CONDUCT OF MONETARY POLICY

Report of the Federal Reserve Board pursuant to the Full-Employment and Balanced Growth Act of 1978 P.L. 95–523 and The State of the Economy

HEARING

BEFORE THE

COMMITTEE ON BANKING AND FINANCIAL SERVICES

U.S. HOUSE OF REPRESENTATIVES

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CONDUCT OF MONETARY POLICY

THURSDAY, FEBRUARY 17, 2000

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

The committee met, pursuant to call, at 10:07 a.m., in room 2128, Rayburn House Office Building, Hon. James A. Leach, [chairman of the committee], presiding.

Present: Chairman Leach; Representatives Roukema, Bachus, Castle, Royce, Paul, Ryun of Kansas, Hill, Ryan of Wisconsin, Ose, Biggert, Terry, Toomey, LaFalce, Kanjorski, Sanders, Watt, Bentsen, J. Maloney of Connecticut, Sherman, Inslee, and Moore.

Chairman LEACH. The hearing will come to order.

The committee meets today to receive the Semiannual Report of the Board of Governors of the Federal Reserve System on the Conduct of Monetary Policy and the State of the Economy as Mandated in the Full Employment and Balanced Growth Act of 1978.

Chairman Greenspan, welcome back to the House Banking Committee and congratulations on your renomination and reconfirmation as Chairman of the Federal Reserve. The President of the United States and the Senate have made a wise and timely decision. It underscores that this country has been well served by an independent non-partisan Federal Reserve.

The Act under which this hearing is held prescribes that the Federal Reserve System conduct policies to bring to realization "the goals of maximum employment, stable prices, and moderate long-term interest rates."

As we exit the 20th Century and enter a new millennium, the underpinning goals of the Humphrey-Hawkins legislation appear to have been met. More Americans have jobs than ever before; the unemployment rate is at a historic modern-day low; inflation is in check; productivity growth is the highest in fifteen years; and not only is the Federal budget in balance, but to the astonishment of most, surpluses are forecast for the foreseeable future.

Sustained economic growth has occurred in part due to significant private sector productivity increases, in part as a result of a mix of fiscal and monetary policies which, perhaps for the first time in decades, are working in sync rather than in juxtaposition. The budget surplus, which has had the effect of reducing reliance of debt issuances at the Federal level, has increased the flexibility of the Fed to manage monetary policy.

Divided Government has had its rewards. A conservative bent to the Congress has moderated the Executive Branch and has served well the American economy. In this regard, it deserves stressing

that just as the Executive Branch has primary responsibility in the fields of international affairs and the Fed and the Open Market Committee have authority over the conduct of monetary policy, the Congress is preeminently accountable for Federal budgetary matters.

One of the stark difficulties in our economy is that while the gap between the well-to-do and the less-well-off is widening, job creation appears to be spreading to the most disadvantaged parts of the population. Growth has been propelled in a circumstance where per capita Federal Government spending has leveled off, or perhaps even declined, giving rise to the conclusion that for the vast majority of Americans, the economics of compassion is the economics of Governmental restraint.

Before turning to your testimony, Mr. Chairman, I would like to ask if the Ranking Member of the Full Committee and the Chairman and Ranking Member of the Monetary Policy Subcommittee have opening statements.

[The prepared statement of Hon. James A. Leach can be found on page 46 in the appendix.]

Chairman LEACH. Mr. LaFalce.

Mr. LAFALCE. Yes, Mr. Chairman.

Chairman Greenspan, we are delighted to have you before us again, and I sincerely am delighted that you were reappointed as the Chairman of the Federal Reserve Board. You have done your job admirably. You have done your job regardless of the President being a Republican or a Democrat, and I know you will continue to do that regardless of the circumstances, regardless of whether there is a Republican or Democratic Congress and you have been constant in your thinking and your policies and objective in everything you have done.

Whether you or the President or the Congress, too, we have all been tremendous beneficiaries of having to do our job in the age of technology. Sometimes people ask me "Who deserves more credit, Alan Greenspan, the President, Democrats or Republicans?", and I always give them the same answer: "technology." It has been tremendous. It has been phenomenal. I also think that your appearance under the auspices of Humphrey-Hawkins is extremely important. It gives us an opportunity to dialog on some very important issues.

Your domain is primarily economic and primarily monetary policy as opposed to fiscal policy, although everything is interrelated. And yet we do not live in a vacuum. We live with statistics, but not statistics as an end in and of themselves, statistics as a reflection of where we have been, where we are and where we might go. We have to penetrate these statistics.

What does it mean when we talk about unemployment rate? Well, first of all I suppose we have to ask ourselves how accurate are those unemployment figures.

What is the extent of our under-employment? Are people making more real money? That is extremely important. Do they have to rely on two jobs or two incomes or three or four incomes in order to keep up?

You talk about productivity improvements, but how accurate are those productivity measurements? Are people really working longer

hours at home with the laptops that they are able to bring home, and do we therefore really have enhanced productivity? Are we coming to these productivity improvement judgments backward, looking at output and then extrapolating that there has been these huge productivity improvements?

But beyond questions such as that, I would like to see Congress have hearings not just on these statistics, but the true social health of the Nation. We are in an era of unprecedented growth. Do we have better health care, and for whom? You know, how is it that in an era of unprecedented economic growth, so they say, we have 45 million Americans without any health insurance whatsoever. What is the disconnect? Why is that happening? Does that mean that there is increased disparity within our society?

What is the status of education? Are those in affluent areas getting better and better education and those in poorer areas getting worse and worse education?

This is not exclusively within your domain, but you are a great collector of data and figures. And do these data and these figures come within your public concern or personal concern and what are your comments on it.

So we have a great shining city on the Hill, but what about that other portion of the city that is not shining so greatly? And it would be remiss on our part if we just use these hearings to regurgitate dry economic statistics without relating these statistics to the human condition, and whether or not there are better ways of life for not just those of the top rungs of society, but for all rungs of society given the prosperity that we love to proclaim and boast so much about.

Thank you.

Chairman LEACH. Chairman Bachus.

Mr. BACHUS. Thank you, Mr. Chairman. I thank you, Chairman Greenspan. I want to first assure you that you won't have to wait an hour like you did in the Senate last week to testify. And I will try to wrap this up. First of all, I want to commend you on your reappointment and also on your accomplishments.

Under your tenure mortgage rates have dropped about 2½ percent, inflation is down 1.7 percent, unemployment is down almost 2 percent. And that is quite an achievement. We have got low inflation, low unemployment, rising wages, robust economy, a rising stock market, undoubtedly your leadership on the Federal Reserve has been a significant part of that. So you are to be commended.

Today we are going to hear what is required by the Humphrey-Hawkins law which was passed in 1978. There is some sort of rumble in the Senate that we may quit having these hearings or we may go to a different format. And I would simply like to say that it is my opinion that these hearings are very helpful. They are helpful for the public to get to share in the discussion and I think they are very useful. Of course they can have temporary effects on the stock market one way or the other, but I think it is something that is very important and ought to be continued. I want to make that clear.

I also want to point out this in the context of the Humphrey-Hawkins, for the first time since Humphrey-Hawkins was passed under your leadership this country has achieved the goals of Hum-

phrey-Hawkins. We have not only achieved them, but we have maintained them over the past eighteen months. Balanced budget, adequate productivity growth, reasonable price stability, and unemployment rate near 4 percent, all were goals of Humphrey-Hawkins.

In fact, when that legislation passed most economists said that we would never reach those goals. Others said that if we reached all those goals together, they would work at cross purposes and we wouldn't have a good economy. So, the wisdom of those goals, now that they have been achieved, I think is being demonstrated daily in our economy. But as we prepare to enter the new millennium, I think it is important for the Federal Reserve, and I think today gives you a good opportunity to clearly articulate the principles on which future policy decisions will be made. Particularly speak to us and discuss why the Fed thinks it is necessary to maintain this tightening bias or tightening mode when we are seeing very little real inflation. We may be seeing signs of inflation, but the inflation rate is still low.

Let me conclude by saying I know there are a lot of pitfalls out there, a lot of potential things that can affect the economy. Obviously inflation is something we talk about all the time and we have a spike in oil prices, which is of great concern. You have expressed your opinion on that. Also, the inversion of the bond yields, which historically both when you get—obviously inflation, but also when you get a bond yield that stays inverted, it usually portends an economic downturn. So I would like you to discuss that bond inversion.

Also, I would like you to talk about what you consider some other danger signs. Let me just offer two of them to you, one that I am especially concerned about that sort of was confirmed in the Seventh Federal Reserve Report is margin lending. Now margin lending tends to go up when the market goes up, so we should expect that margin lending would go up. But actually what we are seeing is we are seeing margin lending going up faster than the market as a whole. I would like you to discuss what concerns you have about that, particularly in that the banks are increasing their lending to security brokers and security brokers are increasing their lending not only to their internal accounts, but also to other investors. So I would like you to touch on that.

The second thing is our U.S. current account deficit, which is forecast to climb to 4.2 percent GDP this year. And to not only that, but to remain above 4 percent for 2001. I know that can cause problems if investors don't continue to purchase U.S. denominated financial assets on a large scale and large enough to finance our external debt. So I would hope you will comment on that.

It is undeniable that our economy, our prosperity in this country, the growth, is at a historical high, but at the same time, Mr. Chairman, there are potential dangers that exist and threaten our economy. And we will be counting on you to help guide us down the unmapped and the untraveled roads of the new millennium. I will say this to the committee and to the American people that your experience and intellect should serve us well in this endeavor, one that will have unprecedented challenges and complexities. Thank you.

[The prepared statement of Hon. Spencer Bachus can be found on page 47 in the appendix.]

Chairman LEACH. Thank you, Mr. Chairman.

For a final opening comment, Mr. Sanders.

Mr. SANDERS. Thank you, Mr. Chairman. And welcome, Mr. Greenspan. I do not share the rosy outlook of my friend from Alabama. And I want to pick up on some of the points made by Mr. LaFalce, because after all of the statistics are out there, really what matters is what is going on with the average person.

And I know that the average person turns on the television every day and hears that the economy is booming, we have never had it so good. But sometimes those average working people have a little difficulty watching the television, because they are out working longer hours for lower wages than they used to. And the statistics are pretty clear that between 1973 and 1998 real wages for the average American worker declined. Now in the last few years we have seen some increases and we are appreciative of that. But let's not kid ourselves, the average American today is working longer hours for lower wages. It is not uncommon for that worker, whether it is in the State of Vermont or New York State or anyplace else, to have to work two or three jobs.

Mr. Greenspan, when you and I were a bit younger what used to be understood is that one breadwinner in a family, before the great economic boom, could go out and work forty hours a week and bring in enough income to take care of the family.

Well, you know what? In the State of Vermont and throughout the country in the midst of this great booming economy I do not see so many families where one breadwinner working forty hours a week is earning enough money to take care of the family. What I see are wives out working, as well as husbands. I see people working fifty or sixty hours a week. I see people working two jobs and three jobs.

So let me respectfully disagree with those people who say the economy is booming for all people. Now, is the economy booming for some people? Sure it is. The wealthiest people in this country have never had it so good. Even magazines like *U.S. News* talk about the rich getting richer.

We have today in the United States the largest gap between the rich and the poor of any Nation in the industrialized world. And let me not just talk about economics, let me talk about morality, if I might, something we don't always talk about in the Banking Committee. We have got to raise the question of whether it is appropriate in our Nation, under current economic policy, that we see a proliferation of millionaires and billionaires, and at the same time throughout this country the emergency food shelves are overflowing because low income people don't have enough food to eat. We continue to have—we don't talk about this issue—by far the highest rate of child poverty in the industrialized world.

Scandinavia and many of the European countries have basically wiped out childhood poverty, and yet 20 percent of the kids in this country live in poverty. Mr. LaFalce appropriately mentioned that close to 45 million Americans have zero health insurance and many more are underinsured. I think we have got to, as a committee, as

a Nation, start dealing with the reality of the very unequal distribution of income and wealth in this country.

Is it appropriate, my colleagues, that the wealthiest 1 percent of the population owns more wealth than the bottom 95 percent, or that one person owns more wealth than the bottom 40 percent of the families in this country?

I am also concerned about something that recently came to the public's eye, and maybe Mr. Greenspan can comment on this later. The International Labor Organization, the ILO, recently published a report, and working people in the United States now have the dubious distinction of working longer hours than the Japanese, and longer hours than the workers of any other industrialized nation.

In fact, we have a situation where the number of Americans working more than one job at a time increased 92 percent between 1973 and 1997. Americans who hold more than one job work an average of forty-eight hours a week, and 40 percent of them work fifty to sixty hours a week. Is this a booming economy? Why, if this economy is booming, why aren't people making more money and working fewer hours and having more time with their families?

So, Mr. Chairman, I would hope, and I echo Mr. LaFalce, that we have look at what is happening to the average person in this country, and the quality of life of that person. And I think the end result is that we need some fundamental changes in economic policy to make the economy work for the middle class and the working class, and not just for the millionaires and the billionaires.

Thank you, Mr. Chairman.

Chairman LEACH. I thank the distinguished gentleman.

Mr. Chairman, you may proceed with the understanding that there are philosophical divides in America on this as reflected in the committee. Please.

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

Mr. GREENSPAN. I must say, Mr. Chairman, that that is what makes our country great. That is the ability to have differences freely expressed and debated, and there are not that many countries in the world which can say that they have it at the level that we do. I think that is a great strength of this Nation.

Mr. Chairman and Members of the committee, I appreciate the opportunity to present the Federal Reserve's Semiannual Report on the Economy and Monetary Policy.

There is little evidence that the American economy, which grew more than 4 percent in 1999 and surged forward at an even faster pace in the second half of the year, is slowing appreciably. At the same time, inflation has remained largely contained. An increase in the overall rate of inflation in 1999 was mainly a result of higher energy prices. Importantly, unit labor costs actually declined in the second half of the year. Indeed, still-preliminary data indicate that total unit cost increases last year remained extraordinarily low, even as the business expansion approached a record nine years. Domestic operating profit margins, after sagging for eighteen months, apparently turned up again in the fourth quarter, and profit expectations for major corporations for the first quarter have

been undergoing upward revisions since the beginning of the year, scarcely an indication of imminent economic weakness.

Underlying this performance, unprecedented in my half-century of observing the American economy, is a continuing acceleration in productivity. Non-farm business output per work hour increased 3¼ percent during the past year—likely more than 4 percent when measured by non-farm business income. Security analysts' projections of long-term earnings, an indicator of expectations of company productivity, continued to be revised upward in January, extending a string of upward revisions that began in early 1995. One result of this remarkable economic performance has been a pronounced increase in living standards for the majority of Americans. Another has been a labor market that has provided job opportunities for large numbers of people previously struggling to get on the first rung of a ladder leading to training, skills, and permanent employment.

Yet those profoundly beneficial forces driving the American economy to competitive excellence are also engendering a set of imbalances that, unless contained, threaten our continuing prosperity. Accelerating productivity entails a matching acceleration in the potential output of goods and services and a corresponding rise in real incomes available to purchase the new output. The problem is that the pickup in productivity tends to create even greater increases in aggregate demand than in potential aggregate supply. This occurs principally because a rise in structural productivity growth has its counterpart in higher expectations for long-term corporate earnings. This, in turn, not only spurs business investment, but also increases stock prices and the market value of assets held by households, creating additional purchasing power for which no additional goods or services have yet been produced.

Historical evidence suggests that perhaps three to four cents out of every additional dollar of stock market wealth eventually is reflected in increased consumer purchases. The sharp rise in the amount of consumer outlays relative to disposable incomes in recent years and the corresponding fall in the savings rate, has been consistent with this so-called wealth effect on household purchases.

Outlays prompted by capital gains in excess of increases in income, as best we can judge, have added about 1 percentage point to annual growth of gross domestic purchases, on average, over the past five years. The additional growth in spending of recent years that has accompanied these wealth gains as well as other supporting influences on the economy appears to have been met in about equal measure from increased net imports and from goods and services produced by the net increase in newly hired workers over and above the normal growth of the work force, including a substantial net inflow of workers from abroad.

But these safety valves that have been supplying goods and services to meet the recent increments to purchasing power largely generated by capital gains cannot be expected to absorb an excess of demand over supply indefinitely. First, growing net imports and a widening current account deficit require ever larger portfolio and direct foreign investments in the United States, an outcome that cannot continue without limit.

Imbalances in the labor markets perhaps may have even more serious implications for inflation pressures. While the pool of officially unemployed and those otherwise willing to work may continue to shrink, as it has persistently over the past seven years, there is an effective limit to new hiring, unless immigration is uncapped. At some point in the continuous reduction in the number of available workers willing to take jobs, short of the repeal of the law of supply and demand, wage increases must rise above even impressive gains in productivity. This would intensify inflationary pressures or squeeze profit margins, with either outcome capable of bringing our growing prosperity to an end.

As would be expected, imbalances between demand and potential supply in markets for goods and services are being mirrored in the financial markets by an excess in the demand for funds. As a consequence, market interest rates are already moving in the direction of containing the excess of demand in financial markets and therefore in product markets as well. For example, BBB corporate bond rates adjusted for inflation expectations have risen by more than 1 percentage point during the past two years. However, to date, rising business earnings expectations and declining compensation for risk have more than offset the effects of this increase, propelling equity prices and the wealth effect higher. Should this process continue, however, with the assistance of a monetary policy vigilant against emerging macro-economic imbalances, real long-term rates will at some point be high enough to finally balance demand with supply at the economy's potential in both the financial and product markets. Other things equal, this condition will involve equity discount factors high enough to bring the rise in asset values into line with that of household incomes, thereby stemming the impetus to consumption relative to income that has come from rising wealth. This does not necessarily imply a decline in asset values, although that, of course, can happen at any time for any number of reasons, but rather that these values will increase no faster than household incomes.

With foreign economies strengthening and labor markets already tight, how the current wealth effect is finally contained will determine whether the extraordinary expansion that it has helped foster can slow to a sustainable pace, without destabilizing the economy in the process.

On a broader front, Mr. Chairman, there are few signs to date of slowing in the pace of innovation and the spread of our newer technologies that, as I have indicated in previous testimonies, have been at the root of our extraordinary productivity improvement. Indeed, some analysts conjecture that we still may be in the earlier stages of the rapid adoption of new technologies and not yet in sight of the stage when this wave of innovation will crest. With so few examples in our history, there is very little basis for determining the particular stage of development through which we are currently passing.

Without doubt, the synergies of the microprocessor, laser, fiberoptic glass, and satellite technologies have brought quantum advances in information availability. These advances, in turn, have dramatically decreased business operational uncertainties and risk premiums and, thereby, have engendered major cost reductions and

productivity advances. There seems little question that further major advances lie ahead. What is uncertain is the future pace of the application of these innovations, because it is this pace that governs the rate of change in productivity and economic potential.

Monetary policy, of course, did not produce the intellectual insights behind the technological advances that have been responsible for the recent phenomenal reshaping of our economic landscape. It has, however, been instrumental, we trust, in establishing a stable financial and economic environment with low inflation that is conducive to the investments that have exploited these innovative technologies.

Federal budget policy has also played a pivotal role. The emergence of surpluses in the unified budget and of the associated increase in Government saving over the past few years has been exceptionally important to the balance of the expansion, because the surpluses have been absorbing a portion of the potential excess of demand over sustainable supply associated partly with the wealth effect. Moreover, because the surpluses are augmenting the pool of domestic saving, they have held interest rates below the levels that otherwise would have been needed to achieve financial and economic balance during this period of exceptional economic growth. They have, in effect, helped to finance and sustain the productive private investment that has been key to capturing the benefits of the newer technologies that, in turn, have boosted the long-term growth potential of the U.S. economy.

The recent good news on the budget suggests that our longer-term prospects for continuing this beneficial process of recycling savings from the public to the private sectors have improved greatly in recent years. Nonetheless, budget outlays are expected to come under mounting pressure as the baby boom generation moves into retirement, a process that gets under way a decade from now. Maintaining the surpluses and using them to repay debt over coming years will continue to be an important way the Federal Government can encourage productivity-enhancing investment and rising standards of living. Thus, we cannot afford to be lulled into letting down our guard on budgetary matters.

Although the outlook is clouded by a number of uncertainties, the central tendencies of the projections of the Board members and Reserve Bank presidents imply continued good economic performance in the United States. Most of them expect economic growth to slow somewhat this year, easing into the 3½ to 3¾ percent area. The unemployment rate would remain in the neighborhood of 4 to 4½ percent. The rate of inflation for total personal consumption expenditures is expected to be 1¾ to 2 percent, at or a bit below the rate in 1999, which was elevated by rising energy prices.

Continued favorable developments in labor productivity are anticipated both to raise the economy's capacity to produce, and through its supporting effects on real incomes and asset values, to boost private domestic demand. When productivity-driven wealth increases were spurring demand a few years ago, the effects on resource utilization and inflation pressures were offset in part by the effects of weakening foreign economies and a rising foreign exchange value of the dollar, which depressed exports and encouraged imports. Last year, with a welcome recovery of foreign econo-

mies and with the leveling out of the dollar, these factors holding down demand and prices in the United States started to unwind. Strong growth in foreign economic activity is expected to continue this year, and other things equal, the effect of the previous appreciation of the dollar should wane, augmenting demand on U.S. resources and lessening one source of downward pressure on our prices.

As a consequence, the necessary alignment of the growth of aggregate demand with the growth of potential aggregate supply may well depend on restraint on domestic demand, which continues to be buoyed by the lagged effects of increases in stock market valuations. Accordingly, the appreciable increases in both nominal and real intermediate- and long-term interest rates over the last two years should act as a needed restraining influence in the period ahead.

However, to date, interest-sensitive spending has remained robust, and the Federal Open Market Committee will have to stay alert for signs that real interest rates have not yet risen enough to bring the growth of demand into line with that of potential supply, even should the acceleration of productivity continue.

Achieving that alignment seems more pressing today than it did earlier, before the effects of imbalances began to cumulate, lessening the depth of our various buffers against inflationary pressures. Labor markets, for example, have tightened in recent years as demand has persistently outstripped even accelerating potential supply. As I have noted previously, we cannot be sure in an environment with so little historical precedent what degree of labor market tautness could begin to push unit costs and prices up more rapidly. We know, however, that there is a limit, and we can be sure that the smaller the pool of people without jobs willing to take them, the closer we are to that limit. As the Federal Open Market Committee indicated after its last meeting, the risks still seem to be weighted on the side of building inflation pressures.

Mr. Chairman, as the American economy enters a new century as well as a new year, the time is opportune to reflect on the basic characteristics of our economic system that have brought about our success in recent years. Competitive and open markets, the rule of law, fiscal discipline, and a culture of enterprise and entrepreneurship should continue to undergird rapid innovation and enhance productivity that in turn should foster a sustained further rise in living standards. It would be imprudent, however, to presume that the business cycle has been purged from market economies so long as human expectations are subject to bouts of euphoria and disillusionment. We can only anticipate that we will readily take such diversions in stride and trust that beneficent fundamentals will provide the framework for continued economic progress well into the next millennium.

Thank you, Mr. Chairman. I hope and trust that my full remarks will be included for the record. I look forward to your questions.

[The prepared statement of Hon. Alan Greenspan can be found on page 91 in the appendix.]

Chairman LEACH. Thank you, Mr. Chairman. Without objection, your full remarks will be placed in the record. Without objection,

any opening statements of Members of the committee will be placed in the record as well.

The Chair would like to note that we have been given new equipment in terms of timing that the committee has never had before. Now we not only have precise measurements of the five minutes, but we also have a clock that indicates the amount of seconds and minutes Members go over. And given that this is a large committee, let me indicate to Members that this will be watched very carefully at this kind of setting.

Let me, if I could, begin with a question about the numerical aspects of labor in this sense, that economists in the 20th Century have varying views about the intermix of the importance of capital and labor. But in countries like Japan it looks like there could well be a sustaining weakness in the economy based on the fact that the country is getting quite elderly. In parts of Europe that is the case and America seems to be about to confront the problem in about a decade.

So the question I would ask you, and I don't know if the Federal Reserve has ever opined, does the Federal Reserve—or do you—have views on issues of a nature like the need or lack thereof for expanding visas for high tech employees and does that have an effect on the inflation rate? Does it have an effect on sustaining Social Security?

Mr. GREENSPAN. I am sorry, could you speak into the microphone a little closer. I was having trouble hearing the question.

Chairman LEACH. The question relates to whether the Federal Reserve would have a position on the appropriateness of increasing, for example, visas for high tech employees. And does that have an effect on the inflation rate, does it have an effect on whether or not over a period of time Social Security can be handled more readily.

Mr. GREENSPAN. It is fairly apparent that we are under fairly extreme pressure in high skilled labor markets, especially in the high tech areas. And I know that Congress has been pressured considerably by a number of high tech companies seeking to get increased visas and increased capacity to bring people into the country. We do not at the Fed have an official position on that. I would merely express, as I indicated in my prepared remarks, that it is fairly apparent that the people who are being brought in—and indeed the growth in our total labor force is approximately one-third immigrants, a little more than that actually in recent years—and there is no question that they contribute substantially to economic growth in this country.

Chairman LEACH. If I could turn to another subject, oil is on the minds of many people with the price of oil going above $30 a barrel. And you have indicated that in a percentage basis some of that was factored into the last half of last year's inflation index. Are you concerned that another oil shock could have deterring aspects on our economy?

Mr. GREENSPAN. Mr. Chairman, I have been through too many oil shocks to take them unseriously. Even if the evidence does fairly conclusively indicate that the proportion of both the American economy, and indeed the rest of the world that is dependent on oil for energy sources, is declining, and has declined very measurably.

The problem that I think we have is, even in its reduced status, it is a very important element within an industrial system. And if the price changes fairly rapidly, it has a major impact on the structure of our economy. We are all acutely aware that the inventory levels of oil, both crude and products, in the United States has been driven down very substantially—well below normal. Indeed, some are joking that we need to measure the fumes to get any measure of inventory at all these days.

And what we know about very low inventories of any commodity is that if an untoward pressure, an unexpected pressure of demand surges, there is no buffer. And the result is a very substantial spike in prices with fairly substantial negative consequences to the economy. I don't forecast that, I merely recognize that the inventory levels worldwide in the so-called commercial stocks, which are those stocks available as a buffer to unexpected demands, are exceptionally low. And even though we are moving into a period when the normal pressures begin to ease, we are starting from a very low base. And the simple answer to your question is yes, I am concerned about what is happening to oil prices.

Chairman LEACH. Thank you.

Mr. LaFalce.

Mr. LAFALCE. Thank you very much, Mr. Chairman.

First of all, just a few observations. I think I read between the lines, Dr. Greenspan, that you might be suggesting that we could use more immigration in the United States in order to buttress our work force and actually add to the body politic. That certainly is my position. I think that what made the Buffalo, New Yorks great at the turn of the century, and so forth, and so forth, were the huge influx of immigrants and I think that can certainly help us in the future too. Was I correct in reading that between the lines?

Mr. GREENSPAN. Well, I personally have always been of that persuasion, but I cannot speak for the Federal Open Market Committee in that regard, mainly because I have not discussed it with them in detail. I am obviously aware, as we all are, that this is a very difficult problem, a trade off against many other considerations, and I am not arguing that economics is the sole consideration here by far.

Mr. LAFALCE. Not at all. Let's talk about economics not being the sole consideration in your future testimony too. Let's talk about socioeconomic conditions and the relationship between the two—the Federal Reserve Board, the central bank of the United States, you are the central bank here, to a certain extent you are the central bank of the world. We don't want to lose sight of your primary mission in life, granted, but what are the present capacities of the Federal Reserve Board, what are the present practices of the Federal Reserve Board in data collection that could give us a better socioeconomic map or report card? I don't want you to reinvent the wheel of what you are doing, but if I were to sit down and say, look it, if I wanted you to give testimony on the following, could you? On educational status, on the amount of debt per household per person, on the amount of debt that college kids are assuming, because they must have a college education today, and what its effects are on their ability to have children, their ability to buy homes, on their ability to live where they want to live, perhaps

where they grew up with their families as opposed to seek new jobs. What is this changing economic dynamic doing to pensions, because of the portability of jobs and perhaps the non-portability? What about health care, because so many jobs today are not permanent jobs, but temporary jobs or part time jobs, and so forth. If I were to sit down with you or your economists, could you tell me what data you collect that could, if Congress requested or if Members requested, give us a better indication of the social condition of America? Do we have not just one-worker families, but two or three or four or five, because they want to or because they have to, and so forth?

Mr. GREENSPAN. Mr. LaFalce, it is a very difficult issue you are raising. It turns out that, because of the fairly extensive state of knowledge about all sorts of issues by the staff of the Federal Reserve, because many or most come out of an academic environment specializing in a number of issues related to economics, but which spill over into other considerations, we do have access to a vast amount of information. But it is from secondary sources. In other words, we know in some detail what the Census Bureau collects, which is extraordinary in detail for many, many different types of issues for which they survey the American population.

Mr. LAFALCE. Do you ever gather this information together in a way that could give me a report card on the issues that I am most concerned about?

Mr. GREENSPAN. The answer to your question is we probably could, but we are not the best suited to do that. What we are good at doing in this regard is to handle, in an effective manner I should think, other people's data. We do have our own Survey of Consumer Finances in which we do collect data every several years.

Mr. LAFALCE. Do you know of any other entity, especially within the Federal Government, that either does this or is better suited to do it?

Mr. GREENSPAN. The Council of Economic Advisors, for example, is also exceptionally well staffed with people who, frankly, are in a much more recent context, having come out of the universities. And the types of issues that you are raising, while important, cannot be the focus of monetary policy. Nonetheless, we are all citizens, we are all very much aware of what numbers mean to various people and they represent various things, so I would say that I hate to impose a burden on the Council of Economic Advisors, but unfortunately, they are very well qualified.

Mr. LAFALCE. Let me suggest this. I would like to get together with some representative from the Federal Reserve Board and maybe the Chairman of the Council of Economic Advisors and try to devise some type of a report card. I would like your help in that.

Mr. GREENSPAN. I think you will find——

Mr. LAFALCE. I think Congress needs it. I think the American public need it. And I have yet to hear it presented to the Congress or to the American people.

Mr. GREENSPAN. I would suggest, Mr. LaFalce, that you have people on your staff contact us or others and we will try to find a way to inform you on what is available, what could be done and what can't be done.

Mr. LAFALCE. That would be great.

Mr. GREENSPAN. Because there is a lot in the latter category as well.

Mr. LAFALCE. That would be great. Thank you.

Chairman LEACH. Thank you.

And the Chair would like to give a resoundingly high mark to the gentlelady from New Jersey and her report card. But please go forth.

Mrs. ROUKEMA. Thank you very much, Mr. Chairman.

I am not going to go into that question of immigration cap. But I do want to discuss what I see as your report here today in the context of some policy questions that we are going to have to be facing as we approach the budget, tax policy and the question of paying down the debt. Mr. Chairman, of course you are always profound and substantive in your analysis, and I would like to take you on to another step.

As you remember last year, my question to you, and it was in the context of the tax debate at that time, was the relationship between tax cuts, paying down the debt, and the economic growth and inflation rates.

Now, I had planned this question prior to reading this morning's *New York Times* article, but I am going to reference it and direct my question in the context of statements made in this article.

It is prompted by Treasury Secretary Summers' proposal for paying off the debt by 2013.

The article is entitled "Shrinking Treasury Debt Creates an Uncertain World." It goes right to the essence of what you are talking about today in terms of its relationship to inflation. It may or may not be true.

Let me just quote from the article and ask you for your response and how you would advise the Congress in terms of both debt and its relationship to the tax policies and balancing the budget and the spending policies.

The reference is to last month, when Treasury outlined an aggressive plan to reduce the debt and to buy back debt already in investors' hands. At that time, this article says, "the market went haywire."

It then goes on to say, "More important, economists and market strategists are saying that the Treasury's plan and the ensuing rush to long-term bonds are throwing sand into the gears that the Fed uses to keep the economy perking while protecting against inflation."

