FEDERAL RESERVE'S SEMIANNUAL REPORT ON MONETARY POLICY—1994

HEARING

BEFORE THE

COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS UNITED STATES SENATE

ONE HUNDRED THIRD CONGRESS

SECOND SESSION

ON

OVERSIGHT ON THE MONETARY POLICY REPORT TO CONGRESS PURSUANT TO THE FULL EMPLOYMENT AND BALANCED GROWTH ACT OF 1978

JULY 20, 1994

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WEDNESDAY, JULY 20, 1994

U.S. SENATE,
COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS,
Washington, DC.

The Committee met at 10:10 a.m., in room SD–538 of the Dirksen Senate Office Building, Senator Donald W. Riegle, Jr. (Chairman of the Committee) presiding.

OPENING STATEMENT OF CHAIRMAN DONALD W. RIEGLE, JR.

The CHAIRMAN. The Committee will come to order.

Let me welcome all those in attendance this morning, particularly our witness today, Federal Reserve Chairman, Alan Greenspan, who is here to discuss with us the Federal Reserve's semiannual monetary report which has just been released as this hearing begins this morning.

As we know from reviewing the current statistics, recent economic growth has continued to be vigorous recently. We have added 1.4 million new jobs in just the past 4 months, and it appears that the economy is finally on the verge of completing its recovery from the recession that started about 4 years ago.

During those 4 years, however, of what I think can fairly be called sub-par national economic performance, we have lost about $700 billion of goods and services that we could have produced over that time, but for the recessionary condition. Obviously, that is a very serious loss and one that we cannot afford to repeat any time soon.

The Chairman has told us, in the past, one of the things that delayed this recovery was the need for many households and firms to improve and to rebuild their balance sheets. Of course that has, in large measure, been accomplished, as we have previously reviewed.

I think it's fair to say that it's the turn for those who were unemployed by the recession to get a chance to not only be employed, but stay employed long enough so that there's an opportunity to rebuild those personal and family balance sheets as well, going out in time. We need to make sure that the economy keeps growing, at least, at a moderate rate.

I think it is natural and appropriate that, with the recovery nearly complete, the Fed be concerned about the possibility of the economy overshooting to the point that inflation were to start to accelerate again, but the inflation data that were reported last week remained low and the risks do not appear to lie all in one direction in that area.

In fact, we already see signs that the economy is slowing down, probably, at least in part, due to the recent Fed tightening. We see recent retail sales have been weak. We see inventories of unsold goods are rising and consumer confidence has been falling again. These are signs that are current, signs that tell us, I think, important things about what the direction may be here.

Higher interest rates have also significantly reduced new home sales from that which we saw late last year, and this morning, housing starts were reported to be down by a surprising 10 percent in June.

I think monetary policy decisions over the coming months must not lose sight of the danger that the economy could slow to the point that it slips into another recession. I don't think any thoughtful policymaker would want to see that happen, and I don't presume or believe that to be the view of the Fed.

The Fed did raise short-term interest rates by 1¼ percentage points earlier this year.

When we met after those two moves, Mr. Chairman, you got a variety of reactions and opinions from this Committee, and from others. My own view was, having taken those steps, I hoped that the Fed would perhaps pause at this point and see what that policy impact would be.

I think we're now beginning to see that. There are obviously lags in what happens in the real economy, but it would be my view that it would be wise if the Fed could continue that pause until we have an even clearer picture of how the economy is responding.

Two areas of particular concern, lately, have been long-term interest rates and the foreign sector of our economy. Yesterday, the monthly trade deficit—now get this—the monthly trade deficit was reported at nearly $10 billion. That's essentially a 30-day period of time. That's an enormous monthly deficit, and we've seen a very disturbing pattern month after month in the foreign trade deficit. I think that's a problem that has persisted for a long time, but is very worrisome at these levels.

The dollar has also fallen significantly over the past 3 months. Tomorrow, we will be hearing from Treasury Under Secretary Summers about Treasury's views on that. After years of selling large quantities of our long-term debt to foreigners, we appear now to be paying some price for that. They are not buying our long-term debt now, and that must be having some effect on helping to affect our interest rate picture, and not in a positive way.

We're very interested to hear your views today on the economy's prospects and on your policy plans for the future, Mr. Chairman.

Let me now go down the table for brief opening comments from Members.

Senator Gramm.

OPENING STATEMENT OF SENATOR PHIL GRAMM

Senator GRAMM. Thank you, Mr. Chairman. Chairman Greenspan, we're glad to have you back before the Committee.

I'd like to raise a few concerns, and I hope in your prepared text or as we get into questions you can address them.

I'm concerned about the decline in the value of the dollar. The dollar is the world currency. A decline in the value of the dollar raises the cost of holding the dollar as a world currency and creates the potential that we could have a flight out of the dollar if the trend continues. I don't have any doubt in my mind that it has had an impact on your ability to conduct domestic monetary policy.

A relevant question is, why is it happening?

I think you can make a case that there's a general lack of confidence in American leadership and in American foreign policy, and I don't discount that as a factor. When people are expressing their opinions with their money and how they invest it, instead of their mouths, I think we ought to take their views seriously. I think when they're doing that, they're looking at some of these long-term trends that we're not addressing.

There has been great jubilation that the deficit has gone down slightly. It's gone down because the S&L bail-out turned out not to be as expensive as we had thought. It has gone down because interest rates are low and we are the largest debtor in the world and we are great beneficiaries, in the Federal budget, of lower interest rates.

The deficit also has gone down because the economy has recovered, but I think the thing that is very ominous on the horizon is that the deficit pattern looks like a hockey stick. It goes down very slightly for 3 years and then it goes up like a rocket, even if the economy stays strong.

Why?

Because nothing has been done about the long-term spending patterns of the Federal Government.

Finally, I have to believe that the health care debate and the prospects of the adoption of the largest entitlement program in American and world history has got to be having an impact on world financial markets.

As I look at the President's health care plan, and as I look at similar plans, at best they're underfunded by 25 percent over the first 5 years of their life. They're generally underfunded by 50 percent or more over the second 5 years. What you're looking at is taking a deficit picture that is already bleak and doubling how bleak it is.

I can't help but believe that people who are using the dollar on the world financial market, looking at this picture, looking at the specter of a massive, new, long-term, explosive spending program on health care, and looking at what collectivized medicine has done to the spending patterns of other countries, I can't help but believe that that's a factor. I'd like to get your views on it.

I thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

Senator Sarbanes.

OPENING STATEMENT OF SENATOR PAUL S. SARBANES

Senator SARBANES. Thank you very much, Mr. Chairman. I'm pleased to join with you in welcoming Chairman Greenspan to the Committee this morning for the mid-year Humphrey-Hawkins testimony.

Chairman Greenspan, just before your last appearance here on May 27, 1994, the Federal Reserve had hiked interest rates for the fourth consecutive month.

In total, the four hikes raised the Federal funds rate from 3.0 percent to 4¼ percent. At that hearing, a number of Members urged the Fed to refrain from further hikes until they could survey the damage from the hikes already in place.

Fortunately, the Fed has refrained from such further hikes and I think the economic news since May has clearly justified such restraint. In fact, my own position is that the actions you took even earlier were counterproductive to the economy. Let me just quickly review some of the things that are happening.

Underlying demand rose modestly in the second quarter. Consumer spending, almost 70 percent of total spending in the economy, appears to have grown by less than 1 percent in the second quarter.

GDP probably rose faster, somewhat faster, in the second quarter, but apparently due largely to rapid build-up of inventories. There's been a sharp jump in inventories. This bodes poorly for GDP grown in the second half of the year, obviously. That's taking place, apparently, at the retail and wholesale level and, in effect, people were putting in orders that have come in and now they can't get the goods out of the store because of slackening demand.

Other key cyclical indicators such as new orders for durable goods and housing construction, in the index of leading indicators, have all been flat for the last couple of months. Chairman Riegle mentioned the housing starts figure in his opening statement, down 10 percent this month.

The Fed, in my view, has engineered a slowdown in the economy despite the absence of an inflation problem. The domestic economy is generating less inflation than it has in three decades.

In the last 12 months, consumer prices rose just 2½ percent. Producer prices were unchanged. This chart shows you the movement in consumer prices and, of course, what you have is the best performance since the early 1960's on consumer prices.

Except for 1986, when oil prices collapsed—you have to go back to 1965, almost 30 years ago, to find a year with a CPI as low as it's been over the past year.

A broader-based measure from the GDP accounts, the deflator for final sales to domestic purchasers, has risen only 1.7 percent in the last year—1.7 percent. That's the lowest rate in 30 years. In 30 years.

Those indices, I think, indicate that there's not an inflation problem pressing us. We've got the best inflation performance in 30 years. The economy remains far from overheating. Capacity utilization in manufacturing has not risen over the last 3 months. Even reported levels are overstated, according to some experts, including, I think, some experts at the Federal Reserve.

Moreover, the industries with higher utilization rates generally face intense international competition with substantial unused capacity abroad, I think, a factor that's often overlooked when we address the question of an inflation danger. As we globalize the economy, the presence of this competition from abroad and excess capacity elsewhere, of course, serves to act as a damper on price movements in this country.

The only clear sign of recent economy strength comes from the job market. After such a long period of jobless recovery, I find it entirely welcome that more than 1½ million jobs have been added to payrolls in the last 6 months and that the employment rate has declined to 6 percent.

These improvements in the labor market are long overdue, but there's no evidence that they are having any impact on inflation. In fact, the most recent data show a deceleration in hourly wages and compensation costs—something you obviously wouldn't expect in an overheated labor market.

In addition, unit labor costs, which take into account productivity gains, increased only 6/10ths of 1 percent in the last year, a record unmatched in 29 years. Again, just as we were showing on the inflation front, looking at this performance on unit labor costs, we're getting the best performance since the early 1960's.

Another commonly used indicator of labor market pressures, the index of help-wanted advertising, remains at levels associated with a slack job market. One of the best signs that we still have ample slack in the labor market is the dearth of people coming into the labor force. After every other recession in the last three decades, strong job growth drew large numbers of new workers into the labor force as jobs became plentiful, but employment growth in this expansion has been too feeble to attract new workers. In fact, we still have a smaller fraction of the working age population employed now than before the 1990 recession began. The Fed, in its monetary policy report to Congress, which you're giving us this morning, says on page 13, and I quote you:

> Survey data reveal that many individuals still perceive jobs as hard to find, which may limit their desire to search for employment.

That's the very point that I'm trying to make in this statement.

I'd like to make this observation. High unemployment has social, as well as economic, costs, because the burden of unemployment is not evenly distributed. Historically, a 1-percent reduction in the unemployment rate raises employment, jobs, among blacks at double the rate as for whites. Conversely, when overall unemployment rises, blacks suffer unemployment losses at double the rate of whites. This means that the burden of a slow growth, high unemployment policy falls twice as heavily on the minority community.

Jim Hoagland, in a recent article in The Washington Post, makes these points, that I think are extremely important, with a verve and a pungency and I'm going to quote him:

> One man's job is another man's basis point in the brave new economic world of the central bankers. Being unemployed may be bad for you, but cheer up. It cools inflation and should be good for the markets. That is part of the unspoken, and unspeakable, philosophy that lies behind the manipulation of interest rates in the world's leading industrial economies in recent months. Because of the central bankers' abiding and unbalanced fear of inflation, declining unemployment rates have become a hair-trigger for raising interest rates.
>
> The bankers and fund managers resemble old generals refighting the last war after the battlefield has changed. They build a Maginot Line of high, long-term interest rates instead of adapting monetary policy to a world in which the greater barriers to economic renewal are unemployment and lack of public investment in productive enterprises.

He closes with this observation:

> Growth is measured in jobs, as well as stock and bond prices. Low inflation rates purchased by high unemployment will turn out to have been a dubious bargain.

In summary, in my view, the economy is not growing too rapidly. While the labor market is improving, there's no basis for alarm that we will soon run out of available workers. To slam on the monetary brakes before we can restore employment conditions to their pre-recession levels would be a cruel mistake.

Mr. Chairman, it's turned out I'm getting a lot of communications from across the country and I just want to share a few of those with the Committee and the Chairman here this morning, because it gives you some perception of how this is being seen by others.

This says: Alan Greenspan's car. This is Alan Greenspan. The speedometer says: Inflation. The posted notice on the car dashboard says: This vehicle stops at the slightest provocation.

[Laughter.]

As my colleague, Senator Sasser, points out, here's this huge brake pedal and you've got both feet on it, Mr. Chairman.

[Laughter.]

Senator GRAMM. We've certainly raised the intellectual level of this debate.

[Laughter.]

Senator SARBANES. This one is—these two people are talking and this one says, "Say, isn't that Alan Greenspan's house?"

[Laughter.]

This is the final one I want to share, Mr. Chairman, and I appreciate your indulgence. Here you are, Mr. Chairman, carrying your briefcase. The Fed. This says: Now hiring. This says: Men at work. The caption is: A terrible day in the neighborhood for Mr. Greenspan.

This is the sign we want all over the country. I look forward to hearing the Chairman's testimony. Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Roth, by order of the arrival, you're next.

OPENING STATEMENT OF SENATOR WILLIAM V. ROTH, JR.

Senator ROTH. Thank you, Mr. Chairman. It's always a pleasure to welcome Chairman Greenspan before this Committee.

Mr. Chairman, traditionally, the Federal Reserve is considered responsible for monetary policy, and the Administration and Congress for fiscal policy.

Since both monetary and fiscal policy can affect the economy, responsibility for specific economic developments is muddled between the central bank and elected officials.

According to the new Woodward book entitled, "The Agenda," this muddle has become clarified in recent years. Woodward described the Federal Reserve as working closely with Administration officials in designing fiscal policy. As you know, Mr. Chairman, in the Woodward book, you're portrayed as having ghostwritten the Clinton budget package.

To the extent that the Woodward book is accurate, it would appear that the Federal Reserve has become part and parcel of Administration economic policy. In this context, Federal Reserve actions, whether producing lower or higher interest rates at any particular time, must be viewed as a result of Administration policy.

Moreover, in light of Woodward's book, efforts to attack Federal Reserve policies for undermining the Clinton program appear to be less than fully informed.

Mr. Chairman, the Woodward book raises, I think, some serious issues about the institutional relationship between the Federal Reserve Board and the Administration. The close collaboration between the Federal Reserve and Administration officials, if accurate, raises concerns that Federal Reserve independence might have been compromised.

Mr. Chairman, I would appreciate it if you could address the concerns at an appropriate point in this hearing.

Thank you, Mr. Chairman.

The CHAIRMAN. Senator Sasser.

OPENING STATEMENT OF SENATOR JIM SASSER

Senator SASSER. Thank you, Mr. Chairman. I, too, want to welcome the Chairman of the Federal Reserve, Alan Greenspan, before the Committee.

Dr. Greenspan, as you are aware, I have strongly disagreed with the Federal Reserve's monetary policy over the past 6 months, and my views of disagreement are perhaps even stronger today than they were at the outset. I realize that economists can read the numbers in different ways, however, I am still at a loss to find evidence of an overheating economy.

As Senator Sarbanes indicated a moment ago on his chart, labor costs and real hourly wages have gone up only 6/10ths of 1 percent over the past year. If you add in the cost of fringe benefits, that puts it up to 7/10ths of 1 percent, but real increases in productivity have been at 2.6 percent, while fringes and wages are going up at a figure one-third of that. There is no evidence, nor clear footprint of inflation here. If it were here, I think this is where we would find it.

The Federal Reserve may have scored well on Wall Street with its policy over the past few months, but, frankly, I think it has the American economy on the verge of reeling.

Make no mistake about it, as the Fed pushes interest rates up, it is pushing down further the hopes of working men and women in this country. It's threatening to choke off the economic recovery that we worked so very hard to produce.

If you look at this chart, the rise in the cost of 30-year mortgage rates for homes have caused many Americans, particularly young couples, to mortgage their dreams of home ownership. We can see why here.

On February 4, 1994, mortgage rates stood at 6.9 percent. July 15, 1994, 30-year conventional mortgage rates stood at 8.7 percent.

Merrill Lynch reports that mortgage applications in early July fell to their lowest level in 18 months. In fact, the Commerce Department reported this morning, as the Chairman indicated, that June housing starts fell by almost 10 percent—9.8 percent—and May housing starts were revised downward.

This June level of housing starts is below average starts for the decade of the 1960's, 1970's, and 1980's, even though the population has been growing during that period of time.

How does this impact down where the rubber meets the road?

A homebuilder in Knoxville, TN, told me recently that his business has been cut in half from just 6 months ago. He tells me that his colleagues in the homebuilding business are now contemplating lay-offs this summer in the eastern part of Tennessee, and they place the blame squarely at the doorstep of the Federal Reserve.

The Mortgage Bankers Association estimates that 200,000 renters who would have purchased a house this year have been pushed out of the market because of higher interest rates. Let's just take a moment and see how that's occurring.

A couple who received, back in January, a $100,000 mortgage at a 7 percent interest rate paid $665-a-month in principal and interest. If that same couple had waited until May to try to buy a house, after the Fed pushed the rates up, they would have been paying 8.6 percent, and the monthly payments, instead of $665, would have been $778.

On Wall Street, $113 difference in house payments or mortgage payments may not be a lot of money, but if you're a working man and woman, a working couple trying to get off the renters' treadmill, that $113-a-month may very well be the difference between continuing to rent and buying your own home and starting to acquire some equity in that home.

I ask, for what? Inflation is not a problem. I'm reminded of that television commercial where the two elderly ladies were asking, "Where's the beef?"

My question here is, "Where's the inflation?"

Over the past 12 months, consumer prices have risen only 2.6 percent. This is down from 2.9 percent in the preceding year. Senator Sarbanes said, with the exception of 1986, when oil prices collapsed, this is the best inflation level since the mid-1960's.

Evidence against inflation keeps mounting. Wholesale prices haven't changed at all over the last 12 months. Labor costs increased only 6/10ths of 1 percent in the past year. As the charts used by Senator Sarbanes so graphically illustrate, it's the slowest rate of increase in labor costs in over a decade.

The Wall Street Journal headline from this past Monday indicates: "Economy Shows Additional Signs of Slowdown." Inventories are piling up. Industrial output is moderating. Consumers are retrenching.

We also see that automobile sales, which had been going up for the past 2 years, are now starting to move down very sharply as a result of interest rates having their effect.

As auto sales start falling, as housing starts continue to decline, I think we run a very, very real risk of choking off this economic recovery.

Dr. Greenspan, you said last week before the Entitlement Commission, of which I'm a member and which I think Senator Moseley-Braun is also a member, and I quote:

> The U.S. economy has recently been experiencing the ideal combination of rising activity, falling unemployment, and slowing inflation.

I must say to you that I'm most pleased with the performance of the economy over the past 18 months. I believe it's a direct result of the historic deficit reduction package that we passed last year. I'm deeply concerned, though, that the Fed considers today's situation "ideal."

My question is, "Ideal for whom?" Many working men and women have suffered with stagnant wages now for many, many years. They've seen their standard of living either decline or just remain stagnant, even though both man and wife are working as hard as they can.

It was my hope, and it is still my hope, that we can expand this recovery to once again start enhancing the quality of life of the working men and women of this country.

Let me make one additional point that I know is very important to you, Dr. Greenspan. It's about this country's fiscal condition. It's a matter about which we're all deeply concerned.

I want to direct your attention to the OMB's mid-session review for fiscal year 1995. We clearly see the effect of higher interest rates on the out-year deficits. Higher interest rates since February have increased spending on net interest by more than $100 billion from 1994 through 1999.

If interest rates had remained at the levels forecast in February, out-year deficits would have declined by about $15-billion-a-year.

Let me conclude, Mr. Chairman, by saying that I still, as you can see, strongly disagree with the Fed's policy of seeing what I perceive to be a shadow of inflation where there is none. I think this policy of trying to deal with inflation where none exists is causing real Americans to lose confidence. It's causing real citizens to feel a pinch, and I think our people are getting hurt.

Mr. Chairman, thank you.

The CHAIRMAN. Thank you, Senator Sasser.

Senator Faircloth.

OPENING STATEMENT OF SENATOR LAUCH FAIRCLOTH

Senator FAIRCLOTH. Thank you, Mr. Chairman. Good morning and welcome, Mr. Greenspan. I applaud your leadership and the direction you've been taking.

In 45 years in the private sector, I've learned one thing. That is, markets don't lie. If the politicians and economists are telling you one thing, and the markets are telling you another, you've got to believe the market.

The dollar has been falling not just against the yen, but a whole basket of currencies, and no matter what the politicians say, the market is telling us one of two things. First, there are too many dollars in circulation. In that case, the market is telling those who criticize your concern about inflation they are just plain wrong. There are too many dollars out there.

Second, and more disturbing, the market is telling us that the dollar is losing value because it is better to invest your money some place other than in the United States' economy. It's telling us that pretty decisively.

That doesn't say bad things about you or the Federal Reserve. It says bad things about the President and this Congress, as well as past Presidents and Congresses who have run up this debt.

We need to cut Federal spending and quit talking about cutting it, but cut it and stop penalizing people who work for a living. Stop subsidizing people who don't work for a living.

If we don't get the rate of savings and investment up in this country, we're going to face an economic catastrophe that no amount of testifying by any Federal Reserve Chairman, whoever he might be, can fix.

Again, I applaud the direction you've taken and keep it up.

Thank you.

The CHAIRMAN. Senator Moseley-Braun.

OPENING STATEMENT OF SENATOR CAROL MOSELEY-BRAUN

Senator MOSELEY-BRAUN. Thank you, Mr. Chairman.

Mr. Chairman, the subject of today's hearing, the semiannual monetary policy report of the Board of Governors of the Federal Reserve System, may be seen by many Americans as not having much to do with their daily lives. After all, we will be discussing a number of rather technical economic policy issues and using a lot of big numbers.

