental efforts were undertaken after the terrorist attacks, such the New York Clearing House Intercept Forum and the Wolfsberg Group, to begin working on new strategies to monitor and interrupt the illicit funding of terrorist operations. It has also been our experience that financial institutions have been quick to recognize their obligations under the USA Patriot Act. Banking organizations simply do not want to run the risk of being used by terrorist organizations.

It should be noted, however, that while banking organizations are cooperating with the government's efforts to combat terrorist financing activities, they have expressed some frustrations to our supervisory staff about the lack of sufficient guidance from law enforcement concerning the trends and patterns associated with illicit terrorist funding activities. Because the financial lessons learned from September 11 have not yet yielded complete information about the type of transactions from which predictions of future terrorist behavior can be drawn, banks and other financial institutions are challenged in their efforts to identify and report suspicious activities in this area. Nevertheless, the Federal Reserve's experience with the banking industry, domestically and abroad, is that banks want to be partners with the supervisors and law enforcement and are taking appropriate steps in that direction.

30. Has the Federal Reserve discussed with its central banker counterparts in other countries possible coordination on supervisory approaches that could help staunch the

flow of terrorist finances through the global banking system? What conclusions were drawn?

Board members and senior Federal Reserve officials have had ongoing discussions with their fellow central bankers and their staffs on the issues surrounding terrorism financing. These discussions have taken place, *inter alia*, within the context of the G-7 group, composed of the finance ministers and central bank governors of large industrial countries, the G-20 group, composed of ministers and governors of emerging-market countries, and the Basel Committee for Banking Supervision at the Bank for International Settlements. Several pronouncements have been issued following these meetings, all of which highlight the need for bank supervisors and law enforcement authorities to continue to cooperate across international borders and to share pertinent information expeditiously. While there is a recognition that some jurisdictions have laws that may impede the flow of information among regulators and law enforcement, as well as within corporate groups, bank supervisors have expressed a commitment to work with domestic and international law enforcement agencies to develop appropriate protocols to ensure the freest transfer of information possible.

31. What level of cooperation has the Federal Reserve received from other central banks on these issues?

The level of cooperation among U.S. and international bank supervisors has been excellent. As described in brief above, numerous discussions have been held regarding efforts to prevent the financing of terrorist activities through banking organizations. Following September 11th, the Federal Reserve received many calls and letters from our foreign counterparts offering assistance and cooperation in the fight against terrorism, and their commitment has not waned since. Constructive efforts have been taken, such as the international dissemination of the FBI's Control Lists, and the Federal Reserve expects that more progress will be made.

32. Can Fedwire records be improved for use in tracing terrorist financing? Specifically, is there any reason in every case outgoing wire records could not, or should not, list the name of a beneficiary instead of account numbers?

Current Treasury regulations require a financial institution to include the name, address, and account number of a beneficiary in a "transmittal order" to the extent that the information has been provided to the financial institution (see 31 CFR 103.33(g)). The Fedwire funds transfer format was modified a few years ago to accommodate the inclusion of a beneficiary's name, address, and account number to meet the Treasury's requirements and, as a result, no further modifications to the format are needed in this respect. Beneficiary information that has been provided to a financial institution should be included

in a transmittal order. We would not, however, recommend replacing the beneficiary's account number with the beneficiary's name. The beneficiary's financial institution typically uses the account number for the automated processing of transmittal orders. The failure to include beneficiaries' account numbers would likely result in increased manual processing of transmittal orders, which could cause significant errors, delays, or other inefficiencies in the payment system.

33. What steps is the Fed taking to strengthen its bank secrecy exams to ensure compliance with the PATRIOT Act?

The Federal Reserve is committed to the swift and effective implementation of the USA Patriot Act and to ensuring that banking organizations within its jurisdiction take all appropriate steps to comply with the new law. Board staff continues to work closely with the Treasury Department by assisting in the drafting and review of the proposed rules that that agency must prepare under the USA Patriot Act and to revise existing examination policies and procedures addressing the requirements of the law and Treasury's new rules once they are finalized.