Mr. Chairman, I would like your reaction to that statement. How can we put that paying down the debt and effective monetary policy in balance? In addition, how would you advise us as we in the Congress face the budget this year, as well as another tax bill, and what has been a stated priority of paying down the debt?

Could you respond, please?

Mr. GREENSPAN. Indeed, I think that it is extraordinarily important to maintain surpluses and to pay down the debt in a significant manner.

The argument that the process itself would undermine Federal Reserve policy is not correct. The reason it is not correct is that while it is certainly the case that when suggestions were made of a significant reduction in long-term maturities outstanding for

Treasury issues, that they took on scarcity value. The prices went up very substantially and their interest rates fell dramatically, which would seem to be counter to the issue of maintaining an adequate degree of liquidity and liquidity positioning in the marketplace.

If that had simultaneously created a major decline in long-term interest rates or intermediate interest rates in the private sector, then the argument would have been valid, but that indeed did not happen.

It is the case that some very long private issues declined in yield, but not anywhere near as much as the Treasury yield. But, the vast proportion of private lending showed very little change in the level of interest rates, and it is that market which we are interacting with in an endeavor to get the appropriate degree of liquidity in the system to maintain economic balance.

So it is certainly the case that there have been large gyrations and volatility in the Treasury bond market, especially for longer issues, but, as far as we can judge, it has had very little effect on policies of the Federal Reserve, and it is more important to understand that the only way that you can have these surpluses over the long run is to reduce the Federal debt to the public. So it is not as though you can have a surplus and not have debt reduction.

The only alternative would be for the Federal Government to create assets or to purchase a lot of private assets. I don't think that is a good alternative.

Mrs. ROUKEMA. Thank you, Mr. Chairman. I know my time is up, but I am going to ask the Chairman in writing if he could then project how far into the future and to what point we pay down the debt over a time period. I appreciate your advice and counsel in that aspect of it.

Mr. GREENSPAN. I would be glad to.

[Chairman Greenspan subsequently provided the following response for the record:

> Although the Federal Reserve does not make longer-term projections on Federal debt outstanding and the time frame over which the projected paydown would occur, the Congressional Budget Office released on January 26 an updated set of such projections, based on three alternative scenarios. The projections appear in the Budget and Economic Outlook: Fiscal Years 2001-2010, pages 19-21. A copy of the relevant pages is attached.

[The pages referred to can be found on page 56 in the appendix.]

Chairman LEACH. Thank you, Mrs. Roukema.

Mr. Kanjorski.

Mr. KANJORSKI. Thank you, Mr. Chairman.

Mr. Greenspan, you are probably not aware of it, but I am the new Chairman of the Greenspan Memorial in Washington, DC. We are thinking that this upstanding economy certainly should have your fingerprint and perhaps your silhouette somewhere in Washington.

I congratulate you, because as you may recall, maybe a decade ago, you and I were not quite certain that your activities in mone-

tary policy were going to afford us the opportunity of this great growth. In 1991 or 1992, you assured me that your policies would create an economy that would be second to none.

I think that has happened. With the budget agreement of 1993, I think both fiscal and monetary policies working together have really accounted for a good part of this great economy, plus, of course, the private sector.

Mr. Greenspan, last year you told us to run the surplus, and I thought your advice was excellent. Last week I was one of only ten Members of Congress to oppose any tax cuts. I intend to pursue that position until we establish a plan for Government spending levels, paying down the national debt, and securing Medicare and Social Security's long-term solvency, because I very fundamentally believe that we should not get to the dessert before we have had the entree.

Do you still hold your positions in terms of what we do with reduction of taxes and the surplus? And I assume from your answer to the last colleague of mine that it is the same as last year; is that correct?

Mr. GREENSPAN. Yes, indeed, Congressman, I still have the same position that I reiterated here a year ago and elsewhere since then, and I covered in some detail some of the data and some of the issues in my prepared remarks, even though I did not use them in my oral text.

Essentially, the issue gets down to how secure we are in these surplus forecasts. As I tried to point out in my prepared remarks, there are very substantial uncertainties in both directions.

It is quite conceivable that we may end up with even larger surpluses than we are currently projecting. But also because we are quite uncertain of the reasons why the ratio of tax receipts to taxable income in the individuals sector of the economy has been going up so significantly, even adjusting for what we know about capital gains and bracket creep and the like, because there is a large element in those increased revenues which we cannot explain until we see detailed tax reports on what has happened, which will take several years in the so-called statistics of income tabulation tables, we will not know how secure the forecasts are.

My argument basically is to be patient, allow the surpluses to run as far as we can, to let debt as a consequence decline, and then, when we have a firmer view of what proportion of the surpluses, if any, are permanent, we then can create an aggregate fund, so to speak, which would tell us the extent to which long-term commitments could be made employing those monies.

Paying down the debt is not forever disposing of the surplus. It is merely putting it aside, because you can always reborrow it for whatever purposes you would want. My own judgment, as I believe I indicated last year, and I repeat, is that delaying employing those surpluses causes no harm of which I am aware, and awaiting the clarification of what parts of the surpluses are secure for longer-term calculations, I think will pay substantial dividends.

Mr. KANJORSKI. Mr. Greenspan, moving completely off that subject and to another subject, I am disturbed about high oil prices and the impact they can have in drawing funds out of the marketplace to be used for investment. I am also concerned about unfairly

distributing that burden on lower-income people and truckers who are independent contractors who cannot make the adjustment.

For the third time in the last twenty-five years we have not as a Congress addressed this idea of whether oil and gasoline should be the basic product of our energy supply. As we move into the hybrid corn market and the new technologies of the 21st Century, do you think the President or the Federal Reserve or both in conjunction should convene some discussion of the fuel cell evolution? Should we look to the oil industry as the basic industry to feed that energy source? Or should we be looking at hydrogen production, since that takes us into a realm where we would control the commodity, as opposed to foreign control of the commodity?

Mr. GREENSPAN. Congressman, I have been through innumerable synthetic fuels discussions, programs, and endeavors to counter previous oil shocks.

I think our experience suggests that we ought to leave it to the marketplace to make these judgments. I think it is doing it at this stage. That is, as I indicated before, the weight of oil in our economy is falling fairly significantly.

My concern is not the longer term. That is pretty much locked into the type of technological changes that are going on. I do have short-term concerns, because of the extraordinary low level of inventory at the moment.

But looking at the longer-term question, I think we are going to find that that issue will resolve itself fairly readily, and it is not evident to me that a specific Government program will foster that. We have spent very considerable resources over the decades in alternate means of technologies, and some have worked and some have not worked. But the thing that has worked most effectively is the fact that energy is being substantially—or I should say, oil—is being significantly priced out of the market. That is, at the current costs of crude oil in the recent ranges, it is still an expensive commodity; and as a consequence, energy sources are moving in the other direction, or, more importantly, are being so altered that the amount of energy we need per unit of output is going down very dramatically.

So I am not particularly concerned about the longer term, but I do share a number of the concerns of your Members here about the immediate problem.

Mr. KANJORSKI. Thank you.

Chairman LEACH. Thank you, Mr. Kanjorski.

Mr. Bachus.

Mr. BACHUS. Thank you, Mr. Chairman.

Mr. Greenspan, Mr. Chairman, I mentioned in my brief opening statement margin lending. We have just had a February 7 report by the Federal Reserve which shows that bank lending to security brokers and dealers was unusually strong in the final two months of 1999.

There has been—although margin lending I think amounts to only 1.5 percent of the total market value, in some technology stocks, momentum stocks, it is much, much higher. Apparently it has increased about one-third or more in the last six months of 1999.

My question is this—and let me just throw in one other thing. There is also some evidence that it is not individual investors as much as it is some hedge funds and highly leveraged professional traders. But the last two or three real market downturns have been very much hedge funds and some of the professional traders. So are you following this issue closely?

I know you have some concerns, but I know you said, or at least your last statement on this was you don't intend to take any action.

Let me ask you, is this because—I know if you took action, it might actually cause a correction and aggravate the problem. But could you just comment on the general issue?

Mr. GREENSPAN. First of all, I want to point out that the fairly significant rise in margin lending, as large as it was, as you point out, is still a small part of market values.

Most stocks are bought with strictly cash or employing other sources of funding. It is not basically coming out of the banking system. A good deal of the recent moves in bank lending probably are Y2K related, in part increasing liquidity, and a goodly part of the lending that occurs is clearly for Government securities or other forms of non-stock market-related issues.

The problem that I have had with the issue of moving on margins is not a concern of what it would do to the marketplace. It is the evidence which suggests that it has very little impact on the price structure of the market or anything else. It has one characteristic, however. It basically has its impact, its incidence, on smaller investors, because they have no alternative means of financing. Large investors have all forms of financing, and margin is a very small part of their financing.

It is true that there probably are some professional investors who are using margin debt for purposes of various different types of hedging or what have you. My impression is that it is probably very small and not an issue that one should be concerned about.

Second, I view margins per se as essentially prudential, meaning that they are set or should be set by brokers or dealers or whoever is involved in lending to customers in order to protect the solvency of the broker-dealership. And as a consequence of that, even though we at the Federal Reserve stipulate initial margins, and by implication, perhaps maintenance margins, most of the individual brokerage firms have margins well in excess of that. So it is not a particular problem in that regard.

Having said all of that, I must tell you that the sharp rise in margin debt in November, December, and January, has not gone without awareness on the part of the Federal Reserve, because it may be telling us things that we need to know about the overall structure of the marketplace. We obviously are in constant discussion with a number of our colleagues in the Securities and Exchange Commission and elsewhere to better understand what is going on.

So, as I have said before, and I will just really repeat, we are aware of something that appears to be somewhat different from what we have seen. The issue that engaged us wasn't so much the rise in margin debt. It was the rise in margin lending relative to the value of assets. Even though it is from an extremely low base, it has indeed accelerated. And that type of spike or type of statis-

tical aberration invariably captures the Federal Reserve's attention, one way or the other.

Mr. BACHUS. Thank you.

Mr. Chairman, could I ask one follow-up question on what Chairwoman Roukema said?

Chairman LEACH. Let me say this: we are going to go by this rule, and I am going to make a caveat to it, that no further questions can be asked beyond the five-minute, but if you want to ask a quick question for a response in writing, the Chair will accept that.

Mr. BACHUS. Let me do that.

Mrs. Roukema talked about, with the Treasury bond, if we pay down the debt, we eliminate a lot of the Treasury bonds. I will submit this in writing. My question is, What type of instrument do you then use for your operations?

I will submit it in writing. Thank you.

[Chairman Greenspan's reply to Hon. Spencer Bachus can be found on page 105 in the apppendix.]

Chairman LEACH. Thank you.

Mr. Sanders.

Mr. SANDERS. Thank you, Mr. Chairman.

Mr. Greenspan, I have four questions that I would appreciate you responding to.

Thirty percent of American workers earn poverty or near poverty wages. In fact, low-wage workers in the United States are the lowest paid low-wage workers in the industrialized world. The minimum wage, as you know, is now $5.15 an hour. If it had kept pace with inflation since 1968, it would now be $7.33 an hour.

Many of us believe it is important to protect low-wage workers and raise the minimum wage so nobody in this country who works forty hours a week lives in poverty.

Can you make a recommendation to Congress? In your judgment, should the minimum wage be raised?

Mr. GREENSPAN. I do not. The reason I do not, strangely enough, Congressman, starts off with the same premise that you did, namely, that I, too, am chagrined about the extent of the dispersion of incomes in this country and as I have said many times publicly, you cannot have an effective society unless you have the assent of all parties in it that the system is fair.

My concern about the minimum wage is it does not do what you suggest it does.

Mr. SANDERS. I would respectfully suggest the evidence——

Mr. GREENSPAN. I understand that. I will give you my reasons.

Mr. SANDERS. I have three other questions. You don't surprise me by telling me that you are against the minimum wage. I apologize. I don't have a whole lot of time.

As you know, and I think agree, the United States has the most unfair distribution of wealth and income in the industrialized world. The richest 1 percent own 40 percent of our wealth, which is more than the wealth owned by the bottom 95 percent of all Americans. Meanwhile, 20 percent of our children live in poverty. We have millions of people who are experiencing hunger. We have some homelessness. People cannot afford health insurance and cannot afford to send their kids to college.

Could you briefly tell us what policies you would recommend to Congress to do away with or to ease this disparity of wealth that we are currently experiencing?

Mr. GREENSPAN. Let me start, Congressman, by saying what I would not suggest. What I would not suggest is a means which would somehow obliterate the wealth of those who are in the upper-income groups or upper-asset groups, because there is no evidence to suggest at all that if you were to take the top 20, 50, 100, 500 people and essentially eliminate all the wealth that they had, that that would improve the standard of living of anybody. So merely obliterating wealth or merely confiscating wealth strikes me as a wholly inappropriate policy if the purpose is to achieve higher standards of living.

Mr. SANDERS. Nobody is talking about obliterating or confiscating wealth. We are talking about fairness and the appropriateness of one person having $180 billion in wealth while children go hungry.

My next question, I noted you played an active role as Chairman of the Federal Reserve in orchestrating a bailout of the $5 billion hedge fund known as Long-Term Capital. You came before our committee, and what you had to say was very interesting.

Are you concerned about such mergers as Travelers Insurance and Citicorp when they form a company with assets of almost $700 billion, 140 times as large as Long-Term Capital? What happens if they fail? Who in God's name is going to bail them out? Are you concerned about that?

Mr. GREENSPAN. First of all, let me just say that we don't consider that bringing in private investors into the Long-Term Capital Management problem was a bail-out. It was their money, their interest, and all we did was to offer them an office space to come around and——

Mr. SANDERS. You were very concerned about the implications of failure.

Mr. GREENSPAN. I certainly was.

Mr. SANDERS. If you were concerned about that failure, what about the failure of a company——

Mr. GREENSPAN. We would be concerned about the failure of any large institution.

But let me suggest further, we do not believe that in the event that it turns out that a substantial institution fails that they should be bailed out. In effect, what we may conclude for purposes of stabilizing the system is that an orderly liquidation of an institution is far superior to letting it crash with all of the implications that would occur.

That would mean, of course, that all equity owners are out; it would mean that perhaps some debt debenture owners would also have losses. Our notion would not be the question of perceiving that an institution is "too big to fail" and that therefore it gets Government support.

Mr. SANDERS. I apologize. Let me ask you my last question. I don't mean to be rude.

Chairman LEACH. Excuse me, Mr. Sanders. This last question will have to be answered in writing.

Mr. SANDERS. Yes, Mr. Chairman.

In your own Federal Reserve Report on the Survey of Consumer Finances, if you look on page 5—the statistics on before-tax mean family income—it shows that for all families earning less than $100,000 a year, the mean family income went down between 1995 and 1998. That is on page 5. Meanwhile, the incomes of people earning over $100,000 a year went up.

Given that reality, I don't know how you keep talking about a booming economy if only the people on the top are doing quite so well.

Mr. GREENSPAN. I hate to trash some of the data that we collect, but that is a sample mean, and we have far superior data for the aggregate of the mean.

Mr. SANDERS. You are criticizing your own data?

Mr. GREENSPAN. No. The problem, basically, is that these are sample statistics. The purpose of this is the distribution, which it is. I agree with your conclusion about the distribution. I just wanted to point out that the actual real median family income between 1995 and 1998 actually went up.

Mr. SANDERS. For everybody?

Mr. GREENSPAN. For everybody.

Mr. SANDERS. But not for people with $100,000 a year or less?

Mr. GREENSPAN. All I would say to you is I think the data are accurate in the relevant sense and the conclusion that you draw I don't find objection to.

Mr. SANDERS. OK. I am using your statistics, sir.

[Chairman Greenspan's response to Hon. Bernard Sanders can be found on page 111 in the appendix.]

Chairman LEACH. The gentleman's time has expired.

Mr. Castle.

Mr. CASTLE. Chairman Greenspan, I come from Delaware. We are not exactly the Northeast. We are a mid-Atlantic State, but we are also very dependent upon oil for heating and gasoline and whatever. So following up on what Mr. Leach, Mr. Kanjorski, and others have asked about oil prices, I would be interested in developing a little beyond what you have already stated. I have heard clearly what you have stated here in your testimony about leaving it to the marketplace. I don't disagree with that.

I would like to ask two questions along the lines of short-term and long-term. First, when you are talking about leaving it to the marketplace, I thought you were talking more long-term than you were short-term. Maybe I am wrong about that, and it will take care of itself. When you say you are concerned short-term, I don't know if you mean you are concerned enough to deal with one of the potential solutions which is out there or one which you might suggest. And I'm not saying we should. I am just curious as to what your opinions are, dealing with the strategic petroleum reserves, releasing those?

The President yesterday released more of the low-income heating assistance yesterday and suggested that Congress should approve even more within that area, I guess in endeavoring to help the low-income people and to some degree to keep prices down.

I am interested in your comments with respect to the short-term, if there is anything we should do. Let me ask the other part of the question. We can just do it together. That is longer term.

I and you and many others have seen the problems in the 1970's and 1990's caused by sharp rises in oil prices. We were more dependent. You have indicated we are not as dependent now. I don't know what your data is. We are clearly, by anybody's standards, less dependent on oil now than we were then. In the longer term we are going to be less dependent, and technology will help us take care of that. But we are still pretty dependent.

I am not sure that I agree with the policies that the United States has. Unfortunately, I don't have an alternative to that that I can articulate to you, but I don't know if the Strategic Petroleum Reserve is really a good mechanism to deal with this.

We deal with OPEC. OPEC is an oligopoly, I guess; but it is made up of a series of countries with which we have foreign relations, and in some instances we have military relations. In some cases we have excellent relations, and in some cases less excellent relations.

I don't know if our trade representatives, our Secretaries of State, our Presidents, regardless of political party in this particular circumstance, are doing the right thing or not with respect to the long-term oil policy, because we keep coming back to this crisis.

Frankly, it has at least been a major factor in driving two recessions. I don't think it necessarily would this time, but it could; and it sure as heck is creating a lot of havoc for constituents of ours and yours and a lot of people in this country with respect to the higher prices.

I am interested in that, too. In addition to the short-term question, I am interested in the long-term question, too, are our policies really correct, or should we be doing something more aggressively to prevent this from becoming a crisis, even in this time of perhaps declining dependency upon oil?

Mr. GREENSPAN. Well, Congressman, as I said before, I believe that the long-term trends are going to gradually take care of this problem better than anything we are able to do.

Mr. CASTLE. So our policies are satisfactory and we should not——

Mr. GREENSPAN. I will try to respond.

First of all, let me say that I have always viewed the Strategic Petroleum Reserve as a reserve in the event of a serious crisis. By that, I mean a shutdown in Middle East oil or something of that nature, because of a catastrophe of some form.

I think it would be a mistake to try to move market prices by small additions or subtractions from the Strategic Petroleum Reserve. We are dealing with an overall world market which is huge relative to our Strategic Petroleum Reserve. It is foolishness to believe that we could have any significant impact short of a very major liquidation in the short term of that reserve, and I don't think anybody is arguing for that.

I think the way you phrase the problem is correct; there is more to this than economics. It is a diplomatic-security question which I think has engaged everybody.

I want to say parenthetically that while I don't deny that there are numbers of oil producers around the world who view the short-term price as the only thing they look at, and the higher, the better, most of them do not. I think they recognize that their longer-

term interest, meaning the maximum value of the reserves they have in the ground, is fostered by a price which is generally moderate from the point of view of consumers.

So I don't think that there is a significant difference of opinion in a number of these crucial areas. I do agree with you: it is an oligopoly. Oligopolies have the capacity to restrict supply and affect price. They do that. OPEC does it. That is its purpose.

I'm not terribly concerned over the longer term, nor do I think there are major changes in American policy in this regard that really are required.

Mr. CASTLE. Thank you, Chairman Greenspan.

Chairman LEACH. Thank you, Mr. Castle.

Mr. Bentsen.

Mr. BENTSEN. Thank you, Mr. Chairman.

Chairman Greenspan, I must say, from my perspective, I guess I am a little less startled about oil prices today than I was a year ago when they were around $10 or $12 a barrel, and $30 a barrel at least in my neck of the woods is close to a fair price.

I would say from our perspective, we are more concerned about long-term than the short-term, because the short-term looks pretty good, but the long-term I think we see fluctuation in price. I think at least people in the oil business that I talk to see this more as a predatory or structural issue with respect to OPEC and some of the other large producers that eventually will break and we will go back to perhaps a glut.

It is interesting, in a discussion I had with someone from the Energy Department recently, that their bigger concern is the natural gas market, and that the decline in EMP and natural gas could lead to a lack of stock in the medium term that could affect prices, particularly as we expand the utilization.

I do want to talk about a couple of other things. I will just read off the questions, and if you could get to them, that would be great.

I also would just say from your testimony, in what I read, it would appear to me that the Fed remains vigilant toward its interest rate outlook, and that at least from my perspective, it would appear that you all are perhaps not finished with tightening.

I would like you to comment on your colleague in economics, Stephen Roach's, comments. He has written a number of articles recently where he is saying that perhaps we are misinterpreting productivity numbers. Mr. LaFalce referred to them.

Second of all, if you could comment, there has been a discussion about the Treasury market. If in fact we do pay down public debt by 2013, what do you view as will be the store of value to replace the Treasury for pricing purposes in the credit markets, and do you perceive any problem with that?

And then with respect to Government spending—and this may be more of a comment—you state that we should pay down debt before anything else, and I agree with you on that. You then state in the absence of that, if Congress cannot control itself, that then we should pursue tax cuts rather than any spending increases. You state that the reason for that, one of the large reasons for that, is that it is easier to back away from tax cut policy if our surplus protections turn out to be wrong than open-ended spending commitments.

As you know, we are having a major debate in Congress over what the budget baseline should be going forward and how we should project the surplus and how that fits into the tax-and-spending policies.

First of all, I would say this: I think if you look at Congress' experience from 1980 to 1993, when we saw a quadrupling of the national debt, a lot of that was related to tax policy implemented in 1981 that took Congress over a decade to get a handle on the debt that was occurring.

Now, there were spending decisions made as well, but in the context of that, if you look at discretionary spending, both defense and non-defense discretionary spending, it has gone down dramatically as a component of the Federal budget and as a percentage of the gross domestic product. In particular, nondiscretionary spending has declined quite dramatically over that period of time.

I guess my question is, while I know that you, from your philosophical standpoint, think that most Government spending is a drag on the economy, even though we have seen the economy perform quite well over these last nine years, I am not sure how your testimony adds up, given our experience with the 1980's and trying to dig out of this hole, which it did take many measures to do so in reversing some tax policy, and the fact that where you have basic functions of Government, be they defense and non-defense on the discretionary side, where we have really seen some declines in that area, that we should take this into consideration when we are looking to determine what our baseline is?

Mr. GREENSPAN. Congressman, first of all, I would reach over a much longer period, going back into the 1960's and even the 1950's. If you take the full context of the period—and I might add, the most recent year or two, especially the handling of the budget last year—what that suggests to me is that the bias is far more the problem on expenditures than on taxes. I would conclude that while my first priority, as indicated before, is to get the debt down and allow the surplus to run, if somebody tells me that that is politically infeasible, I think we are far better off lowering taxes than allowing new programs with long extended potential projections to be put into place.

With respect to the first question you raise relevant to the issue of our productivity data being distorted by the fact that a lot of people work overtime and they don't get recorded, I wish to say that if that is true, that is, if there are hours which are uncounted, so to speak, and therefore output per hour is being overestimated as a consequence, you would also get a far lower level of compensation per hour, and indeed, if there is any significant change in the productivity data, there must be exactly the same change in average hourly compensation.

And we have independent estimates of that which suggest that there is very little range in which the real hourly compensation could have changed, and as a consequence of that, I find the notion of a real bias as a result of underestimating hours most unlikely.

On the Treasury issue question, I would merely say that monetary policy can be run in a number of different ways, and I don't perceive this as an imminent problem in any respect whatever.

Clearly, if we had to, we could invest in private securities or quasi-private securities.

Mr. BENTSEN. That was not my question. My time is up, but if you could answer for the record, what I am more interested in is today most private debt and other types of public debt is priced off of intermediate and long-term Treasury debt.

Now, in the event that there is no public Treasury debt, what replaces that in the marketplace for pricing stability in that area? It is not a question related to——

Mr. GREENSPAN. There will emerge benchmark private issues which will be created by the marketplace and fulfilled substantially by individuals or companies who will find, for example, the ability to create triple A-plus private issues. And if there is a market deficiency in that regard, it will become profitable for numbers of people in the financial industry to supply it. I have no question whatever that that will occur if we significantly reduce the total debt to the public.

Mr. BENTSEN. Thank you.

Chairman LEACH. Mr. Royce.

Mr. ROYCE. Thank you.

Mr. Chairman, actually, marginal rate reduction, the rated tax reduction as a result of that, the total revenues doubled between 1980 and 1990. As I recall, it was Congress increasing spending by 2.3 times that brought about the increase in the deficits. The spending was going up faster than the revenue increase. I think that would argue for your point.

But I want to ask you about one of your arguments about the movement from non-market economies to market economies, this evolution of free enterprise around the world and open market access that you argue is leading to keeping inflation in check by creating competitive cost pressures and also that you argue is leading to greater productivity by a more effective application of assets to more productive uses.

We have a decision to make here in the Congress in terms of certain trade bills: the Africa trade bill, the Caribbean Basin Initiative, whether or not we have China move into the World Trade Organization.

My question is, What would be the effect of these initiatives on economic growth in the United States, in your opinion, and what would be the effect on net job gains or losses in the United States if we go down this road of continued trade liberalization?

Mr. GREENSPAN. Trade liberalization in my judgment, Congressman, has been a significant net positive for the American economy and the American standard of living, for all the reasons you suggest.

I have never argued that it is a job-creating program. I don't think that is what the purpose of trade is. The purpose of trade is to create a competitive environment which improves productivity and induces lower costs of goods to consumers. There should be no significant employment effect one way or the other, or at least that is what most academic evaluations have concluded.

The effect on real growth and on standards of living around the world is unquestionably very significant, and I would argue very strenuously that the more that we in this country can do to be the

leader in enhancing free trade, as we have been since the end of World War II, the better it will be for the United States and all of our trading partners.

Mr. ROYCE. Let me ask you two other questions: What Government policy is the biggest impediment to continued economic expansion, in your view? And second, as you know, productivity growth is an important element of the GDP forecast that Congress gets from the Administration and from the Congressional Budget Office.

These forecasts suggest that the rate of productivity growth, according to them, is expected to fall from 3 percent per year to 1½ to 2 percent per year as we move out toward 2005.

Based on what you know, is this a reasonable assumption on the part of the Administration and the Congressional Budget Office, or are they being unduly pessimistic here?

You have spoken of accelerating rates of growth, and this would be counterintuitive. What they are giving us here is a forecast that is very pessimistic only compared to that.

Mr. GREENSPAN. With respect to your last question, as I say in my prepared remarks, I raise the possibility that there is a much wider range of potential productivity gains than is implicit in the average forecasts, because the average forecasts all look the same.

The trouble is that each one of them has a wide potential range; but all they publish is the average, so what we see is that each forecast looks very close to the other. So I think we have to be prepared for the fact that we may get a fairly broader range.

Having said that, I don't think, from the point of view of an average forecast, that either the CBO or OMB forecasts are particularly inappropriate.

Mr. ROYCE. They might have been prudent conservatism?

Mr. GREENSPAN. They might. Or, they might also prove accurate or too high. That is a long projection period, and there is a substantial uncertainty there. But more important is not so much the forecast of productivity, but the issue I raised before, namely, translating the behavior of economy into revenues. That is where the real issue is.

With respect to the issue of impediments to the continued expansion, I am sure there are a lot of them, but you know something? I am inclined to answer the question in a different context in that what we have observed in the last fifteen or twenty years, is a major move toward free market economies in the world and especially in the United States. There has been a major move toward deregulation, and we have unbound a lot of Government impediments. This has been true irrespective of which party has been in power.

So rather than look at the issue of what remains to be done, I think it is important for us to recognize that what has been done is really very impressive. The fact that we have heard very little about it is that it has been noncontroversial. The trouble with noncontroversial issues, as important as they are, is that you never hear them discussed.

Mr. ROYCE. Thank you, Mr. Chairman.

Thank you, Chairman.

Chairman LEACH. Thank you, Mr. Royce.

Mr. Sherman.

Mr. SHERMAN. Thank you, Mr. Chairman.

Mr. Chairman, I would ask—and you may have done this beforehand—that we may have five days to submit questions for the record and ask the Chairman and his staff to answer those for the record.

Chairman LEACH. Without objection, that request is granted.

Mr. SHERMAN. Thank you.

Mr. Chairman, in the limited amount of time, I don't have a chance to ask the questions orally that I would like to, and in the written questions I will ask about the oil price rise and whether that is a reason to tighten monetary policy, because it is inflationary, or to loosen that because the oil price rise is such a drag on economic expansion. I will ask about the trade deficit.

I will ask whether a deficit hawk like Chairman Greenspan would advocate, even though he does not want us to spend money, perhaps spending $100 million or so more on gathering economic statistics and getting those out sooner.

It is ridiculous in this Information Age that we don't know why we have a revenue increase and won't know for several more years, and certainly his advocacy for his advocacy on spending more and getting statistics out quicker would be useful.

I will also ask about whether we should take into account in our monetary policy the fact that lower interest rates in the United States could lead to stability in Russia, whose nuclear weapons may pose a greater threat to us than all of the economics that we are talking about here today.

I agree with Chairman Greenspan, that we are just on the beginning of a wave of increase in private technology. The issues before us are, first, how we can avoid screwing that up, but second, how we allocate those benefits.

One economic standard that I would propose is the Joe Hill standard, that is, whether a person with a high school education, perhaps one or two years beyond that, can support a family in forty hours of work. By that standard, we may not be as well off today as we were thirty-five years ago.

We have with us here today elements of the huge and expanding business news industry that is aimed as those who have capital. Those reports have seeped into our consciousness. They always go something like this: wages are up, that is bad; unemployment is down, that is bad; immigration will help keep labor costs down, so immigration is good.

It is not surprising that media aimed at those with capital focuses on those conclusions. What is of concern is that that kind of thinking seeps into the pores of decisionmakers, both the Fed and in Congress.

My constituents tend to think that the whole purpose of the study of economics is to raise wages. That is what my constituents rely on. In fact, they are bemused that when they do tune into economic discussions, higher labor costs are thought to be a bad thing.

Mr. Chairman, you commented on the fact that it is possible in the future that labor costs will rise more quickly than productivity, and this would squeeze profits; and you implied that, therefore, it

would be a bad thing. Yet in your testimony you talk about the wealth effect.

I would say that if profits were to go down and wages were to go up, if anything, you would have a decline in demand, because the wealth effect would not apply to working people the way it does now, a slight increase in the profits of a corporation leading to a huge increase in the stock of that corporation, leading to the owners of that corporation being able to spend more.

The question that I would like you to answer is what fiscal policy, what congressional policy, what immigration policy could we adopt if the whole purpose of our policy were to have higher wages for working families?

Mr. GREENSPAN. First of all, I look forward to answering the previous questions in writing.

Our goal shouldn't be higher wages; it should be higher real wages, that is, wages adjusted for purchasing power.

Mr. SHERMAN. That is my question.

Mr. GREENSPAN. Our specific goal, as we have enunciated before this committee on many occasions, is maximum sustainable economic growth. That means maximum sustainable real wages. So our concern is not that wages go up; our concern is if wages go up more than productivity it will create an inflationary imbalance which undercuts the economy and the ability of real wages to grow.

So, while I certainly agree with you, much of the rhetoric which is employed in a number of discussions is a little loose on this question, because clearly it would be a mistake to view the issue of lower wages per se as being of value. It cannot be the case if our goal is maximum sustainable economic growth.

So, I would suggest to you that an appropriate monetary policy which endeavors to contain inflation and thereby maximize economic growth is wholly consistent with the maximum sustainable real wage growth, as well.