However, all of my colleagues here today, and of course our distinguished witness, know that this Committee hearing is really about issues that are central to the lives of every American. People who have jobs want to know whether they will keep them or lose them. People who are looking for work want to know whether there will be new jobs out there to find.

I want to congratulate Senator Sarbanes on his excellent statement and description of that issue and the sense, out in the country, of the importance of what it is we'll be doing here.

All of us want to know how much things will cost. Will prices go up? And if so, by how much?

The economic statistics provide the beginning of the answers to those questions. Inflation is low at 2.7 percent, and staying low. Economic growth is strong, now over 3.2 percent. Unemployment is down, down to 6 percent last month and job creation is up, with over 3.8 million new jobs created in the last 18 months.

The real good news, however, is what those numbers mean to individual Americans around this country. They mean greater security for working Americans, greater opportunities for Americans seeking work, and real bargains for American consumers.

That good news, for real people, is due, in no small part, to the fact that the Federal Reserve and the rest of the Government are no longer working at cross-purposes. For the last 18 months, the Federal Reserve has not been put into the position of having to try to use monetary policy to make up for the failure of the legislative and executive branches of Government to deal with fiscal policy issues.

Last year, the President proposed and Congress passed a very tough economic package. That legislation was designed to help reduce Federal budget deficits to an estimated $220 billion this year and $167 billion next year. That legislation worked with monetary policy to lower interest rates, to increase economic growth, and to create jobs and opportunities.

The result is that we have made real progress over the last 18 months. The issue, now, is how to ensure that we stay on that path of strong, noninflationary, economic growth.

As Senator Sarbanes mentioned, I serve on the Commission on Entitlement and Tax Reform, which is a group that is also very much concerned about America's future. We had an opportunity at a Commission meeting to listen to the Chairman last week, I think it was, on some of the entitlement issues that were being discussed. I'm sure the Chairman would agree that the work of the Commission has enormous relevance to the subject matter before us today.

Therefore, Chairman Greenspan, I hope that your statement today will touch on the relationship between entitlement reform and monetary policy, and what all this means to Americans who contribute to Social Security and who may need Medicare at some point in their lives.

How does this affect real people?

I want to conclude by noting the obvious, which is that the Federal Reserve has enormous influence over the economic future of our country and over the economic future of virtually every American.

Americans all need to know whether the Fed will act to raise interest rates and slow down the economy. They want to know whether Government policies will change the economies in ways that will, for example, make it more difficult for many of them to afford the mortgage they need to buy a home.

Most Americans do not know, in detail, how the Federal Reserve actions affect their jobs or job prospects, or the prices of what they will buy. What's really important to them, however, is that the decisions behind those actions take them into account.

Again, I want to associate myself with Senator Sarbanes' statement, that this is about real people, flesh and blood. These are not just sterile numbers on an economist's worksheet.

They need to know that the Federal Reserve and all of us here in Washington listen to the millions and millions of ordinary Americans who have made this such a great country, and that our actions are based on what we have learned from them.

Senator Sarbanes' pictures did paint a thousand words, and I was delighted that it added a little humor to this hearing, but it really touched on the enormous importance of what it is that you have to say.

Last week, Chairman Greenspan, just in passing and almost as a joke, I said, "You breathe hard and the markets change." Do you recollect that? Then, of course, this morning in the papers, the Dow has been off 7 points just on the eve of waiting to hear what you're going to breathe to us this morning. The markets are holding their breath.

Your testimony is going to be of critical importance in setting the tone for a lot of private sector decisions that will affect our economy.

I would just suggest to you to be mindful of the fact that we are all in this together, that what is good for working people here in the United States, particularly in this global economy, is good for working people all over the world.

Frankly, finding what is good for the most people and achieving that greatest good is the essence of the challenge of public service. That really is what we're all in this for.

It's not a partisan issue. It's not a theoretical issue. It is a real, practical, and immediate issue and I very much look forward to your testimony this morning.

The CHAIRMAN. Thank you.

Senator Bond.

OPENING STATEMENT OF SENATOR CHRISTOPHER S. BOND

Senator BOND. Thank you very much, Mr. Chairman.

Mr. Chairman, I want to welcome you here, and in hopes that you will be able to testify before the market closes today, I will break with practice and attempt to keep my remarks under 5 minutes.

[Laughter.]

I do look forward to hearing your remarks, and I apologize for not being here when you last testified. I was gone on that Friday because it was a day when we were not in session on the Floor. However, I understand that there was much discussion and sharp criticism, so I decided to look around for sources that were not perhaps using the Fed as a political whipping boy to see what judgments were being made about the Fed's action in other arenas.

I noticed that in the May 18, 1994, Wall Street Journal, the headlines were: "Fed's Strong Rate Moves Spark Rally." It said:

> Ending weeks of suspense, the Federal Reserve boosted interest rates and ignited a feverish rally in stocks and bonds. Both increases were at the high end of expectations. The effect was instantaneous.

It seems to me, as I believe Senator Faircloth and Senator Gramm have indicated, that when people are voting with their dollars, investing in the prospect of whether the economy will get better or worse, the increase in stocks and bonds suggests that people who vote for real, with their money rather than with political rhetoric, were saying that the Fed had followed the right course.

I also had a good opportunity to visit with an economist nominated to serve on the Federal Reserve and was told that, as an outside observer, the economist believed the course of action of the Federal Reserve, in recent months, had been quite appropriate.

Since we decided to refer to the editorial pages of newspapers to judge the Fed's actions, I have before me a May 31, 1994, editorial from the Washington Post, headed felicitously, "Senator Sarbanes and Mr. Greenspan." In that editorial, the Washington Post, which I sometimes don't agree with economically, said——

Senator SASSER. Neither do I, Senator Bond.

Senator BOND. The Washington Post said:

> Mr. Greenspan said that the whole concept of a trade-off between jobs and inflation is wrong, a theory popular in the 1960's that has been wholly discredited by much painful experience since then.
>
> The evidence shows, he argued, that low inflation brings higher growth and rising productivity, which means more jobs and better incomes.

Mr. Greenspan is right about that. The recent record leaves little doubt.

Mr. Chairman, that's why we look forward with interest to your comments on monetary policy with respect to the condition of the economy. I would agree that there are factors which threaten the economic recovery. Job growth and consumer confidence may be down, but I happen to believe much of that has been the reflection of the impact of the heavy tax burdens that were imposed on the American people in the April 15th tax season. There were also the prospects, as my colleague from Texas has said, of heavy mandates on business which also costs jobs.

The dollar has fallen, which is of concern here. I believe the uncertainty in the world about U.S. international policy and a lack of leadership is foremost among the reasons for the weak dollar.

Anyhow, we enjoy these spirited discussions. If nothing else, they should prove, if they have not already conclusively proven this morning, that monetary policy is better left in the hands of you and the Federal Reserve than in the hands of Congress.

The CHAIRMAN. Senator Murray.

OPENING STATEMENT OF SENATOR PATTY MURRAY

Senator MURRAY. Thank you, Mr. Chairman.

In the interest of getting to your testimony, let me just say that I am interested in your views on the falling dollar abroad and how you feel it's going to impact on our economy. I look forward to your comments on that.

I commend Senator Moseley-Braun for her statement and for reminding all of us that it's the people out there who are worrying about whether or not they can buy a house, pay a mortgage, have a job and a quality of life that we have to remember when we discuss these issues.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

Senator D'Amato.

OPENING STATEMENT OF SENATOR ALFONSE M. D'AMATO

Senator D'AMATO. Mr. Chairman, I find some of our opening remarks today, laying all of the problems of the economy on Mr. Greenspan, to be difficult to really fathom or to put some real credence in.

I've had my own differences with the Chairman and, as a matter of fact, as I look around, it seems to me that I was the only person who voted not to reconfirm on this Committee. It was about 19 to 1.

Again, I have had my own differences. Reasonable people can disagree, so most of you disagreed with me.

[Laughter.]

Having said that, for God's sake, I have to tell you maybe I'm only one, but I disagree completely with this nonsensical attack on the Chairman of the Fed, who I think was recommended by President Clinton this last time.

Isn't that true? Am I mistaken? I thought so. He's been embraced by the President.

[Laughter.]

They went to the speeches together, yes.

Now, look. We're the people who authorize and appropriate the money. We're the people who either get cost containment and entitlements under control or we don't.

To come and lacerate him up and down is unfair. If you want to talk about the policy, as it relates to a specific instance, that's fair, but I don't think it is fair to jump up and down and to lay all of the problems that may exist in the economy on the Chairman of the Fed.

I'd like to hear from him.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.
Senator Mack.

OPENING STATEMENT OF SENATOR CONNIE MACK

Senator MACK. Thank you, Mr. Chairman.

Just two points. I believe that the past will show, if individuals truly are concerned about job creation and the stability of families and their futures, they are better off with a Federal Reserve that is committed to long-term price stability. If that is a policy that is followed, that is a policy that will create the highest levels of long-term growth.

The second point I would make is that the effort, which has been pretty obvious, frankly, since this Congress began, and this Committee has been holding hearings with respect to monetary policy, that my colleagues on the other side of the aisle, I don't believe, have learned from the past.

It appears that they want to return to the days of Jimmy Carter and stagflation; that is, restrictive fiscal policy in the sense of higher tax rates and jawboning for an accommodating policy on the part of the Federal Reserve, which creates the worst of all worlds.

Again, the bottom line is people really concerned about moms and dads back home, as opposed to some re-election, I'd suggest, should stick with a policy of long-term price stability.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Mack.
Senator Bennett.

OPENING STATEMENT OF SENATOR ROBERT F. BENNETT

Senator BENNETT. Thank you, Mr. Chairman.

I have a number of things I could say. In the interest of time, I will not, other than to go to one source in an effort to put some balance in the conversation we've had, which qualifies, I think, for being somewhat disinterested.

Indeed, it's so disinterested, it's not even an American source. This is the Economist magazine, and the comments that they have in their current issue with respect to the debate that we're having here.

Those who are saying there is no indication of inflation, I would hope would listen to this. I shan't read the entire thing. I've edited it in the interest of time, but I find this of some interest. Quoting, then:

> It is significant that the American currency has not appreciated strongly in the past year or so. The likeliest reason for that failure to rise is American monetary policy. Although the economy has been growing since early 1992, and strongly so since early 1993, monetary policy was not tightened until February this year, widely criticized as premature.
>
> That raising of interest rates was in fact pretty late, and although rates have since been raised further, policy remains loose.
>
> Inflation is now subdued, but in 1995 and 1996, it is likely to revive unless interest rates are raised sharply. Oil and other commodity prices are climbing. The price of gold, singled out in February by Mr. Greenspan as a warning sign for inflation, is on its way up. And the Fed's resolve is in doubt because the political demands of the Presidential election cycle will increasingly make themselves felt because two new Fed governors appointed by Bill Clinton, Alan Blinder and Janet Yellen, seem soft on inflation, because Mr. Greenspan himself has to be reconfirmed or replaced within 2 years, and because the Clinton Administration's trade policy toward Japan

seems to favor a weaker dollar against the yen, which can be achieved only by the Fed dragging its feet on interest rates.

Market panics of the sort seen in the past week are not necessarily harmful. They are messengers rather than murderers. The best outcome would be if these market panics forced Mr. Greenspan and his political patrons at the White House to forget about Japanese trade, to become sanguine about growth, and to clamp down hard on inflation.

There are, indeed, Mr. Chairman, responsible voices that take issue with those who say that inflation is not a problem.

I look forward to the testimony of the Chairman.

The CHAIRMAN. Senator Domenici.

OPENING STATEMENT OF SENATOR PETE V. DOMENICI

Senator DOMENICI. Thank you very much, Mr. Chairman.

I will say to you right off, Mr. Chairman, I think the best thing you could do today is loudly and clearly reaffirm your policy. I'm certain that's the best for working men and women in the United States.

Senator Sarbanes, I didn't know you were going to use some comic strips. Had I known, I would have brought a Superman cartoon and I would have labeled it, Alan Greenspan. I'll tell you that for sure.

Senator GRAMM. It would be a good likeness.

[Laughter.]

Senator DOMENICI. I don't know how we'd do the exact caricature, but it's the body, right?

[Laughter.]

Anyhow, Mr. Chairman, let me congratulate you on what you've done for the working men and women of the United States. The worst policy for American working men and women is inflation. The worst policy for the economy is inflation.

Any policy that succumbs to inflation, or even invites it in the name of growth, in this Senator's opinion, takes money right out of the pockets of the working men and women. It produces less jobs overall, less productivity overall.

I believe the United States has a lot to be thankful for, that once we got through the stagflation of the Carter Administration, and through the tightening of money policy in the first 2 years of Ronald Reagan in order to get inflation down, that we have had people like you controlling the supply of money and, to the extent possible, having some positive effect on interest rates.

I believe you did exactly the right thing in starting to be more accommodative when you were and to start to be concerned about inflation when you did.

Frankly, there's no doubt in my mind that you are making some very new, positive steps, taking some new positive steps in your analysis of the American economy and your response.

Heretofore, it would appear, since the Second World War, we let an economy grow robust. Inflation began to perk up and get strong, and then we have a recession. I believe what you have tried to do is prolong the recovery in the U.S. economy which started in 1990, and you're trying desperately against very difficult odds of those who would like you to have the lowest interest rates around.

What you have done is hope that this economic recovery may go on 2 or 3 years longer than it would have otherwise.

I will ask you that question after a while, but that's what I understand to be concerned about the future, as you adjust interest rates within your control at the appropriate time.

Last of all, I would like to say that I believe the policy you've adopted and the policy we're living under now of low inflation has caused this recovery, this recovery in the United States, to be a very different one.

I don't agree at all that the package of so-called deficit reduction, adopted by the U.S. Congress at the request of the President, has had much to do with this recovery. As a matter of fact, I am convinced this is a productivity-led recovery, so much more than prior recoveries that it bodes very, very well for the future.

On average, heretofore, our recoveries have been vested with about 50-percent productivity, as I understand it, if you figure out the positive movement. This one, according to the best economists I can find, is over 90-percent driven by increases in productivity.

Great. That's how you keep inflation. That's how you increase real wages to our working men and women, and that's what's happening in the United States.

I don't believe it's thanks to a $43 billion tax increase that's in effect this year, or to $250 to $300 billion in tax increases over the next 5 years under the Clinton plan. I don't think that has anything to do with it. If anything, it will drag it down, not cause it to go, to be as strong as it would otherwise be.

The facts are there. Interest rates started down in 1990. They went down until February when you made some adjustments. That is because you wanted this economy to recover with low inflation and to build into it the maximum productivity increases for the future.

I think all of that has happened. The one dark spot on the American economy is what's happening to the American dollar. Hopefully, today, you will explain to us what it is.

My own assessment is the sooner, after a hearing like this, you disavow any intention of following the advice of Senators who want more growth and are fearful of your approaches to noninflation and price stability, the sooner you can say, I'm not going to do that, Senator Sarbanes. Thank you very much. The better off the American economy is and the better off the dollar is. I don't think there's any question about that.

Frankly, the one bleak spot, and I repeat, is the American dollar, and I think it has nothing whatsoever to do with what you are doing, but rather with what the President isn't doing.

I think it is an absolute vote of no confidence in the way the President is conducting trade policy and foreign policy, and we'd better fix that, but I don't think we can fix that by telling you what to do.

Thank you very much.

The CHAIRMAN. Senator Boxer, you will be the 14th Senator today, and I think it's an indication of the keen interest, to say the least, that everyone has. We've had 14 different States now, in a sense, represented and speaking here through their Senators.

Of course, you represent the largest State in the country, so it's appropriate that you close these comments and then we'll hear the report.

Senator Boxer from California.

OPENING STATEMENT OF SENATOR BARBARA BOXER

Senator BOXER. Thank you very much, Mr. Chairman. Before my colleague leaves, I just would like to say to him that I think it is a very important forum that we have here today. I would encourage Senators, whether they agree with interest rate policy or not, to speak up. That's what this country is about. It's about building consensus. It's about giving our views.

I think we would be far worse if we made the Federal Reserve even more, if you will, a cloister than some think it already is.

I think it's important to have Mr. Greenspan here, and it's important for us to state the way we feel. He's going to listen to us, weigh the views, and make his decisions, as is the rest of the Fed.

I'm not an individual who believes that Congress ought to set interest rates.

[Pause.]

I'm not a Senator who thinks that interest rates ought to be set by politicians. I think that would be a grave mistake. I do feel, however, it's very important that we express our views on this economy and this recovery.

Let me state that I just happen to believe, if we were sitting here and the economy was not doing well, if the figures weren't good, that my Republican colleagues would not be blaming you for that. They praise you for what is happening out there. If things were bad, I think you're in a pretty good spot with them.

I have to say, after serving in Congress for the many years that I have, most of the time on the other side of the Capitol, that this is the first time in many years that I've seen the kind of recovery that we have going on.

Now, in California, we're lagging. We're lagging because we get the brunt of the change from, if you will, the stress on military spending, the shift away from that. We're going to bounce back very strongly because much of our economy depends on trade. Trade is very important. We are on the Pacific Rim.

This President understands that. He doesn't look back. He looks ahead and realizes it's the global marketplace that is important for us.

In time, California is going to be stronger than it ever was, because it's not going to be dependent on Big Brother, which I think is very, very important.

I guess my message to you, Mr. Greenspan, is please be mindful that some of our States are still struggling a bit, and we are interest rate dependent. As a matter of fact, we are very interest rate dependent, in construction and in other areas. We look to your leadership. We like the way things are going. We don't want to choke off an economic recovery that, in our State, is really nascent.

I hope you will take all of our comments in the right spirit. We feel we speak for many, many people. We urge you, please, especially for my State, to realize that we can't go back to the high interest rates or we will not join in with the rest of the Nation.

I thank you very much, Mr. Chairman.

The CHAIRMAN. Thank you very much.

Chairman Greenspan, we'll make the full monetary policy report a part of the record. We'd like to have your comments at this time.

OPENING STATEMENT OF ALAN GREENSPAN, CHAIRMAN BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM WASHINGTON, DC

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

I request that the complete testimony be included for the record.

The CHAIRMAN. Without objection, it is so ordered.

Chairman GREENSPAN. I will excerpt from it.

Mr. Chairman and Members of the Committee, I very much appreciate this opportunity to discuss with you recent economic developments and the Federal Reserve's conduct of monetary policy.

The favorable performance of the economy continued in the first half of 1994. Economic growth was strong, unemployment fell appreciably, and inflation remained subdued. To sustain the expansion, the Federal Reserve adjusted monetary policy over recent months so as to contain potential inflationary pressures.

Our actions this year can be understood by reference to policy over the previous several years. Through that period, the Federal Reserve moved toward and then maintained for a considerable time a purposefully accommodative stance of policy. During 1993, that stance was associated with low levels of real short-term interest rates—around zero. We judged that low interest rates would be necessary for a time to overcome the effects of a number of factors that were restraining the economic expansion, including heavy debt burdens of households and businesses and tighter credit policies of many lenders. By early this year, however, it became clear that many of these impediments had diminished and that the economy had consequently gained considerable momentum.

In these circumstances, it was no longer appropriate to maintain an accommodative policy. Indeed, history strongly suggests that maintenance of real short-term rates at levels prevailing last year ultimately would have fueled inflationary pressures.

Accordingly, the Federal Open Market Committee, at its meeting in early February, decided to move away from its accommodative posture by tightening reserve market conditions. Given the level of real short-term rates and the evident momentum in the economy, it seemed likely that a substantial cumulative adjustment of policy would be needed. However, Committee members recognized that financial markets were not fully prepared for this action. Many were concerned that a marked shift in the stance of policy, while necessary, could precipitate an exaggerated reaction in financial markets.

With this in mind, we initially tightened reserve conditions only slightly, just enough to raise the Federal funds rate a quarter of a percentage point. The financial markets did, indeed, react sharply, with substantial increases in longer-term interest rates and declines in stock prices. Markets remained unsettled for several months, and we continued to move cautiously in March and April in the process of moving away from our accommodative stance.

By mid-May, however, a considerable portion of the adjustment in portfolios to the new rate environment appeared to have taken place. With financial markets evidently better prepared to absorb a larger move, the Federal Reserve could substantially complete the removal of the degree of monetary accommodation that prevailed throughout 1993. The Board raised the discount rate ½ percentage point, a move that was fully passed through to reserve market conditions by the Federal Open Market Committee.

Partly to minimize any market confusion about the extent of and rationale for our moves, the Federal Reserve has announced each action and, in relevant instances, provided an explanation. At its meeting in early July, the FOMC faced considerable uncertainty about the pace of expansion and pressures on prices going forward, and it made no further adjustment in its policy stance.

Nonetheless, it is an open question whether our actions to date have been sufficient to head off inflationary pressures and thus maintain favorable trends in the economy. Labor demand has been quite strong, pointing to robust growth in production and incomes. To be sure, some hints of moderation in the growth of domestic final demand have appeared, and the recent indications of accelerating inventory accumulation may suggest an unwanted backing up of stocks. Conversely, the inventory accumulation may reflect pressures on firms who had brought inventories down to sub-optimal levels and now need to replenish them. In the latter case, stock-building may continue at an above-normal rate, supporting production for quite some time. Moreover, the improving economic conditions of our trading partners should add impetus to aggregate demand from the external sector.

How these forces balance out in the coming months could be critical in determining whether inflation will remain in check, for the amount of slack in the economy, while difficult to judge, appears to have become relatively small.

An increase of inflation would come at considerable cost. We would lose hard-won ground in the fight against inflation expectations—ground that would be difficult to recapture later. Our long-run economic performance would be impaired by the inefficiencies associated with higher inflation if it persisted. Harsher policy actions would eventually be necessary to reverse the upsurge in inflationary instabilities. We are determined to prevent such an outcome, and currently are monitoring economic and financial data carefully to assess whether additional adjustments are appropriate.