At the Board, staff has established a Patriot Act Working Group comprised of senior, experienced Bank Secrecy Act/Anti-Money Laundering examiners from throughout the System. This Working Group, which is charged with overseeing the System's implementation of the new law, has been drafting revised examination procedures and is developing a new training curriculum for examiners who conduct Bank Secrecy Act and anti-money laundering examinations that, in the future, will include Patriot Act provisions.

The Board has also increased the staff of the Board's bank supervision division to include several senior examiners from the Reserve Banks to draw upon their field experience. These new Senior Special Examiners are leading the Working Group and will coordinate the System-wide adoption and consistent application of the new examination procedures and training program.

34. There is a view that the Federal Reserve, by insisting on control of the payments system, has impeded the development of other forms of payment that could reduce costs and increase efficiency in transactions, particularly business-to-business. How do you react to that? Do you see a role for the Fed as a developer, or curator of, a digital-certificate system that could achieve some of these efficiencies?

The Federal Reserve Banks provide wire transfer, automated clearinghouse (ACH), and check clearing services to depository institutions. These services are not provided exclusively by the Federal Reserve. Private-sector organizations compete with the Federal Reserve Banks in providing similar services. Further, the Federal Reserve Banks have

recently enhanced their net settlement services to support the safe and efficient operation of private clearing organizations. Over the past few years, a variety of bank and nonbank entities have conceived a number of innovative projects to provide new ways of making electronic payments, including business-to-business payments. The projects are in various stages of development. These projects, however, frequently face market challenges in gaining sufficient corporate or other customers to justify the costs of the project. Even when corporations are interested in pursuing these new approaches, their various payment, information, and reconciliation systems may lack the integration necessary to utilize fully the innovative projects' offerings. Thus, as is the case with many types of payment system innovations, large-scale acceptance frequently takes a significant period of time.

As to digital certificate services specifically, several private-sector service providers already provide a range of services related to digital certificates. The Federal Reserve Banks serve as the root authority for issuing digital certificates that authenticate customers' access to the Federal Reserve Banks' web-based services. Like other payment providers, we believe that controlling the root authority for such certificates is critical for safeguarding the security of our web-based financial services. The market for digital certificates is still evolving, however, and future developments cannot be fully anticipated. Nevertheless, the Federal Reserve does not foresee at the present time that it would play a role as a general root authority for digital certificates issued by the financial industry.

35. Leaving aside the issue of who should or shouldn't be handling what percentage of the paper-check clearing system in this country, it's clear that for a period after September 11 a lot of banks didn't really know what their true financial position was because it was impossible to physically move the checks around the country.

On September 11 and 12, all airplanes were grounded, including those used to move checks between distant banks. The Federal Reserve arranged alternate ground transportation for many paper checks. In addition, depository institutions continued to receive credit for the checks they deposited with the Reserve Banks, but were charged only for those checks actually presented to them. As a consequence of this decision to credit deposits even when corresponding debits could not be posted, daily check float, which normally is less than $1 billion, peaked at $47.4 billion on September 13. Although banks' Federal Reserve account balances varied from the norm because of these events, banks should still have been able to determine their balances through the usual automated inquiry process. Of course, normal patterns of check-related debits and credits were disrupted by the events of September 11, and it may therefore have been difficult for banks to forecast their future financial positions with accuracy.

36. A lot of good people working very hard ensured that this did not turn out to be a problem, but in view of the potential for more physical or cyber-terror attacks, should

this serve as a wake-up call to re-think the dependence on air transport of paper checks, and on paper checks in general?

The proposed Check Truncation Act that the Federal Reserve Board submitted to you last December would help banks to eliminate the need for physical transportation of checks by facilitating the electronic collection of checks. Under the proposed law, collecting banks could convert all checks to electronic form, while paying banks that desired paper checks would receive legally equivalent substitute checks, including the image and data from the original checks, which could be printed at a location near the paying bank. Had the provisions of this proposed law been in effect when air traffic came to a standstill due to the terrorist attacks on September 11, banks would have been able to reduce the effect of the disruption in air transportation on the check collection system. Although air transport of paper checks generally works well, the proposed law could also speed the collection and return of checks.