Mr. SHERMAN. I may have misstated my question. I realize we have to go on. But perhaps for the record you will be able to explain not only how we can adopt policies that give us the maximum real sustainable economic growth, but how we allocate the fruits of that growth to working families, as opposed to seeing what appears to be the bulk of those fruits go to those with capital and with stock ownership.

Mr. GREENSPAN. Shall I answer that in written form?

Mr. SHERMAN. Unless the Chairman——

Chairman LEACH. It would be preferable.

Mr. GREENSPAN. I will be glad to.

[Chairman Greenspan's written response to the question from Hon. Brad Sherman can be found on page 112 in the appendix.]

Chairman LEACH. Dr. Paul.

Dr. PAUL. Thank you, Mr. Chairman.

Good morning, Mr. Greenspan. I understand that you did not take my friendly advice last fall. I thought maybe you should look for other employment, but I see you have kept your job.

I am pleased to see you back, because at least you remember the days of sound money, and you have some respect for it. Even though you do describe it as nostalgia, you do remember the days of sound money. So I am pleased to have you here.

Of course, my concern for your welfare is that you might have to withstand some pummeling this coming year or two when the correction comes, because of all the inflation that we have undergone here in the last several years.

But I, too, like another Member of this committee, believe there is some unfairness in the system, that some benefit and others suffer. Of course, his solutions would be a lot different than mine, but I think a characteristic of paper money, of fiat money, is that some benefit and others lose.

A good example of this is how Wall Street benefits. Certainly Wall Street is doing very well. Just the other day, I had one of my shrimpers in my district call me and say he is tying up his boat. His oil prices have more than doubled and he cannot afford it, so for now he will have to close down shop. So he suffers more than the person on Wall Street. So it is an unfair system.

This unfairness is not unusual. This characteristic is well-known, that when you destroy and debase a currency, some people will suffer more than others. We have concentrated here a lot today on prices. You talk a lot about the price of labor. Yet, that is not the inflation, according to sound money economics.

The concern the sound money economist has is for the supply of money. If you increase the supply of money, you have inflation. Just because you are able to maintain a price level of a certain level, because of technology or for some other reason, this should not be reassurance, because we still can have our mal-investment, our excessive debt and borrowing. It might contribute even to the margin debt and these various things.

So I think we should concentrate, especially since we are dealing with monetary policy, more on monetary policy and what we are doing with the money.

It was suggested here that maybe you are running a policy that is too tight. Well, I would have to take exception to that, because it has been far from tight. I think that we have had tremendous growth in money. The last three months of last year might be historic highs for the increase of Federal Reserve credit. In the last three months, the Federal Reserve credit was increasing at a rate of 74 percent at an annual rate.

It is true, a lot of that has been withdrawn already, but this credit that was created at that time also influenced M3, and M3 during that period of time grew significantly, not quite as fast as the credit itself, but M3 was rising at a 17 percent annual rate.

Now, since that time, a lot of the credit has been withdrawn, but I have not seen any significant decrease in M3. I wanted to refer to this chart that the Federal Reserve prepared on M3 for the past three years. It sets the targets. For three years, you have never been once in the target range.

If I set my targets and performed like that as a physician, my patient would die. This would be big trouble in medicine, but here it does not seem to bother anybody. And if you extrapolate and look at the targets set in 1997 and carry that set of targets all the way out, you only missed M3 by $690 billion, just a small amount of extra money that came into circulation. But I think it is harmful. I know Wall Street likes it and the economy likes it when the bubble is getting bigger, but my concern is what is going to happen

when this bubble bursts? I think it will, unless you can reassure me.

But the one specific question I have is will M3 shrink? Is that a goal of yours, to shrink M3, or is it only to withdraw some of that credit that you injected through the noncrisis of Y2K?

Mr. GREENSPAN. Let me suggest to you that the monetary aggregates as we measure them are getting increasingly complex and difficult to integrate into a set of forecasts.

The problem we have is not that money is unimportant, but how we define it. By definition, all prices are indeed the ratio of exchange of a good for money. And what we seek is what that is. Our problem is, we used M1 at one point as the proxy for money, and it turned out to be very difficult as an indicator of any financial state. We then went to M2 and had a similar problem. We have never done it with M3 per se, because it largely reflects the extent of the expansion of the banking industry, and when, in effect, banks expand, in and of itself it doesn't tell you terribly much about what the real money is.

So our problem is not that we do not believe in sound money; we do. We very much believe that if you have a debased currency that you will have a debased economy. The difficulty is in defining what part of our liquidity structure is truly money. We have had trouble ferreting out proxies for that for a number of years. And the standard we employ is whether it gives us a good forward indicator of the direction of finance and the economy. Regrettably none of those that we have been able to develop, including MZM, have done that. That does not mean that we think that money is irrelevant; it means that we think that our measures of money have been inadequate and as a consequence of that we, as I have mentioned previously, have downgraded the use of the monetary aggregates for monetary policy purposes until we are able to find a more stable proxy for what we believe is the underlying money in the economy.

Dr. PAUL. So it is hard to manage something you can't define.

Mr. GREENSPAN. It is not possible to manage something you cannot define.

Chairman LEACH. Is the gentleman finished?

Dr. PAUL. Yes.

Chairman LEACH. Thank you very much, Dr. Paul.

Mr. Watt.

Mr. WATT. Thank you, Mr. Chairman.

Chairman Greenspan, it is good to see you again. I always have to reiterate my constant state of confusion about the matters that you testify about probably a lot more, because I just don't understand the language that by and large you are communicating in and because of any problem that you are having with it is just my own problem. But that is not unusual.

You cautioned, Chairman Greenspan, in the last bit of your oral presentation about bouts of euphoria and disillusionment. I confess that to some extent I found your presentation, the first part, pretty disillusioning and the second part, at a minimum, optimistic, if not euphoric. So it may be that what is happening with the human expectations taking a cue from that kind of dichotomy that you seem to be projecting. The question I wanted to ask, though, and I am sure you are always reluctant to comment on the stock market, but

when you talk about the wealth effect, I take it that the primary aspect of that is the buying of and bidding up of stock. And I am wondering whether the approximately 9 to 10 percent correction that has taken place in the market during the first month or so of this year in any way reassures you or leads you to believe that maybe that wealth effect may be beginning to diminish some.

Mr. GREENSPAN. Congressman, I think you are quite correct that I have been and will continue to be reluctant to answer questions of that sort. Let me just say——

Mr. WATT. Does that mean that I am not going to get an answer to that? Go ahead.

Mr. GREENSPAN. I guess that is right. Let me add, however, that the wealth effect is a much broader issue than strictly stocks. For example, it is certainly the case that stock prices move around fairly quickly. But a not insignificant part of the wealth effect is coming out of housing. We estimated roughly about a sixth of it. And the reason is that the average turnover of a home is about nine years. So even though annual percentage changes may not be all that large, with the increase in values over a nine-year period, you begin to pick up some fairly substantial capital gains, so that upon the sale of the house there is a fairly large capital gain that comes out of the transaction which is unencumbered by debt to the seller after the down payment on the next home, which means there is a substantial amount of liquidity which we estimate is about a sixth of the total wealth effect.

Mr. WATT. What are the other components to the wealth effect? You have housing, you have stock values, what are the other factors?

Mr. GREENSPAN. If fact, what we actually measure the wealth effect by is the ratio of household wealth to household income. And so we don't get a wealth effect if the aggregate assets of the household go up about the same amount as income. It is only over and above that do we measure the so-called wealth effect. It is a definition that we employ which gives us the ability to separate the effects of income on consumption and wealth change.

Mr. WATT. You talked about housing being one-sixth of that wealth effect has occurred. What are some of the other components of it?

Mr. GREENSPAN. The main other component is equities. But there are debt instruments which could be part of it. Obviously any instrument whose market value doesn't change is not particularly relevant. For example, a savings deposit, whose value doesn't change, a short term bond whose value changes very, very little, is in the net assets of households, but it rarely has any impact that we consider a wealth effect.

Mr. WATT. I appreciate your not answering the other part of my question. I am sure the stock market appreciates it even more. They probably don't want you to answer that question either.

Chairman LEACH. Thank you, Mr. Watt.

Mr. WATT. I yield back.

Chairman LEACH. Mr. Hill.

Mr. HILL. Thank you, Mr. Chairman.

Chairman Greenspan, thank you very much for being here. In reading your testimony and the report that you gave to Congress

basically I would summarize it by saying that it is your intention to continue to raise interest rates until the aggregate demand is more in line with the output of the economy, is that a correct summation?

Mr. GREENSPAN. I tried to phrase exactly what we meant in the words that are in the testimony. And I choose not to go any further.

Mr. HILL. Part of aggregate demand is Government spending, is that right?

Mr. GREENSPAN. That is correct.

Mr. HILL. So an important part of the effort to get aggregate demand back in line with output is to continue the constraints on the rate of growth of Government spending; you agree with that?

Mr. GREENSPAN. Yes.

Mr. HILL. And an earlier question was asked you of whether or not your position has changed with regard to what ought to be done with surpluses. I believe you stated no, that position hadn't changed. I just want to clarify for the record what that position is because it is in your testimony. And in it you said that "I recognize that growing budget surpluses may be politically infeasible to defend. If this proves to be the case, as I have testified previously, the likelihood of maintaining a still satisfactory overall budget position over the long run is greater, I believe, if surpluses are used to lower tax rates rather than to embark on new spending programs."

It continues to be your position that the choice is between increasing spending or reducing taxes with surpluses. You believe lowering taxes would be better for the economy.

Mr. GREENSPAN. I do, Congressman.

Mr. HILL. And there is a difference between projected surpluses and I think you have testified that we shouldn't be doing anything with surpluses we don't know we are going to realize, which are protected.

Mr. GREENSPAN. We should not make long-term commitments to surpluses we don't feel secure about.

Mr. HILL. But on the alternative there are surpluses, that this year's budget we know fairly well that we are going to have a $20-some billion surplus in the fiscal year we are in now and I think reasonably accurately can project that we are going do have a significant surplus in the next fiscal year, the budget we are working on now. Would you say it is appropriate that we can make decisions with regard to that, the three decisions being pay down the debt, reduce taxes or additional spending?

Mr. GREENSPAN. I would say it applies both to the short term and the long term.

Mr. HILL. One last question and that is with respect to the situation in Japan, there are some indications that Japan has experienced its second quarter of negative economic growth. That is an economic term, negative economic growth. Should that concern us with regard to how the economy in Japan might impact aggregate demand in the United States?

Mr. GREENSPAN. Well, it is certainly the case that early indications of fourth quarter GDP in Japan are negative, at least according to the people who produce the data. And they are usually a

good source for that sort of thing. I believe they publish their figure on March 10th or some time earlier in March, so the official figure is not yet out. There are some conflicting data, however, about the extent of weakness in the Japanese economy in the sense that their GDP to be sure is negative, but their industrial production is not, at least not as negative. As a result of this, it is not terribly clear how one should characterize the period they are going through. It is a sluggish period. It is one in which they are struggling to work their way through the huge overhang that has occurred in the economy following the collapse of the real estate and equity bubbles of 1990, which has worked through the financial system and created very considerable havoc, because the collateral that was used in the banking system has gone down well over 50 percent and that has created a huge backing up of non-performing loans and the credit system has been in serious trouble. They are gradually working out of that, and working very hard at it I might add. And there is evidence to suggest that they are coming out of this. I would not characterize what has occurred at this stage as falling back into recession, but there is no question that they are struggling.

Mr. HILL. Thank you, Mr. Chairman.

Chairman LEACH. Thank you, Mr. Hill.

Mr. Moore.

Mr. MOORE. Chairman Greenspan, last year, July 22 of last year, you testified to this committee, "If I was asked what our first priority should be, it would be to let the surplus run and reduce the Federal debt. If I was asked what my second priority is, it would be to cut taxes rather than expand spending." And essentially you have reiterated that today, maybe in a little different words. And this is not a direct quote, but I think you said something to the effect, "be patient, let the surpluses run and let surplus run and let debt decline."

Is that essentially correct, Mr. Chairman?

Mr. GREENSPAN. Yes, Congressman.

Mr. MOORE. Shortly after your testimony in July of last year, Chairman Greenspan, Congress passed a $792 billion tax cut which was subsequently vetoed by President Clinton. This year, just last week in fact, the House passed about a $180 billion marriage penalty tax relief bill. And it appears, and this is not clear yet, with we don't have a budget resolution, but it appears that maybe the intention of the Majority party is to bring out one tax cut bill at a time for passage, and I don't know what their intention is as to a total.

The concern that I have, and I guess what I want to ask you a question about is assuming that—and there have been proposals by some figures on the national level and some Presidential contenders that there be tax cuts totaling between $700 billion and a trillion dollars. My question, Chairman Greenspan, is that consistent with your recommendation to Congress or do you still believe that our first priority should be to let the surplus run?

Mr. GREENSPAN. I still believe that the first priority should be to let the surplus run. I don't want to comment on any particular proposals of anybody, and I would just let the statement that I have made stand, if I may.

Mr. MOORE. You have heard, at least I have heard projections, the projections for real surplus may range somewhere between $750 billion on the conservative side and I think that figure as I believe, as I understand it, at least is if Congress adheres to the spending caps which we don't seem to be able to do, and if it is not adjusted for inflation, the $750 billion surplus figure over the next ten years, then I have heard other projections as high as $2 trillion. I am sure you have heard the same projections.

Do you have a crystal ball or have you ventured any guesstimate as to what an accurate figure might be as far as a ten-year projection, sir?

Mr. GREENSPAN. The answer is no, I do not. And I tried to address that very specifically in my prepared remarks, trying to point out why it is so difficult to do so. And the major reason is not so much the economic forecast, it is that we do not understand precisely why the revenues that we have had in the last several years are as high as they are, or very specifically why the ratio of individual tax revenues relative to taxable individual incomes moved up as high as they have, even with pretty good estimates what the capital gains tax would be and bracket creep would be.

So there is a substantial excess of revenue, the underlying cause of which we do not yet fully understand. And we don't know whether it will continue, whatever it is, or if it is a surprise, could just reverse, go in the other direction. And that is a large enough number to really impact very significantly on these various estimates. And that is the reason why I think you have to be cautious about the employment of long-term commitments of budget surpluses when you really do not yet have any real feel as to how solid they are.

Mr. MOORE. Would that uncertainty then cause you some concern about—and not commenting on any particular tax cut proposal—but tax cuts in the range of $750 billion to $1 trillion over the next ten years?

Mr. GREENSPAN. I don't want to get involved in the specific discussion of that nature if you don't mind.

Mr. MOORE. Thank you, Mr. Chairman.

Chairman LEACH. Thank you, Mr. Moore.

Mr. Ryan.

Mr. RYAN OF WISCONSIN. Thank you, Mr. Chairman.

Thank you for being here. Good to see you again, Mr. Chairman. Actually I would like to follow up on my colleague from Kansas. The difference in the surplus estimates between the Administration and Congress is not over the revenues; it is over the spending. The Administration will admit that they are estimating essentially a $2 trillion non-Social Security surplus. The difference is that they are also estimating that we are going to increase spending by $1.3 trillion.

Now given the fact that we have heard you consistently repeat that the first priority ought to be debt reduction, second priority ought to be, if that is politically infeasible, tax reduction, and the last priority ought to be new expenditures, given the fact that we can't operate in that policy vacuum that we have to operate here in Congress, we have already accomplished a very historic agreement, I believe, with the Administration, which is to dedicate all

of the Social Security surplus, the $2 trillion toward debt reduction. I think that is something that is a great accomplishment of this Congress and this Administration.

On the non-Social Security surplus, the Administration just gave us a budget ten days ago, which calls for increasing spending by $1.3 trillion, specifically $800 billion increase in discretionary spending and a $500 billion increase in mandatory spending partly to pay for the creation of 84 new Federal spending programs. That is what the President's budget does. So if you are to juxtapose a $1.3 trillion spending increase over the next ten years, as the President's budget proposes, versus say a $700- to $800-billion tax cut, I think under your standard the tax cut may be preferable.

But I would like to ask you a question about which kind of tax cuts. Because clearly not all tax reductions are created equal. I would like to bring your attention to a chart over here. If we look at the capital gains tax rate, that we have seen, and this is a fairly simple crude chart that we had the Budget Committee put together, the capital gains tax rate over the last number of years, we had a 28 percent tax rate, that was reduced in the 1997 tax bill to 20 percent. But it is also interesting to note that under the most recent IRS income data that capital gains tax revenues actually increased, whereas in 1996 we had $66 billion coming in from capital gains tax receipts; 1997, $79 billion coming in from capital gains tax receipts; then after the rate was actually cut from 28 to 20 percent for the top rate, we actually had an increase in capital gains tax revenues to $91 billion in 1998 to a $101 billion in 1999, based on these most recent statistics that we have from the IRS.

So given the fact that that tax reduction actually led to an increase in revenues and an increase in economic activity, wouldn't it be prudent to follow this kind of policy for the future, rather than a new spending increase like the Administration is calling for, and more importantly, wouldn't these kinds of tax reductions fuel more surpluses which will give us more money to actually produce more debt reduction?

So I would like if you could comment on that, and given the fact that the alternative here in Washington outside of the policy vacuum is the President's budget which is to increase spending from the non-Social Security surplus to the tune of $1.3 trillion.

Mr. GREENSPAN. Let me just say first that there is no question that if you lower capital gains tax rates, as you do, then you will unleash a good deal of potential capital gains sales or sales of capital assets and create revenues.

A goodly part of the increased revenues obviously has got to be the rise in asset values that has occurred as a consequence of all of that.

There is the notion that certain cuts in taxes can engender income increases and tax revenues which make them engender more revenues than existed before. In other words, you would cut taxes and get higher revenues, but obviously there has got to be a limit to that and indeed we don't know where we are in the curve, because if you continue to cut taxes, revenues cannot continue to increase, because at one point you are going to get to a zero tax rate, and you won't get any revenues. So the issue cannot be a general statement.

The broad notion, however, that there are certain tax cuts which engender revenues and economic activity better than others I would certainly agree with. And as I say in my prepared remarks, I am a strong supporter of cuts in marginal tax rates as a vehicle for increasing economic activity. I think, however, in today's context that that is better served by reducing the debt and getting a lower cost of capital to create the same process. But I would readily acknowledge that on other occasions tax cuts would be superior to reducing the debt. I don't believe that is the case now, but I do think it is clearly feasible at other times.

Mr. RYAN OF WISCONSIN. I am interested that you mentioned the curve. I don't know if you are mentioning the Laffer curve or not. We may be in the prohibitive range right now. But given the fact that rates surged after the last capital gains tax cut and the capital gains tax cut before then, do you believe that we are still in a prohibitive range on the tax curve subject to capital gains so that if we do continue to cut capital gains taxes such as last year's tax bill did by 2 percentage points or simply index the capital gains tax, that we would actually extract more revenues?

Mr. GREENSPAN. I don't know the answer to that. And one of the reasons I don't know the answer is we don't actually have data for 1999 yet. Those are estimates.

Mr. RYAN OF WISCONSIN. These are preliminary.

Mr. GREENSPAN. Not even preliminary, they are rough estimates which could be significantly off. So I don't think we have the evidence of this at this particular stage.

Mr. RYAN OF WISCONSIN. If I could ask one quick question, if we have a choice here in Congress, one choice, increase spending by $1.3 trillion out of a non-Social Security surplus as the President is proposing, or to add more money to debt reduction, say $300 billion in debt reduction and let's say just for sake of argument a trillion dollar tax cut, would you choose more debt reduction and tax reduction versus the President's call to increase spending by $1.3 trillion?

Mr. GREENSPAN. I would find a way not to answer the question.

Mr. RYAN OF WISCONSIN. Thank you very much. That is all I have, Mr. Chairman.

Chairman LEACH. Thank you, Mr. Ryan.

Mr. Inslee.

Mr. INSLEE. Thank you, Mr. Chairman.

I would like to share some good news along with yours, which we appreciate hearing from you, and that is that I really think the American people are with you on this issue of giving debt reduction the highest priority. I just want to report to you I think we had a real good test of this last fall when there was a proposal by some in Congress that in fact would have ripped the heart out of our ability to maintain those surpluses to reduce the Federal deficit. I just want to report to you that that proposal which would have prevented us from paying down the debt was rejected in the East and the Midwest and the Rockies and the West Coast and certainly in my neighborhood, my neck of the woods, because people really do get this on Main Street. They understand that this has the virtue of reducing our interest obligations, and it is not something lost on them.

So, I just want to share that good news with you that people get this argument that you are prevailing and I hope that we will follow in that regard.

I would like you, if you can, you made an interesting comment in your written testimony, I don't know if you talked about it this morning, about really maybe in a sense questioning whether we really have a unified surplus today if you look at it from an accrual basis. And I wonder if you could just describe to us what you mean by that, how should we look at this surplus issue from an accrual basis?

Mr. GREENSPAN. I didn't cover this issue in my oral remarks, but I have in my written remarks. The agreement that has been fairly quick and fairly impressive by the Congress and the Administration to take the Social Security surplus off-budget, I think is a remarkably wise judgment. We may bicker on the margins of a lot of different programs, whether it is tax or spending or what have you, but the judgment to agree on taking that off the budget was really an extraordinary decision which is going to have very positive consequences, in my judgment, for years to come.

So, I would just basically say that we are making progress in this area.

Mr. INSLEE. We appreciate that. Let me allude if I can, switching gears a bit, one of my constituents has been referred to several times in the testimony today, and that is the wealthiest person on earth who happens to live in my district, who got there due to incredible creativity and now is becoming the most prolific philanthropist in world history, which we also appreciate. But there is another side of some constituents I represent. I go to one side of a lake in my district and I find some incredibly economically effective people, I go to another side of the lake in my district and I recently visited a food bank where I met a whole bunch of folks who were working hard, had full time plus jobs, and were coming into the food bank to get food literally to feed their children.

And I think they would want me to ask this question of you, is there something, something structurally going on where some working people, people who are in fact hard working, dedicated, get up in the morning, go to work kind of folks are not realizing the productivity gains that in fact are being realized? Is there something going on structurally in our economy where we are not allowing these working people to get the fruits of their productivity increases? Because I think by all measure we are finding some extraordinary increases in productivity, largely because of the technology that is being developed, much of it in my district.

But I guess the question I have for you, is there something going on that we need to be concerned about that we are not allowing those working people to capture some of those benefits associated with their productivity increases? If so, what are they? Tell me your genus on how we move ahead on that front.

Mr. GREENSPAN. I think one of the problems that we have is that as you move towards, first, an increasingly concept-based economy, as we have for generations, where an increasing proportion of the GDP is more value-created through ideas rather than physical brawn or materials or physical things. That has been the long-term trend. Second, superimposed on that has been the really dramatic

synergies of these numbers of technologies which have been so extraordinary in the last decade, I guess even longer than that, but not much.

The consequence of this, until very recently—the last two or three years— has been an opening up or dispersion of incomes in the country which reflects the degree of education. The so-called college premium in the market has opened up and the premium of high school versus those with less than high school education has opened up. And it is part of the problem. It strikes me that the solution is education, to find means by which you can increase the education capacity of individuals so that they can share in the fruits of what is an increasingly conceptual high tech economy. That doesn't mean that everyone has to be a computer programmer or a nuclear physicist or whatever, but you have to be in a position where you are part of that overall structure and everyone can be. And that is, I think, the challenge: that we have to create an educational system which enables people coming out of high school or college to move into productive activities in those particular areas.

If we can't do that, I don't think we are going to solve the problem which you put on the table.

Mr. INSLEE. Thank you, Mr. Chairman. I will relate your answer to my eighth grader when he works on algebra next week.

Mr. GREENSPAN. It will be helpful.

Chairman LEACH. Mr. Ose.

Mr. OSE. Thank you, Mr. Chairman.

Mr. Greenspan, I note on page 10 of your written testimony your comments about factoring in the unified budget on an accrual basis as it relates to the revenues flowing in. And if we did that accounting for the obligation, the future obligations of Social Security, we would be arguably in a deficit as opposed to a surplus. We in Congress have spent a lot of time talking about paying down the publicly-held debt. And I notice in your other locations in your written testimony a difference, very subtle, in some of your comments about debt versus public debt.

Now, we have engaged in a long discussion here about paying down the publicly-held debt, those of us on this side of the testimony table. Your comments are inescapable in terms of actually retiring debt, rather than substituting one creditor for another. And I would appreciate any comments you might have as it relates to substituting in this discussion about paying down the publicly-held debt, substituting, for instance, members of the general public as the creditor in lieu of say the Social Security Trust Fund. I don't happen to believe to the extent that we are using Social Security Trust Funds to buy T bills and T notes that we are having an appreciable long term impact on the overall claim on the U.S. Treasury. I understand the short term consequence in the financial markets from a crown-out effect, but I would be curious about your remarks in this regard otherwise.

Mr. GREENSPAN. I think that what we have to be aware of is we have differing types of accounting systems which serve different purposes. We have moved from the unified budget to an on-budget system by effectively agreeing that the Social Security Trust Fund is off-budget. On-budget is a good way toward a full accrual system which is the norm in the private sector. The appropriate accounting

for an accrual system would have receipts generally as they are, outlays would be accrued outlays, where when the credit was earned in Social Security, it gets recorded at that time. It shows up not in the debt to the public or even in the public debt which is a different issue, it shows up as a contingent liability. So that if you look at the Government's balance sheet in this accrual sense, you end up with debt to the public and contingent liabilities.

To the extent that we have moved from a unified budget to on-budget, we have moved toward the accrual system. The reason it is important is that if you go beyond the year 2030, when we are still building up the Social Security Trust Fund, depending on which assumptions you make, certainly when we get out to mid-century we are getting into a huge deficit on the unified basis. And what an accrual system would do is fully recognize the very much longer term so that commitments would be made and funded for an accrual system at the time they are made in precisely the same manner as a private insurance system does.

So, the point that I raised within my testimony was merely not to argue that we should go to an accrual system right now—I don't think we can—but we should recognize that when we are talking about paying off the debt, we are talking about paying off the debt to the public, but contingent liabilities are still rising. And in one sense unless the Congress repudiates those obligations—which we have never done and nobody believes we will ever do, which is one of the reasons we have the credit in this country that we have—we will have a very substantial amount of liability as the decades go on.

So, I do think it is important to keep in context that these types of budgets have different uses. From an economist's point of view, the unified budget is what we find the most useful, because it tells us exactly what is happening to the cash flow of the Government. And as you know, if you run a unified surplus, which is solely from the Social Security Trust Fund, we will be reducing the debt by that amount. And that is very important to the economic structure of the economy. On-budget is a more useful budget for purposes of forward planning for Government revenues. The accrual system is to carry the on-budget still further to completion.

Mr. OSE. I want to thank the Chairman for that very clear explanation. I got it, and I do appreciate it. Because it is a point that is lost amongst the many of us on this side of the aisle, or this side of the table, excuse me. Thank you, Mr. Chairman.

Chairman LEACH. Well, thank you, Mr. Ose.

Mrs. Biggert.

Mrs. BIGGERT. Thank you, Mr. Chairman.

Mr. Greenspan, on page 2 of your remarks you talk about the sharp rise in the amount of consumer outlays relative to disposable income and the corresponding fall in consumer savings. And I think the latest reports show that personal savings rate continues to decline and it has fallen from 8.7 percent in 1992 to 2.4 last year. And I would like just to know what effect this can have on our economy. Will the worsening of the savings rate sidetrack our current economic expansion at all? And I wonder if you could comment on what we need to do to spur increased saving rates. And is there something within the Government such as tax incentives

that would help to do this. I remember back in the Reagan days we had the All Savers Accounts that seemed to be very popular that people put money in and didn't have to pay the interest rates on them, that certainly savings accounts they do now.

Mr. GREENSPAN. Congresswoman, the savings rate has gone down basically, because individuals perceive that they have purchasing power beyond their disposable incomes, which is capital gains, unrealized capital gains very specifically against which they borrow. Because they perceive it as real wealth, it may go down some, but it is not going to go to zero. So they borrow against it or capitalize it in one form or another.

What that means statistically is the consumption that they make out of those capital gains is included in the aggregate consumption figure we have and lowers our measure of savings out of income.

We have to be a little careful here, because if you ask the average person in that context have you lowered your savings rate, they will say no. We are in fact spending the same proportion of our resources that we have always spent. And we have saved some. So the problem is this tricky accounting issue of how to account for the amount of consumption which doesn't relate to income. In part it is also an issue of the fact that in disposable income, there are capital gains taxes. As you know, capital gains are not included in income, but the taxes are. And as a consequence disposable personal income from which you subtract consumption to get savings is reduced still further.

And so I am not concerned about the level of published savings. It is in large part being offset by a marked increase in Government savings to finance the capital investments that we need. I do think, however, as we get down the road, as we get beyond this big bulge in wealth and we get back to more normal rates in a lot of these relationships, that we ought to relook at the issues that you raised; namely, to maintain incentives to save. And I think that we should do that now, but we have to recognize that the results are very significantly being distorted by these very large changes in wealth that we have seen in recent years.

Mrs. BIGGERT. Are you concerned about, for example, the high tech companies that have come into existence and their rapid growth at the time and then those capital gains could disappear very shortly if that——

Mr. GREENSPAN. Oh, I assume there are going to be a lot of ups and downs in some of these companies. There is one very famous one which everyone now likes to cite. It was a brochure for an IPO that came out in which the company said, "We don't produce anything, we don't do anything," and they sold their stock.

Mrs. BIGGERT. Thank you very much.

Chairman LEACH. It wasn't called the Federal Reserve.

Mr. Toomey.

Mr. TOOMEY. Thank you, Mr. Chairman.

And thank you, Chairman Greenspan, for your patience this morning. I have to ask to indulge your patience for one last question about the fiscal year 2000 budget surplus, but I can assure you that it will indeed be the final question, if only because I am the last person to be asking questions this morning. And I will try to be brief.

As we discussed earlier, there is a reasonably high degree of certainty now that for fiscal year 2000, anyway, we have a budget surplus that will be fairly substantial considering last year's spending levels. I am very concerned that the forces for ever-greater spending in this town are well underway in an attempt to spend much, if not all, of this $23 billion. I think it would be a terrible precedent to do that with this surplus. I frankly think we already spent too much money last year in the appropriation bills that were signed into law. And I am very concerned that by adding now to fiscal year 2000 spending, we decrease future surpluses because spending tends to grow, always as a function of the previous year's level.

I have a bill that is designed to increase the likelihood that as much of the fiscal year 2000 surplus as possible will go toward either paying down public debt, lowering taxes, or in the event of a miracle, structural reform of Social Security or Medicare, which I doubt will take effect in fiscal year 2000. I am not asking you to comment on my bill obviously, but is it fair to say that these are in your judgment the right goals and that all of this surplus should be used for some combination of those purposes?

Mr. GREENSPAN. Well, as I said previously, and just to repeat, I do think there are very great benefits by allowing the surpluses to run and the consequent reduction in debt occur. I also think we have to be a little careful about this question of what we mean by Social Security reform. When we used to talk about that years ago, we always presumed, at least when I was Chairman of the Social Security Commission at that time, which was almost twenty years ago, it is remarkable, but there was a very strong notion that Social Security should be a social insurance system, which meant that benefits should be paid only out of Social Security taxes. I am not saying that there is not an argument at this particular point about whether in fact in these particular times general revenues should be put in the system to finance benefits as distinct from taxes.

I would think, however, that there would be more discussion on that issue. It is remarkably absent today from the debate as to whether in fact we should restrict benefits only to tax receipts or to general revenues, meaning shall taxes from non-Social Security be applied to fund Social Security benefits.

I repeat, I am not saying that it is clear to me which argument is good or bad, but I do think before the issue of the social insurance nature of Social Security is abandoned, which is what happens if you bring general revenues onto the scene, that there at least should be some objective discussion of the fact that it is being done.

Mr. TOOMEY. I agree with that. I think that discussion will take place before any such reform is likely to get enough support to actually pass. Personally I think it could very well be justified as a transformation, as a means of providing the financing for a transformation of the Social Security system to one that would be more geared toward a personal savings system.