The economic figures that have formed the backdrop of our policy actions so far this year confirm that a rapid expansion has been in progress. Following growth at an annual rate of 7 percent in the fourth quarter of last year, real gross domestic product rose at nearly a 3½ percent rate in the first quarter. A conceptually equivalent measure of aggregate output—gross domestic income—exhibited even larger gains in the fourth and first quarters. At this stage, available data leave some uncertainty regarding the pace of economic activity over the past 3 months. Nonetheless, the evidence in hand makes it reasonably clear that growth remained appreciably above its longer-run trend. The robust expansion over the first half of 1994 has been reflected in substantial increases in employment.

The accumulating evidence of stronger-than-expected economic growth here and abroad, combined with changing expectations of policy actions by the Federal Reserve as well as other central banks, prompted considerable increases in long-term interest rates in occasionally volatile markets over the first half of the year.

The recent weakness in bond prices was not limited to the United States, but was accompanied by a surge in foreign interest rates as well.

Rising foreign interest rates, concerns in markets about the prospects for reduced trade tensions and about U.S. inflation contributed to considerable activity directed at rebalancing international investment portfolios. One effect of this activity appears to have been a substantial decline of the foreign exchange value of the dollar on net over the past 6 months. Foreign exchange rates are key prices in the American economy, with significant implications for the volumes of exports and imports as well as for the prices of imports and domestically-produced items that compete with imports. The foreign exchange value of the dollar also can provide useful insights into inflation expectations. If we conduct an appropriate monetary policy—and appropriate economic policies more generally—we shall achieve our goals of solid economic growth and price stability, and such economic results will ensure that dollar-denominated assets remain attractive to global investors, which is essential to the dollar's continuing role as the world's principal reserve currency.

Rising interest rates and considerable volatility in financial markets do not seem to have slowed overall credit flows this year. At about a 5¼ percent annual rate through May, domestic nonfinancial sector debt has increased within its 4-to-8 percent monitoring range.

Expansion of M2, however, has been quite slow this year, leaving this aggregate near the lower end of its 1-to-5 percent annual range. M3 actually has edged down, and thus is just below its 0-to-4 percent range for 1994. The weakness in the broader aggregates has not been reflected in the growth of income again this year, representing a continuation of the substantial increases in velocity that we have experienced over the past few years.

In reviewing its ranges for money growth in 1994, the FOMC noted that further increases in velocity of M2 and M3 were likely. As a result, growth of both aggregates near the lower bounds of their 1994 ranges is considered to be consistent with achieving our objectives for economic performance, and the ranges were left unchanged.

The Committee also decided, on a provisional basis, to carry forward the current ranges for the monetary aggregates to 1995.

Regarding domestic nonfinancial sector debt, we made no adjustment to this year's monitoring range, but elected to set a provisional monitoring range for 1995 of 3 to 7 percent, a percentage point lower than this year's. A lower range would conform with some deceleration in nominal income, in the process of containing inflation and ultimately making progress toward price stability.

We expect that expansion of money and credit within the ranges we have established will be consistent with the continuation of good economic performance. With appropriate monetary policies, the Board members and Reserve Bank presidents see the economy settling into more moderate rates of growth over the next six quarters and inflation remaining relatively subdued. Specifically, the central tendencies of our forecasts are for real GDP to expand 3 to 3¼ percent over 1994 and 2½ to 2¾ percent next year. The consumer price index is projected to increase 2¾ to 3 percent this year. In 1995, inflation may be about the same as in 1994, or slightly higher. The unemployment rate is expected to remain close to its recent level.

Mr. Chairman, you also asked for the economic projections for 1996.

Senator SASSER. Mr. Chairman, this may be a good point at which to interrupt.

We have a vote underway. Chairman Riegle should be returning very, very shortly. I'll ask you to suspend and the Committee will stand in temporary recess, subject to the call of the Chair.

Thank you.

[Recess.]

The CHAIRMAN. Let me invite all those who are standing to find seats so that we can resume.

I want to thank the Chairman for his patience. I think just as we prepare to resume here, it's very important that—I was reading your statement on the way over as you were delivering it, or delivering a summary of it. I tried to follow where I think you probably are in your delivery, and I want you to go ahead and finish. I know you had not done so.

Before you resume, though, I just want to say I think the early aspect of our hearing this morning, where we have 14 Senators from around the country, both parties in a sense exercising our oversight as a Banking Committee with respect to monetary policy, is that we have always had, I think, a good cooperative relationship, certainly with you and with the Federal Reserve generally.

I think sometimes the nature and the way our democracy works—people don't necessarily learn about it in textbooks or in classrooms the way they should. The only way we have a check and balance in our system is exactly the way we're operating today, as you, of course, clearly know, understand, and subscribe to, as do we.

Why don't you go ahead and finish the delivery of your statement, and then we'll go to questions.

Chairman GREENSPAN. Indeed, Mr. Chairman, I think that we have been quite cognizant of the need for the Federal Reserve to try to make clear to Congress not only what we are doing, but why we are doing it.

We recognize that if we are to maintain the degree of independence that we think is necessary for a central bank in this country, that the issue of accountability is in the forefront of our notions. You cannot have an independent central banking institution without adequate accountability to the electorate. We fully recognize that and this type of forum is, as far as my issues are concerned, the ideal way in which we can try to communicate as best we can what it is we're doing.

I must say, Mr. Chairman, continuing my testimony, that you, in a letter to me, asked for economic projections for 1996, and in this context, obviously, I fully appreciate your purpose in requesting this information. However, my colleagues and I don't think we can best communicate our policy intentions through additional numerical forecasts. Rather, we believe our intentions are best conveyed in terms of our declared objective of fostering as much growth of output and employment as can be achieved without placing destabilizing inflationary pressures on productive resources. There is considerable uncertainty about what that goal implies for the expansion of GDP and rates of unemployment.

That said, it may be useful to note that the assumptions underlying the medium-term projections provided to you by the Administration and the Congressional Budget Office are within the mainstream of thinking among academics and private business economists. These projections do not attempt to anticipate cyclical movements, but instead represent estimates of the likely performance of the economy in the neighborhood of its potential.

The Administration, for example, projected in its most recent forecast that the economy will expand at a 2½ percent rate in the second half of the 1990's and unemployment will average 6.1 percent. These projections are consistent with common estimates of the economy's potential growth rate and fall within the range of typical estimates of the so-called "natural rate" of unemployment.

Uncertainties around these estimates arise because identifying economic relationships is always difficult, partly owing to limitations of the data. More fundamentally, all policymakers recognize that notions of potential GDP growth and the natural rate of unemployment are considerable simplifications, useful in conceptual models, but subject to a variety of real-world complications.

Our economy is a complex, dynamic system, comprising countless and diverse households, firms, services, products, and prices, interacting in a multitude of markets. Estimates of macroeconomic relationships, as best we can make them, are useful starting points for analysis, but they are just starting points.

Given questions about the aggregate relationships, policymakers need to look below the surface, in markets themselves, for evidence of tightness that might indicate whether inflationary pressures are indeed building.

If the economy were nearing capacity, we would expect to see certain patterns in the statistical and anecdotal information with increasing frequency and intensity. Reports of shortages of skilled labor, strikes, and instances of difficulties in finding workers in specific regions, for example, all would be more likely. Businesses would have difficulty obtaining certain materials or pay higher prices for them.

In recent months, we have seen some of these signs. There are reports of shortages of some types of labor—construction workers and truck drivers, for instance. Indexes of vendor performance have deteriorated considerably, and manufacturers are paying higher prices for materials used in their production processes. As yet, these sorts of indications do not seem to be widespread across the economy. Nonetheless, we shall need to be particularly alert to these emerging signs in considering further adjustments to policy in the period ahead.

In light of the uncertainties about aggregate measures of our economic potential, the Federal Reserve cannot rely heavily on any one estimate of either the natural rate of unemployment or potential GDP growth. Most important, we have no intention of setting artificial limits on employment or growth. Indeed, the Federal Reserve would be pleased to see more rapid output growth and lower unemployment than projected by forecasters such as the CBO and the Administration, provided they were sustainable and consistent with approaching price stability.

A more significant issue for economic policymakers than the precise values of such estimates is what can be done to maximize sustainable employment and economic growth. We need, for example, to give careful attention to the problem of unemployment, as noted——

The CHAIRMAN. Mr. Chairman, excuse me. Let me just stop you, if I may. I'd rather take this in context, if you'll permit me.

If you back up to the paragraph on page 14 that you just delivered, you chose to not read the final sentence in that paragraph—"I should note, however, . . ."

I think it would be well for you, assuming that is in fact still part of the text, to read that into the record, because I think it's an important caveat that we'll want to come back to.

Chairman GREENSPAN. Yes. I appreciate that. Because we had such a very long statement, we excerpted a number of things which I think are important.

I agree with you. This is an important sentence.

The CHAIRMAN. I understand.

Chairman GREENSPAN. I said in the written testimony, I should note, however, that most Federal Reserve policymakers would not regard the inflation projections of these other forecasters, which generally do not foresee further progress toward price stability over the medium term, as a desired outcome.

The CHAIRMAN. Why don't you continue? We'll come back to that at a later time.

Chairman GREENSPAN. Let me just repeat what I had said subsequent to that.

A more significant issue for economic policymakers than the precise values of such estimates is what can be done to maximize sustainable employment and economic growth. We need, for example, to give careful attention to the problem of unemployment, as noted by the G–7 leaders at their recent summit. We could raise output and living standards around the world and at the same time ease many social problems if more people were working.

We ought to be encouraging measures that increase the flexibility of our work force and labor markets. Improving education and training and facilitating better and more rapid matching of workers with jobs are essential elements in making more effective use of the U.S. labor force.

Congress and the Administration also can continue to contribute to the growth of our economy's capital and productivity through a sound fiscal policy. The extension of the spending caps in last year's budget agreement was a significant step in putting fiscal policy on a more sustainable, long-run path.

However, we should not lose sight of the fact that under current law, the deficit, as a percent of GDP, will begin to expand again as we move into the next century, with unacceptable consequences for financial stability and economic growth. Mr. Chairman, as I have testified before this Committee last year, only by reducing the growth in spending is ultimate balance achievable.

The Federal Reserve also, as I have indicated previously, can contribute to the achievement of our overriding goal—maximum sustainable economic growth—by pursuing and ultimately achieving a stable price level.

There is some evidence to suggest that the stronger trend of productivity growth we have witnessed over the recent past is due, at least partly, to the beneficial effects of low rates of inflation.

Our Nation has made considerable progress in putting the economy on a sound footing in the past few years. To preserve and extend these advances, our monetary and fiscal policies will need to remain disciplined and focused on our long-term objectives. It would be foolish to squander our recent gains for near-term benefits that would prove ephemeral. Indeed, by fostering progress toward price stability, achieving lower Federal budget deficits, and encouraging competitive markets both here and abroad, we will help ensure the continued viability of our Nation's economy now and for many years into the future.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much, Mr. Chairman. I'll yield to Senator Sarbanes to let him start the questioning period.

Senator SARBANES. Thank you very much, Mr. Chairman.

First of all, in light of a lot of the comments that were made in the opening statements, I just want to repeat this quote from the Jim Hoagland article:

> One man's job is another man's basis point in the brave new economic world of the central bankers. Being unemployed may be bad for you, but cheer up. It cools inflation and should be good for the markets. That is part of the unspoken, and unspeakable, philosophy that lies behind the manipulation of interest rates.

He goes on later to say:

> Growth is measured in jobs, as well as stock and bond prices.
>
> Low inflation rates purchased by high unemployment will turn out to have been a dubious bargain.

I'm really searching to find out. The president of your Federal Reserve Bank in San Francisco is on the Open Market Committee, is he not?

Chairman GREENSPAN. He is.

Senator SARBANES. Mr. Parry. Is that it?

Chairman GREENSPAN. That's correct.

Senator SARBANES. As I understand it, his view is that the natural rate of unemployment is at 6½ percent. I think he's made such a statement. I've been searching in my own mind for some way, if that's the view, to get him within the 6½ percent of those that are unemployed. It's very easy if you're employed to have a very high natural rate of unemployment for the economy.

Mr. Chairman, I want to pick up on your closing paragraph, the next-to-last closing paragraph.

There is some evidence to suggest that the stronger trend of productivity growth we've witnessed over the recent past is due, at least partly, to the beneficial effects of low rates of inflation.

What evidence are you relying upon?

Chairman GREENSPAN. I'm relying on two different types of evidence in this regard.

First, there is an extraordinarily large amount of anecdotal evidence in the marketplace, not only in this most recent period, but in my recollections over the years as an economic consultant, that when inflation is low, and there is considerable inability to pass through price increases, there is a considerable tendency on the part of American business to reduce costs.

This is——

Senator SARBANES. Is this the Rudebusch-Wilcox study?

Chairman GREENSPAN. No.

Senator SARBANES. Is that part of what you're relying upon?

Chairman GREENSPAN. No. I will get to that in a minute.

Senator SARBANES. Could we——

Chairman GREENSPAN. There's two different types. There's econometric evidence and there is anecdotal evidence.

Senator SARBANES. All right. I understand the anecdotal point. Is the econometric evidence the Rudebusch-Wilcox paper? Is that what you would rely upon?

Chairman GREENSPAN. In part, yes.

Senator SARBANES. I want to really question you on that.

Chairman GREENSPAN. May I just suggest——

Senator SARBANES. In an article in the New York Times—"New Fuel for the Fed's Rate Fire"—and I just want to quote what Barry Bosworth said about this.

Bosworth, an economist at Brookings, said, "Earlier academic research had failed to document any clear link to productivity for inflation rates below 20 percent." He suggested that, in arguing for the existence of the link at much lower levels, "Mr. Greenspan might be looking for a politically palatable explanation for the central bank's interest rate increases this spring."

"I think it's a bit of throwing everything at the fan and seeing what sticks," Mr. Bosworth said.

This is an interesting assertion you're putting forth. We asked the Fed, after you made the statement at the May 27th hearing, about this Fed study. Of course, the logic of this argument is, you could shut off an expansion whenever you start getting a little bit of inflation and assert you're going to be raising productivity and therefore, long-term potential growth.

We shared that Fed paper with several prominent economists across the country and macroeconomists at the CBO, the Senate Banking, our own staff, and the JEC.

They uniformly find the paper technically well done, but unpersuasive, even on its own terms, for the purposes for which you have used it and the purposes with which the press, some of the press, have interpreted it.

Mr. Chairman, I want to submit for the record a very careful analysis, and I think a very thoughtful analysis, by Jim Tobin, the Nobel Prize winner, distinguished professor of economics at Yale, headed, "Can't the Anti-Inflationary Monetary Policy Raise Long-Run Real Growth?"

He says, "Chairman Greenspan has advanced, as an argument for giving high priority to inflation reduction and monetary policy, the hypothesis that lower inflation will lead to higher productivity growth." To support this conjecture, the Board of Governors made available the staff paper—Productivity in Inflation—Evidence and

Interpretations—by Rudebusch and Wilcox. The authors are first-class professional economists. Their paper is a conscientious survey of relevant theory and empirical research, and they add some exploratory modeling and calculations of their own.

They are appropriately cautious, concluding that the evidence on the Greenspan hypothesis is, at this stage, mixed and uncertain.

Clearly, the paper offers no guidance to monetary policy.

He then goes on to have an extended discussion of this, and he points out—and asks the question—that the relevant question is whether there is any correlation that the central bank can exploit? Can we expect a reduction in inflation engineered by monetary policy to raise productivity growth?

The qualification, engineered by monetary policy, is of basic importance. Of course, it is easy to think of numerous scenarios, shocks, and circumstances in which lower inflation and higher productivity growth are associated, but unless monetary policy is directly or indirectly an important and independent one of the sources, those observed correlations are nothing central banks can exploit.

This analysis then goes on, and I think with a great deal of thought, which, of course, one would expect from Jim Tobin, to analyze this assertion.

He concludes as follows: Productivity is a real phenomenon and its long-run growth is likely to be affected by real factors, notably, investments of all kinds in future technologies and human skills.

So far as Government's macro-policies are concerned, its fiscal policies are crucial, as Chairman Greenspan often points out. This is not just a matter of public deficits and debts, but also public investments in future-oriented activities.

Monetary policy can help by keeping the economy growing along its full employment potential GDP path. By itself, the Fed cannot expect to accelerate productivity, surely not by tightening policy in order to lower the trend rate of inflation.

I'm going to submit this for the record. I see my time is up. I expect we're going to have further discussion, dialog, and debate about this assertion.

I notice it's also been strongly criticized by Alan Sinai in a Lehman Brothers newsletter—Lower Inflation Equals Higher Productivity Growth?

The research, summarized in a paper by Rudebusch and Wilcox, is, in fact, quite inconclusive. The paper itself proves much less than is suggested by the articles reporting it, which I think is an accurate statement. The articles reporting it have picked it up and exaggerated in a way that I think is certainly not warranted. I don't think it was intended by the authors. It may well not have been intended by you, as a matter of fact.

Chairman GREENSPAN. Mr. Chairman, let me just say that I have raised this issue on several occasions, and I've said that the evidence on this is fragmentary and suggestive and by no means conclusive.

Let me tell you what I think the status of the research on this question is, and let me do so, first, by quoting the conclusion on page 20 in the Rudebusch-Wilcox paper which I believe you have. It says:

This paper has presented a plethora of evidence on the correlation between productivity and inflation. That evidence consistently points to a negative correlation between inflation and the growth of productivity over the post-Korean War period in the United States. Moreover, this correlation is remarkably robust across measures of productivity (average labor productivity, total factory productivity), sectors of the economy (whether it's nonfarm business or manufacturing), and measures of inflation (whether the CPI, the implicit deflator, or quasi-fixed weight price indexes are used). In addition, it withstands straightforward methods of controlling for the oil shocks of the 1970's.

Evidence that the relationship exists is very difficult to undercut. There is a very serious question with respect to the direction of causation of the particular correlation, and that is the crucial issue.

The underlying data that were produced here by Rudebusch and Wilcox tries a wide variety of evaluations. They get positive relationships on what is called the range of causation techniques for determining which of two variables is causing which.

It concludes that the evidence that productivity causes low inflation is easily rejected, whereas the reverse is not, and in certain formulations, is quite statistically significant.

I, myself, do not think that this relationship is fully confirmed at this stage. I do not think enough work and perhaps enough data are available to draw the types of conclusions which I suspect are probably true, but are not factually verifiable at this stage, nor would I argue, as a consequence, that they are or should be the basis of monetary policy.

Senator SARBANES. Mr. Chairman——

Chairman GREENSPAN. Just let me say one final word.

The CHAIRMAN. Please.

Chairman GREENSPAN. I disagree with the general notion that what I am trying to do is to combine a whole series of arguments *of why inflation is a danger to the economy and the reduction of* inflation a positive value.

I do believe that, but the presumption that I would put before this Committee or, in fact, anyone else, a long laundry list of ideas to buttress views which are not otherwise defensible, I must say I find objectionable.

Senator SARBANES. Mr. Chairman, maybe we should consider, if the time of the Committee permits, a hearing in which we could bring in Rudebusch and Wilcox, Jim Tobin, and some of these other very distinguished economists to discuss these asserts, so we have a chance to go into——

Chairman GREENSPAN. I'm not making assertions. I am making statements about the evidence that is there.

Remember, there are two ways to approach obtaining information from which one learns about the overall state of the world.

One is a very powerful tool, econometric techniques, which have been evolved in the post-World War II period and have been very useful in data analysis. But you cannot take that whole set of techniques as the whole means by which one concludes what relationships are true or false.

All I'm suggesting is that the reason I originally began to be aware that there may be—and I underline the words, may be—a relationship here comes not from the econometric evidence, but rather from an extraordinarily widespread view on the part of

American businessmen that, in periods of low inflation, they do tend to focus on reducing costs inordinately.

If that statement is true, then the proposition that low inflation contributes to higher productivity growth would be proved.

Now I will never argue that anecdotal evidence is conclusive in itself. It is suggestive, as indeed some of the statistical evidence is suggestive. I would not wish to argue that that proposition is proved to my satisfaction or anyone else's.

There are others in the academic profession who think there's something there. My suspicion is that there is something there, but I cannot say to you, at this particular time, that I think it is scientifically proved and, having not been proved, it should not be a vehicle for monetary policy.

The CHAIRMAN. I think we have to leave it at that, at this point, because we're going to run out of time and we've got to cover other ground.

Senator SARBANES. Could we take under advisement the idea of bringing the authors of the study in, and also some distinguished economists to comment about the study?

The CHAIRMAN. Yes. I think it would be a good idea. I think the discussion here is an important one.

Chairman GREENSPAN. It's a very important issue.

The CHAIRMAN. Yes. I think that, in a sense, is a supporting argument for what you've just said. Let's try to set up such a hearing.

Senator Roth.

Senator ROTH. Mr. Chairman, as I mentioned in my opening statement, Bob Woodward, in the book, "The Agenda," states in considerable detail that, in effect, you were the ghostwriter of Clintonomics.

It describes you, I think, as a senior advisor to Clinton, a relationship that started even before the inauguration. The book suggests that Federal Reserve policy is part of Clintonomics, not opposed to it.

My concern and question is the problem of independence of the Federal Reserve.

I have to say that, as far as I know, there's been no major denial of the statements in "The Agenda" either by the Federal Reserve, the White House, or elsewhere.

I would be interested in what role you played in developing the so-called Clintonomics. Was it appropriate? To what extent should the Federal Reserve become involved in fiscal policy? How does it impact upon the independence of the institution?

Chairman GREENSPAN. Senator, it is quite appropriate for the Federal Reserve to be involved in what the fiscal policy of this country is, because the financing requirement of the budget deficit is a very important variable with which we have to deal in maintaining stable financial systems and noninflationary growth.