37. Do you see any reason why Congress should not move to change the relationship the Fed has with the Mint to one similar to the Fed's relationship with the Bureau of Engraving and Printing?

Both currency and coin are legal tender at face value as a matter of law. Unlike currency, however, coins are not debt instruments and therefore are not recognized as liabilities by either the Treasury or the Federal Reserve. The Federal Reserve recognizes the coins it purchases from the Mint at face value as assets on its balance sheet, and the Treasury recognizes the proceeds from those sales as seigniorage income. If the legal nature of coins were altered so that they became liabilities of the Federal Reserve Banks, the face amounts of the coin would need to be recognized as such on Reserve Bank balance sheets. In addition, the Federal Reserve would need to adjust other accounts to maintain balance sheet equilibrium. Treating coins in this manner would require fundamental changes to the Federal Reserve Act because Reserve Banks currently do not have authority to issue coins, and likely would require changing other statutes as well. Overall, we do not anticipate that these legal changes designed to make coins liabilities of the Federal Reserve would have a significant economic effect compared to the current system.

38. What steps is the Fed taking to improve the circulation of coins around the country, and what steps is it taking to make sure that coin is delivered to end-users in amounts and forms most useful to them? Why is the Fed not insisting on uniformity and accuracy in Mint deliveries, and what timeline do you expect before such deliveries will be uniform and accurate?

The Federal Reserve and Mint are working collaboratively on a coin efficiencies workgroup to examine the distribution patterns of coin. One outcome of this group's

efforts is a revision to the coin ordering process that has reduced lead-time and improved accuracy. The workgroup plans to monitor the effectiveness of this new ordering process, to develop better models for understanding coin demand and circulation patterns, and to implement tools to improve coin distribution and inventory management systems. In an effort to achieve increased efficiency, the Mint introduced bulk bag packaging for the new coins that it ships directly. The Federal Reserve Banks began receiving claims from depository institutions for shortages in bulk bags during January 2002. Federal Reserve and Mint representatives began discussing concerns about these variances in February. Although the Mint requires a piece count for every bag to verify the dollar value of its contents, procedural deficiencies and equipment problems contributed to bulk bag variances. The Mint agreed to implement a monitoring process at bulk bag filling stations. Depository institutions are continuing to report variances, however, and the Federal Reserve and Mint are scheduled to meet to discuss further action to resolve these problems. Whenever a depository institution reports a variance in a coin order, the Federal Reserve Bank investigates the claim and, when justified, credits the relevant depository institution account for the appropriate amount. The Reserve Banks, in turn, present claims for these bulk bag variances to the Mint. To date, all claims for the discrepancies have been settled.

BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

ALAN GREENSPAN
CHAIRMAN

March 4, 2002

The Honorable Christopher Cox
House of Representatives
Washington, D.C. 20515

Dear Congressman:

Thank you for the opportunity to comment on issues pertaining to the federal debt ceiling.

As I indicated at Wednesday's monetary policy hearing, I believe that the statutory ceiling on federal debt does not serve a useful purpose. If the Congress judges that it is necessary to retain a debt ceiling, I believe that the ceiling should be applied to federal debt held by the public and not to intra-governmental holdings of Treasury debt. Intra-governmental debt holdings are unrelated to economically valid measures of the federal budget position and have no effect on the degree of credit market pressures or the level of interest rates.

But even debt held by the public is a problematic ceiling. By legislating entitlement programs, authorizing other federal spending, and establishing federal revenue programs, the Congress effectively has already legislated a debt ceiling. In other words, given macroeconomic conditions, the structure of federal tax and spending programs essentially determines the federal budget deficit and thus, apart from any changes in the Treasury's cash balance, the required increase in federal debt outstanding to finance that deficit. To enact a separate debt ceiling inconsistent with the increase in debt required to finance the deficit is to legislate contradictory law.

I hope these comments are helpful. Please let me know if I can be of further assistance.