I did have one other question I was wondering if you would comment on. And it seems to me fiscal conservatives, and I consider myself one, have often argued against excessive Government spending using sort of derivative arguments. In the 1980's we talked about not being able to afford more spending because of our

debt and our deficits, more recently we have made the point we need to restrain spending so as not to spend Social Security monies on other Government programs, both of which I agree with, but both of which miss the central point of whether or not we are at the appropriate level of Government spending itself. Now, whether Government spending can be virtually unlimited, perhaps, if it is not funded with deficits or from other programs.

And I was wondering if you would comment on the question of in order to reach the goal that you described earlier of maximum sustainable real growth, do you believe we are more likely to achieve that level if a greater share of our GDP is in the private sector and therefore less in the Government at all levels than the current level; in other words, should we be moving in the direction of lesser Government spending as a percentage of our economy?

Mr. GREENSPAN. I have always argued that particular point. There are economists who don't agree with that. In other words, it is very difficult analytically to make judgments as to the optimum level of Government spending with respect to economic growth as an example. My own view is not based on definitive econometrical analysis, because the data just don't enable you to infer that, but on watching the way an economy functions. How individual companies function and how Government works and how Federal funds are dispersed and what happens to them, I have concluded, personally, that the less the share of economy that goes to Government, the better. But what I do want to emphasize is that that is not a view which is universally held. And indeed I am not certain that I would be representative of the center of the economics profession by any means. But it is probably the most important broad fundamental issue which the Congress and the Administration has to deal with: that is, what is the size of Government, what is the optimum size to fulfill the role of Government and to maximize economic growth. And in that regard, I think that, as I indicated before, relevant to the issue of marked trends toward deregulation of markets, there has been in this country a very significant shift, irrespective of party, toward the view that the private sector is the primary force creating economic substance and growth.

Mr. TOOMEY. Time for a quick question?

Chairman LEACH. Yes, sir.

Mr. TOOMEY. And while it may be very difficult to quantify that precisely through an economic model, I think there is tremendous empirical evidence if you compare the economic performances of relatively free economies to the economic performances of relatively unfree or less-free economies, that evidence seems to be overwhelmingly in favor.

Mr. GREENSPAN. I think that is generally accepted in the economics profession.

Mr. TOOMEY. Thank you.

Chairman LEACH. Well, thank you. Our final questioner has just presented his question. I would just like to end with a kind of a large query in terms of the role of monetary policy, and that is we are in a period of economic growth, we are in a period which "steady as you go" seems to be a mantra that we all appreciate. And yet, is there such a thing as monetary policy hubris; that is, are we better off with a system that grows 3 percent a year for

three years or might we be better off with a system that grows 6 percent one year, zero the next and 4 percent the third? Can you comment on that, particularly in relationship with what appears to be some breaking point in the economy when you have testified that per unit economic labor costs are actually going down? Is that a credible question to ask?

Mr. GREENSPAN. Clearly, stability engenders maximum growth. In other words, you can demonstrate, I believe, that if the goal is maximum sustainable economic growth, that a volatile economy or a volatile monetary policy is not likely to contribute to that.

And I should think that the issue of a stable incremental policy for monetary authorities is always best if that is feasible. There are occasions when events occur which are not continuous, they occur unexpectedly and monetary policy becomes a reflection of that phenomenon. But I think history will demonstrate that the less volatile policy changes are, the less volatile fluctuations in the financial system are, the greater is the long-term sustainable economic growth.

Chairman LEACH. Well, thank you very much. And your testimony is very much appreciated. And certainly this committee would be remiss not to go on record again with: A, support of your renomination; and B, more importantly, support for the independence of the Federal Reserve System. Thank you very much.

Mr. GREENSPAN. Thank you very much, Mr. Chairman.

Chairman LEACH. The hearing is adjourned.

[Whereupon, at 12:54 p.m., the hearing was adjourned.]

APPENDIX

February 17, 2000

CURRENCY

Committee on Banking and Financial Services

James A. Leach, Chairman

For Immediate Release:
Thursday, February 17, 2000

Contact: David Runkel or
Brookly McLaughlin (202) 226-0471

Opening Statement
Of Representative James A. Leach
Chairman, Committee on Banking and Financial Services
Humphrey-Hawkins Hearing on the Conduct of Monetary Policy

The Committee meets today to receive the semiannual report of the Board of Governors of the Federal Reserve System on the conduct of monetary policy and the state of the economy, as mandated in the Full Employment and Balanced Growth Act of 1978.

Chairman Greenspan, welcome back to the House Banking Committee and congratulations on your renomination and reconfirmation as Chairman of the Federal Reserve. The President and Senate have made a wise and timely decision. It underscores that the country has been well served by an independent, non-partisan Federal Reserve.

The Act under which this hearing is held prescribes that the Federal Reserve System conduct policies to bring to realization "the goals of maximum employment, stable prices and moderate long-term interest rates."

As we exit the 20th century and enter a new millennium, the underpinning goals of the Humphrey-Hawkins legislation appear to have been met. More Americans have jobs than ever before; the unemployment rate is at an historic modern day low; inflation is in check; productivity growth is the highest in 15 years; and not only is the federal budget in balance, but to the astonishment of most, surpluses are forecast for the foreseeable future.

Sustained economic growth has occurred in part due to significant private sector productivity increases, in part as a result of a mix and fiscal and monetary policies which, perhaps, for the first time in decades are working in sync, rather than in juxtaposition. The budget surplus which has had the effect of reducing reliance of debt issuance at the federal level has increased the flexibility of the Fed to manage monetary policy.

Divided government has had its rewards. A conservative bent to Congress has moderated the Executive Branch and has served well the American economy. In this regard, it deserves stressing that just as the Executive Branch has primary responsibility in the field of international affairs and the Fed and the Open Market Committee have authority for the conduct of monetary policy, the Congress is preeminently accountable for federal budgetary matters.

While one of the stark difficulties in our economy is that the gap between the well-to-do and the less well off is widening, job opportunities are expanding to the most disadvantaged parts of the population.

Growth has been propelled in a circumstance where per capita federal government spending has leveled off, or perhaps even declined, giving rise to the conclusion that for the vast majority of Americans the economics of compassion is the economics of governmental restraint.

Before turning to your testimony, Mr. Chairman, I would like to ask if the Ranking Member of the Full Committee and Chairman and Ranking Member of the Monetary Policy Subcommittee have opening statements.

CURRENCY

Committee on Banking and Financial Services

James A. Leach, Chairman

For Immediate Release:
Thursday, February 17, 2000

Contact: David Runkel or
Brookly McLaughlin (202) 226-0471

Opening Statement

Chairman Spencer Bachus

Subcommittee on Domestic and International Policy
Humphrey-Hawkins Hearing, February 17, 2000

Chairman Greenspan, you should be congratulated on your recent reappointment and for your accomplishments as Chairman of the Federal Reserve since 1987. Three key facts show what Chairman Greenspan has accomplished. During your term in office, mortgage rates are down 2.4 percent, inflation is down 1.7 percent, and unemployment is down 1.9 percent.

Low inflation, low unemployment, and rising wages have created significant economic opportunities for all Americans. The robust stock market has also created opportunities for many. Undoubtedly much of the credit for today's positive economic scenario is owed to the policies you have implemented as Chairman of the Federal Reserve Board.

Today we will hear your testimony as required by the Humphrey-Hawkins law, which requires a semi-annual report by the Fed to Congress on the conduct of monetary policy. Since there is some question as to whether the Senate will vote to continue having the Humphrey-Hawkins hearings, I would like to affirm my desire that they continue. And, even if these hearings do not continue in their current form, I believe it's very important that the essential content of these hearings should still be presented.

I would also like to point out that, for the first time, most of the goals imposed on the Fed by Humphrey-Hawkins, such as a balanced budget, adequate productivity growth, reasonable price stability, and an unemployment rate near 4 percent, have been achieved and maintained under your Chairmanship. For years most economists thought these goals were impossible to accomplish or, if accomplished would be at cross-purposes, but you and the economy have proven them wrong.

As we prepare to enter the new millennium, today's hearing represents an important opportunity for the Federal Reserve to clearly articulate the principles on which its future policy decisions will be based. In particular, it should be made clear why the Fed thinks it is necessary to adopt a tightening mode in the absence of signs of rising inflation pressures.

This task won't be easy. Serious observers and analysts have been repeatedly surprised in the past few years by the US economy's rapid growth and stunning productivity surge.

There has been such incredible development in the economy over the last 16 years that some people have been over-awed with the results. Today you could give us an economic road map for

the future, where are we headed, what are the limits, what are the potential detours. It is important to know where the economy is going, and especially to be aware of any future bumps in the road or potential detours that might be ahead (as we drive into the future).

You have mentioned previously your concerns about inflation, but there may be others. The recent spike in oil prices and a flattening or inversion of the bond yield are both historically linked to the economic downturn that plagued our economy in the seventies, and the brief recessions in the beginning of the 80's and the 90's.

Another possible concern is the significant rise in margin lending. The level of debt to purchase stocks has risen to $243 billion, or 1.5 percent of market value. Margin lending has historically moved in tandem with the market's value, but the recent burst of margin borrowing in the market has been more alarming because it has outrun the rise in stocks' value.

Looking at the global economic picture, the U.S. current account deficit is forecast to climb to 4.2% of GDP this year (from 3.7% in 1999) and remain above 4% through 2001. This could cause problems if investors do not continue to purchase U.S. dollar financial assets on a scale large enough to finance the external deficit (without large fluctuations in either exchange rates or interest rates).

Therefore, while it is undeniable that our economy has reached record levels of prosperity and growth, it is also apparent that several potential dangers exist that threaten our economy. Mr. Chairman, we will be counting on you to help guide us down the unmapped and untraveled roads of the new millennium. Your experience and intellect should serve us well in this endeavor, one of unprecedented challenges and complexities.

JAMES A. LEACH, IOWA, CHAIRMAN
[illegible]
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GREGORY MEEKS, NEW YORK
BARBARA LEE, CALIFORNIA
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FRANK MASCARA, PENNSYLVANIA
JAY R. INSLEE, WASHINGTON
JAN SCHAKOWSKY, ILLINOIS
DENNIS MOORE, KANSAS
CHARLES A. GONZALEZ, TEXAS
STEPHANIE TUBBS JONES, OHIO
MICHAEL E. CAPUANO, MASSACHUSETTS

BERNARD SANDERS, VERMONT

(202) 225-7502

February 17, 2000

Alan Greenspan
Chairman
Board of Governors
Federal Reserve System
Washington, DC 20551

Dear Chairman:

Thank you for your responses today to questions regarding the economic and monetary policy implications of eliminating the federal debt. As you know, the President has called for paying off the federal debt by the year 2013, which is estimated will cost around $2.5 trillion.

Currently, the Federal Reserve relies on treasury bonds to conduct open market operations. In response to questions by Representatives Roukema, Bentsen and myself, you indicated that you perceived no imminent difficulty in your ability to perform open market operations, but that eventually the Fed may turn to the highest grade, say AAA+ private market bonds. Several questions arise from this possibility.

First, given the current rate of reduction in the federal debt, have you estimated at what point in the future that you could no longer effectively implement open market operations using the Treasury bond market? Most importantly, how would the Fed avoid "allocating credit" when it chooses a new instrument for its operations?

Second, what would be the economic effect of significantly reducing or eliminating Treasury bonds on the private bond market? Would the Treasury bond market remain, perhaps on a much smaller scale, or would it be completely eliminated? Where else could investors find comparably risk-free bonds? Would they be able to turn to Fannie Mae or Freddie Mac? What would become the new benchmark for commercial loans and particularly mortgages?

I look forward to receiving your response to these questions at your earliest convenience. If you have any questions or would like more information, please feel free to call me, or have your staff call mine at 224-0763.

Sincerely,

Spencer Bachus

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

ALAN GREENSPAN
CHAIRMAN

March 10, 2000

The Honorable Spencer Bachus
House of Representatives
Washington, D.C. 20515

Dear Congressman:

Thank you for giving me the opportunity to respond to your questions on the economic and policy implications of eliminating the federal debt.

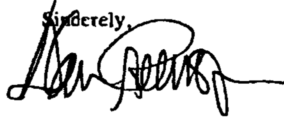
The Federal Reserve has not prepared any formal estimates of the point at which it would experience difficulties in conducting open market operations as the federal debt is paid down, and we do not expect to encounter significant difficulties in the near future. As you know, even though the Treasury has been paying down debt for the past two years or so, the recent surpluses followed a very long period of large federal deficits, and consequently the volume of federal debt outstanding remains quite large. Moreover, the Federal Reserve Act enables us to transact in Treasury securities and certain other instruments (such as obligations of federal agencies, certain obligations of state and local governments, foreign exchange, sovereign debt, etc.) on both an outright and a temporary, repurchase basis. The Federal Reserve already has been placing considerable emphasis on repurchase transactions in our operations. The availability of repurchase agreements against non-Treasury instruments as well as against Treasury securities will continue to contribute to our flexibility in an environment of declining Treasury debt.

As you suggest, an objective of the Federal Reserve in implementing monetary policy is to minimize interference in the allocation of credit in the money and capital markets. Meeting this objective would be an important consideration in the design of any implementation alternatives, should declines in Treasury debt eventually make modifications of our current techniques desirable. I should clarify that current statutory authority does not permit the Federal Reserve to make purchases of high-grade private bonds on either an outright or temporary basis. If at some future time it should become apparent that additional authority is desirable, we would request that the Congress make technical changes in the Federal Reserve Act to permit transactions in a broader range of assets.

The precise market responses to a reduction or even complete elimination of Treasury debt are difficult to judge in advance. (The main variable determining whether Treasury debt is eliminated entirely is the realized amount of federal surpluses.) Since Treasury obligations have been acting as benchmark issues, some market adaptations certainly will be required if Treasury debt shrinks significantly. As I mentioned at the hearing, I am confident that the capital markets would create alternative benchmarks to fill the void left by disappearing Treasury debt. Fannie Mae and Freddie Mac already have attempted to take advantage of this situation by issuing so-called "benchmark" and "reference" issues, but it is possible that obligations of entirely private firms eventually could serve as benchmarks.

As I often have emphasized, there is considerable uncertainty about the size of future surpluses and, indeed, about whether they will even continue to materialize. Consequently, we should be cautious about making plans based on projections of large surpluses. If the surpluses do eventuate, the implied smaller federal presence in credit markets will have substantial benefits for the economy. The reduced volumes of federal debt will tend to lower even private real interest rates and more generally will foster a receptive climate for private financing of capital formation, which will help to maximize sustainable economic growth. Any adaptations that may eventually be required in Federal Reserve operations are insignificant in comparison to those benefits. Similarly, I am quite confident that any market adaptations in response to declining Treasury debt will ultimately preserve and possibly even enhance the efficiency of our capital markets.

Sincerely,



Opening Statement of U.S. Rep. Michael P. Forbes
House Committee on Banking & Financial Services
Hearing on February 17, 2000

Mr. Chairman, I am proud to be here today with the esteemed Federal Reserve Board Chairman, Alan Greenspan. With Chairman Greenspan's assistance, our economy has experienced its longest economic expansion in history – over 7 years of prosperity. My priority today is that we work to sustain the economic prosperity our country is now enjoying.

In particular, my neighbors in Long Island are concerned about rising interest rates, the high price of home heating oil, and the future of Social Security and Medicare.

Like other areas around our country, Suffolk County, NY is plagued with high property taxes and very expensive real estate prices. Because of these high costs, buying a home is often prohibitively expensive – even for middle-income families. With every small percentage increase of interest rates, my neighbors are experiencing even more difficulty buying a home. Homeownership is a pivotal building block for family security, stability, and strong communities. All families deserve the opportunity to achieve the American dream of owning a home. I am interested in hearing what Chairman Greenspan will say today about the delicate balance between rising inflation and interest rates.

In addition, my neighbors on Long Island are having great difficulties paying for the significant increases in home heating oil. Oil price increases are, proportionately speaking, almost identical to 1979 and 1991. Along with many of my colleagues from the Northeast, I have asked President Clinton to release some of the Strategic Petroleum Reserves (SPR). This will alleviate the shortage of crude oil in the United States and thus the extraordinary prices we are experiencing. The SPR's current size – more than 560 million barrels – represents $20 billion investment by the taxpayers of our country. I believe that this is an appropriate occasion to use some of this investment. I am interested in hearing Chairman Greenspan's comments on the impact of the high oil prices on our economy. Will high oil rates cause our economy to slow down? If President Clinton agrees to release some of the SPR and oil prices level out, won't that have a positive impact on the economy?

Finally, I want to thank Chairman Greenspan for all his work in advocating for the reduction of the national debt. Like Chairman Greenspan, I believe that we must reduce the debt. With 12% of the federal budget going to interest on the debt, significantly reducing the debt is the only way to really save Social Security and Medicare. I am looking forward to Chairman Greenspan's comments about the amount that the debt must be reduced to save Social Security and Medicare.

Thank you.

OPENING STATEMENT
Hon. Marge Roukema
Humphrey Hawkins Hearing

February 17, 2000

House Banking and Financial Services Committee

Thank you, Mr. Chairman.

It is very good to see you again, Chairman Greenspan. Congratulations on your renomination and recent confirmation by the Senate to a 4th Term as Chairman of the Board of Governors of the Federal Reserve System. I think I speak for all of us here when I say that we are lucky to have you as the Chairman of the Federal Reserve for the next 4 years.

As with most Humphrey Hawkins Hearings, you are going to get a wide variety of questions and comments.

For instance, I am sure that you will have at least 5 questions on the high price of oil. The price of a barrel of oil passed $30 just the other day which is a 9 year high. Many of my colleagues will inquire as to what effect this increase will have on consumers and inflation.

In my state of New Jersey and the entire Northeast we are facing a crisis. Because of high, sometimes doubled, cost of heating their homes, many residents have less discretionary income to spend or save each month. And high diesel fuel prices threaten the truck, trains, and ships that carry the commerce across the economic crossroads of the nation – the Northeast. This dramatic rise in oil prices could have a significant negative impact on our economy. I would like you to know your thoughts on this issue.

Others will inquire about mortgage rates. As you know, mortgage rates are approaching a 4 year high and could go over the 9% mark. This surge in interest rates could have a large impact on homebuyers, the housing industry and the economy. Mortgage rates are a politically sensitive issue, if ever there was one.

Still others will raise issues such as safety and soundness of the banking system in light of the passage of the Gramm-Leach-Bliley Act, merging the BIF and SAIF deposit insurance funds, establishing caps and rebates, OTC derivatives, financial privacy, expanding CRA, the evils of mixing banking and commerce and who knows what else.

Last year, at this hearing I questioned you on the related subjects of the size of tax cuts, paying down the debt and the relation to economic growth and inflation. Today I would like to inquire, however, about your views on the Administration's proposal to retire all $3.6 Trillion of the publicly held Treasury debt by 2013. Is this a good idea? I would like to direct your attention to the article in this morning's New York Times entitled "Shrinking Treasury Debt Creates Uncertain World" which suggests that paying off all $3.6 Trillion in publicly held Treasury debt

would have an adverse effect on the Federal Reserve's ability to conduct monetary policy. See attached.

I think it is fair to say that the Government Bond market has been volatile in the last 3 weeks. Its not clear whether the market thinks paying all the Treasury debt is good or bad. Are there any good policy reasons for maintaining a modest amount of publicly held Treasury debt rather than paying it all off? Could this move adversely affect the banking system? The FED buys and sells large amounts of Treasuries through its open market operations. What effect, if any, will this plan have on the Federal Reserve's ability to conduct monetary policy and what debt security would most likely replace U.S. Government bonds for such activities.

Thank you.

Shrinking Treasury Debt Creates Uncertain World

By GRETCHEN MORGENSON

Lawrence H. Summers, secretary of the Treasury, is clearly relishing his role as the man who put the nation on a no-debt diet. In Congressional testimony last week, Mr. Summers predicted that by 2013, the $3.6 trillion in Treasury debt held by the public would be eliminated, repurchased by funds from budget surpluses that the roaring American economy has wrought. The result, he said, will be an even stronger economy and lower interest rates for all.

Maybe so. But in the meantime, the Treasury's plan to reduce its debt is roiling the financial markets and raising the prospect of far-reaching, unintended effects on the economy and investors.

One immediate effect of the shrinking Treasury debt market, economists say, is to make it tougher for the Federal Reserve Board to cool the economy because as it raises short-term interest rates, long-term rates are not rising in tandem.

In addition, the debt securities that remain in the shrinking market are expected to be much more prone to wild swings in price and thereby riskier for investors.

Finally, corporations will probably issue more debt to fill the public demand for bonds, creating a debt burden that could make it much more difficult for the nation to shake off a downturn in the economy.

"The surplus has forced the Treasury to change the way they do business, and we are looking at the consequences," said Ward McCarthy, principal at Stone & McCarthy Research Associates in Princeton, N.J. "It affects everybody."

Because the market for Treasury debt is the largest and most heavily traded in the world, and because investors evaluate almost every other type of bond using a Treasury security as a benchmark, even the smallest change in the government's financing has effects at home and abroad.

"One of the reasons the U.S. has been the dominant factor in the world is we were the only place with a deep, liquid debt mar-

Continued on Page 11

Continued From First Business Page

ket," said Stan Jonas, managing director at FIMAT U.S.A., a brokerage firm in New York. "We would not be the leader in the financial marketplace if we hadn't had the advantage of a huge, rich Treasury market. Now that market is disappearing."

The ripples from a vanishing public market for Treasury debt have begun to hit investors who buy bonds and the companies that issue them. Last month, when the Treasury outlined its aggressive plan to reduce the debt it issues and to buy back debt already in investors' hands, the market went haywire. There was a mad rush for long-term government bonds, driving down interest rates on long-term government debt even as the Federal Reserve Board was raising short-term rates to try to cool down an overheated economy.

This created significant losses for investors, who had bet that the Fed's increases in short-term rates would

Some strategists foresee a riskier bond market.

cause rates at the long end of the market to rise as well. Instead, the effective rate on 30-year bonds fell well below that of 2-year notes. Normally, investors are given extra incentive in the form of higher rates to lock up their money for a longer period.

More important, economists and market strategists say, the Treasury's plan and the ensuing rush to long-term bonds are throwing sand into the gears that the Fed uses to keep the economy perking while protecting against inflation.

Alan Greenspan, the Fed chairman, who is scheduled to testify today as part of his twice-a-year report to Congress, has raised short-term rates three times since last June in an effort to slow the economy. But rates on long-term Treasury securities have fallen.

"It poses a little bit of a challenge for monetary policy," said Henry Kaufman, the noted Wall Street economist.

Few economists say the Treasury's overall plan to reduce the nation's debt is wrongheaded. Last year's budget surplus of $124 billion, the largest ever, was a direct result of a supercharged economy and a roaring stock market, which generated huge tax receipts. As long as the economy and stock markets remain hot and Congress keeps a lid on spending, budget surpluses will continue. Reducing debt, the government argues, is a natural use for these funds.

To be sure, the government will still issue debt to be held by the Federal Reserve and the Social Security trust. It is the publicly held debt that is set for extinction.

Although the Treasury securities market is the world's largest and most influential, it wasn't always thus. In the 1960's, for example, when an investor asked what the bond market was doing, the answer usually involved the price action in an AT&T bond or an obligation of a highly rated electric utility.

But as the United States government grew and the Treasury began to borrow more to finance the growth, the significance of the Treasury securities market rose as well. In the 1980's and 1990's, the Treasury raised trillions of dollars each year from investors by issuing bonds, notes and bills; the peak came in 1996, when the Treasury auctioned $2.5 trillion in securities.

By fiscal 1998, according to the Treasury, federal debt held by the public had risen to $3.7 trillion, up from $2.1 trillion just 10 years earlier.

But the days of ballooning Treasury debt are over. Eliminating the publicly held Treasury debt by 2013, Mr. Summers said, will put downward pressure on all interest rates, helping to reduce consumer payments on home mortgages, car loans and other forms of credit. This has not happened yet. Most consumer borrowings are based upon shorter-term interest rates — even 30-year mortgage rates are based on shorter-term rates because homeowners typically pay off their loans well before their term is up — and these are rising because of the Fed's recent actions.

Where the effects have been felt sharply are in the corporate bond and mortgage markets. A 30-year corporate bond is usually judged against a 30-year Treasury. But with Treasuries being hoarded ahead of a possible shortage, the rates on the bonds no longer represent a good comparison. As a result, the private debt market has lost its anchor.

Wall Street will undoubtedly create a new security to use as a benchmark for bond issues soon. But until then, uncertainty will rule the market.

As a result, investors are having trouble assessing new bond issues and are acting with caution. "I think everybody has thrown up their hands at the moment," said Carol Levenson, editor of Gimme Credit, a research service that analyzes high-grade corporate bonds. "The market is waiting to see if things are going to return to normal."

Trading has also dropped off recently in the vast market for mortgage obligations, which are backed by consumer loans, according to Mickey Levy, the chief economist at BankAmerica. "With higher risk in this market, it could make rates higher on the margin," he said, for the moment, just the opposite of what Mr. Summers has predicted.

Some strategists suspect that the bond market may never return to normal. "One byproduct of a consequential shrinkage of the Treasury market is that the U.S. debt markets will be increasingly comprised of a variety of securities that are riskier than Treasury debt," Mr. McCarthy said. "So in addition to increased volatility, we are dealing with almost by definition a riskier bond market as well."

This is quite a change, given that much of the bond market has been a refuge for investors seeking safety and security in their holdings. Few are confident that investors have recognized the increased risks they will need to take when they invest in bonds as the Treasury bows out of the market and corporate issuers take its place.

Moreover, investors may not recognize the implications of a big increase in corporate debt when the nation experiences a recession. "When you go into an economic slowdown and there is a large amount of government debt outstanding and a small amount of corporate debt outstanding, that's not a problem," Mr. Kaufman explained. "All you need is an easing in monetary policy and off we go again. But when the private sector is heavily burdened when we slow down, that will require more stimulation. This is a concern."

One economist worried that using the budget surplus to finance a buyback of existing Treasury debt could cause inflation. Robert H. Parks, a professor of finance at the Lubin Graduate School of Business at Pace University, said: "This increases the money supply, and it also increases the reserves of private financial institutions. It is highly expansionary and potentially inflationary in an economy that is roaring ahead."

The Outlook for Federal Debt

Measures of federal debt are meant to tally the accumulated past obligations of the government—what the government owes. Yet the two primary measures present vastly different perspectives on the magnitude of such obligations and what they might be like in the future, given the outlook for the budget.

Debt held by the public—the most economically meaningful measure of previous obligations—is the net amount of money that the federal government has borrowed to finance all of the deficits accumulated over the nation's history, less any surpluses, as well as other, considerably smaller financing needs. At the end of 1999, debt held by the public totaled $3.6 trillion—$88 billion less than at the end of the previous year and $138 billion less than at its 1997 peak. Under all three variations of the baseline, CBO projects that debt held by the public will decline.

Gross federal debt—and a similar measure, debt subject to limit—counts debt issued to government accounts as well as debt held by the public. Debt issued to government accounts does not flow through the credit markets; such transactions are intragovernmental and have little or no effect on the economy. Under all three baseline variations, both gross federal debt and debt subject to limit are rising by 2009.

Debt Held by the Public

To cover the difference between revenues and expenditures, the Department of the Treasury raises money by selling securities to the public. Between 1969 and 1997, the Treasury sold ever-increasing amounts of those securities to finance continuing deficits, thus causing debt held by the public to climb from year to year. CBO's current baseline paths now point toward a different outcome. If the projected surpluses materialize, debt held by the public will decline substantially from today's level of $3.6 trillion (see Table 1-5).

Indeed, CBO estimates that under all three versions of its baseline, debt held by the public that is available for redemption could be retired by 2009. "Available" is the key word: some portion of the outstanding debt will remain in public hands because many 30-year bonds are not slated to mature until after 2010. The Treasury has announced that it plans to begin repurchasing some outstanding debt in 2000; however, it is unlikely that over time, all holders of 30-year bonds (or even a significant portion of them) will choose to sell their securities at prices that the government would be willing to pay. Furthermore, unless the government discontinues the Treasury's programs for savings bonds and state and local government securities, those forms of debt will continue to be issued and will remain outstanding at the end of the projection period.

Under each of the discretionary spending variations of CBO's baseline, the Treasury would have sufficient cash on hand sometime between 2007 and 2009 to retire all debt held by the public. For the reasons given above, it could not devote all of those funds to that purpose. Under such circumstances, it might be more plausible to assume that the Congress and the President would decide to cut taxes and increase spending to dissipate any surplus cash that either was not needed to pay for the government's activities and services or that remained after all available debt had been redeemed. However, because CBO makes no assumptions about future policy actions, its projections simply assume that the Treasury will invest all excess cash at a rate of return equal to the average rate projected for Treasury bills and notes.

Why Debt Held by the Public Does Not Decline by the Amount of the Surplus. In most years, what the Treasury borrows closely reflects the total deficit or surplus. However, a number of factors broadly labeled "other means of financing" also affect the government's need to borrow money from the public. Those factors include reductions (or increases) in the government's normal cash balances needed for day-to-day operations, seigniorage, and other, miscellaneous changes. The largest of those other borrowing needs reflects the capitalization of financing accounts used for credit programs. Direct student loans, rural housing programs, loans by the Small Business Administration, and other credit programs require the government to disburse money up front on the promise of repayment at a later date. Those up-front outlays are not counted in the budget, which reflects only the esti-

Table 1-5.
CBO Projections of Federal Debt at the End of the Year Under Alternative Versions of the Baseline
(By fiscal year, in billions of dollars)

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Discretionary Spending Grows at the Rate of Inflation After 2000[a]												
Debt Held by the Public	3,633	3,455	3,292	3,097	2,884	2,651	2,394	2,080	1,721	1,330	1,016	941
Debt Held by Government Accounts												
Social Security	855	1,009	1,175	1,358	1,554	1,763	1,988	2,227	2,481	2,749	3,030	3,325
Other government accounts[b]	1,118	1,201	1,282	1,367	1,450	1,530	1,609	1,696	1,783	1,867	1,951	2,035
Subtotal	1,973	2,210	2,458	2,725	3,004	3,293	3,597	3,923	4,264	4,616	4,981	5,360
Gross Federal Debt	5,606	5,665	5,750	5,822	5,888	5,944	5,991	6,003	5,984	5,946	5,997	6,300
Debt Subject to Limit[c]	5,568	5,627	5,712	5,784	5,851	5,908	5,955	5,967	5,949	5,911	5,963	6,267
Accumulated Excess Cash Greater Than Debt Available for Redemption	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	122	528
Memorandum: Debt Held by the Public as a Percentage of GDP	39.9	36.1	32.8	29.5	26.3	23.2	20.1	16.7	13.2	9.8	7.2	6.3
Discretionary Spending Is Frozen at the Level Enacted for 2000[a]												
Debt Held by the Public	3,633	3,455	3,281	3,062	2,805	2,506	2,162	1,739	1,249	1,078	1,016	941
Debt Held by Government Accounts												
Social Security	855	1,009	1,175	1,358	1,554	1,763	1,988	2,227	2,481	2,749	3,030	3,325
Other government accounts[b]	1,118	1,201	1,282	1,367	1,450	1,530	1,609	1,696	1,783	1,867	1,951	2,035
Subtotal	1,973	2,210	2,458	2,725	3,004	3,293	3,597	3,923	4,264	4,616	4,981	5,360
Gross Federal Debt	5,606	5,665	5,739	5,787	5,809	5,799	5,759	5,662	5,512	5,693	5,997	6,300
Debt Subject to Limit[c]	5,568	5,627	5,701	5,750	5,772	5,762	5,723	5,627	5,478	5,659	5,963	6,267
Accumulated Excess Cash Greater Than Debt Available for Redemption	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	377	935	1,555
Memorandum: Debt Held by the Public as a Percentage of GDP	39.9	36.1	32.7	29.2	25.6	21.9	18.1	14.0	9.6	7.9	7.2	6.3
Discretionary Spending Equals CBO's Estimates of the Statutory Caps Through 2002 and Grows at the Rate of Inflation Thereafter												
Debt Held by the Public	3,633	3,455	3,234	2,954	2,647	2,314	1,949	1,522	1,142	1,078	1,016	941
Debt Held by Government Accounts												
Social Security	855	1,009	1,175	1,358	1,554	1,763	1,988	2,227	2,481	2,749	3,030	3,325
Other government accounts[b]	1,118	1,201	1,282	1,367	1,450	1,530	1,609	1,696	1,783	1,867	1,951	2,035
Subtotal	1,973	2,210	2,458	2,725	3,004	3,293	3,597	3,923	4,264	4,616	4,981	5,360
Gross Federal Debt	5,606	5,665	5,692	5,679	5,651	5,608	5,546	5,445	5,406	5,693	5,997	6,300
Debt Subject to Limit[c]	5,568	5,627	5,654	5,641	5,614	5,571	5,510	5,410	5,371	5,659	5,963	6,267
Accumulated Excess Cash Greater Than Debt Available for Redemption	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	96	549	1,058	1,608
Memorandum: Debt Held by the Public as a Percentage of GDP	39.9	36.1	32.2	28.1	24.2	20.3	16.3	12.2	8.8	7.9	7.2	6.3

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

a. After adjustment for advance appropriations.

b. Mainly Civil Service Retirement, Military Retirement, Medicare, unemployment insurance, and the Airport and Airway Trust Fund.

c. Differs from the gross federal debt primarily because most debt issued by agencies other than the Treasury is excluded from the debt limit (currently, $5,950 billion).

mated subsidy costs of such programs. Because the amount of the loans being disbursed is larger than the repayments and interest flowing back into the financing accounts, the government's annual borrowing needs are $7 billion to $14 billion higher than the budget surplus would indicate.