As you know, we deal quite extensively with the Treasury Department in trying to coordinate policies to the extent that they overlap, and indeed, they overlap to a considerable extent.

I have very frequent meetings with the Secretary of the Treasury, and his other colleagues, in an endeavor to make certain that there is a consistent financial policy for the United States.

With respect to the Woodward book, I do not recall that it basically says that I ghost wrote what the President came out with. What, in fact, occurred, was that he invited me to Little Rock, prior to the inauguration, to discuss affairs generally. So far as fiscal policy was concerned, I did spend a considerable amount of time expressing my concerns about the long-term budget problems, and indeed, probably replicated very closely precisely the type of testimony I presented before this Committee shortly thereafter.

I never discussed any of the details involved in any budget program other than those which I discussed before this Committee. There was never any discussion of a tit-for-tat between monetary policy and fiscal policy and, indeed, as I recall some of the excerpts in the book, that was very explicitly stated.

I do not think it is inappropriate for the central bank to be discussing general issues with respect to financing in financial markets.

I do think it would be inappropriate to discuss the specific aspects of how that financing occurs. I raised with him at the time, I raised with this Committee, and I've been raising ever since, the concern I have that after the defense budget flattens out later in this decade, we begin to get a rate of growth in total spending which exceeds the rate of growth in the tax base.

That is economically unstable. That is, unless the rate of growth in spending is eventually brought down to the rate of growth in the tax base, you have a destabilizing, inflationary increase in budget deficits that would occur in the years beyond 1999 or the year 2000.

I commented last Friday that this is a view which is becoming increasingly general. I think the American people are beginning to become aware that there is something wrong with the long-term budget outlook.

All of the individuals with whom I have discussed this in the Administration agree that something has to be done in this regard. It's very crucially important that the central bank, which is so heavily involved in the issue of financing these deficits, try to, when we see that there is some fundamental issues involved which require addressing, make those views available to Congress and to the Administration.

That is what I did, what I hope I will continue to do. The presumption that somehow, in a 2½ hour conversation, I convinced the President-elect about what his policies should be, I find a little bit far out.

I appreciate the implication of being the extraordinarily important element within how events occur. It just is not true. It's not credible in any sense of which I'm aware. In that regard, I thought the Woodward book exaggerated my role to an extraordinary extent.

Senator ROTH. I would just point out that you said you weren't aware of the word "ghostwriter." On page 135, it says:

> The Chairman of the Federal Reserve was in some ways a ghostwriter of the Clinton plan.

On page 98, it says:

> Greenspan was careful not to give the impression of making an overt deal with Bentsen. Greenspan will be supportive within limits, but those limits are great.

My principal concern is the question of independence.

Chairman GREENSPAN. Let me say this, Senator. I think Woodward is an excellent reporter, and that book, in many ways, is extraordinary. I happen to disagree with his conclusions on this. It's not that I say he is factually incorrect in what he is reporting, but I do disagree with his conclusions as to what the dynamics basically were.

The one thing that is crucially important is that in no way was the independence of the Federal Reserve then, or since, compromised. Indeed, there are quotes in that book which indicate there is a very significant limit about what we as a central bank would do relative to what might happen with respect to various different types of economic policy.

Senator ROTH. It is interesting that last year the Administration, and spokesmen for the Administration, of course, wanted to take credit for the low interest rates.

As I listen to some of my colleagues this year, they want to blame you for the high interest rates, or the higher interest rates.

It seems to me, if you want to take credit one time, you have to take credit both times.

Let me turn to another matter.

There's been a lot of talk about——

The CHAIRMAN. Senator Roth, I'll give you time to pursue that, but I think with the light having gone on, we perhaps shouldn't introduce still another topic here.

I don't want to be arbitrary in any way on this.

Senator ROTH. I'll wait until my next turn.

The CHAIRMAN. Let me just, as a follow-up, say that there's also been a very serious rumor to the effect that you actually play tennis with Lloyd Bentsen.

Is that true?

[Laughter.]

Chairman GREENSPAN. Some rumors in this town are correct.

[Laughter.]

The CHAIRMAN. I see.

Senator ROTH. I would just say, Mr. Chairman, I think the question of Federal Reserve independence is a very important matter.

Chairman GREENSPAN. Absolutely.

Senator ROTH. I do think a serious question arises when fiscal policy becomes somewhat intertwined with monetary policy. If the Federal Reserve has had a role in developing the fiscal policy, that is significant information.

Chairman GREENSPAN. I think the only role that I had, I hope I had, was to indicate the long-term problems that I thought would occur to this country if we failed to address our long-term fiscal problems.

I emphasized that in great detail, and I hope I made some communication dent in the process.

The CHAIRMAN. I'm tweaking my good friend from Delaware a bit, but I assume your independence is not compromised when you're in these tennis games with the Secretary of the Treasury.

Senator MACK. It depends on the score.

[Laughter.]

The CHAIRMAN. There's no problem there, is there, in terms of undercutting the Fed?

[Laughter.]

My recollection is that you used to do these very same things with the Bush Administration from time to time.

Chairman GREENSPAN. It is essential that the central bank, because we've got extraordinary resources to do economic research and to evaluate the economy, try to communicate what we think is happening to other aspects of the Government because there's a single Government here.

The CHAIRMAN. But the point is, you were pre-existing Chairman. My recollection is, and I think you even made reference to it here before, you did exactly the same thing with the past President. This isn't a new practice, on your part, to sit down from time to time and talk with the President, insofar as I know.

Chairman GREENSPAN. That is correct.

The CHAIRMAN. Senator Mack has asked to make a comment.

Senator MACK. Just a quick comment with respect to the independence thing.

Everybody understands the significance and the importance of the independence. I certainly don't mind, though, if the Chairman has the ability to influence the President with respect to deficit reduction, as long as the President doesn't have the ability to influence the Chairman.

[Laughter.]

The CHAIRMAN. Let me ask you about the dollar. It's certainly been weak during the past few months, as everyone who follows it knows.

On balance, do you think the dollar's fall, has that been bad or good for the economy?

Chairman GREENSPAN. I would say it's bad for the economy. I would say when you have an economy like the United States, which is so intricately involved on a global basis with the world financial markets and, indeed, as I indicated in my prepared remarks, the dollar is the principal reserve currency, any evidences of weakness in that currency are neither good for the international financial system, nor good for the American economy because of what they say about what is going on in the American system.

The CHAIRMAN. Right. But the last time you were here, which is not all that many weeks ago, you were very frank in saying, and I was encouraged by you saying, that you thought the economy, in terms of its fundamentals, might be on the strongest footing it's been on in decades, that as you look at the picture, you really feel quite confident about where we are now in terms of the path we've come and the outlook ahead.

I don't have your exact comment, but you were, I thought, very direct in saying that.

Would that be a fair characterization of what you said?

Chairman GREENSPAN. Yes, basically. I can't quote myself exactly, but, to the extent that you can forecast in the short-run or intermediate period, when I was here the last time, what I stipulated was that it was very difficult for me to envisage, granted all the qualifications, a better period for the intermediate period, 6 months, 9 months out, than I have seen in a very long period of time.

Obviously, that doesn't refer to the broader, very long-term issues such as the Federal budget deficit and income distribution problems that we've got or structural difficulties.

The CHAIRMAN. Right.

Chairman GREENSPAN. But in talking about sheer balance in the economy, yes.

The CHAIRMAN. I thought your assessment was balanced, thoughtful, and supported by a lot of analytical information, but when I try to put that beside this sharp fall in the dollar, which you say is not good for the economy, I'm trying to square these two things because, normally, if your view is correct, then why are the markets behaving as they are?

I'm wondering if market forces, in some way or another, are not just reacting to economic forces that you would see.

That, to me, seems to be a contradiction and I'm wondering what your analysis is? Isn't it something of a contradiction to see those two things at the same time?

Chairman GREENSPAN. No, not necessarily, because remember that at root, it's the potential rate of return on assets denominated in different currencies which will determine where the exchange rates move.

If you get any judgments that the potential real rate of return in an economy relative to other countries has declined, you will get types of adjustments. There are numbers of concerns about why currencies go up or down. I don't want to get into too much detail on this particular issue because Under Secretary Summers will be here tomorrow and I think——

The CHAIRMAN. Let me ask you this question. Has the weak dollar started to affect monetary policy decisions?

Chairman GREENSPAN. It has certainly been an issue which we have been aware of because, to the extent it is a symptom of potential inflationary forces beginning to emerge in our domestic economy, it has to be something which we are focusing upon.

The CHAIRMAN. But you've not indicated to us that you see anything out there that's of any great concern to you in terms of inflationary expectations. We've gone over that ground, unless your view has changed since you were here the last time.

Chairman GREENSPAN. No, my view hasn't changed. There's a difference in the timeframe of all of this.

As I said 6 months ago, and I'm saying now, the actual evidence of inflation at this particular stage is quite contained. It may not be as contained as we would like it over the longer run, but it is clearly contained and the data have been improving, especially in the last 6 or 9 months.

The difficulty, however, is that we are dealing with a situation in which past history suggests that as the economy begins to move up and credit demands begin to emerge, the tinder for inflationary pressures is potentially there.

It is important for us to recognize that what we are dealing with is a monetary policy whose consequences are four to six quarters away. Therefore, it's inadequate, basically, to come to the conclusion that inflation now, or in the immediate past, is contained and therefore monetary policy need not be concerned about that.

We see inflation premiums emerging in a number of financial markets. To the extent that they are not going up, they clearly haven't gone down. That is true, as I indicated here a number of months ago, with the price of gold, which has been relatively stable and has not gone down. It's been true of inflation premiums in long-term bonds which have not gone down, and a number of other indications.

What the exchange rate is relevant to, in this regard, is another indication, not that there is inflation right now, but that there is a longer-term inflation expectation which should be of concern to us here in the United States, and that, indeed, is, of course, a crucial issue with respect to our deliberations relevant to policy.

The CHAIRMAN. I want to pursue this, but I don't want to trespass on my own time here, except to just make this comment, and then I'm going to yield to Senator Mack, who I think is next in the order.

That is, I've asked to get the text of what you said the last time you were here, which is not all that long ago, with respect to inflationary tinder. That was the phrase that was used then.

I think I'm hearing you say something different today than I heard you say the last time. Because you may be saying the same thing in different words, I don't want to misinterpret what you're saying.

The clear message you gave us the last time is that you felt the strategy had worked quite well to contain inflationary pressures. The Fed had made the monetary policy adjustments to subtract some of that overcompensation that had been in the picture beforehand with lower than normal interest rates, and you felt that we were on a pretty solid path. The data you saw looked good and so forth.

If you're giving a different statement today, with respect to so-called inflationary tinder out sometime in the future, that's a very important statement.

If you're not saying that, if you're saying your level of confidence is as strong as it was when you were here the last time, then that answers my question.

I want to be able to understand whether I'm getting a different signal today.

Chairman GREENSPAN. I do not intend to give a different signal. My views of May 27, 1994, as I recall, have not fundamentally changed, nor do I believe the Committee's has in these weeks.

I think the valuation of the economy is pretty much on track and has not materially changed since the last time I was here.

The CHAIRMAN. There was no new inflation specter since May 27th?

Chairman GREENSPAN. No. The track that we perceived the economy was on, our concerns about the plusses and minuses in the economy, our concerns about inflationary instabilities, plus and minus, are, as best as I can judge, very little changed from what they were back then.

In other words, what has occurred since then is pretty much what we expected would materialize.

The CHAIRMAN. That's good. What I don't want to go out of here is the notion that there's some new inflation scare, and that's not what you're saying.

I think that's, in effect, what you're saying here, that you don't see a new inflation scare that you didn't see on May 27th.

Chairman GREENSPAN. The problems that would confront this economy and the difficulties we would have if inflation reignited are important and something which we should be very closely monitoring.

I would have made precisely that same statement on May 27th.

The CHAIRMAN. Very good.

Senator Mack.

Senator MACK. Thank you, Mr. Chairman.

Mr. Chairman, I'll maybe just follow up with some of that questioning, because your statement seemed to imply that, really, no further change in interest rates is necessary.

Then I wonder, given your comment with respect to what has happened in terms of the importance of the value of the dollar, that since May 27th, and I don't have the exact number, but it seems to me that around May 27th the dollar was probably 105, and today is about 98 or 99.

Chairman GREENSPAN. It's about 5 percent lower.

Senator MACK. All right. That indicates to me that you're not overly concerned about what's happened with the dollar.

Chairman GREENSPAN. No, I disagree with that. Looking basically at the overall financial system, I would be quite concerned about a dollar which did not show significant strength.

I would amend my remarks only in a general way, that a number of things have gone on in the last number of weeks. The one that has worried me most clearly is the weakness in the dollar, and that is an important signal, insofar as I'm concerned, that inflationary pressures, as viewed out in the world, are clearly not coming down.

There are other factors which have been contributing toward stability. It's a mix. You can never say you learned nothing over a 6- or 8-week period, or something of that nature, but I cannot say that the economy has fundamentally veered from where I would have expected it to be moving, with the sole exception, which I will grant, that the dollar is weaker than I would have expected.

Senator MACK. A moment ago you also said, in reference to the dollar, and this will be close, I hope, something to the effect of what they are saying about what is going on in the American economy.

I think you were referring, basically, to the markets seeing problems in the American economy. I wonder if you might expand on what you think those concerns are.

Chairman GREENSPAN. Obviously, to the extent that people are eschewing investments in dollar-denominated assets, that should be a concern to us. There are vast numbers of things which affect the rates of return on dollar-denominated assets vis-a-vis other assets, and we should be very considerably concerned about that. Not the least of which is that we are the principal reserve currency in the world, and that is an important position to be maintained.

Senator MACK. The question I was really trying to get at is, what do you think it is that's going on in the markets? What are the purchasers and sellers of the American dollar seeing in our economy that makes them want to leave the dollar?

Chairman GREENSPAN. May I suggest you put that to Under Secretary Summers tomorrow, because it is a very complex issue and I want to stay away from areas which he should be covering. There's no point in having two voices when it's difficult enough to get one clear voice.

Senator MACK. I don't really accept the explanation, but I will grant you your request and just move on.

Chairman GREENSPAN. I thank you, Senator.

Senator MACK. I just want to touch, again, on the general policy of the Fed. There are some who are saying—most of what you heard here today, basically, don't tighten further, probably remain where you are, but there are some out in the markets that think because of the growth of bank reserves in 1991, 1992, and 1993, that if you don't move more aggressively, that, in fact, we will see higher levels of inflation in 1995 and 1996.

I'm just interested in your reaction to their concerns.

Chairman GREENSPAN. We obviously have looked at this data in very considerable detail.

There has been, as you know, an extraordinarily subdued growth in the various different monetary aggregates over the last several years. They signaled a significant weakness in the economy which never emerged, never happened.

Senator MACK. Say that again.

Chairman GREENSPAN. The weakness in M2 and M3 signaled a significant weakness in the economy which never happened. In other words, the economy did not do what the slowdown in M2 historically would have suggested it should do.

The result was that we began to look at other measures of monetary aggregates, the so-called monetary base, reserve balances, and the like. The argument that we've had a very substantial increase in the monetary base over the early part of the 1990's, up until about 8 or 9 months ago, is correct. Technically, there's a problem with that in that a very substantial part of the increase reflects the extraordinarily large amount of U.S. currency issuance which goes abroad. That currency is included in the monetary base and significantly exaggerates the degree of domestic liquidity that is implied.

Perhaps more importantly, however, we have had great difficulty in using the monetary base as a good indicator of where the economy is going because, historically, its relationship to future economic events is nowhere near as good as M2. That's the reason that we would not use it.

Having said all of that, the effects of our interest rate increases have slowed the growth of the reserve base and the expansion, as I indicated to you in a letter the other day, Senator. The Federal Reserve balance sheet shows a significant increase in currency on the liability side, and there are assets on the asset side which support that.

That currency, very largely, is going abroad and is not a domestic liquidity question. As best we can judge, that currency does not come back and create domestic inflation in the United States.

Senator MACK. Is it available to come back?

Chairman GREENSPAN. Sure it is. It's American currency and it's spendable in the United States. The only difference is that there have been vast amounts of American currency which have become part of the monetary financial systems of a lot of countries out there.

Senator MACK. So, again, your conclusion, with respect to this high level of growth in reserves, is much of it is driven by currency that goes overseas and should not be of concern.

Chairman GREENSPAN. No. Actually, the reserve balances have been going down in the last 6 or 8 months.

I guess the best way to describe it is that it's the expansion of the Federal Reserve's balance sheet which gives a number of people concern. There's nothing else that's expanding now. The money supply is flat. The rate of growth in domestic nonfinancial debt is modest. The reserve balances are modest. The only thing that's really growing significantly is the currency, and that is substantially, as best as we can judge, going abroad.

Senator MACK. Is that unusual? Why is that happening?

Chairman GREENSPAN. It is quite unusual. In fact, what I find really quite fascinating is the extraordinary extent of the desire to use American currency abroad. It's a very substantial part of the increase that we have experienced in the last decade or so.

Is it unusual? It's unprecedented, but it's also true, I might add, from evidence that we have seen, for the Deutschmark and other currencies.

As the globalization of this world financial system has moved apace, the amount of currencies which are used as second currencies in a large number of countries has really mushroomed to an extraordinary extent.

Senator MACK. I guess the last question I would ask along that line is would that indicate there's a greater demand for the dollar? Wouldn't that push the price of the dollar up?

Chairman GREENSPAN. If that were the only thing involved, if currency were the only thing involved, the answer is very clearly, yes.

The most interesting aspect about it is, remember, this is zero-interest liabilities of the United States. We are, in effect, selling debt to the external world at zero interest. Were that the sole evidence of demand for the American dollar, clearly, we'd have a stronger exchange rate than we do, but it's a negligible part of the total outstanding claims in dollars against financial institutions and the United States.

Senator MACK. Thank you, Mr. Chairman.

The CHAIRMAN. Very interesting.

The Chairman of the Budget Committee, Senator Sasser.

Senator SASSER. Thank you, Mr. Chairman. The hour is late and I'll try to be brief and abide by the lights.

Dr. Greenspan, the weakness in the second quarter spending and the build-up of inventory which is, I'm advised, the largest since 1989, was followed with 1½ percent real growth—negligible growth. That means, as I read it, production and hiring are now going to slow down.

My question to you is, "Have we already seen most of the restraining effect of these recent interest rate increases, or is there more to come?"

Are interest-sensitive sectors, like housing, autos, and business investment, likely to weaken in the coming months? When will we know how big an effect these past interest rate increases have had on the economy?

Chairman GREENSPAN. Senator, first of all, let me just say that this morning I found the housing figures a little surprising in the sense that while single-family starts went down modestly, pretty much as we would have expected, there was a really sharp drop in multifamily starts.

The permits data, however, did not decline, and from what I can judge, just looking cursorily at the data, there seems to have been a significant increase in unused permits. I don't know whether or not this is reflecting delays or what, but while I think there is clearly weakness in residential construction, the data this morning may have a technical problem of multifamily starts figures being highly unstable.

I don't know that, but there's nothing in the data, having looked at it in some detail as best I could before I got here, that suggests to me there's anything particularly new going on.

With respect to the inventory data, as you know, it is wholly in the area of wholesale and retail trade. There's very little evidence of any accumulation going on in the manufacturing area.

We're not certain whether that inventory is domestic or foreign goods. We do know that there's a significant amount in the trade area of imports which end up in inventories, and to the extent that they are excessive, their impact is not on domestic production and jobs, but on foreign shipments.

Senator SASSER. If we're indeed correct that it's a build-up in foreign inventory——

Chairman GREENSPAN. Yes. We don't——

Senator SASSER. If it's a build-up in domestic inventory, then you're going to have a negative effect on it.

Chairman GREENSPAN. That is correct. One of the issues we are watching very closely, as a consequence, is that if these inventories are unwanted—I mean, they're basically unplanned—we should begin to see, indeed, we should already be seeing it in anecdotal evidence on new orders which should be receding.

As best as we can judge, there is very little evidence that that is, in fact, the case. It may be premature. I'm not sure. We don't, at this stage, have evidence which suggests that inventory increase is causing a significant weakening in the economy, but clearly, it is very difficult to absorb a large number like that without some perhaps temporary adjustments in the process.

Senator SASSER. Mr. Chairman, the objective data here would indicate that past interest rate increases are having a chilling effect on such things as auto sales, home sales, et cetera. We've got that delayed effect of interest rates moving through the economy. We haven't seen all of the economic effects yet of the fiscal contraction that Congress enacted last year in the deficit reduction package that we passed last August.

Where are we going with regard to the interest rate increases, and how do they coordinate or collide with the fiscal contraction that we enacted last year as we tried to grow the economy?

Chairman GREENSPAN. Senator, as I said last year and will repeat today because I think it's still true, it's by no means clear to me that fiscal contraction is a negative for economic growth in this particular context because inflation premiums embodied in long-term interest rates are, from an historical point of view, quite high.

Senator SASSER. Five percent. Is it 5 percent real interest rate?

Chairman GREENSPAN. It's not the real interest rate. Real interest rates are less than that.

Senator SASSER. On real long-term rates, is it not 5 percent?

Chairman GREENSPAN. I would say, probably, real long-term rates now, as best as we can estimate them, may be in the area of 4 percent.

The important point that I would argue here is that when you have inflation——

The CHAIRMAN. Can I just understand? Excuse me for interrupting, but are you saying, then, that you think the embedded inflation rate is 3½ percent?

I assume you're using a long rate of 7½ percent.

Chairman GREENSPAN. That's correct. In other words, using a number of different forecasts of a variety of different techniques, the long-term expected inflation rate from the University of Michigan survey and from other surveys, gives us something in the area of 3½ percent, or something slightly higher than that.