Sincerely,

BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

ALAN GREENSPAN
CHAIRMAN

March 29, 2002

The Honorable Janice Schakowsky
House of Representatives
Washington, D.C. 20515

Dear Congresswoman:

I am pleased to enclose my response to the question you submitted following the February 27 hearing before the Committee on Financial Services.

For your information, a copy has also been forwarded to the Committee for inclusion in the hearing record.

Sincerely,

Enclosure

Chairman Greenspan submitted the following in response to a written question received from Congresswoman Janice Schakowsky in connection with the Committee on Financial Services hearing of February 27, 2002:

Question:

Last month, the Board of Governors disclosed that former Enron Chairman Ken Lay telephoned you in October during a period in which the company was looking for assistance from a variety of senior government officials. What did Mr. Lay say in that phone call and what was your response?

Answer: Mr. Lay covered the same issues that had already been covered in the newspapers. As in many such calls, I thanked him, but chose not to respond.

BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

ALAN GREENSPAN
CHAIRMAN

April 2, 2002

The Honorable Ronnie Shows
House of Representatives
Washington, D.C. 20515

Dear Congressman:

I am pleased to enclose my responses to the questions you submitted following the February 27 hearing before the Committee on Financial Services.

For your information, a copy has also been forwarded to the Committee for inclusion in the hearing record.

Sincerely,

Enclosure

Chairman Greenspan submitted the following in response to written questions received from Congressman Ronnie Shows in connection with the Committee on Financial Services hearing of February 27, 2002:

Question 1:

I represent the Southwest part of Mississippi. Over the past couple of years, my constituents and communities throughout the state of Mississippi have experienced tremendous job loss. This is something that has hit close to my home in Jeff Davis County, Mississippi, where the hospital and school district are now the major employers in the county because all the manufacturing jobs have left.

In 2001 alone, approximately 2100 manufacturing jobs and 6200 agriculture-related jobs were eliminated from our workforce. And more lay-offs are predicted! International Paper in Morton, Mississippi, is closing, putting 185 employees out of work. An automobile parts supplier in Hattiesburg is scheduled to lay off nearly 100 workers and close it doors in the coming months. The glove manufacturer, Wells-Lamont in Waynesboro, Mississippi, will close its doors on Marth 11th, releasing 130 to the unemployment lines in Clarke County. These numbers add up!

Chairman Greenspan, my primary question is this: although some signs indicate that the recession is on its way out and employment gains appear to be on the horizon, when will the recession end for Rural America? What is our economic forecast?

Answer 1: The dislocation of industries and jobs that you are experiencing in southwest Mississippi is not only a consequence of last year's economic slowdown, but is part of a process of economic change that characterized the American economy over the past half century. During that time, two economic forces were very important: the rapid increase of productivity, and hence reduced jobs in the agricultural sector, and the cost advantages associated with an increased concentration of population in urban areas. Both of these forces have been crucial in fostering an increase in the general standard of living but have also brought wrenching change to rural America.

Those basic forces remain in place. But there are also cross-cutting forces, some of which bode well for rural communities over the longer run. For example, the lower cost of collecting and processing information will help businesses that are remotely located extend their reach. Business locations that might not have been feasible in the past because of their distance from central markets should become increasingly attractive.

Clearly, adjustments and new opportunities in many areas will be speeded by a sustained recovery in overall economic activity. As I have noted in recent testimony, in the past several months, we have seen increasing signs that some of the forces restraining

the economy over the past year are starting to diminish and that activity is beginning to firm. In particular, the most recent data continue to provide encouraging signs of strengthening underlying trends in final demand, although, at this early stage, the dimensions of the pickup remain uncertain.

Question 2:

On January 31, 2002, the Mississippi Employment Security Commission reported that Mississippi had a 5.8% unemployment rate--a jump from 5.2% unemployment in November and the highest unemployment rate in 18 months. How can we increase consumer confidence and encourage consumer spending in Rural America if economic indicators like unemployment continue to rise?