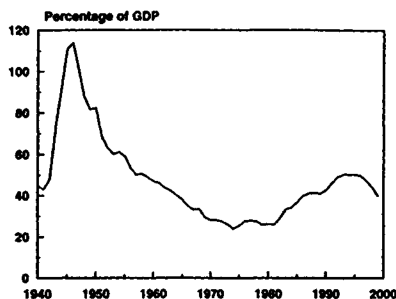
In 1999, the Treasury ended the fiscal year with an unusually large cash balance for operations. Normally, the Treasury tries to end the year with between $40 billion and $50 billion in cash, but on September 30, the balance totaled $56.5 billion. The unneeded portion of the cash balance will be used to reduce debt held by the public during fiscal year 2000.

Toward the end of the projection period, public debt is projected to decline by less than the amount of the surplus (adjusted for other means of financing, such as seigniorage). CBO assumes that by that time, proceeds from excess cash will help to increase the surplus but excess cash (by definition) will not contribute to reductions in debt. For example, under the inflated version of the baseline, the surplus in 2010 is projected to be $489 billion. Of that total, approximately $75 billion may be used to redeem available debt, another $8 billion would be consumed by other means of financing, and the remaining $406 billion would represent excess cash.

Debt Held by the Public as a Percentage of GDP. As a share of GDP, debt held by the public reached a plateau in the 1990s and held steady at about 50 percent from 1993 through 1995 (see Figure 1-3). Since then, it has fallen to 40 percent of GDP. By 2004, under all three of CBO's baseline variations, that share will plunge below its post-World War II nadir of 24 percent (achieved in 1974).

Over time, the nation's shrinking debt will generate considerable savings in the government's interest payments. Reducing debt in the near term can substantially decrease interest payments in the future. In fact, by 2005, net interest spending is projected to drop to between 1.2 percent and 1.3 percent of GDP —as a share of the economy, half as large as it was in 1999.

Figure 1-3.
Debt Held by the Public as a Share of GDP
(By fiscal year)



SOURCE: Congressional Budget Office.

Gross Federal Debt

In addition to selling securities to the public, the Treasury has issued nearly $2 trillion in securities to various government accounts (mostly trust funds). The largest balances are in the Social Security trust funds ($855 billion at the end of 1999) and the retirement funds for federal civilian employees ($492 billion). The total holdings of government accounts grow approximately in step with projected trust fund surpluses. The funds redeem securities when they need to pay benefits; in the meantime, the government both pays and collects interest on those securities.

Investments by trust funds and other government accounts are handled within the Treasury, and the purchases and sales (with very rare exceptions) do not flow through the credit markets. Similarly, interest on those securities is simply an intragovernmental transfer: it is paid by one part of the government to another part and does not affect the total deficit or surplus. Thus, participants in financial markets view trust fund holdings as a bookkeeping entry—an intragovernmental IOU. Nevertheless, those holdings indicate a commitment by the government to use future resources for the trust fund programs, although the amount of the holdings may eventually be insufficient to sustain the programs' benefits at the levels defined under current law.

Rep. Paul Ryan, Wisconsin

A new Investor Class is emerging as a result of America's dynamic economy. More and more, workers are coming to own the means of production. Karl Marx must be turning in his grave – and Lenin in his glass display box.

As the demographics investing are changing, so are the reasons for investing. The best thing that Congress can do, not only to encourage more investment, but also to facilitate further economic growth, is to reduce capital gains taxes and index them to inflation.

Currently, 80 million Americans, or 43 percent of U.S. households, own stock or mutual funds. Between 1989 and 1995, shareholding increased significantly among every age group, income level, race, and occupation. Individuals who had not previously participated in the stock market are now not only purchasing stock, but actively managing them as well.

This participation in capital markets has led to overall economic growth, by giving companies the resources to increase overall productivity. It has also enhanced investors' retirement savings, eased pressure on education funding, and rewarded personal productivity.

As more Americans embrace investment in capital markets, the longer their time horizons become. Today, the majority of American stockholders invest with a long-term strategy in mind.

An Investment Company Institute survey investigated the motives that led Americans to invest in the market. According to this poll of mutual fund shareholders, 84 percent invested for supplementary retirement income, 26 percent to pay for education expenses, 9 percent to supplement current expenses, and 7 percent to buy a home.

Investors interviewed by Peter D. Hart Research Associates listed similar priorities. 89 percent invested for retirement security, 28 percent to pay for a child's education, 18

percent to afford a major new purchase such as a car, 13 percent to be able to support an elderly parent, and 10 percent to buy a new home.

These are not necessarily "the rich." These are average Americans wanting to purchase a home, put a child through college, pay future medical bills, and – most importantly – to save for retirement.

A characteristic of the new Investor Class – as opposed to the perceived "traditional stockholder" – is their resilience to capital market turmoil in support of long-term savings goals. The secret is out – stocks consistently produce a higher-rate of return over other investments over time. Generally, only investors looking to make a "quick buck" off the market buy and sell in short time intervals.

In 1997, when the capital gains tax rate was cut from 28 to 20 percent, capital gains tax receipts have soared. As stock values increased – a result of the tax cut – America experienced its highest gains in productivity and private-sector capital investment in a decade.

As the tax rate most sensitive to change, reductions in the capital gains tax rate has historically led to increases in tax collection and tax payments and thus greater government revenue. This is a classic example of lowering a tax rate and broadening the tax base. As more and more Americans become part of the Investor Class, the tax base will continue to broaden – as long as Congress continues to lower the tax rate.

The current punitive capital gains tax will only serve to keep more Americans from investing – reducing their impetus to save for the future. It also slows the capital formation and the entrepreneurship that has fueled our economic growth.

Board of Governors of the Federal Reserve System

Monetary Policy Report to the Congress Pursuant to the Full Employment and Balanced Growth Act of 1978

February 17, 2000

Letter of Transmittal

BOARD OF GOVERNORS OF THE
FEDERAL RESERVE SYSTEM
Washington, D.C., February 17, 2000

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 the Full Employment and Balanced Growth Act of 1978.

Sincerely,

Alan Greenspan, Chairman

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MONETARY POLICY AND THE ECONOMIC OUTLOOK

The U.S. economy posted another exceptional performance in 1999. The ongoing expansion appears to have maintained strength into early 2000 as it set a record for longevity, and—aside from the direct effects of higher crude oil prices—inflation has remained subdued, in marked contrast to the typical experience during previous expansions. The past year brought additional evidence that productivity growth has improved substantially since the mid-1990s, boosting living standards while helping to hold down increases in costs and prices despite very tight labor markets.

The Federal Open Market Committee's pursuit of financial conditions consistent with sustained expansion and low inflation has required some adjustments to the settings of monetary policy instruments over the past two years. In late 1998, to cushion the U.S. economy from the effects of disruptions in world financial markets and to ameliorate some of the resulting strains, money market conditions were eased. By the middle of last year, however, with financial markets resuming normal functioning, foreign economies recovering, and domestic demand continuing to outpace increases in productive potential, the Committee began to reverse that easing.

As the year progressed, foreign economies, in general, recovered more quickly and displayed greater vigor than had seemed likely at the start of the year. Domestically, the rapid productivity growth raised expectations of future incomes and profits and thereby helped keep spending moving up at a faster clip than current productive capacity. Meanwhile, prices of most internationally traded materials rebounded from their earlier declines; this turnaround, together with a flattening of the exchange value of the dollar after its earlier appreciation, translated into an easing of downward pressure on the prices of imports in general. Core inflation measures generally remained low, but with the labor market at its tightest in three decades and becoming tighter, the risk that pressures on costs and prices would eventually emerge mounted over the course of the year. To maintain the low-inflation environment that has been so important to the sustained health of the current expansion, the FOMC ultimately implemented four quarter-point increases in the intended federal funds rate, the most recent of which came at the beginning of this month. In total, the federal funds rate has been raised 1 percentage point, although, at 5¾ percent, it stands only ¼ point above its level just before the autumn-1998 financial market turmoil. At its most recent meeting, the FOMC indicated that risks appear to remain on the side of heightened inflation pressures, so it will need to remain especially attentive to developments in this regard.

Monetary Policy, Financial Markets, and the Economy over 1999 and Early 2000

The first quarter of 1999 saw a further unwinding of the heightened levels of perceived risk and risk aversion that had afflicted financial markets in the autumn of 1998; investors became much more willing to advance funds, securities issuance picked up, and risk spreads fell further—though not back to the unusually low levels of the first half of 1998. At the same time, domestic demand remained quite strong, and foreign economies showed signs of rebounding. The FOMC concluded at its February and March meetings that, if these trends were to persist, the risks of the eventual emergence of somewhat greater inflation pressures would increase, and it noted that a case could be made for unwinding part of the easing actions of the preceding fall. However, the Committee hesitated to adjust policy before having greater assurance that the recoveries in domestic financial markets and foreign economies were on firm footing.

By the May meeting, these recoveries were solidifying, and the pace of domestic spending appeared to be outstripping the growth of the economy's potential, even allowing for an appreciable acceleration in productivity. The Committee still expected some slowing in the expansion of aggregate demand, but the timing and extent of any moderation remained uncertain. Against this backdrop, the FOMC main-

tained an unchanged policy stance but announced immediately after the meeting that it had chosen a directive tilted toward the possibility of a firming of rates. This announcement implemented the disclosure policy adopted in December 1998, whereby major shifts in the Committee's views about the balance of risks or the likely direction of future policy would be made public immediately. Members expected that, by making the FOMC's concerns public earlier, such announcements would encourage financial market reactions to subsequent information that would help stabilize the economy. In practice, however, those reactions seemed to be exaggerated and to focus even more than usual on possible near-term Committee action.

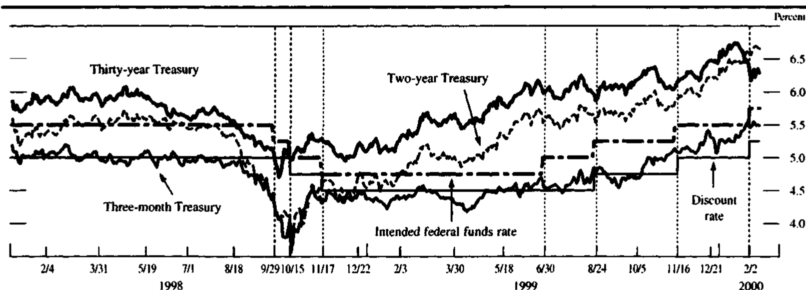
Over subsequent weeks, economic activity continued to expand vigorously, labor markets remained very tight, and oil and other commodity prices rose further. In this environment, the FOMC saw an updrift in inflation as a significant risk in the absence of some policy firming, and at the June meeting it raised the intended level of the federal funds rate ¼ percentage point. The Committee also announced a symmetric directive, noting that the marked degree of uncertainty about the extent and timing of prospective inflationary pressures meant that further firming of policy might not be undertaken in the near term, but that the Committee would need to be especially alert to emerging inflation pressures. Markets rallied on the symmetric-directive announcement, and the strength of this response together with market commentary suggested uncertainty about the interpretation of the language used to characterize possible future developments and about the time period to which the directive applied.

In the period between the June and August meetings, the ongoing strength of domestic demand and further expansion abroad suggested that at least part of the remaining easing put in place the previous fall to deal with financial market stresses was no longer needed. Consequently, at the August meeting the FOMC raised the intended level of the federal funds rate a further ¼ percentage point, to 5¼ percent. The Committee agreed that this action, along with that taken in June, would substantially reduce inflation risks and again announced a symmetric directive. In a related action, the Board of Governors approved an increase in the discount rate to 4¾ percent. At this meeting the Committee also established a working group to assess the FOMC's approach to disclosing its view about prospective developments and to propose procedural modifications.

At its August meeting, the FOMC took a number of actions that were aimed at enhancing the ability of the Manager of the System Open Market Account to counter potential liquidity strains in the period around the century date change and that would also help ensure the effective implementation of the Committee's monetary policy objectives. Although members believed that efforts to prepare computer systems for the century date change had made the probability of significant disruptions quite small, some aversion to Y2K risk exposure was already evident in the markets, and the costs that might stem from a dysfunctional financing market at year-end were deemed to be unacceptably high. The FOMC agreed to authorize, temporarily, (1) a widening of the pool of collateral that could be accepted in System open market transactions, (2) the use of reverse repurchase agreement accounting in addition to the currently available matched sale–purchase transactions to absorb reserves temporarily, and (3) the auction of options on repurchase agreements, reverse repurchase agreements, and matched sale–purchase transactions that could be exercised in the period around year-end. The Committee also authorized a permanent extension of the maximum maturity on regular repurchase and matched sale–purchase transactions from sixty to ninety days.

The broader range of collateral approved for repurchase transactions—mainly pass-through mortgage securities of government-sponsored enterprises and STRIP securities of the U.S. Treasury—would facilitate the Manager's task of addressing what could be very large needs to supply reserves in the succeeding months, primarily in response to rapid increases in the demand for currency, at a time of potentially heightened demand in various markets for U.S. government securities. The standby financing facility, authorizing the Federal Reserve Bank of New York to auction the above-mentioned options to the government securities dealers that are regular counterparties in the System's open market operations, would encourage marketmaking and the maintenance of liquid financing markets essential to effective open market operations. The standby facility was also viewed as a useful complement to the special liquidity facility, which was to provide sound depository institutions with unrestricted access to the discount window, at a penalty rate, between October 1999 and April 2000. Finally, the decision to extend the maximum maturity on repurchase and matched sale–purchase transactions was intended to bring the terms of such transactions into conformance with market practice and to enhance the Manager's ability over the following months to implement the unusually large reserve operations expected to be required around the turn of the year.

Selected interest rates



NOTE. The data are daily. Vertical lines indicate the days on which the Federal Reserve announced a monetary policy action. The dates on the horizontal axis are those on which either the FOMC held a scheduled meeting or a policy action was announced. Last observations are for February 11. 2000.

Incoming information during the period leading up to the FOMC's October meeting suggested that the growth of domestic economic activity had picked up from the second quarter's pace, and foreign economies appeared to be strengthening more than had been anticipated, potentially adding pressure to already-taut labor markets and possibly creating inflationary imbalances that would undermine economic performance. But the FOMC viewed the risk of a significant increase in inflation in the near term as small and decided to await more evidence on how the economy was responding to its previous tightenings before changing its policy stance. However, the Committee anticipated that the evidence might well signal the need for additional tightening, and it again announced a directive that was biased toward restraint.

Information available through mid-November pointed toward robust growth in overall economic activity and a further depletion of the pool of unemployed workers willing to take a job. Although higher real interest rates appeared to have induced some softening in interest-sensitive sectors of the economy, the anticipated moderation in the growth of aggregate demand did not appear sufficient to avoid added pressures on resources, predominantly labor. These conditions, along with further increases in oil and other commodity prices, suggested a significant risk that inflation would pick up over time, given prevailing financial conditions. Against this backdrop, the FOMC raised the target for the federal funds rate an additional ¼ percentage point in November. At that time, a symmetric directive was adopted, consistent with the Committee's expectation that no further policy move was likely to be considered before the February meeting. In a related action, the Board of Governors approved an increase in the discount rate of ¼ percentage point, to 5 percent.

At the December meeting, FOMC members held the stance of policy unchanged and, to avoid any misinterpretation of policy intentions that might unsettle financial markets around the century date change, announced a symmetric directive. But the statement issued after the meeting also highlighted members' continuing concern about inflation risks going forward and indicated the Committee's intention to evaluate, as soon as its next meeting, whether those risks suggested that further tightening was appropriate.

The FOMC also decided on some modifications to its disclosure procedures at the December meeting, at which the working group mentioned above transmitted its final report and proposals. These modifications, announced in January 2000, consisted primarily of a plan to issue a statement after every FOMC meeting that not only would convey the current stance of policy but also would categorize risks to the outlook as either weighted mainly toward conditions that may generate heightened inflation pressures, weighted mainly toward conditions that may generate economic weakness, or balanced with respect to the goals of maximum employment and stable prices over the foreseeable future. The changes eliminated uncertainty about the circumstances under which an announcement would be made; they clarified that the Committee's statement about future prospects extended beyond the intermeeting period; and they characterized the Committee's views about future developments in a way that reflected policy discussions and that members hoped would be more helpful to the public and to financial markets.

Financial markets and the economy came through the century date change smoothly. By the February 2000 meeting, there was little evidence that demand was coming into line with potential supply, and the risks of inflationary imbalances appeared to have risen. At the meeting, the FOMC raised its target for the federal funds rate ¼ percentage point to 5¾ percent, and characterized the risks as remaining on the side of higher inflation pressures. In a related action, the Board of Governors approved a ¼ percentage point increase in the discount rate, to 5¼ percent.

Economic Projections for 2000

The members of the Board of Governors and the Federal Reserve Bank presidents, all of whom participate in the deliberations of the FOMC, expect to see another year of favorable economic performance in 2000, although the risk of higher inflation will need to be watched especially carefully. The central tendency of the FOMC participants' forecasts of real GDP growth from the fourth quarter of 1999 to the fourth quarter of 2000 is 3½ percent to 3¾ percent. A substantial part of the gain in output will likely come from further increases in productivity. Nonetheless, economic expansion at the pace that is anticipated should create enough new jobs to keep the unemployment rate in a range of 4 percent to 4¼ percent, close to its recent average. The central tendency of the FOMC participants' inflation forecasts for 2000—as measured by the chain-type price index for personal consumption expenditures—is 1¾ percent to 2 percent, a range that runs a little to the low side of the energy-led 2 percent rise posted in 1999.[1] Even though futures markets suggest that energy prices may turn down later this year, prices elsewhere in the economy could be pushed upward

1. Economic projections for 2000
Percent

Indicator	Memo: 1999 actual	Federal Reserve governors and Reserve Bank presidents	
		Range	Central tendency
Change, fourth quarter to fourth quarter[1]			
Nominal GDP	5.9	5–6	5¼–5½
Real GDP[2]	4.2	3¼–4¼	3½–3¾
PCE chain-type price index	2.0	1½–2½	1¾–2
Average level, fourth quarter			
Civilian unemployment rate	4.1	4–4¼	4–4¼

1. Change from average for fourth quarter of 1999 to average for fourth quarter of 2000.
2. Chain-weighted.

by a combination of factors, including reduced restraint from non-oil import prices, wage and price pressures associated with lagged effects of the past year's oil price rise, and larger increases in costs that might be forthcoming in another year of tight labor markets.

The performance of the economy—both the rate of real growth and the rate of inflation—will depend importantly on the course of productivity. Typically, in past business expansions, gains in labor productivity eventually slowed as rising demand placed increased pressure on plant capacity and on the workforce, and a similar slowdown from the recent rapid pace of productivity gain cannot be ruled out. But with many firms still in the process of implementing technologies that have proved effective in reorganizing internal operations or in gaining speedier access to outside resources and markets, and with the technologies themselves still advancing rapidly, a further rise in productivity growth from the average pace of recent years also is possible. To the extent that rapid productivity growth can be maintained, aggregate supply can grow faster than would otherwise be possible.

However, the economic processes that are giving rise to faster productivity growth not only are lifting aggregate supply but also are influencing the growth of aggregate spending. With firms perceiving abundant profit opportunities in productivity-enhancing high-tech applications, investment in new equipment has been surging and could well continue to rise rapidly for some time. Moreover, expectations that the investment in new technologies will generate high returns have been lifting the stock market and, in turn, helping to maintain consumer spending at a pace in excess of the current growth of real disposable income. Impetus to demand from this source also could persist for a while longer, given the current

1. In past Monetary Policy Reports to the Congress, the FOMC has framed its inflation forecasts in terms of the consumer price index. The chain-type price index for PCE draws extensively on data from the consumer price index but, while not entirely free of measurement problems, has several advantages relative to the CPI. The PCE chain-type index is constructed from a formula that reflects the changing composition of spending and thereby avoids some of the upward bias associated with the fixed-weight nature of the CPI. In addition, the weights are based on a more comprehensive measure of expenditures. Finally, historical data used in the PCE price index can be revised to account for newly available information and for improvements in measurement techniques, including those that affect source data from the CPI; the result is a more consistent series over time. This switch in presentation notwithstanding, the FOMC will continue to rely on a variety of aggregate price measures, as well as other information on prices and costs, in assessing the path of inflation.

high levels of consumer confidence and the likely lagged effects of the large increments to household wealth registered to date. The boost to aggregate demand from the marked pickup in productivity growth implies that the level of interest rates needed to align demand with potential supply may have increased substantially. Although the recent rise in interest rates may lead to some slowing of spending, aggregate demand may well continue to outpace gains in potential output over the near term, an imbalance that contains the seeds of rising inflationary and financial pressures that could undermine the expansion.

In recent years, domestic spending has been able to grow faster than production without engendering inflation partly because the external sector has provided a safety valve, helping to relieve the pressures on domestic resources. In particular, the rapid growth of demand has been met in part by huge increases in imports of goods and services, and sluggishness in foreign economies has restrained the growth of exports. However, foreign economies have been firming, and if recovery of these economies stays on course, U.S. exports should increase faster than they have in the past couple of years. Moreover, the rapid rise of the real exchange value of the dollar through mid-1998 has since given way to greater stability, on average, and the tendency of the earlier appreciation to limit export growth and boost import growth is now diminishing. From one perspective, these external adjustments are welcome because they will help slow the recent rapid rates of decline in net exports and the current account. They also should give a boost to industries that have been hurt by the export slump, such as agriculture and some parts of manufacturing. At the same time, however, the adjustments are likely to add to the risk of an upturn in the inflation trend, because a strengthening of exports will add to the pressures on U.S. resources and a firming of the prices of non-oil imports will raise costs directly and also reduce to some degree the competitive restraints on the prices of U.S. producers.

Domestically, substantial plant capacity is still available in some manufacturing industries and could continue to exert restraint on firms' pricing decisions, even with a diminution of competitive pressures from abroad. However, an already tight domestic labor market has tightened still further in recent months, and bidding for workers, together with further increases in health insurance costs that appear to be coming, seems likely to keep nominal hourly compensation costs moving up at a relatively brisk pace. To date, the increases in compensation have not had serious inflationary consequences because they have been offset by the advances in labor productivity, which have held unit labor costs in check. But the pool of available workers cannot continue to shrink without at some point touching off cost pressures that even a favorable productivity trend might not be able to counter. Although the governors and Reserve Bank presidents expect productivity gains to be substantial again this year, incoming data on costs, prices, and price expectations will be examined carefully to make sure a pickup of inflation does not start to become embedded in the economy.

The FOMC forecasts are more optimistic than the economic predictions that the Administration recently released, but the Administration has noted that it is being conservative in regard to its assumptions about productivity growth and the potential expansion of the economy. Relative to the Administration's forecast, the FOMC is predicting a somewhat larger rise in real GDP in 2000 and a slightly lower unemployment rate. The inflation forecasts are fairly similar, once account is taken of the tendency for the consumer price index to rise more rapidly than the chain-type price index for personal consumption expenditures.

Money and Debt Ranges for 2000

At its most recent meeting, the FOMC reaffirmed the monetary growth ranges for 2000 that were chosen on a provisional basis last July: 1 percent to 5 percent for M2, and 2 percent to 6 percent for M3. As has been the case for some time, these ranges were chosen to encompass money growth under conditions of price stability and historical velocity relationships, rather than to center on the expected growth of money over the coming year or serve as guides to policy.

Given continued uncertainty about movements in the velocities of M2 and M3 (the ratios of nominal GDP to the aggregates), the Committee still has little confidence that money growth within any particular range selected for the year would be associated with the economic performance it expected or desired.

2. Ranges for growth of monetary and debt aggregates

Percent

Aggregate	1998	1999	2000
M2	1–5	1–5	1–5
M3	2–6	2–6	2–6
Debt	3–7	3–7	3–7

NOTE. Change from average for fourth quarter of preceding year to average for fourth quarter of year indicated.

Nonetheless, the Committee believes that money growth has some value as an economic indicator, and it will continue to monitor the monetary aggregates among a wide variety of economic and financial data to inform its policy deliberations.

M2 increased 6¼ percent last year. With nominal GDP rising 6 percent, M2 velocity fell a bit overall, although it rose in the final two quarters of the year as market interest rates climbed relative to yields on M2 assets. Further increases in market interest rates early this year could continue to elevate M2 velocity. Nevertheless, given the Committee's expectations for nominal GDP growth, M2 could still be above the upper end of its range in 2000.

M3 expanded 7½ percent last year, and its velocity fell about 1¾ percent, a much smaller drop than in the previous year. Non-M2 components again exhibited double-digit growth, with some of the strength attributable to long-term trends and some to precautionary buildups of liquidity in advance of the century date change. One important trend is the shift by nonfinancial businesses from direct holdings of money market instruments to indirect holdings through institution-only money funds; such shifts boost M3 at the same time they enhance liquidity for businesses. Money market funds and large certificates of deposit also ballooned late in the year as a result of a substantial demand for liquidity around the century date change. Adjustments from the temporarily elevated level of M3 at the end of 1999 are likely to trim that aggregate's fourth-quarter-to-fourth-quarter growth this year, but not sufficiently to offset the downward trend in velocity. That trend, together with the Committee's expectation for nominal GDP growth, will probably keep M3 above the top end of its range again this year.

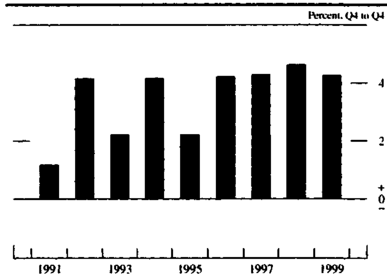
Domestic nonfinancial debt grew 6½ percent in 1999, near the upper end of the 3 percent to 7 percent growth range the Committee established last February. This robust growth reflected large increases in the debt of businesses and households that were due to substantial advances in spending as well as to debt-financed mergers and acquisitions. However, the increase in private-sector debt was partly offset by a substantial decline in federal debt. The Committee left the range for debt growth in 2000 unchanged at 3 percent to 7 percent. After an aberrant period in the 1980s during which debt expanded much more rapidly than nominal GDP, the growth of debt has returned to its historical pattern of about matching the growth of nominal GDP over the past decade, and the Committee members expect debt to remain within its range again this year.

ECONOMIC AND FINANCIAL DEVELOPMENTS IN 1999 AND EARLY 2000

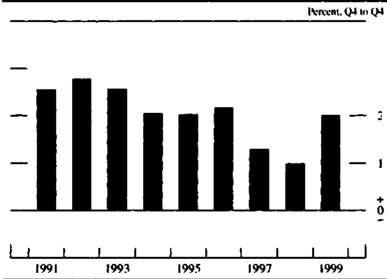
The U.S. economy retained considerable strength in 1999. According to the Commerce Department's advance estimate, the rise in real gross domestic product over the four quarters of the year exceeded 4 percent for the fourth consecutive year. The growth of household expenditures was bolstered by further substantial gains in real income, favorable borrowing terms, and a soaring stock market. Businesses seeking to maintain their competitiveness and profitability continued to invest heavily in high-tech equipment; external financing conditions in both debt and equity markets were quite supportive. In the public sector, further strong growth of revenues was accompanied by a step-up in the growth of government consumption and investment expenditures, the part of government spending that enters directly into real GDP. The rapid growth of domestic demand gave rise to a further huge increase in real imports of goods and services in 1999. Exports picked up as foreign economies strengthened, but the gain fell short of that for imports by a large margin. Available economic indicators for January of this year show the U.S. economy continuing to expand, with labor demand robust and the unemployment rate edging down to its lowest level in thirty years.

The combination of a strong U.S. economy and improving economic conditions abroad led to firmer prices in some markets this past year. Industrial commodity prices turned up—sharply in some cases—after having dropped appreciably in 1998. Oil prices, responding both to OPEC production restraint and to the growth of world demand, more than doubled over the course of the year, and the prices of non-oil imports declined less rapidly than in previous years,

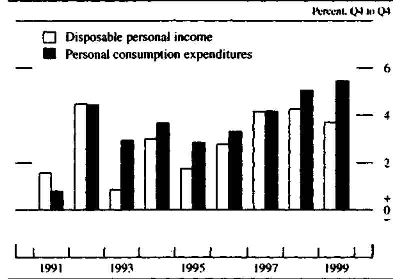
Change in real GDP



Change in PCE chain-type price index



Change in real income and consumption



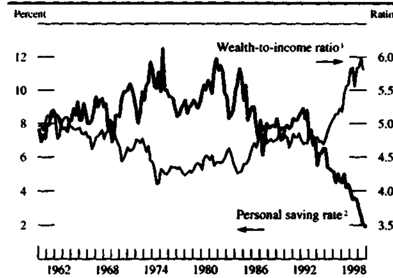
when a rising dollar, as well as sluggish conditions abroad, had pulled them lower. The higher oil prices of 1999 translated into sharp increases in retail energy prices and gave a noticeable boost to consumer prices overall; the chain-type price index for personal consumption expenditures rose 2 percent, double the increase of 1998. Outside the energy sector, however, consumer prices increased at about the same low rate as in the previous year, even as the unemployment rate continued to edge down. Rapid gains in productivity enabled businesses to offset a substantial portion of the increases in nominal compensation, thereby holding the rise of unit labor costs in check, and business pricing policies continued to be driven to a large extent by the desire to maintain or increase market share at the expense of some slippage in unit profits, albeit from a high level.

The Household Sector

Personal consumption expenditures increased about 5½ percent in real terms in 1999, a second year of exceptionally rapid advance. As in other recent years, the strength of consumption in 1999 reflected sustained increases in employment and real hourly pay, which bolstered the growth of real disposable personal income. Added impetus came from another year of rapid growth in net worth, which, coming on top of the big gains of previous years, led households in the aggregate to spend a larger portion of their current income than they would have otherwise. The personal saving rate, as measured in the national income and product accounts, dropped further, to an average of about 2 percent in the final quarter of 1999; it has fallen about 4½ percentage points over the past five years, a period during which yearly gains in household net worth have averaged more than 10 percent in nominal terms and the ratio of household wealth to disposable personal income has moved up sharply.