That is not the same thing as the true inflation premium embodied in long-term rates. We can only pick that up if we get indexed bonds, so we're using only a rough proxy.

The point I'm trying to make here——

The CHAIRMAN. Excuse me. I just wanted to have that clarified.

Chairman GREENSPAN. Yes. The point I'm trying to make here, Senator, is that so long as you have an inflation premium of the order of magnitude that we're talking about, you have a two-sided effect when you're getting involved in deficit reduction.

One is the so-called fiscal drag, which you've indicated and which I agree with. The other is the offset resulting from the fact that longer-term interest rates would tend to be currently lower than they would otherwise be, which is a positive effect.

I can conceive of situations where one of those two can be larger than the other and then reversed. I'm not saying that necessarily, in today's context, the effect of the fiscal drag is less than the inflation expectations, although I'm sure it was true last year when we first discussed that. It may still be true, and I have no reason to believe it is not still true.

Senator SASSER. Mr. Chairman, the point I'm making is we really don't know precisely what the effects of recent interest rate increases on the economy are, and I don't think we know precisely the effects of the fiscal contraction contained in last year's Budget Act.

Given that scenario, and given the fact that we see a build-up in inventories, and given the fact that we see home sales going down and auto sales going down, which are generally the most sensitive forward indicators, taking all that into consideration, I agree with your statement that there's no necessity now for any further increase in interest rates.

Chairman GREENSPAN. I don't recall saying that, Senator.

[Laughter.]

Senator SASSER. I want to get you to say it here today, Mr. Chairman, if at all possible. I don't know that you said it explicitly, but I got the impression that was the thrust of your remarks.

Chairman GREENSPAN. Senator, the truth of the matter is that we are looking at a complex economy which has had a rate of growth which has been extraordinary in the fourth quarter of last year and the first quarter of this year. We're not sure whether the gross domestic product appropriately picked up the full extent of the rate of growth.

If we are simmering down the rate of growth to more long-term sustainable levels, that is all to the good. If you are arguing that we are getting some reduction in some areas which are interest sensitive, yes, of course we are. It's got to come from somewhere.

We had a very dramatic increase in truck and car sales over the last couple of years. We're still pressing up against capacity in most of the auto and truck assembly lines. There are shortages of numbers of cars.

Demand is still fairly solid. Residential construction is still better than it has been in a while, with the exception of the extraordinary period last fall when there was a huge acceleration that picked up some of the backlog of housing demand.

We're trying to get an economy which is balanced over time and in which inflationary pressures are subdued. Have the effects of interest rate moves that we have done to date been fully channeled through the economy? I don't think completely because, obviously, we're talking about lags of 4 to 6 quarters.

One of the concerns that I've had, which we've been discussing, is that we find our way into a noninflationary stable environment so that this economy does not run into difficulty.

I must say, one of the reasons why we have been concerned about the dollar's weakness is that it's a suggestion there may be more inflationary pressures than we had previously thought.

It's not that we know for certain, but it clearly is one of those indications, as indeed the inflation premiums in long-term bonds are, which suggests that if we are complacent about this particular expansion we risk not setting it.

As far as the Federal Reserve is concerned, we are acutely desirous of making certain that this economy sustain itself on a continued, long-term growth path without inflationary instabilities which so characterized the period of the latter part of the 1960's and the 1970's.

Senator SASSER. Dr. Greenspan, I can't let that pass.

There's a big difference between the 1960's and 1970's. We were fighting a war in the last part of the 1960's.

Chairman GREENSPAN. That's part of what the problem was.

Senator SASSER. That was one of the largest wars this country has ever fought. In the 1970's, we also had two very severe oil shocks that shook the economies of all the industrialized nations.

To draw that contrast between what's occurring now is, in my opinion, not being accurate with this Committee.

Chairman GREENSPAN. Senator, I would argue with that point. I don't think I want to necessarily do it at the moment, but there are other countries who handled it somewhat differently and had somewhat different results.

The question is you cannot merely presume that the oil shocks, in and of themselves, were wholly to blame for the instabilities that were engendered.

Senator SASSER. There's no doubt they played a large part in it.

Chairman GREENSPAN. I do not deny that. I grant you that. I'm merely stipulating, even without that, we had policies which, in my judgment, were not sufficiently stable to maintain a noninflationary environment.

I might add, going back to the Vietnam War, one of the problems we had is that, in retrospect, and it was a very difficult judgment, we did not finance it in a manner which was noninflationary. At least that was the judgment of many of the economists at that time, as I recall.

Senator SASSER. I don't know of any war that's been financed in a way that was noninflationary. I know we had the last balanced budget in 1969.

The CHAIRMAN. This is a discussion that could go on at much greater length.

Senator Bond.

Senator BOND. Thank you, Mr. Chairman. I think for my colleagues to ask the Chairman of the Federal Reserve what he's going to do on monetary policy in the future and expect an answer is probably a triumph of hope over experience.

I will get back to that after a while. Following up on that discussion, I seem to recall that the oil shocks came in 1973 and 1974. The hyperinflation that so badly afflicted this country came about as a result of fiscal and monetary policies of the Federal Government in the late 1970's. I believe it is imperative that we avoid a similar misguided set of policies that led us to the job-killing, growth-stifling inflation of the late 1970's.

Are there lessons from the late 1970's that you would call our attention to?

Chairman GREENSPAN. I hope there are, Senator. We did have an oil shock then as well. We also had an oil shock during the Gulf War a few years ago.

I don't think that an oil shock can account for the inflationary instabilities that emerged as a consequence of policies we had that led us into the early part of the 1980's.

Senator BOND. What were the policies of the late 1970's that sent inflation and interest rates out the roof?

Chairman GREENSPAN. In retrospect, it was clear that monetary policy was looser than it should have been, that there was an emergence of deficits which began to get increasingly financed through the financial system.

We didn't understand at that point, indeed, we didn't have adequate information to suggest what the potentials of that would be.

We do now. In other words, we may not have been able, even with foreknowledge, to have changed a lot of the results that occurred, but we were dealing with a situation back then where the conventional wisdom was that inflation could not be engendered within the United States because of our institutions.

It's only when that was clearly demonstrated to be false that the true underlying impact of excessive deficits and monetary ease were understood to have created the problems.

I say that only in hindsight because I lived through that period and I will tell you, it wasn't that easy to forecast. It wasn't that obvious and it's only in retrospect that it is clear what the nature of the problems were. I hope that we've learned our lessons from that period.

Senator DOMENICI. Will the Senator yield for an observation on that point? It will take me 30 seconds. Take it off of my time.

We also have to account for the fact that we've had a very positive influence on inflation in the last 24 months by a precipitous drop in oil prices. It's just starting back up, but this economy has had the deflationary plus from low oil prices, which may not be around for the entire next 5 to 10 years.

Thank you.

Senator BOND. Let me move on to dealing with the deficits.

I believe I read in your testimony before the Entitlement Commission that entitlement spending was a very great threat to future economic growth.

Could you give us, briefly, your judgment on what we should be doing with respect to entitlements and fiscal policy as we seek to maintain a stable economic growth?

Chairman GREENSPAN. Senator, I didn't address entitlements, per se. I addressed in somewhat more detail what I said here at the end of my testimony; namely, that we are involved with a situation in which expenditures are, under current law and policy, scheduled to rise at a pace faster than any reasonable estimate of the growth in the tax base, and that that, basically, has to be addressed.

I argue that this is part of a problem which really refers to the way in which resources in the private sector are allocated to the public sector, either through the Federal budget directly or off-budget through mandates such as environmental controls and the like.

I emphasized——

Senator BOND. Is it your recommendation to us that we not try to close that gap by raising additional revenues, that we need to bring under control the spending and the mandated impact on the private sector of various directed programs?

Chairman GREENSPAN. Senator, if you raise taxes to close the deficit, you only have a temporary effect because after that you still have expenditures which are rising faster than the tax base and you can't keep raising taxes because you'll essentially run up against counterproductive activities in the marketplace. I would put it this way: A necessary condition for getting the budget deficit down is to bring the rate of growth in spending to or below the growth in the tax base over the long run.

Whatever else you do, and I've argued that taxes don't help in this regard, there is no alternative to coming to grips with the expenditure data.

Senator BOND. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Bennett.

Senator BENNETT. Thank you, Mr. Chairman.

Mr. Chairman, I read in my opening statement some comments from the Economist, generally in support of what you've been doing. I did as much to support you against the brickbats you were receiving as anyone else. There's a comment in here that I would like to take as the beginning point of my questioning.

The Economist says, as I quoted earlier, inflation is likely to revive and it cites oil and other commodity prices are climbing. The price of gold, singled out in February by Mr. Greenspan as a warning sign for inflation, is on its way up.

Could we talk about gold? Talk about the falling dollar.

Yen, in comparison to the dollar, is more stable against gold than the dollar is because if you are buying gold with yen, you don't have the loss in purchasing power that you do if you're buying gold in dollars.

Do you still believe that gold is a reliable indicator of inflation expectations?

Chairman GREENSPAN. I do, Senator. It's a special monetary commodity which distinguishes itself from all other commodities because virtually all of the production of gold since the dawn of history probably still exists, which means that new production or changes in production levels have much smaller effect on the stock of the commodity than a lot of other commodities.

Since the substantial part of gold demand is for monetary use, what we're basically dealing with is a situation in which the supply doesn't change very much from one year to the next. The demand for monetary use does and, therefore, affects the general price of gold.

It's that which effectively impacts—I should say, that is the essential reason why it tends to be an indicator of inflation expectations, and in that regard, I would say that it really always has been, in one way or another.

When we were on the gold standard, when the value of the dollar was fixed to gold, obviously, you could not see that phenomenon. It's only been in the last decade or two that we've had real market availability to understand what some of the relationships are, so it's going to take a long while to become fully aware of how useful this is. My own impression is it's quite useful.

Senator BENNETT. Senator Sasser made a comment in closing in which he said we've financed every war with inflation.

I'm reaching very deeply back into my childhood, but I'm told from the history books and my brief memory that we were on the gold standard during the Second World War and that Federal funds rates remained around 2 percent throughout the entire war; that is, the gold standard presumably helped us not finance that war by inflation.

Is that correct? You're a little older than I am, but not that much.

Chairman GREENSPAN. I think not. My recollection of that period, at least as I read about it because I was not involved at that point, was that we locked the interest rate. The Federal Reserve just fixed the interest rate and printed as many reserves as were required to keep it there.

I don't believe we had any of the aspects of a gold standard at that point, except that there was a nominal fixed anchor to gold, but gold was not functioning as a monetary system. Therefore, I would not use that as an indication of what interest rates would be under a gold standard. I think that you'd have to go back to, probably, the pre-World War I period to get a better judgment as to where they were. The rates were quite low back then.

Senator BENNETT. Yes. Gold, by tying to gold, we did produce long-term price stability to a degree we've not seen in the recent decades.

Is that correct?

Chairman GREENSPAN. That is correct, Senator.

Senator BENNETT. What would happen if we were to try to tie to gold again, if the Federal Reserve were to decide to peg its purchases in the bond market, either selling bonds back into the system, into this banking system, or buying them back from the banking system, in an effort to target the price of gold?

What would happen?

Chairman GREENSPAN. I'm not sure how that would target the price of gold, except through interest rates, because affecting the supply and demand for bonds and Treasury bills, for example, by our actions in the open market, would clearly affect interest rates, as, indeed, it does very directly. It would then only be through interest rates that you would get an effect on the gold price.

When we were on the gold standard, what we had was the U.S. Treasury buying and selling gold at a fixed price. That's the way the gold standard was implemented.

Senator BENNETT. Yes, I understand that. I'm wondering if, by interest rates, you cannot, in effect, target the price of gold and say we would prefer the price of gold to be around $350 an ounce, roughly 10 percent below where it is now, through the Fed's ability to control interest rates.

Could the Fed have an impact on that without going back to the old system of having the Treasury physically buy and sell the metal?

Chairman GREENSPAN. My own impression is that the fluctuations in interest rates that would occur in order to do that specific thing would be very high.

I don't mean that the levels would necessarily be high. I'm saying the fluctuations would be quite high.

If we're going to go back to a gold standard, I think you have to have the metal as a basic reserve within your system and to have the Treasury buy and sell gold at fixed prices.

I'm not sure that you can implement an indirect gold standard, except by the original means that it was done.

Senator BENNETT. I see. I see my light is on. Let me ask you one last quick question.

If there is one country in the world that has the most integrity in its money, as far as other currencies are concerned, wouldn't that be the country that would have the lowest interest rates in the world?

Chairman GREENSPAN. Probably.

Senator BENNETT. Would some kind of gold standard lead to that sort of integrity?

Chairman GREENSPAN. There's no question that when the dollar was tied to gold in the period from the 1880's through World War I, we did have quite low interest rates and stable long-term inflation expectations. Indeed, at the turn of the century, as I recall, we were able to sell 100-year bonds at very low interest rates.

We most recently have been able to start selling some very long maturity bonds, but not at the interest rates we were able to back at the turn of the century.

Senator BENNETT. Thank you.

The CHAIRMAN. Senator Domenici.

Senator DOMENICI. Thank you, Mr. Chairman.

Mr. Chairman, I will heed your advice and if I can make it when Mr. Summers is here, I'll inquire as to why he thinks the dollar is falling vis-a-vis the Deutchmark and the Yen.

Let me take this occasion to ask you something about deficit in the out-years, since we're about to engage in a debate on health care. I would like to start with a couple of premises and see if you agree.

As we look in the American budget and at what we might cut, restrain, or reform on the spending side, so as to get the deficit under control, is it fair to assume that, as said by many, one important way to do it is to get health care costs under control?

Chairman GREENSPAN. I would certainly say that the numbers we're beginning to see in the projections for the various different programs related to medical care do presuppose that, if we're going to get stabilized growth in spending, those numbers must slow their rate of growth so that the aggregate rate is brought, at least, to the level of the growth in the tax base.

Senator DOMENICI. Let me just make this point.

It seems that the Federal Government's health care expenditures were a part of everybody's game plan for getting the long-term deficit under control. I haven't seen a plan that didn't say it was. In fact, I'm going to put up a little, tiny diagram here and graph.

I will tell you that in 1993, in February—can you see this line down here?

Chairman GREENSPAN. Yes.

Senator DOMENICI. OK. The President of the United States, in his vision of America, vision of change for America, put this in his budget. The difference here, all of this in orange was $307 billion that we would apply to the deficit over time because we would get health care costs under control.

This one, right here, is the promise that this is one of the ways to get the deficit under control. As a matter of fact, what happens, to the best of our knowledge, is the Congressional Budget Office says, "Well, this reality, this promise is gone and the reality is that we're going to spend this much more on health care."

You see the yellow part?

So the promise versus the reality is this much more Federal spending for health care instead of reducing the cost of health care.

The reason I bring this up is because it is assumed these days that we're going to pay for health care. Part of the payment is to assume that some or all of these savings will be applied to the deficit, and others will be increases in different taxes for health care itself.

If I'm reading the Federal budget correctly, we have just essentially, at least for 10 years, and perhaps 20, taken off the table any ability of the U.S. Congress to reduce the deficit by getting health care costs under control because the promise is gone.

I don't expect you to agree with me on that, but I would just ask you, if that's the case, do you know enough about the rest of the budget, since we aren't going to get much more out of defense? I assume you've already said that here, and you've used different words than I. You've said it's leveled off or something. We're not going to get any more there.

The discretionary accounts of the Government aren't really very big, so where do you assume the deficit reduction is going to come from, or where could we get it, since it will be back up to $250 billion—that is, the deficit—by 1999, instead of the $150 billion the President had indicated?

I guess to make it relevant to the hearing, do you think any of this is escaping analysts around the world who look at the future of the American deficit?

Maybe you could answer the second part first and then give me your thoughts on the rest.

Chairman GREENSPAN. I've been concerned that the long-term budget outlook in this country after the turn of the century is the major problem that confronts us, along with our inability to save adequate amounts.

I think we have collateral problems, with respect to the distribution of income and a variety of other issues, which have to be addressed. Focusing on this particular issue, which raises serious questions about the long-term stability of our fiscal posture, raises questions around the world as to what the longer-term value of the dollar would be.

That's the reason why I think it's crucially important for us because we are going to be, will have to be, as far as we at the Federal Reserve are concerned, the principal reserve currency in the world for the indefinite future.

If we allow the dollar to weaken as a reserve currency, we will have consequences not only in our domestic system, but I think we will have significant problems with the necessary responsibilities that we have as a world leader in financial markets and in the economy.

We are the dominant economic force in the world, and that carries with it significant responsibilities.

Senator DOMENICI. I will just summarize for myself what I think is going to happen, Mr. Chairman. I say that to both Chairmen.

I believe if we pass a health care plan that takes all of this resource that was in the promise, spend it all on health care and more, that it's unavoidable, that the United States will be in a position of doing only two things with reference to the burgeoning deficit which will start back up and go past $450 billion, for those who wonder if we're just whistling Dixie, about 4 years into the next century. That's not too far off, 10 years. We're talking about long-term interest rates.

Two things. One is the pension programs of the United States will have to be totally overhauled, and the other is substantial new taxes will have to be imposed on the American public, or the deficit will go unattended.

Frankly, I think to rely on those two things as the way to get the deficit under control in the future is perilous, both politically and economically. I thought we'd use this occasion to at least raise this question as we begin to debate health care on the Floor.

Thank you very much, Mr. Chairman.

The CHAIRMAN. Let me just—we'll conclude here shortly, Mr. Chairman.

I want to say in regard to the issue that Senator Domenici introduced, I serve on the Finance Committee as the Chairman of the Health Care Subcommittee for families and the uninsured and we spent a lot of time on this issue in that Committee. I've conducted, myself, over 45 hearings on health care over the last short number of years.

It's a mind-numbing subject in terms of its complexity, but I can tell you this, and I tell you this as somebody with a background in economics and finance myself; that is, you pay these bills one way or the other. You've seen that situation, so have I.

Good preventive health care at the end of the day saves us money. You can squander money on health care as well, and we do a certain amount of that, but if you deny health care on a preventive basis to keep people from getting sick or to get them well when they can get well, and instead wait and let the negative consequences play out, you're going to pay a lot more. You're going to pay more in dollars, more in heartache, and more in suffering.

Even if you leave aside the heartache and suffering, which I don't believe we should do, the dollars work against you.

The other side of the coin comes back to the gold standard discussion with Senator Bennett, and that is this. The other industrialized countries have all managed to do this.

They've gotten some plan of comprehensive health care for people because they think it's sound economics over the long term. They seem to be doing all right with it. They've had their different approaches to it and so forth, and we're lagging behind in that area.

I don't think I would want the suggestion left on the record that some kind of a thoughtful, cost-effective, comprehensive health care plan that provides good preventive care for people, is somehow going to cost us more money or be wasteful.

I think the most wasteful scheme is to let people get sick and then come along and spend the high-cost dollars to try to deal with it after the fact.

Those of us who are lucky enough to be healthy or to have good health insurance, that's one thing, because we're in a protected category by those circumstances, but, in any event, I think it's time we find a way to deal with this problem, and I think once we do it and do it in some semi-competent way, we'll actually spend less money over time than we would otherwise spend.

That's my observation. I just want to put that on the record to juxtapose what has been said.

Two final questions, Mr. Chairman. They're both important.

I went back and got out of the record what was said between us on May 27, 1994, not very long ago, because we had a rather long discussion on that. We'd gone back and forth as to whether or not there were major inflation problems building up and so-called inflationary tinder, t-i-n-d-e-r.

I'm going to read you a paragraph that I stated at the end of our discussion to try to summarize an exchange between ourselves, and then I want to read to you what you said in response.

I said, in summary, at the end of our exchange, "I think in today's discussion, if anybody will take the time to watch it on C–SPAN or to read what you have said, it's quite clear that you have not found, the Fed has not yet found this build-up of inflationary pressure. It's not happening in real time to any degree worth talking about.

I don't want to get stuck at any great length on it, but is that a fair statement?"

I put that to you.

Chairman Greenspan, you responded, "I think that's a fair statement. We want to make certain it continues."

I then added, and I want you to hear your response to this as well. I said to you, "So you've adjusted your policy for other reasons; namely, the increase in interest rates, so if somebody is attributing to the Fed some secret knowledge that you have seen ahead of time a huge burst of inflation, that would be a false reading by them."

You answered, "That is correct, Mr. Chairman."

What preceded that summary was your long explanation about how the Fed had, in effect, tilted monetary policy in a direction of having abnormally low interest rates to try to bring about this balance sheet recovery that you laid out in very clear detail.

I won't go back and read all of that here.

Not very many weeks have passed, but I thought I detected earlier, and a couple of other colleagues that have just left tell me that they thought maybe they were hearing, something different from you today. People were around the press table reporting on this, and your words come right back around in a matter of minutes here, in terms of an impression as to what's being said.

The headline today on the AP story that was put out at 12:47, which is just a little over an hour ago, starts out this way: Treasury bond prices were sharply lower around midday after Federal Reserve Chairman, Alan Greenspan, delivered a blunt warning about the dangers of inflation.

Dropping down here, after a couple of your quotes, one gentleman, head of the market analysis at First Chicago Capital Markets, is quoted as saying, "The view is he is coming out slightly more hawkish than he was expected to."

He hears what he hears watching this and we all hear what we hear, but when we went through that exchange 20 minutes ago, I want to understand, again, whether or not I'm hearing something different today from you, whether your own assessment has changed from May 27th.

In other words, has the inflation concern gotten larger or is it essentially the same as it was back when you testified in that period?