Answer 2: As you suggest, higher levels of unemployment and the prospect that joblessness will continue to rise figure importantly in consumer confidence. Last fall, in the wake of the events of September 11th, overall consumer sentiment, as measured by the University of Michigan's survey slumped sharply while the survey's separate measure of expected unemployment worsened noticeably. In recent months, unemployment expectations have begun to improve along with an overall upturn in consumer sentiment. That the unemployment rate appears to have leveled off in recent months appears to bear out the improvement in households' expectations. Despite the recent improvement, households' expectations about unemployment were still, as of February, relatively pessimistic. However, the Michigan survey's overall level of consumer sentiment was in line with its historical average. Specific regions of the country of course will have somewhat differing experiences, but on the whole, most regions should experience improving conditions as the national economy continues on its current path of recovery.

In the face of rising unemployment and the declines in stock market wealth that many households have experienced, household spending has been quite resilient. Real personal consumption expenditures increased at an annual rate of 6-3/4 percent in the fourth quarter of last year, and incoming information on sales of domestic motor vehicles and other consumer goods suggests that households continued to spend at a moderate rate in the early months of this year. Sales of new and existing homes have also remained at a high level. That sustained pace of spending appears to have been supported by the relatively low interest rates and strong gains in real disposable personal income that households have seen recently.

Question 3:

Agricultural and manufacturing jobs are the bedrock of Mississippi's economy. And, frankly, Chairman Greenspan, our foundation has been shaken. Since late 1994, Mississippi has lost nearly 60,000 manufacturing jobs because many companies have opted for cheaper labor and weaker environmental standards, moving their factories to Asia or Latin America.

In January, the Burlington Industries textile plant located in Stonewall, Mississippi, announced that it would close, leaving 850 employees without a job. The plant manager at Burlington admitted that, "with uncertainties in [the] economy and pressure from imports ... We're having to adjust our U.S. capacities to be competitive long term."

Local communities are being forced to fend for themselves as the centerpieces of the local economies are closing up shop and moving to Mexico. How are some of our trade policies affecting the economic outlook for Rural America? How do we effectively address the trade deficit without leaving industries in Rural America behind?

Answer 3: The world economy is becoming increasingly integrated, which, on balance, has boosted living standards both here and abroad. However, the improvement in productivity engendered by the enhanced allocation of resources made possible by the international flow of goods, services, and capital does imply that some resources and economic activity must be shifted as the market sorts out the best allocation of resources.

There clearly are adjustment costs associated with the re-allocation of productive resources that must be recognized and addressed. A strong case can be made for governments to help ease these trade-adjustment costs through temporary income support for those displaced during the adjustment process as well as job-training programs and help in terms of finding new employment opportunities.

The dollar's strength in terms of foreign currencies in recent years has tended to heighten trade pressures by boosting the costs of producing in the United States relative to foreign countries. However, the dollar's strength is importantly a reflection of the market's view on the relative attractiveness of investing in the U.S. economy, and the inflow of foreign investment has funded new capital formation and job opportunities in our country.

Taking the longer view, the integration of the world economy is good for the U.S. economy, including the rural sector. But, as mentioned above, a strong case can be made for government assistance for those who lose jobs because of competition from

imports. The U.S. government offers such assistance--Trade Adjustment Assistance (TAA) programs--generally as well as specifically for those who lose jobs owing to competition from Canada and Mexico.

In this context, it is important to note that protectionism--tariffs, quotas, and other non-tariff barriers to trade--is the wrong way to go. Protectionism increases costs to the American consumer by putting upward pressure on prices, lowers national and world production by inhibiting the efficient allocation of world resources, and invites retaliation from abroad.

The U.S. trade deficit is in part a reflection of the same forces pushing up the dollar and reflects also our national decisions about investment and saving. At some point in the future, most analysts expect that there will be a downward adjustment in our trade deficit--boosting U.S. exports and damping U.S. imports--but such an adjustment will involve shifts in market views on the desirability of increasing holdings of dollar-denominated assets and probably some adjustment in relative economic growth rates here and abroad. There is little scope for economic policy to address the size of the trade deficit other than through fiscal restraint. Protectionist trade policy measures have been shown to be an ineffective means of addressing this macroeconomic issue.

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