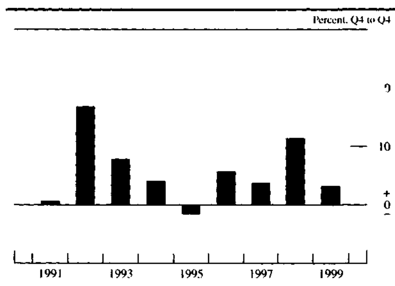
The strength of consumer spending this past year extended across a broad front. Appreciable gains were reported for most types of durable goods. Spending on motor vehicles, which had surged about 13½ percent in 1998, moved up another 5½ percent in 1999. The inflation-adjusted increases for furniture, appliances, electronic equipment, and other household durables also were quite large, supported in part by a strong housing market. Spending on services advanced about 4½ percent in real terms, led by sizable increases for recreation and personal business services. Outlays for nondurables, such as food and clothing, also rose rapidly. Exceptional strength in

Wealth and saving



1. Ratio of net worth of households to disposable personal income. The data extend through 1999:Q3.
2. The data extend through 1999:Q4.

Change in real residential investment



the purchases of some nondurables toward the end of the year may have reflected precautionary buying by consumers in anticipation of the century date change; it is notable in this regard that grocery store sales were up sharply in December and then fell back in January, according to the latest report on retail sales.

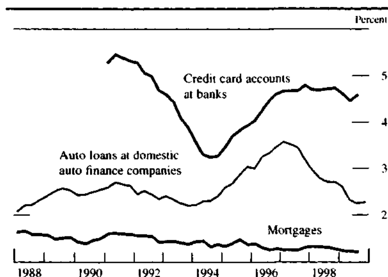
Households also continued to boost their expenditures on residential structures. After having surged 11 percent in 1998, residential investment rose about 3¼ percent over the four quarters of 1999, according to the advance estimate from the Commerce Department. Moderate declines in investment in the second half of the year offset only part of the increases recorded in the first half. As with consumption expenditures, investment in housing was supported by the sizable advances in real income and household net worth, but this spending category was also tempered a little by a rise in mortgage interest rates, which likely was an important factor in the second-half downturn.

Nearly all the indicators of housing activity showed upbeat results for the year. Annual sales of new and existing homes reached new peaks in 1999, surpassing the previous highs set in 1998. Although sales dropped back a touch in the second half of the year, their level through year-end remained quite high by historical standards. Builders' backlogs also were at high levels and helped support new construction activity even as sales eased. Late in the year, reports that shortages of skilled workers were delaying construction became less frequent as building activity wound down seasonally, but builders also continued to express concern about potential worker shortages in 2000. For 1999 in total, construction began on more than 1.3 million single-family dwellings, the most since the late 1970s; approximately 330,000 multifamily units also were started, about the same number as in each of the two previous years. House prices rose appreciably and, together with the new investment, further boosted household net worth in residential real estate.

The increases in consumption and residential investment in 1999 were, in part, financed by an expansion of household debt estimated at 9½ percent, the largest increase in more than a decade. Mortgage debt, which includes the borrowing against owner equity that may be used for purposes other than residential investment, grew a whopping 10¼ percent. Higher interest rates led to a sharp drop in refinancing activity and prompted a shift toward the use of adjustable-rate mortgages, which over the year rose from 10 percent to 30 percent of originations. Consumer credit advanced 7¼ percent, boosted by heavy demand for consumer durables and other big-ticket purchases. Credit supply conditions were also favorable; commercial banks reported in Federal Reserve surveys that they were more willing than in the previous year or two to make consumer installment loans and that they remained quite willing to make mortgage loans.

The household sector's debt-service burden edged up to its highest level since the late 1980s; however, with employment rising rapidly and asset values escalating, measures of credit quality for household debt generally improved in 1999. Delinquency rates on home mortgages and credit cards declined a bit, and those on auto loans fell more noticeably. Personal bankruptcy filings fell sharply after having risen for several years to 1997 and remaining elevated in 1998.

Delinquency rates on household loans



NOTE. The data are quarterly. Data on credit-card delinquencies are from bank Call Reports; data on auto loan delinquencies are from the Big Three automakers; data on mortgage delinquencies are from the Mortgage Bankers Association.

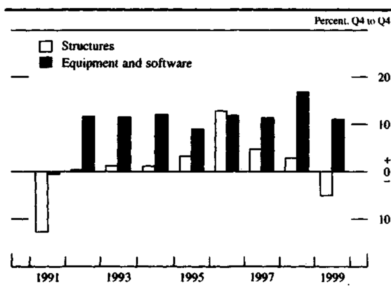
The Business Sector

Private nonresidential fixed investment increased 7 percent during 1999, extending by another year a long run of rapid growth in real investment outlays. Strength in capital investment has been underpinned in recent years by the vigor of the business expansion, by the advance and spread of computer technologies, and by the ability of most businesses to readily obtain funding through the credit and equity markets.

Investment in high-tech equipment continued to soar in 1999. Outlays for communications equipment rose about 25 percent over the course of the year, boosted by a number of factors, including the expansion of wireless communications, competition in telephone markets, the continued spread of the Internet, and the demand of Internet users for faster access to it. Computer outlays rose nearly 40 percent in real terms, and the purchases of computer software, which in the national accounts are now counted as part of private fixed investment, rose about 13 percent; for both computers and software the increases were roughly in line with the annual average gains during previous years of the expansion.

The timing of investment in high-tech equipment over the past couple of years was likely affected to some degree by business preparations for the century date change. Many large businesses reportedly invested most heavily in new computer equipment before the start of 1999 to leave sufficient time for their systems to be tested well before the start of 2000; a very steep rise in computer investment in 1998—roughly 60 percent in real terms—is consistent with those reports. Some of the purchases in preparation for Y2K most likely spilled over into 1999, but the past year also brought numerous reports of businesses wanting to stand pat with existing systems until after the turn of the year. Growth in computer investment in the final quarter of 1999, just before the century rollover, was the smallest in several quarters.

Change in real nonresidential fixed investment



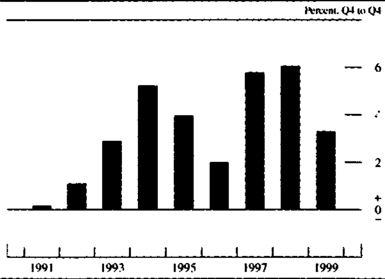
Spending on other types of equipment rose moderately, on balance, in 1999. Outlays for transportation equipment increased substantially, led by advances in business purchases of motor vehicles and aircraft. By contrast, a sharp decline in spending on industrial machinery early in the year held the yearly gain for that category to about 2 percent; over the final three quarters of the year, however, outlays picked up sharply as industrial production strengthened.

Private investment in nonresidential structures fell 5 percent in 1999 according to the advance estimate from the Commerce Department. Spending on structures had increased in each of the previous seven years, rather briskly at times, and the level of investment, though down this past year, remained relatively high and likely raised the real stock of capital invested in structures appreciably further. Real expenditures on office buildings, which have been climbing rapidly for several years, moved up further in 1999, to the highest level since the peak of the building boom of the 1980s. In contrast, investment in other types of commercial structures, which had already regained its earlier peak, slipped back a little, on net, this past year. Spending on industrial structures, which accounts for roughly 10 percent of total real outlays on structures, fell for a third consecutive year. Outlays for the main types of institutional structures also were down, according to the initial estimates. Revisions to the data on nonresidential structures often are sizable, and the estimates for each of the three years preceding 1999 have eventually shown a good bit more strength than was initially reported.

After increasing for two years at a rate of about 6 percent, nonfarm business inventories expanded more slowly this past year—about 3¼ percent according to the advance GDP report. During the year, some businesses indicated that they planned to carry heavier stocks toward year-end to protect themselves against possible Y2K disruptions, and the rate of accumulation did in fact pick up appreciably in the fall. But business final sales remained strong, and the ratio of nonfarm stocks to final sales changed little, holding toward the lower end of the range of the past decade. With the ratio so low, businesses likely did not enter the new year with excess stocks.

After slowing to a 1 percent rise in 1998, the economic profits of U.S. corporations—that is, book profits with inventory valuation and capital consumption adjustments—picked up in 1999. Economic profits over the first three quarters of the year averaged

Change in real private nonfarm inventories



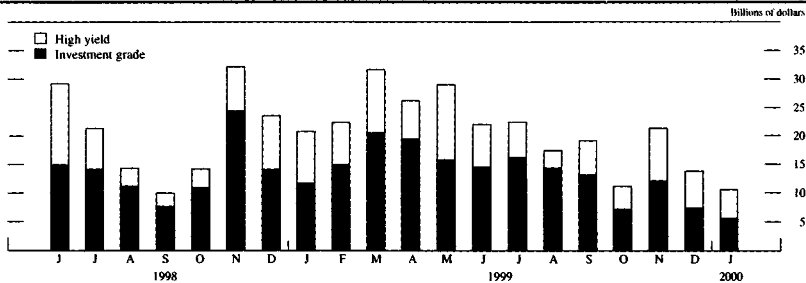
Before-tax profits as a share of GDP

NOTE. Profits from domestic operations, with inventory valuation and capital consumption adjustments, divided by gross domestic product of nonfinancial corporate sector. The data extend through 1999:Q3.

about 3½ percent above the level of a year earlier. The earnings of corporations from their operations outside the United States rebounded in 1999 from a brief but steep decline in the second half of 1998, when financial market disruptions were affecting the world economy. The profits earned by financial corporations on their domestic operations also picked up after having been slowed in 1998 by the financial turmoil; growth of these profits in 1999 would have been greater but for a large payout by insurance companies to cover damage from Hurricane Floyd. The profits that nonfinancial corporations earned on their domestic operations in the first three quarters of 1999 were about 2½ percent above the level of a year earlier; growth of these earnings, which account for about two-thirds of all economic profits, had slowed to just over 2 percent in 1998 after averaging 13 percent at a compound annual rate in the previous six years. Nonfinancial corporations have boosted volume substantially further over the past two years, but profits per unit of output have dropped back somewhat from their 1997 peak. As of the third quarter of last year, economic profits of nonfinancial corporations amounted to slightly less than 11½ percent of the nominal output of these companies, compared with a quarterly peak of about 12¾ percent two years earlier.

The borrowing needs of nonfinancial corporations remained sizable in 1999. Capital spending outstripped internal cash flow, and equity retirements that resulted from stock repurchases and a blockbuster pace of merger activity more than offset record volumes of both seasoned and initial public equity offerings. Overall, the debt of nonfinancial businesses grew 10½ percent, down only a touch from its decade-high 1998 pace.

Gross corporate bond issuance



NOTE. Excludes unrated issues and issues sold abroad.

The strength in business borrowing was widespread across funding sources. Corporate bond issuance was robust, particularly in the first half of the year, though the markets' increased preference for liquidity and quality, amid an appreciable rise in defaults on junk bonds, left issuance of below-investment-grade securities down more than a quarter from their record pace in 1998. The receptiveness of the capital markets helped firms to pay down loans at banks—which had been boosted to an 11¾ percent gain in 1998 by the financial market turmoil that year—and growth in these loans slowed to a more moderate 5¼ percent pace in 1999. The commercial paper market continued to expand rapidly, with domestic nonfinancial outstandings rising 18 percent on top of the 14 percent gain in 1998.

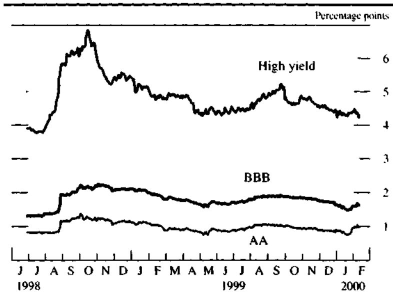
Commercial mortgage borrowing was strong again as well, as real estate prices generally continued to rise, albeit at a slower pace than in 1998, and vacancy rates generally remained near historical lows. The mix of lending shifted back to banks and life insurance companies from commercial mortgage-backed securities, as conditions in the CMBS market, especially investor appetites for lower-rated tranches, remained less favorable than they had been before the credit market disruptions in the fall of 1998.

Risk spreads on corporate bonds seesawed during 1999. Over the early part of the year, spreads reversed part of the 1998 run-up as markets recovered. During the summer, they rose again in response to concerns about market liquidity, expectations of a surge in financing before the century date change, and anticipated firming of monetary policy. Swap spreads, in particular, exhibited upward pressure at this time. The likelihood of year-end difficulties seemed to diminish in the fall, and spreads again retreated, ending the year down on balance but generally above the levels that had prevailed over the several years up to mid-1998.

Federal Reserve surveys indicated that banks firmed terms and standards for commercial and industrial loans a bit further, on balance, in 1999. In the syndicated loan market, spreads for lower-rated borrowers also ended the year higher, on balance, after rising substantially in 1998. Spreads for higher-rated borrowers were fairly steady through 1998 and early 1999, widened a bit around midyear, and then fell back to end the year about where they had started.

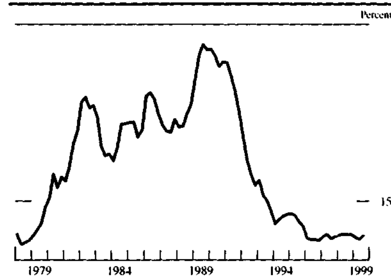
The ratio of net interest payments to cash flow for nonfinancial firms remained in the low range it has occupied for the past few years, but many measures of credit quality nonetheless deteriorated in 1999. Moody's Investors Service downgraded more nonfinancial debt issuers than it upgraded over the year, affecting a net $78 billion of debt. The problems that emerged in the bond market were concentrated mostly among borrowers in the junk sector, and partly reflected a fallout from the large volume of issuance and the generous terms available in 1997 and early 1998; default rates on junk bonds rose to levels not seen since the recession of 1990–91. Delinquency rates on C&I loans at commercial banks ticked up in 1999, albeit from very low levels, while the charge-off rate for those loans continued on its upward trend of the past several years. Business failures edged up last year but remained in a historically low range.

Spreads of corporate bond yields over Treasury security yields



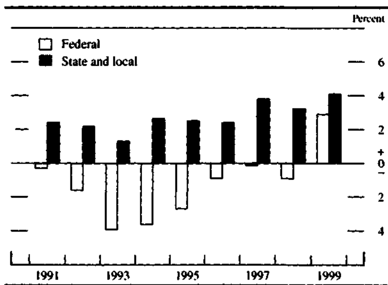
NOTE. The data are daily. The spread of high-yield bonds compares the yield on the Merrill Lynch 175 index with that on a seven-year Treasury; the other two spreads compare yields on the appropriate Merrill Lynch indexes with that on a ten-year Treasury. Last observations are for February 11, 2000.

Net interest payments of nonfinancial corporations relative to cash flow



NOTE. The data are quarterly and extend through 1999:Q3.

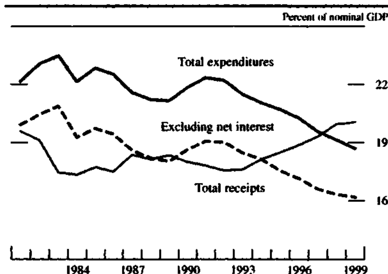
Annual change in real government expenditures on consumption and investment



The Government Sector

Buoyed by rapid increases in receipts and favorable budget balances, the combined real expenditures of federal, state, and local governments on consumption and investment rose about 4¾ percent from the fourth quarter of 1998 to the fourth quarter of 1999. Annual data, which smooth through some of the quarterly noise that is often evident in government outlays, showed a gain in real spending of more than 3½ percent this past year, the largest increase of the expansion. Federal expenditures on consumption and investment were up nearly 3 percent in annual terms; real defense expenditures, which had trended lower through most of the 1990s, rose moderately, and outlays for nondefense consumption and investment increased sharply. Meanwhile, the consumption and investment expenditures of state and local governments rose more than 4 percent in annual terms; growth of these outlays has picked up appreciably as the expansion has lengthened.

Federal receipts and expenditures



NOTE. The data are from the unified budget and are for the fiscal year ended in September.

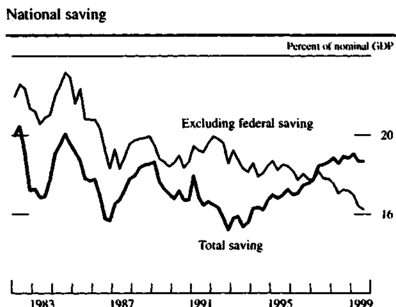
At the federal level, expenditures in the unified budget rose 3 percent in fiscal 1999, just a touch less than the 3¼ percent rise of the preceding fiscal year. Faster growth of nominal spending on items that are included in consumption and investment was offset in the most recent fiscal year by a deceleration in other categories. Net interest outlays fell more than 5 percent—enough to trim total spending growth about ¾ percentage point—and only small increases were recorded in expenditures for social insurance and income security, categories that together account for nearly half of total federal outlays. In contrast, federal expenditures on Medicaid, after having slowed in 1996 and 1997, picked up again in the past two fiscal years. Spending on agriculture doubled in fiscal 1999; the increase resulted both from a step-up in payments under farm safety net programs that were retained in the "freedom to farm" legislation of 1996 and from more recent emergency farm legislation.

Federal receipts grew 6 percent in fiscal 1999 after increases that averaged close to 9 percent in the two previous fiscal years. Net receipts from taxes on individuals continued to outpace the growth of personal income, but by less than in other recent years, and receipts from corporate income taxes fell moderately. Nonetheless, with total receipts growing faster than spending, the surplus in the unified budget continued to rise, moving from $69 billion in fiscal 1998 to $124 billion this past fiscal year. Excluding net interest payments—a charge resulting from past deficits—the federal government recorded a surplus of more than $350 billion in fiscal 1999.

Federal saving, a measure that results from a translation of the federal budget surplus into terms consistent with the national income and product accounts, amounted to 2¼ percent of nominal GDP in the first three quarters of 1999, up from 1½ percent in 1998 and ½ percent in 1997. Before 1997, federal saving had been negative for seventeen consecutive years, by amounts exceeding 3 percent of nominal GDP in several years—most recently in 1992. The change in the federal government's saving position from 1992 to 1999 more than offset the sharp drop in the personal saving rate and helped lift national saving from less than 16 percent of nominal GDP in 1992 and 1993 to a range of about 18½ percent to 19 percent over the past several quarters.

Federal debt growth has mirrored the turnabout in the government's saving position. In the 1980s and early 1990s, borrowing resulted in large additions to the volume of outstanding government debt. In contrast, with the budget in surplus the past two

National saving

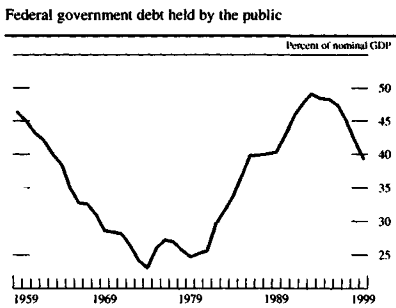


NOTE. National saving includes the gross saving of households, businesses, and governments. The data extend through 1999:Q3.

years, the Treasury has been paying down debt. Without the rise in federal saving and the reversal in borrowing, interest rates in recent years likely would have been higher than they have been, and private capital formation, a key element in the vigorous economic expansion, would have been lower, perhaps appreciably.

The Treasury responded to its lower borrowing requirements in 1999 primarily by reducing the number of auctions of thirty-year bonds from three to two and by trimming auction sizes for notes and Treasury inflation-indexed securities (TIIS). Weekly bill volumes were increased from 1998 levels, however, to help build up cash holdings as a Y2K precaution. For 2000, the Treasury plans major changes in debt management in an attempt to keep down the average maturity of the debt and maintain sufficient auction sizes to support the liquidity and benchmark status of its most recently issued securities, while still retiring large volumes of debt. Alternate quarterly refunding auctions of five- and ten-year notes and semiannual auctions of thirty-year bonds will now be smaller reopenings of existing issues rather than new issues. Thirty-year TIIS will now be auctioned once a year rather than twice, and the two auctions of ten-year TIIS will be modestly reduced. Auctions of one-year Treasury bills will drop from thirteen a year to four, while weekly bill volumes will rise somewhat. Finally, the Treasury plans to enter the market to buy back in "reverse auctions" as much as $30 billion of outstanding securities this year, beginning in March or April.

Federal government debt held by the public



NOTE. The data are annual.

State and local government debt expanded 4¼ percent in 1999, well off last year's elevated pace. Borrowing for new capital investment edged up, but the roughly full-percentage-point rise in municipal bond yields over the year led to a sharp drop in advance refundings, which in turn pulled gross issuance below last year's level. Tax revenues continued to grow at a robust rate, improving the financial condition of states and localities, as reflected in a ratio of debt rating upgrades to downgrades of more than three to one over the year. The surplus in the current account of state and local governments in the first three quarters of 1999 amounted to about ½ percent of nominal GDP, about the same as in 1998 but otherwise the largest of the past several years.

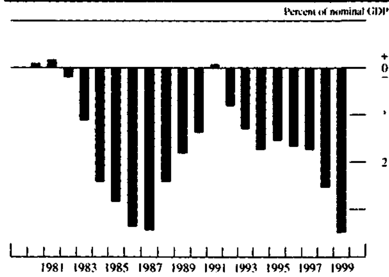
The External Sector

Trade and the Current Account

U.S. external balances deteriorated in 1999 largely because of continued declines in net exports of goods and services and some further weakening of net investment income. The nominal trade deficit for goods and services widened more than $100 billion in 1999, to an estimated $270 billion, as imports expanded faster than exports. For the first three quarters of the year, the current account deficit increased more than one-third, reaching $320 billion at an annual rate, or 3½ percent of GDP. In 1998, the current account deficit was 2½ percent of GDP.

Real imports of goods and services expanded strongly in 1999—about 13 percent according to preliminary estimates—as the rapid import growth during the first half of the year was extended through the second half. The expansion of real imports was fueled by the continued strong growth of U.S. domestic expenditures. Declines in non-oil import prices through most of the year, partly reflecting previous dollar appreciation, contributed as well. All major

U.S. current account

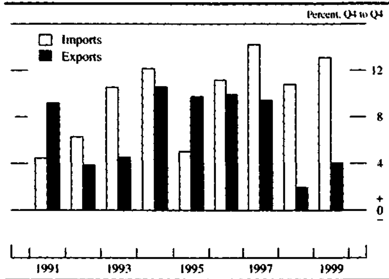


NOTE. The observation for 1999 is the average for the first three quarters of the year.

import categories other than aircraft and oil recorded strong increases. While U.S. consumption of oil rose about 4 percent in 1999, the quantity of oil imported was about unchanged, and inventories were drawn down.

Real exports of goods and services rose an estimated 4 percent in 1999, a somewhat faster pace than in 1998. Economic activity abroad picked up, particularly in Canada, Mexico, and Asian developing economies. However, the lagged effects of relative prices owing to past dollar appreciation held down exports. An upturn in U.S. exports to Canada, Mexico, and key Asian emerging markets contrasted with a much flatter pace of exports to Europe, Japan, and South America. Capital equipment composed about 45 percent of U.S. goods exports, industrial supplies were 20 percent, and agricultural, automotive, and consumer goods were each roughly 10 percent.

Change in real imports and exports of goods and services



Capital Account

U.S. capital flows in 1999 reflected the relatively strong cyclical position of the U.S. economy and the global wave of corporate mergers. Foreign purchases of U.S. securities remained brisk—near the level of the previous two years, in which they had been elevated by the global financial unrest. The composition of foreign securities purchases in 1999 showed a continued shift away from Treasuries, in part because of the U.S. budget surplus and the decline in the supply of Treasuries relative to other securities and, perhaps, to a general increased tolerance of foreign investors for risk as markets calmed after their turmoil of late 1998. Available data indicate that private foreigners sold on net about $20 billion in Treasuries, compared with net purchases of $50 billion in 1998 and $150 billion in 1997. These sales of Treasuries were more than offset by a pickup in foreign purchases of their nearest substitute—government agency bonds—as well as corporate bonds and equities.

Foreign direct investment flows into the United States were also robust in 1999, with the pace of inflows in the first three quarters only slightly below the record inflow set in 1998. As in 1998, direct investment inflows last year were elevated by several large mergers, which left their imprint on other parts of the capital account as well. In the past two years, many of the largest mergers have been financed by a swap of equity in the foreign acquiring firm for equity in the U.S. firm being acquired. The Bureau of Economic Analysis estimates that U.S. residents acquired more than $100 billion of foreign equity through this mechanism in the first three quarters of 1999. Separate data on market transactions indicate that U.S. residents made net purchases of Japanese equities. They also sold European equities, probably in an attempt to rebalance portfolios in light of the equity acquired through stock swaps. U.S. residents on net purchased a small volume of foreign bonds in 1999. U.S. direct investment in foreign economies also reflected the global wave of merger activity in 1999 and will likely total something near its record level of 1998.

Available data indicate a return to sizable capital inflows from foreign official sources in 1999, following a modest outflow in 1998. The decline in foreign official assets in the United States in 1998 was fairly widespread, as many countries found their currencies under unwanted downward pressure during the turmoil. By contrast, the increase in foreign official reserves in the United States in 1999 was fairly concentrated in a relatively few countries that experi-

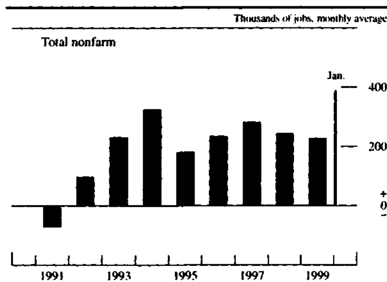
enced unwanted upward pressure on their currencies vis-à-vis the U.S. dollar.

The Labor Market

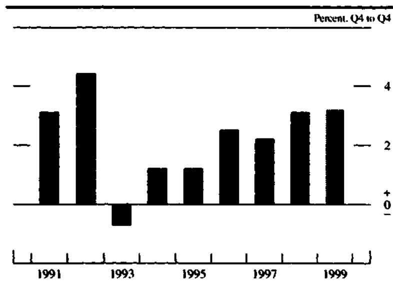
As in other recent years, the rapid growth of aggregate output in 1999 was associated with both strong growth of productivity and brisk gains in employment. According to the initial estimate for 1999, output per hour in the nonfarm business sector rose 3¼ percent over the four quarters of the year, and historical data were revised this past year to show stronger gains than previously reported in the years preceding 1999. As the data stand currently, the average rate of rise in output per hour over the past four years is about 2¾ percent—up from an average of 1½ percent from the mid-1970s to the end of 1995. Some of the step-up in productivity growth since 1995 can be traced to high levels of capital spending and an accompanying faster rate of increase in the amount of capital per worker. Beyond that, the causes are more difficult to pin down quantitatively but are apparently related to increased technological and organizational efficiencies. Firms are not only expanding the stock of capital but are also discovering many new uses for the technologies embodied in that capital, and workers are becoming more skilled at employing the new technologies.

The number of jobs on nonfarm payrolls rose slightly more than 2 percent from the end of 1998 to the end of 1999, a net increase of 2.7 million. Annual job gains had ranged between 2¼ percent and 2¾ percent over the 1996–98 period. Once again in 1999, the private service-producing sector accounted for most of the total rise in payroll employment, led by many of the same categories that had been strong in previous years—transportation and communications, computer services, engineering and management, recreation, and personnel supply. In the construction sector, employment growth remained quite brisk—more than 4 percent from the final quarter of 1998 to the final quarter of 1999. Manufacturing employment, influenced by spillover from the disruptions in foreign economies, continued to decline sharply in the first half of the year, but losses thereafter were small as factory production strengthened. Since the start of the expansion in 1991, the job count in manufacturing has changed little, on net, but with factory productivity rising rapidly, manufacturing output has trended up at a brisk pace.

Change in payroll employment

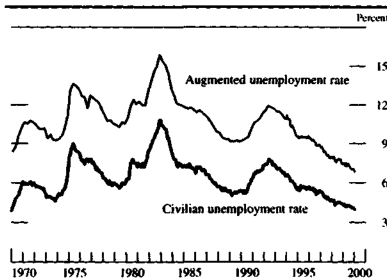


Change in output per hour



NOTE. Nonfarm business sector.

Measures of labor utilization

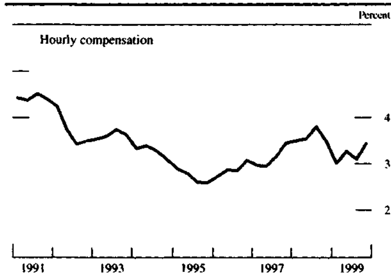


NOTE. The augmented unemployment rate is the number of unemployed plus those who are not in the labor force and want a job, divided by the civilian labor force plus those who are not in the labor force and want a job. The break in data at January 1994 marks the introduction of a redesigned survey; data from that point on are not directly comparable with those of earlier periods. The data extend through January 2000.

In 1999, employers continued to face a tight labor market. Some increase in the workforce came from the pool of the unemployed, and the jobless rate declined to an average of 4.1 percent in the fourth quarter. In January 2000, the rate edged down to 4.0 percent, the lowest monthly reading since the start of the 1970s. Because the unemployment rate is a reflection only of the number of persons who are available for work and actively looking, it does not capture potential labor supply that is one step removed—namely those individuals who are interested in working but are not actively seeking work at the current time. However, like the unemployment rate itself, an augmented rate that includes these interested nonparticipants also has declined to a low level, as more individuals have taken advantage of expanding opportunities to work.

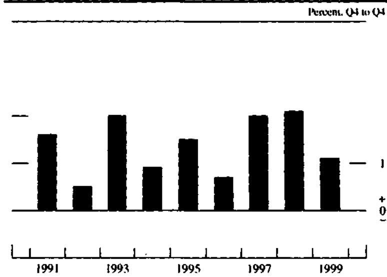
Although the supply–demand balance in the labor market tightened further in 1999, the added pressure did not translate into bigger increases in nominal hourly compensation. The employment cost index for hourly compensation of workers in private nonfarm industries rose 3.4 percent in nominal terms during 1999, little changed from the increase of the previous year, and an alternative measure of hourly compensation from the nonfarm productivity and cost data slowed from a 5¼ percent increase in 1998 to a 4½ percent rise this past year. Compensation gains in 1999 probably were influenced, in part, by the very low inflation rate of 1998, which resulted in unexpectedly large increases in inflation-adjusted pay in that year and probably damped wage increments last year. According to the employment cost index, the hourly wages of workers in private industry rose 3½ percent in nominal terms after having increased

Change in employment cost index



NOTE. Change from one year earlier. Private industry, excluding farm and household workers. Data extend through December 1999.

Change in unit labor costs



NOTE. Nonfarm business sector.

about 4 percent in each of the two previous years. The hourly cost to employers of the nonwage benefits provided to employees also rose 3½ percent in 1999, but this increase was considerably larger than those of the past few years. Much of the pickup in benefit costs came from a faster rate of rise in the costs of health insurance, which were reportedly driven up by several factors: a moderate acceleration in the price of medical care, the efforts of some insurers to rebuild profit margins, and the recognition by employers that an attractive health benefits package was helpful in hiring and retaining workers in a tight labor market.

Because the employment cost index does not capture some forms of compensation that employers have been using more extensively—for example, stock options, signing bonuses, and employee price discounts on in-store purchases—it has likely been understating the true size of workers' gains. The productivity and cost measure of hourly compensation captures at least some of the labor costs that the employment cost index omits, and this broader coverage may explain why the productivity and cost measure has been rising faster. However, it, too, is affected by problems of measurement, some of which would lead to overstatement of the rate of rise in hourly compensation.

With the rise in output per hour in the nonfarm business sector in 1999 offsetting about three-fourths of the rise in the productivity and cost measure of nominal hourly compensation, nonfarm unit labor costs were up just a shade more than 1 percent. Unit labor costs had increased slightly more than 2 percent in both 1997 and 1998 and less than 1 percent in 1996. Because labor costs are by far the most important item in total unit costs, these small increases have been crucial to keeping inflation low.

3. Alternative measures of price change
Percent

Price measure	1998	1999
Chain-type		
Gross domestic product	1.1	1.6
Gross domestic purchases	.7	1.9
Personal consumption expenditures	1.0	2.0
Excluding food and energy	1.4	1.5
Fixed-weight		
Consumer price index	1.5	2.6
Excluding food and energy	2.3	2.0

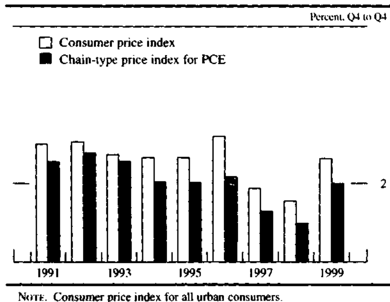
NOTE. Changes are based on quarterly averages and are measured to the fourth quarter of the year indicated from the fourth quarter of the preceding year.