Chairman GREENSPAN. Mr. Chairman, I'd say that there are two ways of looking at this. If you're asking me, do we see any specific, underlying, hard evidence that inflation is taking hold, as I said in my introductory remarks, we are looking at the various elements to suggest where tightness would occur. We do see certain things, for example, in the deterioration of delivery schedules, which suggests some manufacturing tightness in certain types of goods. So, we do see some underlying cost pressures emerging, but we do not see any evidence of costs flowing through into final prices as yet.

I said that back in May and I say that today.

Are we seeing a possibility of a higher degree of inflation, or are we closer to potentially inflationary pressures now than we were back then? The answer is the economy has moved up. It's somewhat stronger than we would have expected earlier in the year, although I'm not clear that it's particularly stronger than I expected it was in May.

It is true the value of the dollar has fallen, and to that extent, obviously, that does affect import prices and, indirectly, other prices. One could say the decline in the dollar since then has had some increased inflationary possibilities.

The CHAIRMAN. In terms of buying foreign goods.

Chairman GREENSPAN. In terms of buying foreign goods and to the extent that the higher prices of foreign goods enable domestic manufacturers who are competing with them to move prices up some.

If you ask me, have I seen any evidence that the weakness in the dollar has as yet gotten into the import price structure, the answer is, not yet. It's obviously too early.

Does it necessarily mean that it is a major inflationary force? It depends on numerous other things. The reason why I hesitate to say that there's something starkly different from May 27th is that there are plusses and there are minuses, but I don't see that there is a materially different view of what we are looking at out there.

I was concerned back then, as you may recall, saying that inflation is something which concerns us because the lead times are very considerable, and that actions we take today, meaning May 27th, won't affect fully the general level of the economy or inflation until well into 1995.

I say that today. Are there more inflationary pressures today than before? I would say it's mixed. I would say the dollar clearly is signaling more inflationary pressures.

The acceleration of inventories has worked in the other direction because, however one reads what those data are, they are of such an order of magnitude that they are working in the other direction.

I say in my prepared remarks that it's essential we at the central bank be very cognizant about what is going on and make as good projections as we can make about the emerging forces because there is no alternative to making a forecast.

You cannot, unfortunately, have a simple set of indicators which say, monetary policy gets tightened or loosened depending upon some objectively calibrated sets of current data. Regrettably, we don't have that luxury. We have to make a judgment the best that we can on what the risks are out there.

We do know, as far as the central bank is concerned, that the balances in the economy, at this stage, are reasonably good and that there is a significant issue in monetary policy that we have to focus upon which basically is, what happens if we implement a policy and we are wrong?

In that regard, there is a much higher risk that if we are unduly restrained, we have the capability of reversing that with, as far as I can see looking at the economy, very little permanent damage.

If we fail to recognize emerging inflationary forces, remedying that will be far more difficult and far more of a problem for the long-term stability of the economy in 1995 and beyond.

It's a very difficult balancing that we're trying to make here. I hope we do it well. We do it the best that we can, and we try to find, try to understand all of the forces that are impinging on us at this particular stage.

I will just merely repeat what I said earlier. I don't see a significant change in the overall risks of inflation between late May and now. I was concerned about them back then. I said, and I repeat the same thing today, actual inflation, as measured now, is not evident either in the published data or the anecdotal data.

What we are concerned about is processes which history tells us create inflationary forces, and it is that which we're addressing today. It's that which we were addressing back in late May.

The CHAIRMAN. I appreciate the thoughtfulness of both the policy that you've developed here and the time that you've taken to explain it today, not just to this Committee, but to everyone else who wants to try to understand the thought process and what the policy is.

I think if someone could have in their mind what you said the last time when, in effect, the Fed moved ahead of a burst of inflation—in other words, to adjust the monetary policy upward in terms of the rate adjustments that have been put in place—you said it was to try, given the lags that occur here, to get ahead of a potential problem, to try to take out the excessive monetary availability that had been there before. That's the general strategy that you outlined.

You've done that and, as I understand it, it takes about 6 or 9 months for us to fully see the effects of those rate increases playing themselves out. A lot of other things are going on at the same time, but is that the normal time period lag that you generally see?

Chairman GREENSPAN. I would say we would begin to see the effects, but that it depends on how quickly you get responses in long-term rates and what types of adjustments take place. The normal full completion of the cycle is probably a year and a half, but you obviously see the effects building through time.

The variability of that lag is also something of a concern. Sometimes it speeds up, sometimes it slows down, but it is a significant lag. There's almost no evidence of shorter lags where the full impact of monetary policy is dissipated fairly quickly.

The CHAIRMAN. You certainly, in some areas, get an immediate psychological effect.

Chairman GREENSPAN. Indeed, we do.

The CHAIRMAN. We saw that because, obviously, it was a change in direction, a change in Fed signals. I know there was some concern about some speculation in financial markets, and we've seen a wash-out of some speculation in the financial markets since interest rate direction has changed. Almost every analyst has noted that.

Is it fair to assume that the policy changes we've already seen and the change in direction has, in effect, dealt with whatever financial speculation problem there may have been in the markets?

Has that been washed out sufficiently in your view?

Chairman GREENSPAN. I don't think we ever know fully. The real significant problem that had concerned us at the beginning of this year; that is, what seemed to be a track toward ever increasing capital gains and very little risk and very low margins of risk premiums, and the belief that there was no down side, clearly has changed. That was the major problem which worried us.

We have no way of knowing whether the full adjustment is complete. We do know, from options data, that the degree of volatility in financial markets is still somewhat higher than it was back then, and I guess one would have to say that until we see the volatility come down to somewhat lower levels, the turmoil in the markets probably is not fully dissipated.

Unquestionably, the major part that concerned us, obviously, has been addressed.

The CHAIRMAN. I thank you for your time today and for your professionalism. We've covered a lot of ground and it took us a while because of the opening statements and also because we had to adjourn for a vote.

We thank you and we look forward to our next discussion.

The Committee stands in recess.

Chairman GREENSPAN. Thank you.

[Whereupon, at 1:32 p.m., the Committee was adjourned.]

[Prepared statement, response to written questions, Monetary Policy Report to Congress, and additional material supplied for the record follow:]

PREPARED STATEMENT OF ALAN GREENSPAN

CHAIRMAN, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM
WASHINGTON, DC

JULY 20, 1994

Mr. Chairman and Members of the Committee, I appreciate this opportunity to discuss with you recent economic developments and the Federal Reserve's conduct of monetary policy.

The favorable performance of the economy continued in the first half of 1994. Economic growth was strong, unemployment fell appreciably, and inflation remained subdued. To sustain the expansion, the Federal Reserve adjusted monetary policy over recent months so as to contain potential inflationary pressures.

Our actions this year can be understood by reference to policy over the previous several years. Through that period, the Federal Reserve moved toward and then maintained for a considerable time a purposefully accommodative stance of policy. During 1993, that stance was associated with low levels of real short-term interest rates—around zero. We judged that low interest rates would be necessary for a time to overcome the effects of a number of factors that were restraining the economic expansion, including heavy debt burdens of households and businesses and tighter credit policies of many lenders. By early this year, however, it became clear that many of these impediments had diminished and that the economy had consequently gained considerable momentum. In these circumstances, it was no longer appropriate to maintain an accommodative policy. Indeed, history strongly suggests that maintenance of real short-term rates at levels prevailing last year ultimately would have fueled inflationary pressures.

Accordingly, the Federal Open Market Committee, at its meeting in early February, decided to move away from its accommodative posture by tightening reserve market conditions. Given the level of real short-term rates and the evident momentum in the economy, it seemed likely that a substantial cumulative adjustment of policy would be needed. However, Committee members recognized that financial markets were not fully prepared for this action. About 5 years had passed since the previous episode of monetary firming, and a number of market participants in designing their investment strategies seemed to give little weight to the possibility that interest rates would rise; instead, many apparently extrapolated the then-recent, but highly unusual, extended period of low short-term interest rates, fairly steady capital gains on long-term investments, and relatively stable conditions in financial markets. Many Committee members were concerned that a marked shift in the stance of policy, while necessary, could precipitate an exaggerated reaction in financial markets.

With this in mind, we initially tightened reserve conditions only slightly—just enough to raise the Federal funds rate ¼ percentage point. And the financial markets did, indeed, react sharply, with substantial increases in longer-term interest rates and declines in stock prices. Markets remained unsettled for several months, and we continued to move cautiously in March and April in the process of moving away from our accommodative stance. By mid-May, however, a considerable portion of the adjustment in portfolios to the new rate environment appeared to have taken place. With financial markets evidently better prepared to absorb a larger move, the Federal Reserve could substantially complete the removal of the degree of monetary accommodation that prevailed throughout 1993. The Board raised the discount rate ½ percentage point, a move that was fully passed through to reserve market conditions by the FOMC. Overall, the Federal funds rate increased 1¼ percentage points during the first half of the year, and real short-term rates likely rose a similar amount. Partly to minimize any market confusion about the extent of and rationale for our moves, the Federal Reserve has announced each action and, in relevant instances, provided an explanation. At its meeting in early July, the FOMC faced considerable uncertainty about the pace of expansion and pressures on prices going forward, and it made no further adjustment in its policy stance.

Nonetheless, it is an open question whether our actions to date have been sufficient to head off inflationary pressures and thus maintain favorable trends in the economy. Labor demand has been quite strong, pointing to robust growth in production and incomes. To be sure, some hints of moderation in the growth of domestic final demand have appeared, and the recent indications of accelerating inventory accumulation may suggest an unwanted backing up of stocks. Conversely, the inventory accumulation may reflect pressures on firms who had brought inventories down to sub-optimal levels and now need to replenish them. In the latter case, stockbuilding may continue at an above-normal rate, supporting production for quite some time. Moreover, the improving economic conditions of our trading partners should add impetus to aggregate demand from the external sector.

How these forces balance out in the coming months could be critical in determining whether inflation will remain in check, for the amount of slack in the economy, while difficult to judge, appears to have become relatively small. Concerns that productive capacity could come under pressure and prices accelerate are already evident in commodity and financial markets, including the foreign exchange market. An increase of inflation would come at considerable cost: We would lose hard-won ground in the fight against inflation expectations—ground that would be difficult to recapture later; our long-run economic performance would be impaired by the inefficiencies associated with higher inflation if it persisted; and harsher policy actions would eventually be necessary to reverse the upsurge in inflationary instabilities. We are determined to prevent such an outcome, and currently are monitoring economic and financial data carefully to assess whether additional adjustments are appropriate.

The economic figures that have formed the backdrop for our policy actions so far this year confirm that a rapid expansion has been in progress. Following growth at an annual rate of 7 percent in the fourth quarter of last year, real gross domestic product rose at nearly a 3½ percent rate in the first quarter. A conceptually equivalent measure of aggregate output, gross domestic income, exhibited even larger gains in the fourth and first quarters. At this stage, available data leave some uncertainty regarding the pace of economic activity over the past 3 months. Nonetheless, the evidence in hand makes it reasonably clear that growth remained appreciably above its longer-run trend. The robust expansion over the first half of 1994 has been reflected in substantial increases in employment. Since last December, nonfarm payrolls have risen by 1¾ million workers, bringing the gain in jobs since the expansion got underway to 5 million. Reflecting this hiring, the civilian unemployment rate has fallen to 6 percent.

Although labor markets have tightened considerably in recent months, aggregate measures of wage and compensation rates have not yet evidenced persuasive signs of acceleration. Similarly, the increases in the consumer price index excluding food and energy, at about a 3 percent rate over the last 6 months, have remained near last year's pace, while the overall CPI has risen at a reduced rate of about 2½ percent. To be sure, price pressures have been manifest at earlier stages of processing: Costs of many commodities and materials have been climbing, in some cases reflecting the tightening of industrial capacity utilization, which is now at its highest level in 5 years. But these pressures have been offset by favorable trends in unit labor costs resulting from marked improvements in productivity—especially in manufacturing—in recent years.

The accumulating evidence of stronger-than-expected economic growth here and abroad, combined with changing expectations of policy actions by the Federal Reserve as well as other central banks, prompted considerable increases in long-term interest rates in occasionally volatile markets over the first half of the year. Market participants concluded that, with aggregate demand stronger, higher real rates would be necessary to hold growth to a sustainable pace. Inflation expectations may also have been revised higher, as the performance of the economy seemed to make further near-term progress against inflation less likely and raised questions about whether price pressures might intensify.

To a degree, the very volatility of markets probably augmented the backup in long-term interest rates. One of the effects of the extended market rallies of recent years was to promote a rather complacent view among investors about the risks of holding long-term assets. In response, they gradually increased the proportions of their portfolios devoted to stocks and bonds, driving up their prices still further and narrowing risk spreads. But when developments earlier this year surprised investors and diminished their confidence in predicting future market conditions, they pulled back from long positions in securities until returns rose to compensate them for the additional price risk.

The recent weakness in bond prices was not limited to the United States, but was accompanied by a surge in foreign interest rates. This surge was particularly informative; ordinarily one would expect that as interest rates go up in one country, they would not increase to the same extent in others because exchange rates also would be expected to adjust. The initial jump in foreign interest rates was a sign of the extraordinary increase in uncertainty as, evidently, investors attempted to reduce their price-sensitive long positions by selling stocks and bonds regardless of currency denomination or economic conditions in the country of issuance. Roughly concurrently, moreover, signs that the slump in some foreign industrial economies was ending also were becoming apparent. As a result, market participants anticipated stronger credit demands abroad and a reduced likelihood of further easing by some foreign central banks, and intermediate- and longer-term rates in many of our trading partners rose as much as or more than in the United States.

Rising foreign interest rates, concerns in markets about the prospects for reduced trade tensions and about U.S. inflation contributed to considerable activity directed at rebalancing international investment portfolios. One effect of this activity appears to have been a substantial decline of the foreign exchange value of the dollar on net over the past 6 months. Foreign exchange rates are key prices in the American economy, with significant implications for the volumes of exports and imports as well as for the prices of imports and domestically-produced items that compete with imports. The foreign exchange value of the dollar also can provide useful insights into inflation expectations. If we conduct an appropriate monetary policy—and appropriate economic policies more generally—we shall achieve our goals of solid economic growth and price stability, and such economic results will ensure that dollar-denominated assets remain attractive to global investors, which is essential to the dollar's continuing role as the world's principal reserve currency.

Rising interest rates and considerable volatility in financial markets do not seem to have slowed overall credit flows this year. At about a 5¼ percent annual rate through May, domestic nonfinancial sector debt has increased within its 4-to-8 percent monitoring range. The composition of debt growth, however, has differed from the patterns of the previous few years. Expansion of Federal debt has slowed as the actions of Congress and the Administration as well as cyclical forces have narrowed the budget deficit considerably. The total debt of businesses, households, and State and local governments, by contrast, has risen this year at a brisker pace, though growth has remained quite moderate in comparison with the average experience of recent decades. The pickup this year indicates both that private borrowers have become less cautious about taking on debt and that lenders have become more comfortable lending to them. Although household debt-income ratios remain high, debt-service burdens have fallen appreciably, partly reflecting the refinancing of mortgages at lower interest rates. The lower debt burdens evidently have fostered a more favorable attitude toward credit among households, and consumer installment borrowing has accelerated, with strong growth of consumer loans at banks. Banks have been increasingly willing to extend credit, easing their terms and standards on business loans considerably. In addition, some firms have turned to banks for financing because of the turbulence in bond and stock markets this spring. Total bank lending has strengthened materially and, with continued acquisitions of securities, total bank credit has picked up as well. Nonetheless, growth of the monetary aggregates remains damped, as banks have relied heavily on non-deposit sources of funds to finance loan growth.

Expansion of M2 has been quite slow this year, leaving this aggregate near the lower end of its 1-to-5 percent annual range. M3 actually has edged down, and thus is just below its 0-to-4 percent range for 1994. The weakness in the broader aggregates has not been reflected in the growth of income again this year, representing a continuation of the substantial increases in velocity that we have experienced over the past few years. The factors behind this behavior, however, have changed somewhat. The diversion of savings funds from deposits to bond and stock mutual funds, which sharply depressed money growth in past years, seems to have slowed substantially; the experience with capital losses this spring apparently has heightened some investors' appreciation of the risks of such instruments. On the other hand, rising short-term market interest rates, combined with the usual lag in the adjustment of deposit rates, have been a significant restraint on growth of the aggregates this year, in contrast to 1992 and 1993.

The increases in market rates this year have exerted a particular drag on the narrower monetary aggregates, as well as on the closely related reserves and monetary base measures. M1 has expanded at only a 4 percent rate so far this year, compared with 10½ percent increases in each of the previous 2 years. M1's velocity has continued to fluctuate sharply, limiting its usefulness in formulating and interpreting monetary policy. The growth of M1 this year would have been even lower were it not for continued heavy demands for U.S. currency abroad. Flows of currency overseas have an even greater effect proportionately on the monetary base, which has grown rapidly this year despite declines in the reserves of depository institutions.

In reviewing its ranges for money growth in 1994, the FOMC noted that further increases in velocity of M2 and M3 were likely. Although yields on deposits will probably continue to rise further in lagged response to increases in market rates, the wider rate disadvantage of deposits is likely to persist, and savers will continue to redirect flows into market instruments. As a result, growth of both aggregates near the lower bounds of their 1994 ranges is considered to be consistent with achieving our objectives for economic performance, and the ranges were left unchanged.

The Committee also decided, on a provisional basis, to carry forward the current ranges for the monetary aggregates to 1995. We were not confident that we could predict with sufficient accuracy the money-income relationships that were likely to prevail next year to modify the ranges. Moreover, further permanent reductions of the monetary ranges did not seem necessary, as those ranges are already low enough to be consistent with the goal of price stability and maximum sustainable economic growth, assuming an eventual return to more stable velocity behavior. From that point of view, we felt that maintenance of the current monetary ranges would give the clearest indication of the long-run intentions of policy.

Regarding domestic nonfinancial sector debt, we made no adjustment to this year's monitoring range, but elected to set a provisional monitoring range for 1995 of 3 to 7 percent, a percentage point lower than this year's. A lower range would conform with some deceleration in nominal income, in the process of containing inflation and ultimately making progress toward price stability. The reduction is not intended to signal an increased emphasis on the debt measure, but it is supported by our view that rapid debt growth, if sustained, can eventually lead to significant imbalances that are inimical to stable, noninflationary growth. As usual, we shall review carefully all of the provisional ranges for 1995 in February.

Given the rapid pace of financial change, considerable uncertainties continue to attend the relationships of all of the aggregates to the performance of the economy and inflation, and we do not expect in the near term to increase the weight accorded in policy formulation to these measures. However, the processes of portfolio reallocation that have generated these recent shifts may be slowing. We shall continue to monitor monetary growth, and financial flows more generally, for information about the course of the economy and prices in coming to decisions regarding adjustments to the stance of monetary policy.

We expect that expansion of money and credit within the ranges we have established will be consistent with the continuation of good economic performance. With appropriate monetary policies, the Board members and Reserve Bank presidents see the economy settling into more moderate rates of growth over the next six quarters and inflation remaining relatively subdued. Specifically, the central tendencies of our forecasts are for real GDP to expand 3 to 3¼ percent over 1994 and 2½ to 2¾ percent next year. The consumer price index is projected to increase 2¾ to 3 percent this year. In 1995, inflation may be about the same as in 1994, or slightly higher; the recent depreciation in the dollar is likely to put upward pressure on inflation over the next year if it is not reversed. With the pace of hiring likely to about match that of labor force growth, the unemployment rate is expected to remain close to its recent level.

Mr. Chairman, you also asked for economic projections for 1996. I fully appreciate your purpose in requesting this information, however, my colleagues and I don't think we can best communicate our policy intentions through additional numerical forecasts. Rather, we believe our intentions are best conveyed in terms of our declared objective of fostering as much growth of output and employment as can be achieved without placing destabilizing inflationary pressures on productive resources. There is considerable uncertainty about what that goal implies for the expansion of GDP and rates of unemployment.

That said, it may be useful to note that the assumptions underlying the medium-term projections provided to you by the Administration and the Congressional Budget Office (CBO) are within the mainstream of thinking among academics and private business economists. These projections do not attempt to anticipate cyclical movements, but instead represent estimates of the likely performance of the economy in the neighborhood of its potential. The Administration, for example, projected in its most recent forecast that the economy will expand at a 2.5 percent rate in the second half of the 1990's and unemployment will average 6.1 percent. These projections are consistent with common estimates of the economy's potential growth rate and fall within the range of typical estimates of the so-called "natural rate" of unemployment.

Uncertainties around these estimates arise because identifying economic relationships is always difficult, partly owing to limitations of the data. But more fundamentally, all policymakers recognize that notions of potential GDP growth and the natural rate of unemployment are considerable simplifications, useful in conceptual models, but subject to a variety of real-world complications. Our economy is a complex, dynamic system, comprising countless and diverse households, firms, services, products, and prices, interacting in a multitude of markets. Estimates of macroeconomic relationships, as best we can make them, are useful starting points for analysis—but they are just starting points.

Given questions about the aggregate relationships, policymakers need to look below the surface, in markets themselves, for evidence of tightness that might indicate whether inflationary pressures are indeed building. One important source of such evidence is the reports we receive from our Reserve Banks through their extensive contacts in their communities. These reports are released to the public in the "beige book" and are updated—frequently on the basis of confidential information from individual firms and financial institutions—by the Reserve Bank officials at our meetings and through normal intermeeting communications. Another source of useful information is individual industries and trade groups, which provide many timely indicators that are sensitive to supply-demand conditions in particular sectors.

If the economy were nearing capacity, we would expect to see certain patterns in the statistical and anecdotal information with increasing frequency and intensity. Reports of shortages of skilled labor, strikes, and instances of difficulties in finding workers in specific regions all would be more likely. To attract additional workers, employers would presumably step up their use of want-ads and might begin to use nonstandard techniques, such as signing or recruiting bonuses. More firms might choose to bring on less skilled workers and train them on the job. All of these steps, in themselves, could add to costs and suggest developing inflationary imbalances. As firms experienced difficulty in expanding production to meet rising demand, we would also expect to see increasingly frequent signs of shortages of goods as well as labor. Businesses might have difficulty in obtaining certain materials. Vendor performance would deteriorate, and lead times on deliveries of new orders would increase. Pressures on supplies of materials and commodities would be reflected in rising prices of these items.