Prices

Rates of increase in the broader measures of aggregate prices in 1999 were somewhat larger than those of 1998. The chain-type price index for GDP—which measures inflation for goods and services *produced* domestically—moved up about 1½ percent, a pickup of ½ percentage point from the increase of 1998. In comparison, acceleration in various price measures for goods and services *purchased* amounted to 1 percentage point or more: The chain-type price index for personal consumption expenditures increased 2 percent, twice as much as in the previous year, and the chain-type price index for gross domestic purchases, which measures prices of the aggregate purchases of consumers, businesses, and governments, moved up close to 2 percent after an increase of just ¾ percent in 1998. The consumer price index rose more than 2½ percent over the four quarters of the year after having increased 1½ percent in 1998.

The acceleration in the prices of goods and services purchased was driven in part by a reversal in import prices. In 1998, the chain-type price index for imports of goods and services had fallen 5 percent, but it rose 3 percent in 1999. A big swing in oil prices—down in 1998 but up sharply in 1999—accounted for a large part of this turnaround. Excluding oil, the prices of imported goods continued to fall in 1999 but, according to the initial estimate, less rapidly than over the three previous years, when downward pressure from appreciation of the dollar had been considerable. The prices of imported materials and supplies rebounded, but the prices of imported capital goods fell sharply further. Meanwhile, the chain-type price index for exports increased 1 percent in the latest year, reversing a portion of the 2½ percent drop of 1998, when the sluggishness of foreign economies and the strength of the dollar had pressured U.S. producers to mark down the prices charged to foreign buyers.

Change in consumer prices



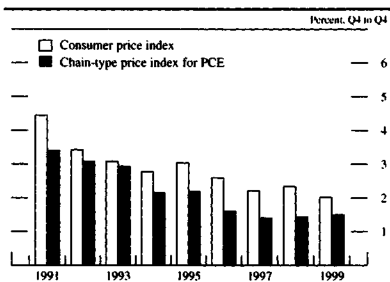
NOTE. Consumer price index for all urban consumers.

Prices of domestically produced primary materials, which tend to be especially sensitive to developments in world markets, rebounded sharply in 1999. The producer price index for crude materials excluding food and energy advanced about 10 percent after having fallen about 15 percent in 1998, and the PPI for intermediate materials excluding food and energy increased about 1½ percent, reversing a 1998 decline of about that same size. But further along in the chain of processing and distribution, the effects of these increases were not very visible. The producer price index for finished goods excluding food and energy rose slightly less rapidly in 1999 than in 1998, and the consumer price index for goods excluding food and energy rose at about the same low rate that it had in 1998. Large gains in productivity and a margin of excess capacity in the industrial sector helped keep prices of goods in check, even as growth of domestic demand remained exceptionally strong.

"Core" inflation at the consumer level—which takes account of the prices of services as well as the prices of goods and excludes food and energy prices—changed little in 1999. The increase in the core index for personal consumption expenditures, 1½ percent over the four quarters of the year, was about the same as the increase in 1998. As measured by the CPI, core inflation was 2 percent this past year, about ¼ percentage point lower than in 1998, but the deceleration was a reflection of a change in CPI methodology that had taken place at the start of last year; on a methodologically consistent basis, the rise in the core CPI was about the same in both years.

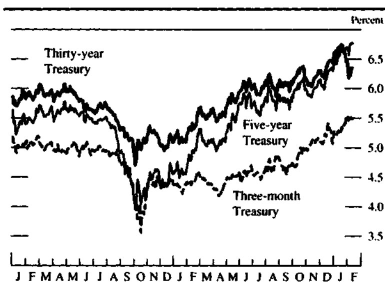
In the national accounts, the chain-type price index for private fixed investment edged up ¼ percent in 1999 after having fallen about ¾ percent in 1998. With construction costs rising, the index for residential investment increased 3¾ percent, its largest advance in several years. By contrast, the price index

Change in consumer prices excluding food and energy



NOTE. Consumer price index for all urban consumers.

Selected Treasury rates, daily data



NOTE. Last observations are for February 11, 2000.

for nonresidential investment declined moderately, as a result of another drop in the index for equipment and software. Falling equipment prices are one channel through which faster productivity gains have been reshaping the economy in recent years; the drop in prices has contributed to high levels of investment, rapid expansion of the capital stock, and a step-up in the growth of potential output.

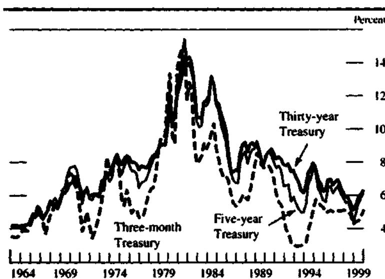
U.S. Financial Markets

Financial markets were somewhat unsettled as 1999 began, with the disruptions of the previous autumn still unwinding and the devaluation of the Brazilian *real* causing some jitters around mid-January. However, market conditions improved into the spring, evidenced in part by increased trading volumes and narrowed bid–asked and credit spreads, as it became increasingly evident that strong growth was continuing in the United States, and that economies abroad were rebounding. In this environment, market participants began to anticipate that the Federal Reserve would reverse the policy easings of the preceding fall, and interest rates rose. Nevertheless, improved profit expectations apparently more than offset the interest rate increases, and equity prices continued to climb until late spring. From May into the fall, both equity prices and longer-term interest rates moved in a choppy fashion, while short-term interest rates moved up with monetary policy tightenings in June, August, and November. Worries about Y2K became pronounced after midyear, and expectations of an acceleration of borrowing ahead of the fourth quarter prompted a resurgence in liquidity and credit premiums. In the closing months of the year, however, the likelihood of outsized demands for credit and liquidity over the year-end subsided, causing spreads to narrow, and stock prices surged once again. After the century date change passed without disruptions, liquidity improved and trading volumes grew, although both bond and equity prices have remained quite volatile so far this year.

Interest Rates

Over the first few months of 1999, short-term Treasury rates moved in a narrow range, anchored by an unchanged stance of monetary policy. Yields on intermediate- and long-term Treasury securities rose, however, as the flight to quality and liquidity of the preceding fall unwound, and incoming data pointed

Selected Treasury rates, quarterly data



NOTE. The twenty-year Treasury bond rate is shown until the first issuance of the thirty-year Treasury bond in February 1977. The data extend through the fourth quarter of 1999.

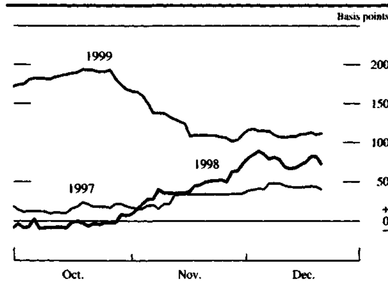
to continued robust economic growth and likely Federal Reserve tightening. Over most of the rest of the year, short-term Treasury rates moved broadly in line with the three quarter-point increases in the target federal funds rate; longer-term yields rose less, as markets had already anticipated some of those policy actions.

Bond and note yields moved sharply higher from early November 1999 to mid-January 2000, as Y2K fears diminished, incoming data indicated surprising economic vitality, and the century date change was negotiated without significant technical problems. In recent weeks, long-term Treasury yields have retraced a good portion of that rise on expectations of reduced supply stemming from the Treasury's new buyback program and reductions in the amount of bonds to be auctioned. This rally has been mostly confined to the long end of the Treasury market; long-term corporate bond yields have fallen only slightly, and yields are largely unchanged or have risen a little further at maturities of ten years or less, where most private borrowing is concentrated.

Concerns about liquidity and credit risk around the century date change led to large premiums in private money market rates in the second half of 1999. During the summer, this "safe haven" demand held down rates on Treasury bills maturing early in the new year, until the announcement in August that the Treasury was targeting an unusually large year-end cash balance, implying that it would issue a substantial volume of January-dated cash management bills. Year-end premiums in eurodollar, commercial paper, term federal funds, and other money markets—measured as the implied forward rate for a monthlong period spanning the turn relative to the rate for a neighboring period—rose earlier and reached much higher levels than in recent years.

Those year-end premiums peaked in late October and then declined substantially, as markets reflected increased confidence in technical readiness and special assurances from central banks that sufficient liquidity would be available around the century date change. Important among these assurances were several of the Federal Reserve initiatives described in the first section of this report. Securities dealers took particular advantage of the widened pools of acceptable collateral for open market operations and used large volumes of federal agency debt and mortgage-backed securities in repurchase agreements with the Open Market Desk in the closing weeks of the year, which helped to relieve a potential scarcity of Treasury collateral over the turn. Market participants also purchased options on nearly $500 billion worth of repurchase agreements under the standby financing facility and pledged more than $650 billion of collateral for borrowing at the discount window. With the smooth rollover, however, none of the RP options were exercised, and borrowing at the discount window turned out to be fairly light.

Eurodollar deposit forward premium over year-end

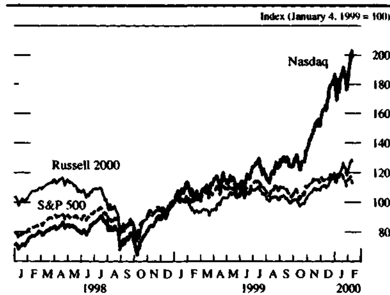


NOTE. The data are daily. For October the forward premiums are one-month forward rates two months ahead less one-month forward rates one month ahead; for November they are one-month forward rates one month ahead less one-month deposit rates; and for December they are three-week forward rates one week ahead less one-week deposit rates. The December forward premiums extend into the third week of December.

Equity Prices

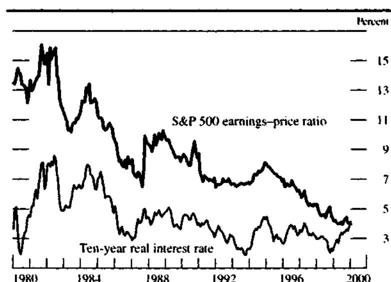
Nearly all major stock indexes ended 1999 in record territory. The Nasdaq composite index paced the advance by soaring 86 percent over the year, and the S&P 500 and Dow Jones Industrial Average posted still-impressive gains of 20 percent and 25 percent.

Major stock price indexes



NOTE. The data are daily. Last observations are for February 11, 2000.

Equity valuation and long-term real interest rate



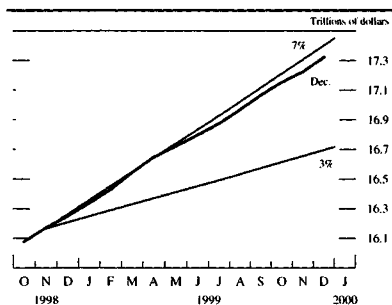
NOTE. The data are monthly and extend through January 2000. The earnings–price ratio is based on the I/B/E/S International, Inc., consensus estimate of earnings over the coming twelve months. The real interest rate is the yield on the ten-year Treasury note less the ten-year inflation expectations from the Federal Reserve Bank of Philadelphia Survey of Professional Forecasters.

Last year was the fifth consecutive year that all three indexes posted double-digit returns. Most stock indexes moved up sharply over the first few months of the year and were about flat on net from May through August; they then declined into October before surging in the final months of the year. The Nasdaq index, in particular, achieved most of its annual gains in November and December. Stock price advances in 1999 were not very broad-based, however: More than half of the S&P 500 issues lost value over the year. So far in 2000, stock prices have been volatile and mixed; major indexes currently span a range from the Dow's nearly 10 percent drop to the Nasdaq's 8 percent advance.

Almost all key industry groups performed well. One exception was shares of financial firms, which were flat, on balance. Investor perceptions that rising interest rates would hurt earnings and, possibly, concern over loan quality apparently offset the boost resulting from passage in the fall of legislation reforming the depression-era Glass–Steagall constraints on combining commercial banking with insurance and investment banking. Small-cap stocks, which had lagged in 1998, also performed well; the Russell 2000 index climbed 20 percent over the year and finally surpassed its April 1998 peak in late December.

At large firms, stock price gains about kept pace with expected earnings growth in 1999, and the S&P 500 one-year-ahead earnings–price ratio fluctuated around the historically low level of 4 percent even as real interest rates rose. Meanwhile, the Nasdaq composite index's earnings–price ratio (using actual twelve-month trailing earnings) plummeted from an already-slim 1¼ percent to ½ percent, suggesting that investors are pricing in expectations of tremendous earnings growth at technology firms relative to historical norms.

Domestic nonfinancial debt: Annual range and actual level

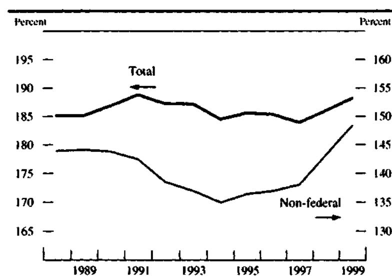


Debt and the Monetary Aggregates

Debt and Depository Intermediation

The debt of domestic nonfinancial sectors is estimated to have grown 6½ percent in 1999 on a fourth-quarter-to-fourth-quarter basis, near the upper end of the FOMC's 3 percent to 7 percent range and about a percentage point faster than nominal GDP. As was the case in 1998, robust outlays on consumer durable goods, housing, and business investment, as well as substantial net equity retirements, helped sustain nonfederal sector debt growth at rates above

Domestic nonfinancial debt as a percentage of nominal GDP

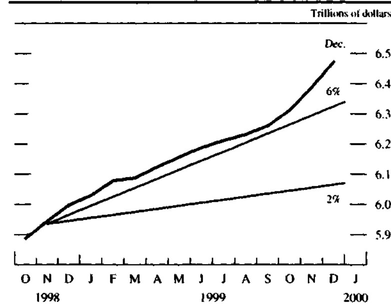


NOTE. The data are annual.

9 percent. Meanwhile, the dramatically increased federal budget surplus allowed the Treasury to reduce its outstanding debt about 2 percent. These movements follow the pattern of recent years whereby increases in the debt of households, businesses, and state and local governments relative to GDP have come close to matching declines in the federal government share, consistent with reduced pressure on available savings from the federal sector facilitating private borrowing.

After increasing for several years, the share of total credit accounted for by depository institutions leveled out in 1999. Growth in credit extended by those institutions edged down to 6½ percent from 6¾ percent in 1998. Adjusted for mark-to-market accounting rules, bank credit growth retreated from 10¼ percent in 1998 to 5½ percent last year, with a considerable portion of the slowdown attributable to an unwinding of the surge in holdings of non-U.S. government securities, business loans, and security loans that had been built up during the market disruptions in the fall of 1998. Real estate loans constituted one of the few categories of bank credit that accelerated in 1999. By contrast, thrift credit swelled 9 percent, up from a 4½ percent gain in 1998, as rising mortgage interest rates led borrowers to opt more frequently for adjustable-rate mortgages, which thrifts tend to keep on their books. The trend toward securitization of consumer loans continued in 1999: Bank originations of consumer loans were up about 5 percent, while holdings ran off at a 1¾ percent pace.

M3: Annual range and actual level



The Monetary Aggregates

Growth of the broad monetary aggregates moderated significantly last year. Nevertheless, as was expected by the FOMC last February and July, both M2 and M3 finished the year above their annual price-stability ranges. M3 rose 7½ percent in 1999, somewhat outside the Committee's range of 2 percent to 6 percent but far below the nearly 11 percent pace of 1998. M3 growth retreated early in 1999, as the surge in depository credit in the final quarter of 1998 unwound and depository institutions curbed their issuance of the managed liabilities included in that aggregate. At that time, the expansion of

4. Growth of money and debt

Percent

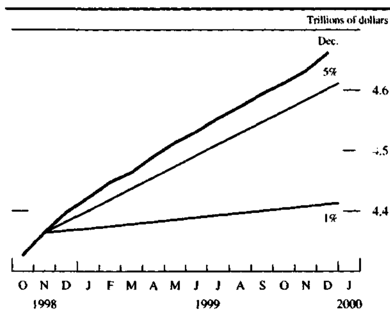
Period	M1	M2	M3	Domestic nonfinancial debt
Annual[1]				
1989	.6	5.2	4.1	7.4
1990	4.2	4.2	1.9	6.7
1991	7.9	3.1	1.1	4.5
1992	14.4	1.8	.6	4.5
1993	10.6	1.4	1.0	4.9
1994	2.5	.6	1.7	4.9
1995	-1.5	3.9	6.1	5.5
1996	-4.5	4.5	6.8	5.4
1997	-1.2	5.6	8.9	5.2
1998	2.2	8.5	10.9	6.7
1999	1.9	6.2	7.5	6.6
Quarterly (annual rate)[2]				
1999:1	1.9	7.5	8.2	6.7
2	2.2	6.0	6.0	6.9
3	-2.0	5.5	5.1	6.0
4	5.3	5.4	10.0	6.2

NOTE. M1 consists of currency, travelers checks, demand deposits, and other checkable deposits. M2 consists of M1 plus savings deposits (including money market deposit accounts), small-denomination time deposits, and balances in retail money market funds. M3 consists of M2 plus large-denomination time deposits, balances in institutional money market funds, RP liabilities (overnight and term), and eurodollars (overnight and term). Debt consists of the outstanding credit market debt of the U.S. government, state and local governments, households and nonprofit organizations, nonfinancial businesses, and farms.

1. From average for fourth quarter of preceding year to average for fourth quarter of year indicated.

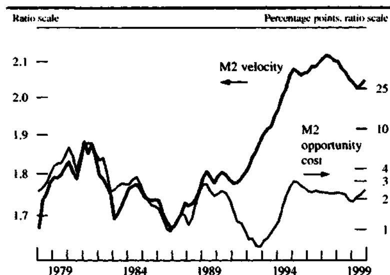
2. From average for preceding quarter to average for quarter indicated.

M2: Annual range and actual level



institution-only money funds also slowed with the ebbing of heightened preferences for liquid assets. However, M3 bulged again in the fourth quarter of 1999, as loan growth picked up and banks funded the increase mainly with large time deposits and other managed liabilities in M3. U.S. branches and agencies of foreign banks stepped up issuance of large certificates of deposit, in part to augment the liquidity of their head offices over the century date change, apparently because it was cheaper to fund in U.S. markets. Domestic banks needed the additional funding because of strong loan growth and a buildup in vault cash for Y2K contingencies. Corporations apparently built up year-end precautionary liquidity in institution-only money funds, which provided a further boost to M3 late

M2 velocity and the opportunity cost of holding M2



NOTE. The data are quarterly and extend through 1999:Q4. The velocity of M2 is the ratio of nominal gross domestic product to the stock of M2. The opportunity cost of 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.

in the year. Early in 2000, these effects began to unwind.

M2 increased 6¼ percent in 1999, somewhat above the FOMC's range of 1 percent to 5 percent. Both the easing of elevated demands for liquid assets that had boosted M2 in the fourth quarter of 1998 and a rise in its opportunity cost (the difference between interest rates on short-term market instruments and the rates available on M2 assets) tended to bring down M2 growth in 1999. That rise in opportunity cost also helped to halt the decline in M2 velocity that had begun in mid-1997, although the 1¾ percent (annual rate) rise in velocity over the second half of 1999 was not enough to offset the drop in the first half of the year. Within M2, currency demand grew briskly over the year as a whole, reflecting booming retail sales and, late in the year, some precautionary buildup for Y2K. Money stock currency grew at an annualized rate of 28 percent in December and then ran off in the weeks after the turn of the year.

In anticipation of a surge in the public's demand for currency, depository institutions vastly expanded their holdings of vault cash, beginning in the fall to avoid potential constraints in the ability of the armored car industry to accommodate large currency shipments late in the year. Depositories' cash drawings reduced their Federal Reserve balances and drained substantial volumes of reserves, and, in mid-December, large precautionary increases in the Treasury's cash balance and in foreign central banks' liquid investments at the Federal Reserve did as well. The magnitude of these flows was largely anticipated by the System, and, to replace the lost reserves, during the fourth quarter the Desk entered into a number of longer-maturity repurchase agreements timed to mature early in 2000. The Desk also executed a large number of short-term repurchase transactions for over the turn of the year, including some in the forward market, to provide sufficient reserves and support market liquidity.

The public's demand for currency through year-end, though appreciable, remained well below the level for which the banking system was prepared, and vault cash at the beginning of January stood about $38 billion above its year-ago level. This excess vault cash, and other century date change effects in money and reserve markets, unwound quickly after the smooth transition into the new year.

International Developments

Global economic conditions improved in 1999 after a year of depressed growth and heightened financial

market instability. Financial markets in developing countries, which had been hit hard by crises in Asia and Russia in recent years, recovered last year. The pace of activity in developing countries increased, with Asian emerging-market economies in particular bouncing back strongly from the output declines of the preceding year. Real growth improved in almost all the major industrial economies as well. This strengthening of activity contributed to a general rise in equity prices and a widespread increase in interest rates. Despite stronger activity and higher prices for oil and other commodities, average foreign inflation was lower in 1999 than in 1998, as output remained below potential in most countries.

Although the general theme in emerging financial markets in 1999 was a return to stability, the year began with heightened tension as a result of a financial crisis in Brazil. With the effects of the August 1998 collapse of the ruble and the default on Russian government debt still reverberating, Brazil was forced to abandon its exchange-rate-based stabilization program in January 1999. The *real*, allowed to float, soon fell nearly 50 percent against the dollar, generating fears of a depreciation–inflation spiral that could return Brazil to its high-inflation past. In addition, there were concerns that the government might default on its domestic-currency and dollar-indexed debt, the latter totaling more than $50 billion. In the event, these fears proved unfounded. The turning point appears to have come in March when a new central bank governor announced that fighting inflation was a top priority and interest rates were substantially raised to support the *real*. Over the remainder of the year, Brazilian financial markets stabilized on balance, despite continuing concerns about the government's ability to reduce the fiscal deficit. Inflation, although accelerating from the previous year, remained under 10 percent. Brazilian economic activity also recovered somewhat in 1999, after declining in 1998, as the return of confidence allowed officials to lower short-term interest rates substantially from their crisis-related peak levels of early in the year.

The Brazilian crisis triggered some renewed financial stress in other Latin American economies, and domestic interest rates and Brady bond yield spreads increased sharply from levels already elevated by the Russian crisis. However, as the situation in Brazil improved, financial conditions in the rest of the region stabilized relatively rapidly. Even so, the combination of elevated risk premiums and diminished access to international credit markets tended to depress activity in much of the region in the first half of 1999. Probably the most strongly affected was Argentina, where the exchange rate peg to the dollar was maintained only at the cost of continued high real interest rates that contributed to the decline in real GDP in 1999. In contrast, real GDP in Mexico rose an estimated 6 percent in 1999, aided by higher oil prices and strong export growth to the United States. The peso appreciated against the dollar for the year as a whole, despite a Mexican inflation rate about 10 percentage points higher than in the United States.

The recovery of activity last year in Asian developing countries was earlier, more widespread, and sharper than in Latin America, just as the downturn had been the previous year. After a steep drop in activity in the immediate wake of the financial crises that hit several Asian emerging-market economies in late 1997, the preconditions for a revival in activity were set by measures initiated to stabilize shaky financial markets and banking sectors, often in conjunction with International Monetary Fund programs that provided financial support. Once financial conditions had been stabilized, monetary policies turned accommodative in 1998, and this stimulus, along with the shift toward fiscal deficits and an ongoing boost to net exports provided by the sharp depreciations of their currencies, laid the foundation for last year's strong revival in activity. Korea's recovery was the most robust, with real GDP estimated to have increased more than 10 percent in 1999 after falling 5 percent the previous year. The government continued to make progress toward needed financial and corporate sector reform. However, significant weaknesses remained, as evidenced by the near collapse of Daewoo, Korea's second largest conglomerate. Other Asian developing countries that experienced financial difficulties in late 1997 (Thailand, Malaysia, Indonesia, and the Philippines) also recorded increases in real GDP in 1999 after declines the previous year. Indonesian financial markets were buffeted severely at times during 1999 by concerns about political instability, but the rupiah ended the year with a modest net appreciation against the dollar. The other former crisis countries also saw their currencies stabilize or slightly appreciate against the dollar. Inflation rates in these countries generally declined, despite the pickup in activity and higher prices for oil and other commodities. Inflation was held down by the elevated, if diminishing, levels of excess capacity and unemployment and by a waning of the inflationary impact of previous exchange rate depreciations.

In China, real growth slowed moderately in 1999. Given China's exchange rate peg to the dollar, the sizable depreciations elsewhere in Asia in 1997 and 1998 led to a sharp appreciation of China's real effective exchange rate, and there was speculation

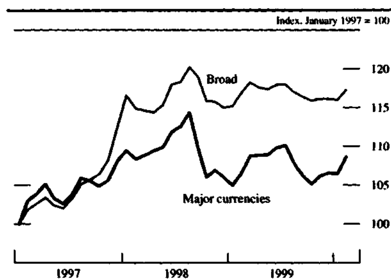
last year that the renminbi might be devalued. However, with China's trade balance continuing in substantial, though reduced, surplus, Chinese officials maintained the exchange rate peg to the dollar last year and stated their intention of extending it through at least this year. After the onset of the Asian financial crisis, continuance of Hong Kong's currency-board-maintained peg to the U.S. dollar was also questioned. In the event, the tie to the dollar was sustained, but only at the cost of high real interest rates, which contributed to a decrease in output in Hong Kong in 1998 and early 1999 and a decline of consumer prices over this period. However, real GDP started to move up again later in the year, reflecting in part the strong revival of activity in the rest of Asia.

In Russia, economic activity increased last year despite persistent and severe structural problems. Real GDP, which had dropped nearly 10 percent in 1998 as a result of the domestic financial crisis, recovered about half the loss last year. Net exports rose strongly, boosted by the lagged effect of the substantial real depreciation of the ruble in late 1998 and by higher oil prices. The inflation rate moderated to about 50 percent, somewhat greater than the depreciation of the ruble over the course of the year.

The dollar's average foreign exchange value, measured on a trade-weighted basis against the currencies of a broad group of important U.S. trading partners, ended 1999 little changed from its level at the beginning of the year. There appeared to be two main, roughly offsetting, pressures on the dollar last year. On the one hand, the continued very strong growth of the U.S. economy relative to foreign economies tended to support the dollar. On the other hand, the further rise in U.S. external deficits—with the U.S. current account deficit moving up toward 4 percent of GDP by the end of the year—may have tended to hold down the dollar because of investor concerns that the associated strong net demand for dollar assets might prove unsustainable. So far this year, the dollar's average exchange value has increased slightly, boosted by new evidence of strong U.S. growth. Against the currencies of the major foreign industrial countries, the dollar's most notable movements in 1999 were a substantial depreciation against the Japanese yen and a significant appreciation relative to the euro.

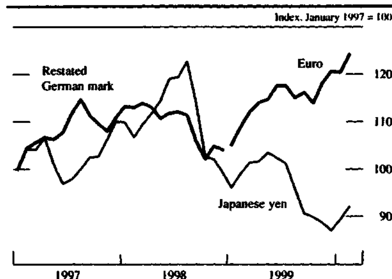
The dollar depreciated 10 percent on balance against the yen over the course of 1999. In the first half of the year, the dollar strengthened slightly relative to the yen, as growth in Japan appeared to remain sluggish and Japanese monetary authorities reduced short-term interest rates to near zero in an effort to jumpstart the economy. However, around mid-year, several signs of a revival of activity—particularly the announcement of unanticipated strong growth in real GDP in the first quarter—triggered a depreciation of the dollar relative to the yen amid reports of large inflows of foreign capital into the Japanese stock market. Data releases showing that the U.S. current account deficit had reached record levels in both the second and third quarters of the year also appeared to be associated with depreciations of the dollar against the yen. Concerned that a stronger yen could harm the fledgling recovery, Japanese monetary authorities intervened heavily to weaken the yen on numerous occasions. So far this year, the dollar has firmed

Nominal 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 broad group of important U.S. trading partners. Last observations are for the first two weeks of February 2000.

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



NOTE. The data are monthly. Restated German mark is the dollar-mark exchange rate rescaled by the official conversion factor between the mark and the euro, 1.95583, through December 1998. Euro exchange rate as of January 1999. Last observations are for the first two weeks of February 2000.

about 7 percent against the yen. Japanese real GDP increased somewhat in 1999, following two consecutive years of decline. Growth was concentrated in the first half of the year, when domestic demand surged, led by fiscal stimulus. Later in the year, domestic demand slumped, as the pace of fiscal expansion flagged. Net exports made virtually no contribution to growth for the year as a whole. Japanese consumer prices declined slightly on balance over the course of the year.

The new European currency, the euro, came into operation at the start of 1999, marking the beginning of stage three of European economic and monetary union. The rates of exchange between the euro and the currencies of the eleven countries adopting the new currency were set at the end of 1998; based on these rates, the value of the euro at its creation was just under $1.17. From a technical perspective, the introduction of the euro went smoothly, and on its first day of trading its value moved higher. However, the euro soon started to weaken against the dollar, influenced by indications that euro-area growth would remain very slow. After approaching parity with the dollar in early July, the euro rebounded, partly on gathering signs of European recovery. However, the currency weakened again in the fall, and in early December it reached parity with the dollar, about where it closed the year. The euro's weakness late in the year was attributed in part to concerns about the pace of market-oriented structural reforms in continental Europe and to a political wrangle over the proposed imposition of a withholding tax on investment income. On balance, the dollar appreciated 16 percent relative to the euro over 1999. So far this year, the dollar has strengthened 2 percent further against the euro. Although the euro's foreign exchange value weakened in its first year of operation, the volume of euro-denominated transactions—particularly the issuance of debt securities—expanded rapidly.

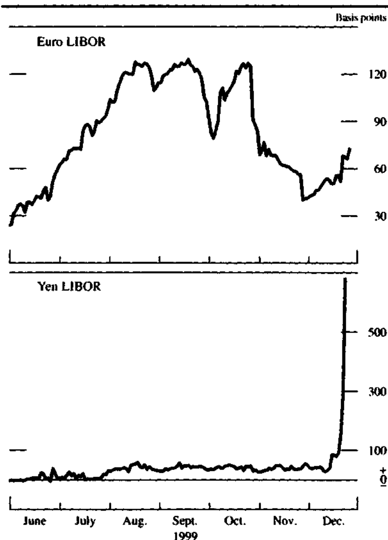
In the eleven European countries that now fix their currencies to the euro, real GDP growth remained weak early in 1999 but strengthened subsequently and averaged an estimated 3 percent rate for the year as a whole. Net exports made a significant positive contribution to growth, supported by a revival of demand in Asia and Eastern Europe and by the effects of the euro's depreciation. The areawide unemployment rate declined, albeit to a still-high rate of nearly 10 percent. In the spring, the European central bank lowered its policy rate 50 basis points, to 2½ percent. This decline was reversed later in the year in reaction to accumulating evidence of a pickup in activity, and the rate was raised an additional 25 basis points earlier this month. The euro-area inflation rate edged up in 1999, boosted by higher oil prices, but still remained below the 2 percent target ceiling.

Growth in the United Kingdom also moved higher on balance in 1999, with growth picking up over the course of the year. Along with the strengthening of global demand, the recovery was stimulated by a series of official interest rate reductions, totaling 250 basis points, undertaken by the Bank of England over the last half of 1998 and the first half of 1999. Later in 1999 and early this year, the policy rate was raised four times for a total of 100 basis points, with officials citing the need to keep inflation below its 2½ percent target level in light of the strength of consumption and the housing market and continuing tight conditions in the labor market. On balance, the dollar appreciated slightly against the pound over the course of 1999.

In Canada, real growth recovered in 1999 after slumping the previous year in response to the global slowdown and the related drop in the prices of Canadian commodity exports. Last year, strong demand from the United States spurred Canadian exports while rising consumer and business confidence supported domestic demand. In the spring, the Bank of Canada lowered its official interest rate twice for a total of 50 basis points in an effort to stimulate activity in the context of a rising Canadian dollar. This decline was reversed by 25-basis-point increases near the end of the year and earlier this month, as Canadian inflation moved above the midpoint of its target range, the pace of output growth increased, and U.S. interest rates moved higher. Over the course of 1999, the U.S. dollar depreciated 6 percent on balance against the Canadian dollar.

Concerns about liquidity and credit risk related to the century date change generated a temporary bulge in year-end premiums in money market rates in the second half of the year in some countries. For the euro, borrowing costs for short-term interbank funding over the year changeover—as measured by the interest rate implied by the forward market for a one-month loan spanning the year-end relative to the rates for neighboring months—started to rise in late summer but then reversed nearly all of this increase in late October and early November before moving up more moderately in December. The sharp October-November decline in the year-changeover funding premium came in response to a series of announcements by major central banks that outlined and clarified the measures these institutions were prepared to undertake to alleviate potential liquidity problems related to the century date change. For yen

Forward premium for deposits over year-end

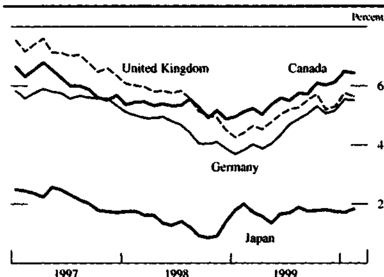


NOTE. The data are daily. Year-end premium measured by the interest rate on a one-month instrument spanning the year-end relative to the rates for neighboring months. Last observation is for December 29, 1999.

funding, the century date change premium moved in a different pattern, fluctuating around a relatively low level before spiking sharply for several days just before the year-end. The late-December jump in the yen funding premium was partly in response to date change-related illiquidity in the Japanese government bond repo market that emerged in early December and persisted into early January. To counter these conditions, toward the end of the year the Bank of Japan infused huge amounts of liquidity into its domestic banking system, which soon brought short-term yen funding costs back down to near zero.

Bond yields in the major foreign industrial countries generally moved higher on balance in 1999. Long-term interest rates were boosted by mounting evidence that economic recovery was taking hold abroad and by rising expectations of monetary tightening in the United States and, later, in other industrial countries. Over the course of the year, long-term interest rates increased on balance by more than 100 basis points in nearly all the major industrial countries. The notable exception was Japan, where long-term rates were little changed.

Foreign ten-year interest rates

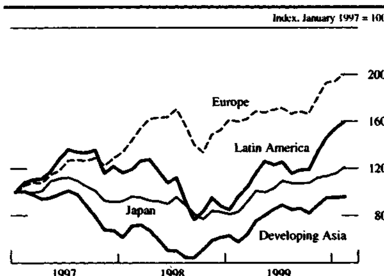


NOTE. The data are monthly. Last observation is for the first two weeks of February 2000.

Equity prices showed strong and widespread increases in 1999, as the pace of global activity quickened and the threat from emerging-market financial crises appeared to recede. In the industrial countries equity prices on average rose sharply, extending the general upward trend of recent years. The average percentage increase of equity prices in developing countries was even larger, as prices recovered from their crisis-related declines of the previous year. The fact that emerging Latin American and Asian equity markets outperformed those in industrial countries lends some support to the view that global investors increased their risk tolerance, especially during the last months of the year.

Oil prices increased dramatically during 1999, fully reversing the declines in the previous two years. The average spot price for West Texas intermediate, the

Foreign equity indexes



NOTE. The data are monthly. Last observation is for the first two weeks of February 2000.

U.S. benchmark crude, more than doubled, from around $12 per barrel at the beginning of the year to more than $26 per barrel in December. This rebound in oil prices was driven by a combination of strengthening world demand and constrained world supply. The strong U.S. economy, combined with a recovery of economic activity abroad and a somewhat more normal weather pattern, led to a 2 percent increase in world oil consumption. Oil production, on the other hand, declined 2 percent, primarily because of reduced supplies from OPEC and other key producers. Starting last spring, OPEC consistently held production near targeted levels, in marked contrast to the widespread lack of compliance that characterized earlier agreements. So far this year, oil prices have risen further on speculation over a possible extension of current OPEC production targets and the onset of unexpectedly cold weather in key consuming regions.

The price of gold fluctuated substantially in 1999. The price declined to near a twenty-year low of about $250 per ounce at mid-year as several central banks, including the Bank of England and the Swiss National Bank, announced plans to sell a sizable portion of their reserves. The September announcement that fifteen European central banks, including the two just mentioned, would limit their aggregate sales of bullion and curtail leasing activities, saw the price of gold briefly rise above $320 per ounce before turning down later in the year. Recently, the price has moved back up, to above $300 per ounce.

Statement of

Alan Greenspan

Chairman

Board of Governors of the Federal Reserve System

before the

Committee on Banking and Financial Services

U.S. House of Representatives

February 17, 2000

I appreciate this opportunity to present the Federal Reserve's semiannual report on the economy and monetary policy.

There is little evidence that the American economy, which grew more than 4 percent in 1999 and surged forward at an even faster pace in the second half of the year, is slowing appreciably. At the same time, inflation has remained largely contained. An increase in the overall rate of inflation in 1999 was mainly a result of higher energy prices. Importantly, unit labor costs actually declined in the second half of the year. Indeed, still-preliminary data indicate that total unit cost increases last year remained extraordinarily low, even as the business expansion approached a record nine years. Domestic operating profit margins, after sagging for eighteen months, apparently turned up again in the fourth quarter, and profit expectations for major corporations for the first quarter have been undergoing upward revisions since the beginning of the year--scarcely an indication of imminent economic weakness.

The Economic Forces at Work

Underlying this performance, unprecedented in my half-century of observing the American economy, is a continuing acceleration in productivity. Nonfarm business output per workhour increased 3-1/4 percent during the past year--likely more than 4 percent when measured by nonfarm business income. Security analysts' projections of long-term earnings, an indicator of expectations of company productivity, continued to be revised upward in January, extending a string of upward revisions that began in early 1995. One result of this remarkable economic performance has been a pronounced increase in living standards for the majority of Americans. Another has been a labor market that has provided job opportunities for large numbers of people previously struggling to get on the first rung of a ladder leading to training, skills, and permanent employment.

Yet those profoundly beneficial forces driving the American economy to competitive excellence are also engendering a set of imbalances that, unless contained, threaten our continuing prosperity. Accelerating productivity entails a matching acceleration in the potential output of goods and services and a corresponding rise in real incomes available to purchase the new output. The problem is that the pickup in productivity tends to create even greater increases in aggregate demand than in potential aggregate supply. This occurs principally because a rise in structural productivity growth has its counterpart in higher expectations for long-term corporate earnings. This, in turn, not only spurs business investment but also increases stock prices and the market value of assets held by households, creating additional purchasing power for which no additional goods or services have yet been produced.

Historical evidence suggests that perhaps three to four cents out of every additional dollar of stock market wealth eventually is reflected in increased consumer purchases. The sharp rise in the amount of consumer outlays relative to disposable incomes in recent years, and the corresponding fall in the saving rate, has been consistent with this so-called wealth effect on household purchases. Moreover, higher stock prices, by lowering the cost of equity capital, have helped to support the boom in capital spending.

Outlays prompted by capital gains in excess of increases in income, as best we can judge, have added about 1 percentage point to annual growth of gross domestic purchases, on average, over the past five years. The additional growth in spending of recent years that has accompanied these wealth gains as well as other supporting influences on the economy appears to have been met in about equal measure from increased net imports and from goods and services produced by

the net increase in newly hired workers over and above the normal growth of the work force, including a substantial net inflow of workers from abroad.

But these safety valves that have been supplying goods and services to meet the recent increments to purchasing power largely generated by capital gains cannot be expected to absorb an excess of demand over supply indefinitely. First, growing net imports and a widening current account deficit require ever larger portfolio and direct foreign investments in the United States, an outcome that cannot continue without limit.

Imbalances in the labor markets perhaps may have even more serious implications for inflation pressures. While the pool of officially unemployed and those otherwise willing to work may continue to shrink, as it has persistently over the past seven years, there is an effective limit to new hiring, unless immigration is uncapped. At some point in the continuous reduction in the number of available workers willing to take jobs, short of the repeal of the law of supply and demand, wage increases must rise above even impressive gains in productivity. This would intensify inflationary pressures or squeeze profit margins, with either outcome capable of bringing our growing prosperity to an end.

As would be expected, imbalances between demand and potential supply in markets for goods and services are being mirrored in the financial markets by an excess in the demand for funds. As a consequence, market interest rates are already moving in the direction of containing the excess of demand in financial markets and therefore in product markets as well. For example, BBB corporate bond rates adjusted for inflation expectations have risen by more than 1 percentage point during the past two years. However, to date, rising business earnings expectations and declining compensation for risk have more than offset the effects of this

increase, propelling equity prices and the wealth effect higher. Should this process continue, however, with the assistance of a monetary policy vigilant against emerging macroeconomic imbalances, real long-term rates will at some point be high enough to finally balance demand with supply at the economy's potential in both the financial and product markets. Other things equal, this condition will involve equity discount factors high enough to bring the rise in asset values into line with that of household incomes, thereby stemming the impetus to consumption relative to income that has come from rising wealth. This does not necessarily imply a decline in asset values--although that, of course, can happen at any time for any number of reasons--but rather that these values will increase no faster than household incomes.

Because there are limits to the amount of goods and services that can be supplied from increasing net imports and by drawing on a limited pool of persons willing to work, it necessarily follows that consumption cannot keep rising faster than income. Moreover, outsized increases in wealth cannot persist indefinitely either. For so long as the levels of consumption and investment are sensitive to asset values, equity values increasing at a pace faster than income, other things equal, will induce a rise in overall demand in excess of potential supply. But that situation cannot persist without limit because the supply safety valves are themselves limited.

With foreign economies strengthening and labor markets already tight, how the current wealth effect is finally contained will determine whether the extraordinary expansion that it has helped foster can slow to a sustainable pace, without destabilizing the economy in the process.

Technological Change Continues Apace

On a broader front, there are few signs to date of slowing in the pace of innovation and the spread of our newer technologies that, as I have indicated in previous testimonies, have been

at the root of our extraordinary productivity improvement. Indeed, some analysts conjecture that we still may be in the earlier stages of the rapid adoption of new technologies and not yet in sight of the stage when this wave of innovation will crest. With so few examples in our history, there is very little basis for determining the particular stage of development through which we are currently passing.

Without doubt, the synergies of the microprocessor, laser, fiber-optic glass, and satellite technologies have brought quantum advances in information availability. These advances, in turn, have dramatically decreased business operational uncertainties and risk premiums and, thereby, have engendered major cost reductions and productivity advances. There seems little question that further major advances lie ahead. What is uncertain is the future pace of the application of these innovations, because it is this pace that governs the rate of change in productivity and economic potential.

Monetary policy, of course, did not produce the intellectual insights behind the technological advances that have been responsible for the recent phenomenal reshaping of our economic landscape. It has, however, been instrumental, we trust, in establishing a stable financial and economic environment with low inflation that is conducive to the investments that have exploited these innovative technologies.

Federal budget policy has also played a pivotal role. The emergence of surpluses in the unified budget and of the associated increase in government saving over the past few years has been exceptionally important to the balance of the expansion, because the surpluses have been absorbing a portion of the potential excess of demand over sustainable supply associated partly with the wealth effect. Moreover, because the surpluses are augmenting the pool of domestic

saving, they have held interest rates below the levels that otherwise would have been needed to achieve financial and economic balance during this period of exceptional economic growth. They have, in effect, helped to finance and sustain the productive private investment that has been key to capturing the benefits of the newer technologies that, in turn, have boosted the long-term growth potential of the U.S. economy.

The recent good news on the budget suggests that our longer-run prospects for continuing this beneficial process of recycling savings from the public to the private sectors have improved greatly in recent years. Nonetheless, budget outlays are expected to come under mounting pressure as the baby boom generation moves into retirement, a process that gets under way a decade from now. Maintaining the surpluses and using them to repay debt over coming years will continue to be an important way the federal government can encourage productivity-enhancing investment and rising standards of living. Thus, we cannot afford to be lulled into letting down our guard on budgetary matters, an issue to which I shall return later in this testimony.

The Economic Outlook

Although the outlook is clouded by a number of uncertainties, the central tendencies of the projections of the Board members and Reserve Bank presidents imply continued good economic performance in the United States. Most of them expect economic growth to slow somewhat this year, easing into the 3-1/2 to 3-3/4 percent area. The unemployment rate would remain in the neighborhood of 4 to 4-1/4 percent. The rate of inflation for total personal consumption expenditures is expected to be 1-3/4 to 2 percent, at or a bit below the rate in 1999, which was elevated by rising energy prices.

In preparing these forecasts, the Federal Open Market Committee members had to consider several of the crucial demand- and supply-side forces I referred to earlier. Continued favorable developments in labor productivity are anticipated both to raise the economy's capacity to produce and, through its supporting effects on real incomes and asset values, to boost private domestic demand. When productivity-driven wealth increases were spurring demand a few years ago, the effects on resource utilization and inflation pressures were offset in part by the effects of weakening foreign economies and a rising foreign exchange value of the dollar, which depressed exports and encouraged imports. Last year, with the welcome recovery of foreign economies and with the leveling out of the dollar, these factors holding down demand and prices in the United States started to unwind. Strong growth in foreign economic activity is expected to continue this year, and, other things equal, the effect of the previous appreciation of the dollar should wane, augmenting demand on U.S. resources and lessening one source of downward pressure on our prices.

As a consequence, the necessary alignment of the growth of aggregate demand with the growth of potential aggregate supply may well depend on restraint on domestic demand, which continues to be buoyed by the lagged effects of increases in stock market valuations. Accordingly, the appreciable increases in both nominal and real intermediate- and long-term interest rates over the last two years should act as a needed restraining influence in the period ahead. However, to date, interest-sensitive spending has remained robust, and the FOMC will have to stay alert for signs that real interest rates have not yet risen enough to bring the growth of demand into line with that of potential supply, even should the acceleration of productivity continue.

Achieving that alignment seems more pressing today than it did earlier, before the effects of imbalances began to cumulate, lessening the depth of our various buffers against inflationary pressures. Labor markets, for example, have tightened in recent years as demand has persistently outstripped even accelerating potential supply. As I have previously noted, we cannot be sure in an environment with so little historical precedent what degree of labor market tautness could begin to push unit costs and prices up more rapidly. We know, however, that there is a limit, and we can be sure that the smaller the pool of people without jobs willing to take them, the closer we are to that limit. As the FOMC indicated after its last meeting, the risks still seem to be weighted on the side of building inflation pressures.

A central bank can best contribute to economic growth and rising standards of living by fostering a financial environment that promotes overall balance in the economy and price stability. Maintaining an environment of effective price stability is essential, because the experience in the United States and abroad has underscored that low and stable inflation is a prerequisite for healthy, balanced, economic expansion. Sustained expansion and price stability provide a backdrop against which workers and businesses can respond to signals from the marketplace in ways that make most efficient use of the evolving technologies.

Federal Budget Policy Issues

Before closing, I should like to revisit some issues of federal budget policy that I have addressed in previous congressional testimony. Some modest erosion in fiscal discipline resulted last year through the use of the "emergency" spending initiatives and some "creative accounting." Although somewhat disappointing, that erosion was small relative to the influence of the wise choice of the Administration and the Congress to allow the bulk of the unified budget

surpluses projected for the next several years to build and retire debt to the public. The idea that we should stop borrowing from the social security trust fund to finance other outlays has gained surprising--and welcome--traction, and it establishes, in effect, a new budgetary framework that is centered on the on-budget surplus and how it should be used.

This new framework is useful because it offers a clear objective that should strengthen budgetary discipline. It moves the budget process closer to accrual accounting, the private-sector norm, and--I would hope--the ultimate objective of federal budget accounting.

The new budget projections from the Congressional Budget Office and the Administration generally look reasonable. But, as many analysts have stressed, these estimates represent a midrange of possible outcomes for the economy and the budget, and actual budgetary results could deviate quite significantly from current expectations. Some of the uncertainty centers on the likelihood that the recent spectacular growth of labor productivity will persist over the years ahead. Like many private forecasters, the CBO and the Office of Management and Budget assume that productivity growth will drop back somewhat from the recent stepped-up pace. But a distinct possibility, as I pointed out earlier, is that the development and diffusion of new technologies in the current wave of innovation may still be at a relatively early stage and that the scope for further acceleration of productivity is thus greater than is embodied in these budget projections. If so, the outlook for budget surpluses would be even brighter than is now anticipated.

But there are significant downside risks to the budget outlook as well. One is our limited knowledge of the forces driving the surge in tax revenues in recent years. Of course, a good part of that surge is due to the extraordinary rise in the market value of assets which, as I noted

earlier, cannot be sustained at the pace of recent years. But that is not the entire story. These relationships are complex, and until we have detailed tabulations compiled from actual tax returns, we shall not really know why individual tax revenues, relative to income, have been even higher than would have been predicted from rising asset values and bracket creep. Thus, we cannot rule out the possibility that this so-called "tax surprise," which has figured so prominently in the improved budget picture of recent years, will dissipate or reverse. If this were to happen, the projected surpluses, even with current economic assumptions, would shrink appreciably and perhaps disappear. Such an outcome would be especially likely if adverse developments occurred in other parts of the budget as well--for example, if the recent slowdown in health care spending were to be followed by a sharper pickup than is assumed in current budget projections.

Another consideration that argues for letting the unified surpluses build is that the budget is still significantly short of balance when measured on an accrual basis. If social security, for example, were measured on such a basis, counting benefits when they are earned by workers rather than when they are paid out, that program would have shown a substantial deficit last year. The deficit would have been large enough to push the total federal budget into the red, and an accrual-based budget measure could conceivably record noticeable deficits over the next few years, rather than the surpluses now indicated by the official projections for either the total unified budget or the on-budget accounts. Such accruals take account of still growing contingent liabilities that, under most reasonable sets of actuarial assumptions, currently amount to many trillions of dollars for social security benefits alone.

Even if accrual accounting is set aside, it might still be prudent to eschew new longer-term, potentially irreversible commitments until we are assured that the on-budget surplus projections are less conjectural than they are, of necessity, today.

Allowing surpluses to reduce the debt to the public, rather than for all practical purposes irrevocably committing to their disposition in advance, can be viewed as a holding action pending the clarification of the true underlying budget outcomes of the next few years. Debt repaid can very readily be reborrowed to fund delayed initiatives.

More fundamentally, the growth potential of our economy under current circumstances is best served, in my judgment, by allowing the unified budget surpluses presently in train to materialize and thereby reduce Treasury debt held by the public.

Yet I recognize that growing budget surpluses may be politically infeasible to defend. If this proves to be the case, as I have also testified previously, the likelihood of maintaining a still satisfactory overall budget position over the longer run is greater, I believe, if surpluses are used to lower tax rates rather than to embark on new spending programs. History illustrates the difficulties of keeping spending in check, especially in programs that are open-ended commitments, which too often have led to larger outlays than initially envisioned. Decisions to reduce taxes, however, are more likely to be contained by the need to maintain an adequate revenue base to finance necessary government services. Moreover, especially if designed to lower marginal rates, tax reductions can offer favorable incentives for economic performance.

Conclusion

As the U.S. economy enters a new century as well as a new year, the time is opportune to reflect on the basic characteristics of our economic system that have brought about our success in

recent years. Competitive and open markets, the rule of law, fiscal discipline, and a culture of enterprise and entrepreneurship should continue to undergird rapid innovation and enhanced productivity that in turn should foster a sustained further rise in living standards. It would be imprudent, however, to presume that the business cycle has been purged from market economies so long as human expectations are subject to bouts of euphoria and disillusionment. We can only anticipate that we will readily take such diversions in stride and trust that beneficent fundamentals will provide the framework for continued economic progress well into the new millennium.

Question Submitted for the Record
for Federal Reserve Chairman Alan Greenspan
from Chairman James Leach

Q.1. Despite the fact that stock market valuations may indirectly affect economic activity, does the Fed have a proper role either in "jawboning" the market or making interest rate decisions designed principally to affect market levels? In a time when some might consider market valuations to be unrealistically high, is it wiser to raise interest rates, which presumably disproportionately hit small businesses and middle class Americans, or to raise margin requirements which exclusively affect deep-pocketed, leveraged investors? Or are the effects of changes in margin requirements so marginal that their impact is "de mimimis" on the market itself?

A.1. The Federal Reserve is not "jawboning" the stock market or targeting stock prices. Rather, the Federal Reserve is concerned about imbalances between aggregate demand and supply and their implications for inflation and thus sustainability of the expansion. The sharp increase in equity valuation appears to have been an important factor behind an apparently developing imbalance. With regard to margin requirements, studies suggest that changes in such requirements have no appreciable and predictable effect on stock prices. Nonetheless, the Federal Reserve recognizes that considerable risks can be involved in the purchase of equity on margin, especially in volatile markets, and believes that lenders and borrowers need to assess carefully the risks they are assuming through the use of margin.

Chairman Greenspan subsequently submitted the following for the record:

The Federal Reserve has not prepared any formal estimates of the point at which it would experience difficulties in conducting open market operations as the federal debt is paid down, and we do not expect to encounter significant difficulties in the near future. As you know, even though the Treasury has been paying down debt for the past two years or so, the recent surpluses followed a very long period of large federal deficits, and consequently the volume of federal debt outstanding remains quite large. Moreover, the Federal Reserve Act enables us to transact in Treasury securities and certain other instruments (such as obligations of federal agencies, certain obligations of state and local governments, foreign exchange, sovereign debt, etc.) on both an outright and a temporary, repurchase basis. The Federal Reserve already has been placing considerable emphasis on repurchase transactions in our operations. The availability of repurchase agreements against non-Treasury instruments as well as against Treasury securities will continue to contribute to our flexibility in an environment of declining Treasury debt.

As you suggest, an objective of the Federal Reserve in implementing monetary policy is to minimize interference in the allocation of credit in the money and capital markets. Meeting this objective would be an important consideration in the design of any implementation alternatives, should declines in Treasury debt eventually make modifications of our current techniques desirable. I should clarify that current statutory authority does not permit the Federal Reserve to make purchases of high-grade private

bonds on either an outright or temporary basis. If at some future time it should become apparent that additional authority is desirable, we would request that the Congress make technical changes in the Federal Reserve Act to permit transactions in a broader range of assets.

The precise market responses to a reduction or even complete elimination of Treasury debt are difficult to judge in advance. (The main variable determining whether Treasury debt is eliminated entirely is the realized amount of federal surpluses.) Since Treasury obligations have been acting as benchmark issues, some market adaptations certainly will be required if Treasury debt shrinks significantly. As I mentioned at the hearing, I am confident that the capital markets would create alternative benchmarks to fill the void left by disappearing Treasury debt. Fannie Mae and Freddie Mac already have attempted to take advantage of this situation by issuing so-called "benchmark" and "reference" issues, but it is possible that obligations of entirely private firms eventually could serve as benchmarks.

As I often have emphasized, there is considerable uncertainty about the size of future surpluses and, indeed, about whether they will even continue to materialize. Consequently, we should be cautious about making plans based on projections of large surpluses. If the surpluses do eventuate, the implied smaller federal presence in credit markets will have substantial benefits for the economy. The reduced volumes of federal debt will tend to lower even private real interest rates and more generally will foster a receptive climate for private financing of capital formation, which will help to maximize

sustainable economic growth. Any adaptations that may eventually be required in Federal Reserve operations are insignificant in comparison to those benefits. Similarly, I am quite confident that any market adaptations in response to declining Treasury debt will ultimately preserve and possibly even enhance the efficiency of our capital markets.

Questions Submitted for the Record
for Federal Reserve Chairman Alan Greenspan
from Congressman Ron Paul

Q.1. In early February foreign holdings of U.S. debt jumped significantly to over $700 billion. What is the explanation for this? For whom does the Federal Reserve hold these new funds and in what form?

A.1. The only data available on foreign holdings of U.S. debt in February are partial data on foreign official reserves held at the Federal Reserve Bank of New York. These holdings were in the $740-$750 billion range in February, but they did not increase significantly during February and have exceeded $700 billion since December of 1998. The Federal Reserve Bank of New York (FRBNY) acts as custodian for most foreign governments and central banks as well as several international organizations. U.S. Treasury securities make up by far the bulk of these assets held in custody--over $625 billion, or eighty percent of the total. In addition to Treasuries, FRBNY also holds Agency securities, CDs, commercial paper, bankers' acceptances, bank deposits, repurchase agreements, and gold for its foreign official customers.

Q.2. Jerry L. Jordan of the Federal Reserve Bank of Cleveland at the Cato Institute's 17th Annual Monetary Conference, "The Search for Global Monetary Order," on October 21, 1999, remarked, "If monetary sovereignty or independence is not worth much in today's global capital markets, and if seignorage is quite small in a noninflationary world, then the costs and risks associated with a national central bank and a national currency become harder to justify." These comments were characterized as central banks are becoming obsolete. Do you agree with Jerry Jordan's statement and its characterization?

A.2. In my view, national central banks continue to have an important role to play in promoting the goals of financial stability and sustainable economic growth. Even in today's highly integrated global economic and financial system, national central banks can exert a considerable influence on domestic price and economic developments and thus help to make progress toward these goals.

Q.3. One effect of the Federal Funds Rate Target is to smooth short-term rates, such as the prime rate, over the short term (over a few weeks to a few months). To what extent has this short-term smoothing effect exacerbated the stock market bubble by largely removing the financing cost risk of making leveraged bets in the stock market?

A.3. I do not believe that our short-term monetary policy operating procedures have a significant effect on stock prices. Our operating procedures, as you suggest, do tend to smooth short-run fluctuations in short-term interest rates. However, the risks of investing in equities come primarily from uncertainty about future earnings and about the longer-term interest rates at which those future earnings should be discounted, and not mainly from the possibility that the short-run cost of financing stock positions could increase. Consequently, even if our operating procedures were associated with somewhat larger movements in short-term rates, I doubt that investors' perceptions of equity risks would be much affected and thus that equity prices would be significantly influenced.

Q.4. On April 1, 2000, I will be the keynote speaker at a Freedom Rally in California where NORFED will be issuing the first Gold Certificate since 1933. Given your professed "nostalgia" for the gold standard, is there anything you would suggest I add to the speech?

A.4. Thank you for the opportunity, but there is nothing in particular that I would like to suggest.

Q.5. Dr. Kurt Richebacher, former chief economist and managing partner at Germany's Dresdner Bank, has issued dire predictions for the global economy: "a deflationary collapse lies ahead that will ravage the world's bourses and usher in a dark period of austerity and financial discipline," according to Rick Ackerman in *The Sunday Examiner*. He reportedly bases his predictions, in part, on the "statistical hoax" of our government's 1995 implementation of a "hedonic" price index, which he characterized as akin to measuring GM's auto sales by tallying the horsepower of all the engines in its cars. With the proliferation of the use of cellular telephones, emails and faxes, and the greater subsequent blurring of home and work, measuring hours worked has become more difficult. Given your testimony on the importance of estimated productivity gains and your comment that it is "impossible" to manage something one cannot define, what precautions should policy makers take in case these gains have been overestimated?

A.5. Possible errors in the measurement of real output and productivity in and of themselves are not the central issue: Correction of the errors would not alter the balance of potential supply and actual production, for both would be adjusted by like amounts. The key for monetary policy is the balance between supply and demand, as gauged, for example, by changes in the utilization of labor or of plant capacity.

However, to the extent that output is being mis-measured owing to errors in deflation of nominal expenditures, it follows that our price indexes may be giving misleading signals about the true rate of inflation. This is a troubling issue--one that I have noted on many occasions. Especially in a world in which products are becoming more and more difficult to define, price measurement will be an increasing challenge. This is one reason why strict quantitative inflation targeting might be undesirable. But, in any event, it behooves us, when the measured rate of price increase is relatively low, to keep a close eye on the economy for indications of the sorts of financial and economic tensions that typically have accompanied deflationary pressures--such as debt service problems and contractionary tendencies in economic activity. At this point, I do not see any signs that we have a problem of this sort.

Q.6. The Gold Anti-Trust Action (GATA) open questions in the Roll Call ad raised the profile of speculation of government and central bank manipulation of the gold market. Because the Federal Reserve Bank of New York acts as the agent for all international transactions of the Fed and the Treasury, can you end any speculation of U.S. involvement by saying unequivocally that the N.Y. Fed has not intervened for itself, Treasury or as an agent for anyone else?

A.6. I don't know if I will able to end speculation about U.S. involvement in the gold market, but I can say unequivocally that the Federal Reserve Bank of New York has not intervened in the gold market in an attempt to manipulate the price of gold on its own behalf or for the U.S. Treasury or anyone else.

Chairman Greenspan subsequently submitted the following in response to Congressman Sanders' questions:

I would like to elaborate, in writing as requested, on the issue of income disparities as measured by the Survey of Consumer Finances, as well as the earlier issue you raised regarding the impact of the minimum wage.

You noted that the Survey of Consumer Finances conducted by the Federal Reserve showed, among the various income groups identified in a summary table, only those earning $100,000 or more had shown a gain in average income between 1995 and 1998, and asked how such a pattern could be seen as consistent with what some characterize as a "booming economy."

As a technical matter, these data do not trace the fortunes of individual families over time, and thus may not provide precisely the kind of information you would wish. But, setting aside the finer statistical issues, I have already indicated that I share your concerns about the fact that there are still many families that are struggling in this country. I do believe that the continuing economic expansion is bringing new opportunities to many who had not previously been able to find employment, and it is our objective--by avoiding inflationary imbalances in the economy--to prolong that expansion and its benefits for these people and their families.

Regarding the issue of the minimum wage, I do not believe that raising the minimum wage is the appropriate tool to address the problem of income disparities. Increases in the minimum wage make it more costly for employers to hire workers whose current skills would not permit them to be productive enough to make it profitable to employ them. By avoiding setting such an artificial barrier, we can facilitate the flow of less skilled individuals into the work force, where they can gain the work experience and on-the-job training that will enhance their value to employers and put them on a path toward greater economic welfare.

Chairman Greenspan subsequently submitted the following response for inclusion in the record:

This question of what government policy actions would be appropriate in raising real wage rates, perhaps at the expense of lowering business profits, is difficult. I believe that the primary focus of policy action should be the maximization of the total income "pie" of the economy, the amount that can be divided between labor and capital.

The crucial element in the growth of real wages and labor incomes over time is the improvement of labor productivity--the amount of output produced per hour of work. And one of the most important contributors to productivity growth is the increase in the capital stock available to workers. If workers have more equipment to leverage their efforts, they will produce more and, history suggests strongly, they will share with the owners of capital the fruits of that additional production. Appropriate taxation of returns on capital and a non-inflationary environment in which the price mechanism works most effectively in guiding the allocation of capital are conditions conducive to efficient investment.

Workers will also be more productive if they are well trained and if they find their way to the positions in which they can be put to best use. This suggests that policies that promote the development of worker skills and the dissemination of information about job availability may be helpful in enhancing productivity, though incentives are already quite strong for the private sector to do much of this job.

Chairman Greenspan subsequently submitted the following response for inclusion in the record:

You raised the issue of the role of the oil price in the design of monetary policy. You also asked about whether the Federal Reserve would take account of the repercussions in foreign countries, in particular Russia, of its monetary policy actions.

As your question on how oil prices affect U.S. economic performance and thus monetary policy implies, oil price increases by themselves can have somewhat contradictory implications for the setting of monetary policy. They would have to be considered in the context of all the other influences on progress toward the goals of price stability and sustainable economic growth. Although the likely direction of influence on monetary policy of a given change in oil prices remains uncertain, it can safely be said that over time the effects of a given change in oil prices on both inflation and real economic growth have diminished, simply because the share of oil-based products in our GDP has fallen. As for Russia, the Federal Reserve interprets its legislative mandates as promoting sustainable growth and price stability for the U.S. economy. Aside from the effects on our economy, it does not routinely consider how its policies affect foreign countries or take account of foreign policy considerations in its setting of monetary policy.