Of course, we would not expect to see these phenomena occur simultaneously throughout the economy—quite the contrary. And, to a degree, these symptoms occur in a few sectors even in noninflationary economies. But a noticeable step-up in their incidence could constitute evidence of an incipient inflationary process.

In recent months, we have seen some of these signs. There are reports of shortages of some types of labor—construction workers and truck drivers, for instance. Indexes of vendor performance have deteriorated considerably, and manufacturers are paying higher prices for materials used in their production processes. As yet, these sorts of indications do not seem to be widespread across the economy. Nonetheless, we shall need to be particularly alert to these emerging signs in considering further adjustments to policy in the period ahead.

Financial flows may also impart useful warnings of price pressures. For example, persistent unsustainably low real interest rates might prompt very rapid credit growth, as expectations of price increases led households and firms to accelerate purchases of durable goods and equipment and finance these expenditures by stepping up the pace of borrowing. Although consumer borrowing has accelerated considerably of late, overall debt growth has so far remained moderate.

In light of the uncertainties about aggregate measures of our economic potential, the Federal Reserve cannot rely heavily on any one estimate of either the natural rate of unemployment or potential GDP growth. Most important, we have no intention of setting artificial limits on employment or growth. Indeed, the Federal Reserve would be pleased to see more rapid output growth and lower unemployment than projected by forecasters such as the CBO and the Administration—provided they were sustainable and consistent with approaching price stability. I should note, however, that most Federal Reserve policymakers would *not* regard the inflation projections of these other forecasters, which generally do not foresee further progress toward price stability over the medium term, as a desirable outcome.

A more significant issue for economic policymakers than the precise values of such estimates is what can be done to maximize sustainable employment and economic growth. We need, for example, to give careful attention to the problem of unemployment, as noted by the G–7 leaders at their recent summit. We could raise output and living standards around the world and at the same time ease many social problems if more people were working. Here at home, nearly eight million Americans are looking for work. At this stage of the business cycle—having experienced almost 40 months of expansion and particularly strong growth recently—most of this unemployment probably is not due to a shortfall in aggregate demand. Rather, a good deal of it is likely "frictional," reflecting the ordinary process of workers moving between jobs, or "structural," resulting from longer-term mismatches between workers and available jobs. Monetary policy, which works mainly by influencing aggregate demand, is not suited to addressing such problems. But we ought to be encouraging other measures to increase the flexibility of our work force and labor markets. Improving education and training and facilitating better and more rapid matching of workers with jobs are essential elements in making more effective use of the U.S. labor force. Just as important, Congress should avoid enacting policies that create impediments to the efficient movement of individuals across regions, industries, and occupations, or that unduly discourage the hiring of those seeking work. Competitive markets have shown a remarkable ability to create rising standards of living when left free to function.

Congress and the Administration also can continue to contribute to the growth of our economy's capital and productivity through a sound fiscal policy. The extension of the spending caps in last year's budget agreement was a significant step in putting fiscal policy on a more sustainable, long-run path. Budget deficit reduction has proved to be particularly timely, by reducing the Government's claim on savings just as households and firms are seeking more capital to finance investments. But under current law, the deficit, as a percent of GDP, will begin to expand again as we move into the next century, with unacceptable consequences for financial stability and economic growth. The primary cause of this increase will be Federal outlays, which will almost surely again be rising at a pace that will exceed the growth of our tax base. Only by reducing the growth in spending is ultimate balance achievable.

As I have emphasized many times, the Federal Reserve also can contribute to the achievement of our overriding goal—maximum sustainable economic growth—by pursuing and ultimately achieving a stable price level. Without the uncertainties engendered by inflation, households and firms are better able to plan for the future. And firms focus on maximizing profitability by holding down costs and increasing productivity rather than by using inflationary conditions to support price increases. There is some evidence to suggest that the stronger trend of productivity growth we have witnessed over the recent past is due, at least partly, to the beneficial effects of low rates of inflation.

Our Nation has made considerable progress in putting the economy on a sound footing in the past few years. To preserve and extend these advances, our monetary and fiscal policies will need to remain disciplined and focused on our long-term objectives; we would be foolish to squander our recent gains for near-term benefits that would prove ephemeral. Indeed, by fostering progress toward price stability, achieving lower Federal budget deficits, and encouraging competitive markets both here and abroad, we will help ensure the continued vitality of our Nation's economy now and for many years into the future.

RESPONSE TO WRITTEN QUESTIONS OF SENATOR RIEGLE FROM ALAN GREENSPAN

Q.1. The reported unemployment rate has declined from 6.7 percent in January to 6.0 percent in June, which you evidently think approximately represents full employment, but the survey on which that rate is based incongruously shows the labor force declining by half a million workers over the same period of rapid growth. Are you concerned that this new survey may be defective, and that the true rate may be higher?

A.1. I don't believe there is any evidence that the new survey is "defective," but it is different and there is still considerable uncertainty about how to link the new survey results with the old. One problem in interpreting the recent data is that the limited experience with the new survey has made it necessary to utilize seasonal adjustment factors derived from the old survey—and the changes in the survey may well alter the seasonal patterns.

That said, I don't think we have a strong basis for assuming that the surprising reported decline in labor force participation means that the 6.0 percent unemployment rate for June is biased downward. Among other things, employment and labor force participation tend to be positively correlated in the short run, making the unemployment rate a more stable number. There is no doubt that this relationship bears close watching in the months ahead; insights into why labor force growth is lagging could be important in judging the degree of labor market tautness, as your question suggests.

Q.2. At earlier hearings, you expressed considerable optimism about the trend of productivity growth, suggesting that the economy's growth potential may now be higher than the 2½ percent rate commonly cited, and which you referred to today. Does the evidence indicate that 2¾ percent is an at least equally plausible estimate?

A.2. Presumably, the many analysts—including those in the Administration and the Congressional Budget Office—who have adopted the 2½ percent assumption viewed that number as more likely than the 2¾ percent alternative you offer, but the potential output growth rate is difficult to pin down, both analytically and empirically, and the "standard error" of any estimate must be at least a quarter point. As I've stressed repeatedly, we in the Federal Reserve have not wedded ourselves to a particular figure in framing our monetary policies.

Q.3. In your testimony, you noted "continued heavy demands for U.S. currency abroad." How do you measure that?

A.3. Information on current outflows of U.S. currency abroad is generally obtained on an informal basis by cash officers at Federal Reserve offices from a small number of commercial banks who are active in this business. Typically, only a few of the 37 Federal Reserve offices are involved in handling large orders for currency that these commercial banks ship abroad.

In addition to this information, Board staff are developing methods for refining such estimates of currency flows abroad. Each method is based on an empirical model in which foreign demands and domestic demands are distinguished by important differences in their behavior. However, estimating currency flows is quite difficult and any procedure or set of procedures is likely to be subject to a wide margin of error. Comprehensive direct measurements of cross-border currency flows are lacking; the United States places no restrictions on such flows and Customs' reports obtained from those carrying $10,000 or more in currency across borders do not appear to have been a reliable source for estimating aggregate currency flows. While development of the Board methods is still in progress, tentative estimates for recent years appear to be highly correlated with the information provided by cash officers. The combined estimates suggest that a sizable percentage of the rise in the currency component of M1 in the 1990's is attributable to foreign demands—certainly well over half of the average annual increase of about $25 billion so far in this decade.

Q.4. Recently, a major BCCI figure entered into a plea agreement with the Justice Department on the basis of his cooperation in detailing BCCI's activities in this country. Is the Fed a participant in these cooperative discussions? Are they likely to result in any future activities by the Fed?

A.4. Under the plea agreement recently accepted by the Federal District Court in Washington, DC, Swaleh Naqvi, a senior manager of the Bank of Credit and Commerce International, pleaded guilty to three criminal charges arising out of the operations of BCCI. Although the Federal Reserve was not a party to the plea agreement, Naqvi is obligated under the agreement to cooperate with the ongoing investigations of a number of law enforcement and regulatory agencies, including the Federal Reserve. As a result of the plea agreement, we expect that Naqvi would be available if needed by staff in reviewing recently-obtained BCCI documents that had been maintained in Abu Dhabi or if required to testify in any Federal Reserve enforcement proceedings.

RESPONSE TO WRITTEN QUESTIONS OF SENATOR SARBANES FROM ALAN GREENSPAN

Q.1. Ten years ago, the Federal Reserve joined the Treasury and State Departments in a report to Congress that rejected membership of the U.S. on the BIS Board. What has changed in the last decade to reverse the position of the Federal Reserve on this issue?

A.1. The November 1984 report to Congress on the Federal Reserve relationship with the Bank for International Settlements (BIS) concluded that there was no urgent need to change the then-current relationship with the BIS. The report noted, however, that "(T)his matter obviously deserves to be reviewed periodically in light of evolving developments in the international monetary and financial system."

Since the 1984 report, a number of circumstances in the international monetary and financial system, in international political developments, and in the evolution of the BIS have changed. As a result, technical and policy reservations about the Federal Reserve's joining the BIS Board have substantially diminished in recent years.

The BIS itself has undergone significant changes over the past 10 years. It has become involved in a wider range of central banking activities, providing the Federal Reserve with an increasingly valuable means of collecting information, sharing insights, developing analysis, and potentially influencing the policies of other central banks.

For a number of years the BIS has been working cooperatively with, rather than as a competitor of, the International Monetary Fund (IMF). For example, it has mobilized supplementary resources for the IMF, and it is working closely with the IMF in coordinating the technical assistance that is being provided to the central banks of Eastern European countries and of the countries of the former Soviet Union.

With regard to the reservation that the BIS had a European orientation, in recent years the BIS has broadened its reach beyond Europe and has included representatives of central banks from Latin America and East Asia in some of its meetings. Also, to reflect its more global character, the BIS Board of Directors in July 1994 elected the governors of the central banks of Canada and Japan to join the Board, which for many years had been constituted only by representatives of West European central banks.

The end of the Cold War removed another reservation that the Federal Reserve had about being on the BIS Board and becoming involved in the BIS's financial operations for central banks, namely, that the BIS performed banking and agent functions for some countries that at that time were part of the East Bloc. In the Cold War environment, the United States at times expressed disapproval of such financial relationships with these countries. With the end of the Cold War, this factor is no longer relevant in considering whether the Federal Reserve should exercise its right to be represented on the BIS Board. In fact, Federal Reserve representation could help to facilitate the integration of East European countries (and over time the countries of the former Soviet Union) into the global economy. For example, the BIS organizes semiannual meetings of coordinators of central bank technical assistance to Eastern Europe and to the former Soviet Union and serves as a clearinghouse for information on technical assistance related to central banking being provided to these countries.

In earlier considerations of whether the Federal Reserve should assume its seat on the BIS Board a number of technical and legal issues were raised, including the issue of the appropriate U.S. representation on the Board, which might have required amending the BIS statutes, something that some members of the BIS Board did not favor. The BIS Board has now welcomed Federal Reserve participation, and thus it has been easier to deal with these technical issues (including amending the BIS statutes) in order to facilitate Federal Reserve membership.

Given these developments, the Federal Reserve Board has concluded that its previous reservations about joining the BIS's Board of Directors are no longer as powerful, and that the positive benefits of being represented on the BIS Board in helping to achieve the Federal Reserve's objectives have been enhanced. The United States is an active member in other international and regional financial organizations, and its non-membership status on the BIS

Board of Directors was becoming an increasingly questionable anomaly.[1] The Federal Reserve's anomalous position was further underscored by the fact that the Federal Reserve is a member of the Group of Ten (G–10),[2] and with Canada and Japan joining the BIS Board of Directors the United States would have been the only G–10 country not represented on the BIS Board.

Thus, the Federal Reserve Board concluded that the time had arrived for the Federal Reserve to become an insider rather than an outsider at the BIS. By being represented on the BIS Board, the Federal Reserve will be able to play an active role in shaping the future of the BIS and to further international monetary cooperation.

Q.2. The Federal Reserve System operates as an independent agency of the United States Government. Are there precedents for the United States Government to be represented on an international policymaking body exclusively by an independent agency? If so, what were the arrangements for consultation with, or direction from, either the Administration or Congress? What is the legal authority pursuant to which the Federal Reserve can take Board seats at the BIS?

A.2. The BIS is not a policymaking institution except with respect to its own affairs. The principal focus of the Board of Directors of the BIS is on the formulation of broad operating principles of the management of the institution. The BIS is an organization of central banks that was established in 1930 with the express purpose of promoting cooperation among central banks and providing additional facilities for financial operations. Accordingly, the involvement of other independent agencies in international policymaking bodies does not provide useful precedent here.

As to the legal authority of the Federal Reserve to assume its seat on the BIS Board, although there is no express provision in the Federal Reserve Act authorizing the Federal Reserve Board or the Chairman to participate on the BIS Board, there is implicit authority under the Federal Reserve Act to take up the U.S. *ex officio* director seat.

This implicit authority derives from the conclusion that participation on the BIS Board is a highly efficient means of accomplishing the Federal Reserve Board's statutory duties. The effective discharge by the Federal Reserve Board of its statutory duties—to conduct monetary policy and foreign exchange operations, supervise banking organizations, monitor and control systemic risk, and exercise special supervision over all relationships and transactions of Federal Reserve Banks with foreign banks and bankers—requires the Board to consult extensively with its foreign counterparts and have access to a broad range of information on international monetary, financial, and market developments. The Fed-

[1] The United States is a founding member of the International Monetary Fund (IMF), the International Bank for Reconstruction and Development, the Organization for Economic Cooperation and Development (OECD), the Inter-American Development Bank, the Asian Development Bank, the African Development Bank, and the European Bank for Reconstruction and Development. The Federal Reserve is a collaborating (associate) member of the Center for Latin American Studies (CEMLA), the Chairman of the Federal Reserve Board is Alternate Governor of the IMF, and Federal Reserve officials participate actively in meetings of the OECD.

[2] The G–10 consists of Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, United Kingdom, and the United States.

eral Reserve Board's association with the BIS is a major and efficient means by which the Federal Reserve Board satisfies these international consultative and information gathering needs, and the Federal Reserve Board's participation on the BIS Board should further international monetary cooperation, help promote international financial stability, and provide the Federal Reserve Board with opportunities to maintain and broaden its sources of information and insights, as well as its contacts and relations with central banks worldwide.

The legal advisor at the State Department agreed with the Federal Reserve view that there are no legal impediments to the Federal Reserve taking its U.S. seat on the BIS Board.

Q.3. Private interests control six of the nine votes of the boards that select regional bank presidents. Is there precedent for the United States Government to be represented on an international policymaking body by a person selected from a board the majority of which is selected by private interests? If so, what were the arrangements for consultation with, or direction from, either the Administration or Congress?

A.3. As noted in the above response to question 2, the BIS is a policymaking body in only a very limited sense. Nonetheless, in the course of consultations with the Administration and Congress, I indicated that I expected to be authorized to appoint the president of the Federal Reserve Bank of New York to the seat of the appointed U.S. director. The Members of Congress that were consulted raised no objection to this intended appointment. The Treasury and State Departments also were informed of this intention and raised no objection.

Directors on the BIS Board are not permitted, according to the BIS statutes, to be officials or members of governments other than central bankers. The appointed director is supposed to represent "finance, industry, or commerce." Accordingly, the Federal Reserve Board has chosen to appoint the president of the Federal Reserve Bank of New York to this seat instead of appointing a U.S. individual who is wholly in the private sector or, alternatively, not filling the second U.S. seat on the BIS Board. The decision to appoint President McDonough is particularly appropriate in light of the Federal Reserve Bank of New York's role in the Federal Reserve System.

Q.4. When did the Federal Reserve begin discussions with the BIS about revising the BIS rules to permit the Federal Reserve to take two seats on its Board? What was the chronology of those discussions? At what point in those discussions did you first raise the question of taking the BIS seats with the Administration? To what extent have you consulted with Congress about taking the two seats?

A.4. The question of whether or not the Federal Reserve should exercise its right to take up the *ex officio* seat for the central bank of the United States on the BIS's Board of Directors has a long history dating back to the establishment of the BIS in 1930. (This right also entitles the *ex officio* director to appoint a second U.S. director.) In the course of that history, the Federal Reserve has had numerous contacts with the BIS, various Administrations, and Congress.

By the 1970's, the Federal Reserve Board had reached an informal consensus that the BIS had become a sufficiently important international monetary institution for the Federal Reserve to seek to be a full participant in its deliberations and that representation on the BIS Board of Directors would enable the Federal Reserve to contribute to the evolution and policies of that organization. During 1976–78, Federal Reserve officials initiated discussions with BIS officials regarding the possibility of the Federal Reserve joining the BIS Board of Directors.

At that time, Chairman Arthur F. Burns initiated consultations on the BIS membership issue with the Administration and with key congressional leaders. However, with the departure of Arthur Burns as Chairman of the Federal Reserve Board, interest in being represented on the BIS Board of Directors waned, and no action was taken.

Discussions with the BIS regarding the Federal Reserve being represented on the BIS's Board of Directors resumed informally in September 1993 and more seriously in January 1994 when the BIS management, contemplating a possible geographic broadening of representation on its Board of Directors, raised the issue with the Federal Reserve, including the probable need to revise the BIS statutes to clarify the status of the Chairman of the Board of Governors of the Federal Reserve System to represent the central bank of the United States on the BIS Board. After examining the BIS membership issue in some detail, the Federal Reserve Board reached a tentative consensus to pursue this matter further. I personally raised this subject with Secretary Bentsen in March and with Secretary Christopher in early May. (In the case of the Treasury Department, staff-level contacts followed my initial conversation with the Secretary. In the case of the State Department, staff-level contacts preceded my meeting with the Secretary.) Both Secretaries subsequently wrote to express their support for the Federal Reserve Board to avail itself of its right to be represented on the Board of Directors of the BIS. (Copies of these letters are attached.)

Following further Federal Reserve Board discussion of the BIS membership issue and endorsement by the Board to pursue this matter, in early June, I contacted key Members of Congress (including the Chairmen and Ranking Minority Members of the Senate Committee on Banking, Housing, and Urban Affairs and the Senate Committee on Foreign Relations, as well as the Chairmen and Ranking Minority Members of the House Committee on Banking, Finance, and Urban Affairs and the House Committee on Foreign Affairs, and the Chairman of the Subcommittee on Economic Growth and Credit Formation of the House Committee on Banking, Finance, and Urban Affairs) to inform them of the Federal Reserve Board's reconsideration of its relationship with the BIS and to seek their views. I sent letters to these individuals, which included a background note on the Federal Reserve's relationship with the BIS, requesting appointments to discuss this matter personally, and I met with most of the individuals. These consultations proved valuable; it enabled me to explain the considerations leading to the

Federal Reserve Board's decision to be represented on the BIS Board and to respond to questions. The almost universal response by the Members of Congress with whom I met was favorable and supportive of the Federal Reserve Board's decision.

Q.5. In your consultations with the Administration and Congress, did you discuss whether an independent agency should represent the U.S. Government on a policymaking body? If so, what views were expressed on that question?

A.5. Discussion of this issue was raised implicitly with the Administration as evidenced by the Federal Reserve Board's agreement to inform and consult with the Departments of State and Treasury in the future, as appropriate, about matters before the BIS Board. This also was the case, generally, with consultations with Congress.

However, Congressman Kanjorski specifically asked about the Federal Reserve's independence and the executive branch's discharge of its constitutional responsibilities. In response to his concerns, I expressed the view that the consultations that the Federal Reserve Board has agreed to with the Departments of State and Treasury should more than adequately protect the executive branch in the discharge of its constitutional responsibilities without undermining the independence of the Federal Reserve.

Q.6. In your consultations with the Administration and Congress, did you discuss whether a person selected by private interests such as the president of the Federal Reserve Bank of New York should represent the U.S. Government on a policymaking body? If so, what views were expressed on that question?

A.6. As noted in the above response to question 3, the Federal Reserve Board informed both Members of the Administration and Congress as to the Board's intent to appoint President McDonough to the appointed U.S. director seat on the BIS Board, and no objections were raised. Because the BIS is a policymaking body in only a very limited sense, there was no general discussion of the propriety of having a Reserve Bank president represent the U.S. Government on a policymaking body.

Q.7. In letters to Members of Congress, the Federal Reserve has justified taking the BIS Board seats, in part, on the grounds that it could take "a leadership role" in the area of financial supervision and regulation with several other agencies. In the United States, the Federal Reserve shares responsibility for financial supervision and regulation with other agencies. What arrangements have you made with these other agencies for making decisions on policy positions, on programmatic initiatives, and on the votes to be cast on such matters by the two U.S. seats on the BIS Board?

A.7. As noted above, the BIS is not a policymaking institution except with respect to its own affairs and in the formulation of broad operating principles for the management of the institution, including the staffing and support that the BIS provides to the subsidiary committees of the G–10 central bank governors that meet under the auspices of the BIS. These subsidiary committees do not make policy decisions; they are advisory or consultative bodies.

The more direct and active leadership role at the BIS that the Federal Reserve will be able to play through representation on the BIS's Board should be viewed from this perspective. Such a leadership role encompasses the attention and support that the BIS gives not only in supporting the work of the Basle Committee on Banking Supervision (on which officials from the Comptroller of the Currency and the Federal Deposit Insurance Corporation (FDIC) are represented along with the Federal Reserve) but also to exploring a wide range of issues involving the functioning of international financial markets, monetary policy, and payment systems. The participation by officials from the Comptroller of the Currency and from the FDIC, along with those from the Federal Reserve, in the Basle Committee on Banking Supervision, allows the three U.S. bank supervision and regulation agencies to formulate a common U.S. position with regard to programmatic initiatives that arise in the context of this Committee's activities. It should also be noted in this context that the BIS statutes do not allow representation on the BIS Board of government entities other than central banks, and that central banks with considerably less involvement in financial supervision and regulation than the Federal Reserve are represented on the BIS Board of Directors.

Q.8. What undertaking or commitment has the Federal Reserve made to the Administration and Congress to keep them fully informed of developments at the BIS? What arrangements have been made for consultations with or direction from the Administration or Congress?

A.8. In my consultations with Secretaries Bentsen and Christopher regarding the BIS membership issue, I assured them that the Federal Reserve would keep their Departments informed of developments in the BIS that are relevant to executive branch policies. It is understood that Federal Reserve officials will consult these Departments, where appropriate, on matters of significance, particularly on international monetary issues and on matters that are of foreign policy concern to the United States. (See attached letters from Secretaries Bentsen and Christopher.)

Attachments

DEPARTMENT OF THE TREASURY
WASHINGTON, D.C.

SECRETARY OF THE TREASURY

May 25, 1994

The Honorable Alan Greenspan
Chairman, Board of Governors
Federal Reserve System
20th St. and Constitution Ave., N.W.
Washington, D.C. 20551

Dear Alan:

Some time ago you indicated to me that the Board of Governors of the Federal Reserve System would like the Chairman of the Board to take up the ex officio seat of the United States on the BIS Board of Directors. You also indicated that the President of the Federal Reserve Bank of New York would be appointed to assume the second U.S. seat on the BIS Board.

You asked for Treasury's support for this initiative. As I said in our telephone conversation on April 21, Treasury supports the Federal Reserve's taking up the seat.

Treasury's position is premised on the understanding that the Federal Reserve will keep Treasury informed of all BIS Board decisions relevant to Executive Branch policies, particularly on international monetary issues, and in this respect will consult with Treasury in advance on significant matters. Moreover, it is our understanding that, because of past Congressional interest, the Federal Reserve Board will consult appropriately with Congress on this initiative.

I would appreciate being kept informed of your progress concerning this matter.

Sincerely,

Lloyd Bentsen

THE SECRETARY OF STATE

WASHINGTON

June 15, 1994

Dear Alan:

During our meeting on May 10 we discussed the desire of the Board of Governors of the Federal Reserve System to have the Chairman of the Board take up the ex officio seat of the United States on the Board of Directors of the Bank for International Settlements (BIS). You indicated your intention to appoint the President of the Federal Reserve Bank of New York to the second U.S. seat on the BIS Board, an arrangement to which the President of the Federal Reserve Bank of New York has concurred.

You asked for Department of State support for this step. Our legal advisers have since agreed that there are no legal impediments to the Federal Reserve taking the U.S. seat on the BIS Board. We fully expect that active participation of the Federal Reserve on the BIS Board will serve U.S. foreign policy interests by adding this avenue of influence in international financial affairs. On that basis, Federal Reserve membership on the BIS Board has the full support of the Department of State.

Given that matters coming up in BIS Board meetings may be relevant to foreign policy concerns, your assurance that we shall be kept informed and consulted as appropriate is important to our support for this initiative. Your intention to consult with Congress before taking this step is also welcome.

With best regards,

Sincerely,

Warren.

Warren Christopher

The Honorable Alan Greenspan,
Chairman,
Board of Governors,
Federal Reserve System,
Washington, D.C. 20551

For use at 10:00 a.m., E.D.T.
Wednesday
July 20, 1994

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

July 20, 1994

Letter of Transmittal

BOARD OF GOVERNORS OF THE
FEDERAL RESERVE SYSTEM
Washington, D.C., July 20, 1994

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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Section 1: Monetary Policy and the Economic Outlook for 1994 and 1995

The favorable performance of the U.S. economy continued in the first half of 1994. Economic activity advanced at a brisk pace, building on the substantial gains in late 1993, and broad measures of inflation moved still lower. Unemployment declined, and industrial capacity utilization rose, substantially reducing the remaining slack in resource use.

In this context, monetary policy has been directed this year at heading off a buildup of inflationary pressures that could jeopardize the continuation of the economic expansion. To do so, the Federal Reserve has had to move away from its highly accommodative policy stance of recent years. That stance had been adopted to counteract unusual restraint on domestic spending associated in large part with the efforts of both borrowers and lenders to strengthen their financial condition. Data available in late 1993 and early 1994 suggested that the restraint on spending had dissipated and that the economic expansion had become strong and self-sustaining. Against this background, the Federal Reserve has firmed money market conditions in four steps this year.

Despite disruptions caused by severe winter storms, real gross domestic product (GDP) rose at an annual rate of 3½ percent in the first quarter, and available indicators point to another sizable gain in the second quarter. Business fixed investment has continued to grow rapidly this year, as firms have sought to improve efficiency by installing state-of-the-art equipment; rising utilization rates have spurred interest in expansion of capacity as well. Consumer outlays have trended higher this year, buoyed by the considerable gains in income and an increased willingness to borrow or use savings; lately, though, spending growth appears to have moderated somewhat. The rise in long-term interest rates that began last fall has damped the growth of housing activity this year, but the effect has been relatively mild, in part because homes remain quite affordable by the standards of the past two decades. In the labor market, the employment gains during the first half of this year were substantially more rapid than in 1993, and the unemployment rate has continued to move lower.

Inflation generally was moderate during the first half of 1994. Retail food and energy prices changed little, on balance, over this period, holding the rise in the consumer price index (CPI) to 2½ percent at an annual rate. At the same time, prices for a wide range of materials used in manufacturing and construction have been boosted considerably by strong demand and the resulting higher rates of resource utilization. Looking ahead, retail energy prices likely will rise over the summer, pushed up by the rebound in crude oil prices in recent months; in addition, the decline in the dollar since the beginning of the year, if not reversed, probably will exert some upward pressure on prices.

The Federal Reserve's policy actions this year have raised the federal funds rate to around 4¼ percent, from 3 percent, and have boosted the discount rate to 3½ percent, also from 3 percent. Other market interest rates have risen 1¼ to 1¾ percentage points since the beginning of the year. Increases in intermediate- and long-term rates have been unusually large relative to the adjustment of short-term rates, reflecting stronger-than-anticipated economic growth and market expectations of greater inflationary pressures, as well as actual and expected tightening actions by the Federal Reserve to contain those pressures. On occasion, the declining value of the dollar also appeared to contribute to higher yields. Markets have been volatile at times this year as investors have adjusted to a changing economic and policy outlook. The uncertain conditions encouraged investors to try to reduce their risk exposure, and the associated attempts to make large shifts in portfolios over short periods seemed to add to the upward pressure on long-term rates at times.

Despite the rise in U.S. interest rates, the dollar has declined considerably this year, with its trade-weighted foreign exchange value against the Group of Ten (G-10) countries falling about 8 percent. Rising long-term interest rates abroad, associated with brighter prospects for economic growth, tended to offset the effect on the dollar of higher U.S. rates. Moreover, other factors, including diminished hopes for a prompt resolution of trade tensions with Japan and market concerns about future inflation in the United States, fostered downward pressure on the dollar. This pressure was especially intense in late April and early May and again in the second half of June and first half of July. The U.S. Treasury and the Federal Reserve made substantial dollar purchases on three occasions during these periods to deal with volatile trading conditions and movements in the dollar judged to be inconsistent with economic fundamentals. Other governments shared the concern of U.S. officials, and the more recent operations were coordinated with the monetary authorities of a large number of other countries, including the other members of the Group of Seven (G-7).

The strength of spending and a renewed willingness to use and extend credit contributed to a pickup in borrowing by households and businesses in the second half of last year, and this trend extended into the first half of 1994. However, the composition of borrowing has been affected by financial market conditions. Rising and more volatile long-term interest rates have encouraged businesses to rely more heavily on sources of shorter-term financing, such as finance companies and banks, and have prompted households to shift to adjustable rate mortgages. Banks, which had been hampered by balance-sheet problems of their own in recent years, sought business and household loans more aggressively by continuing to ease credit standards and the nonprice terms of lending. Total commercial bank credit has increased considerably this year, and thrift institution credit, which contracted sharply between 1989 and 1993, appears to have expanded a bit. In contrast to the strength of private borrowing, the growth of federal government debt has slowed this year, reflecting the subdued growth of expenditures and sharply higher tax receipts associated with fiscal policy actions and the robust economy. As a result, the total debt of the domestic nonfinancial sectors expanded at about a 5¼ percent annual rate from the fourth quarter of 1993 through May, close to its pace over the second half of last year and well within its monitoring range of 4 to 8 percent.

Growth of the broad money aggregates has not kept pace with that of nominal GDP again this year. M2 increased at about a 1¼ percent annual rate from the fourth quarter of last year through June, while M3 fell slightly, placing these aggregates around the lower bounds of their respective annual growth ranges. In the usual pattern, increases in rates on retail deposits and on money market mutual funds have lagged the rise in market interest rates, inducing a redirection of savings from M2 into market instruments and boosting M2 velocity. With returns on interest-paying checking accounts virtually unchanged, compensating balance requirements for demand deposits reduced by rising rates, and transactions balances also depressed by several special influences, M1 growth this year has slowed to less than half its rate of advance in 1993; through June, this aggregate had expanded at about a 4 percent annual rate since the fourth quarter of last year. Owing to the anemic expansion of transactions deposits, total reserves fell slightly over the first half of the year. Only continued strong demand for currency, much of which reflected use abroad, has supported growth in M1 and the monetary base.

In contrast to 1992 and 1993, shifts into bond and stock mutual funds were not a major factor in the rise in M2 velocity this year. Falling securities prices created capital losses for bond and equity mutual funds, prompting some fund holders to reevaluate the risks and prospective returns of such investments. Bond mutual funds experienced outflows this spring, and a portion of the proceeds was directed to less-risky money market mutual funds, thus elevating M2 for a time. Even with more subdued moves in securities prices since the late spring, many small investors have retained a more cautious view of the possible risks and rewards of holding capital market instruments, and total inflows to bond and stock mutual funds have remained considerably weaker than in the past few years. The effect of these slower flows on M2 has been offset by shifts into direct holdings of market instruments, such as Treasury bills. As a consequence, the sum of M2 and household holdings of bond and stock mutual funds has decelerated sharply this year.

Money and Debt Ranges for 1994 and 1995

At its July 1994 meeting, the Federal Open Market Committee (FOMC) reviewed the annual ranges for money growth for 1994 that it had established in February. In light of the experience of the first half of the year and the likelihood that funds would continue to be diverted from deposits to higher yielding market instruments, the Committee expected a substantial increase in the level of M2 velocity over 1994. M3 velocity also was seen as likely to rise quite sharply, given the funding patterns of depository institutions, which had been favoring sources of funds not included in M3, such as capital and borrowing from overseas offices. As a consequence, the Committee continued to expect that money growth within, though perhaps toward the lower end, of the ranges of 1 to 5 percent for M2 and 0 to 4 percent for M3 would be consistent with its broader objective of fostering financial conditions that would sustain economic expansion and contain price pressures. It therefore voted to retain these ranges for 1994. With little information to suggest any new trends in velocity for 1995, the Committee chose simply to carry forward the 1994 ranges for M2 and M3 as provisional ranges for those aggregates in 1995. The Committee noted that these ranges, especially that for M2, provided an indication of the longer-run growth that might be expected in this aggregate with the attainment of reasonable price stability and a return to the past pattern of velocity fluctuating around a constant long-run level. Considerable uncertainty about the

Ranges for Growth of Monetary and Credit Aggregates[1]
Percent

Aggregate	1993	1994	Provisional for 1995
M2	1 to 5	1 to 5	1 to 5
M3	0 to 4	0 to 4	0 to 4
Debt[2]	4 to 8	4 to 8	3 to 7

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

2. Monitoring range for debt of domestic nonfinancial sectors.

behavior of velocity is likely to persist, however, and the FOMC will continue to monitor a broad range of financial and economic indicators in addition to the monetary aggregates, when determining the appropriate stance of policy.

The Committee also decided to retain its current monitoring range of 4 to 8 percent for growth in the debt aggregate during 1994. With debt expanding at a rate close to that of nominal income, the FOMC's expectation for the growth in nominal GDP for the year suggested that the debt aggregate would finish the year comfortably within this range. In 1995, however, the Committee expected that macroeconomic performance consistent with sustainable expansion would involve some slowing in the growth of nominal spending and moderate growth in debt; indeed, rapid credit growth might suggest the possibility of a borrow-and-spend psychology typical of strengthening inflation. Consequently, the Committee voted to set provisionally the 1995 monitoring range for debt growth at 3 to 7 percent, a reduction of 1 percentage point.

Economic Projections for 1994 and 1995

The members of the Board of Governors and the Reserve Bank presidents, all of whom participate in the deliberations of the Federal Open Market Committee, generally anticipate that the growth of real GDP will moderate during the second half of this year and into 1995 from the unsustainable pace in recent quarters. Employment gains through the end of 1995 are expected roughly to balance the net flow of individuals into the labor force, leaving the unemployment rate about unchanged from its average level in the second quarter of this year. Inflation is expected to pick up a little over the next year and one-half.

The forecasts of the Board members and Reserve Bank presidents for economic growth in 1994 are quite close to those made in February. Most continue to expect that real GDP will rise 3 to 3¼ percent over the four quarters of this year. For 1995, the central tendency of the forecasts is a range of 2½ to 2¾ percent. The unemployment rate anticipated in the fourth quarter of 1994 has been revised down about ½ percentage point from that projected in February.[1] The forecasts of the unemployment rate in the fourth quarter of 1994 are now bunched between 6 and 6¼ percent; this range is also the central tendency of the projections for the fourth quarter of 1995.

These forecasts envision the next several quarters as a period of transition to a more moderate expansion accompanied by reasonably full use of available resources. This transition already is evident in the housing market and, perhaps, in consumer outlays as well. The resulting deceleration in private domestic spending is expected to be offset, in part, by a smaller decline in net exports than that registered over the past several quarters; this projection for the external sector largely reflects the expectation of stronger economic expansion abroad.

The Board members and Reserve Bank presidents generally expect the rise in the consumer price index over the four quarters of 1994 to end up in the range of 2¾ to 3 percent. So far this year, retail energy prices have been flat on balance and retail food prices have moved up only a little, restraining the rise in the total CPI. However, given the runup in crude oil prices of late and the unlikely prospect of another large drop in the prices of fruits and vegetables, the

1. The unemployment forecast in February was subject to an unusual degree of uncertainty, as it was made shortly after the introduction of major revisions to the survey that generates the unemployment data. In February, the revised survey was believed to have boosted the unemployment rate from January 1994 forward by roughly ½ percentage point. Subsequent analysis has indicated that the upward shift caused by the new survey probably was smaller than originally thought

Economic Projections for 1994 and 1995

	FOMC Members and Other FRB Presidents		Administration
	Range	Central Tendency	
1994			
Percentage change, fourth quarter to fourth quarter			
Nominal GDP	5¼ to 6½	5½ to 6	5.8
Real GDP	3 to 3½	3 to 3¼	3.0
Consumer price index	2½ to 3½	2¾ to 3	2.9
Average level in the fourth quarter, percent			
Civilian unemployment rate	6 to 6¼	6 to 6¼	
1995			
Percentage change, fourth quarter to fourth quarter			
Nominal GDP	4½ to 6¼	5 to 5½	5.6
Real GDP	2¼ to 2¾	2½ to 2¾	2.7
Consumer price index	2 to 4½	2¾ to 3½	3.2
Average level in the fourth quarter, percent			
Civilian unemployment rate	5¾ to 6½	6 to 6¼	6.2

rate of inflation projected for the next year and one-half is slightly higher than that posted recently. The decline in the dollar to date, if not reversed, also could exert some mild upward pressure on inflation.

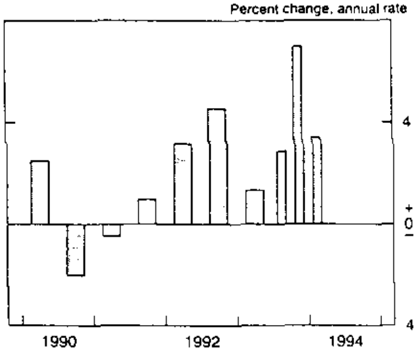
The Administration recently released its mid-year update of economic and budgetary projections. The projections for nominal and real GDP growth, inflation, and unemployment for 1994 and 1995 fall within the ranges anticipated by Federal Reserve officials and are essentially consistent with the central tendency of those ranges. Thus, it would appear that the monetary ranges set by the FOMC are compatible with the goals of the Administration.

Both Federal Reserve policymakers and the Administration anticipate further economic expansion accompanied by relatively low inflation. The Federal Reserve can do its part to prolong and enhance this favorable performance of the economy by continuing to set monetary policy in accord with the long-run objective of price stability. An environment of stable prices is a necessary condition for attaining the maximum sustainable growth of productivity and living standards. However, the outcome for the economy also will depend on government policy in other areas. In this regard, Congress and the Administration can help ensure that the nation's economy reaches its full potential by working to keep the federal budget deficit on a downward course, by promoting an open world trading system, and by adopting regulatory policies that preserve the flexibility of labor, product, and financial markets and minimize the costs imposed on the private sector.

Section 2: The Performance of the Economy in 1994

The economy entered 1994 with a considerable amount of forward momentum. Severe winter weather disrupted activity, but real GDP still posted a solid gain in the first quarter, amounting to 3½ percent at an annual rate. As had been the case during 1993, domestic private-sector spending was robust in the first quarter, with consumer purchases of motor vehicles and investment in business equipment both increasing at double-digit annual rates. At the same time, the ongoing cutbacks in defense spending depressed total purchases by the federal government, and the sluggish economic performance of some major foreign industrial countries held down the growth of U.S. exports.

Real GDP



The data in hand for the second quarter suggest that real GDP increased substantially further. In the labor market, gains in payroll employment and longer workweeks appreciably boosted total hours worked, and the civilian unemployment rate fell further. The indicators of spending, while less robust on balance than those from the labor market, still point to a sizable increase in economic activity.

Inflation trends remained favorable over the first half of this year, with the consumer price index (CPI) rising at an annual rate of only 2½ percent over this period. Inflation has been damped by the healthy uptrend in productivity—which has offset much of the increase in compensation rates—and by the minimal rise in non-oil import prices. In addition, the decline in crude oil prices through this spring held down retail energy prices. However, oil prices have since moved up considerably, which likely will boost retail energy prices over the summer. Prices also have risen substantially for many industrial materials, but these increases have not had a noticeable effect on the prices of finished goods.

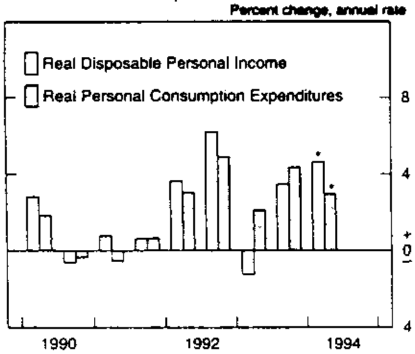
The Household Sector

Household balance sheets strengthened over 1992 and 1993, and the setback in stock and bond markets this year has not made a major dent in the sector's financial position. In addition, real income has continued to trend up at a healthy pace. Averaging through the monthly ups and downs, consumer spending appears to have posted a sizable advance over the first half of 1994, with most of the gain coming in the first quarter. Higher mortgage rates have cooled the growth in housing demand, but the level of activity remains strong.

In the first quarter of 1994, real consumer spending rose at an annual rate of about 5¼ percent, building on the large increases registered during the second half of 1993. Real outlays for motor vehicles were particularly strong in the first quarter. Spending on other durable goods—which had advanced robustly during most of 1993—rose only slightly in the first quarter, while outlays for nondurable goods and services remained on a solid uptrend. The severe weather that gripped much of the country this winter left its mark on the monthly pattern of outlays, but appears to have had little effect on the level of consumer spending for the first quarter as a whole. Outlays for furniture and appliances, clothing, and food all tumbled in January, but then rebounded smartly over the remainder of the first quarter. This pattern was reversed for energy consumption, which soared in January and then turned down.

The growth of real consumer spending appears to have slowed in the second quarter, with much of the deceleration reflecting declines in two areas. First, consumer outlays for motor vehicles softened in April and May, and the level of spending probably did not move up much, if at all, in June. However, because vehicle sales in the second quarter were held down by shortages of popular models, underlying consumer demand has remained firmer than the recent spending data would suggest. Second, household use of electricity and gas for the second quarter as a whole likely will turn out to have been below the weather-boosted

Income and Consumption



* Percent change, 1993:Q4 to May 1994, at an annual rate.

level of the first quarter. Apart from these two categories, real consumer outlays evidently posted a moderate increase in the second quarter.

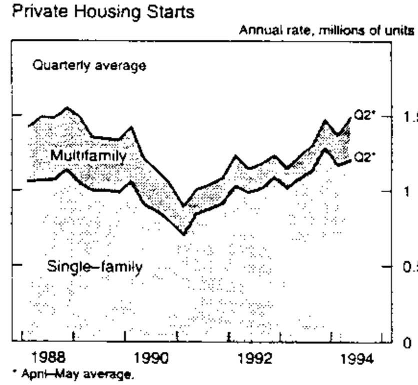
On a pre-tax basis, real income growth has been brisk over the past year, buoyed by a considerable gain in wages and salaries, a sharp increase in the net income of nonfarm proprietorships, and an upturn in interest income. However, the higher personal income taxes imposed on upper-bracket taxpayers by the 1993 Budget Act have cut into the growth of disposable income. All told, the average level of real disposable income in April and May was about 3½ percent above the level during the same period in 1993. This rise in real income was slightly smaller than the advance in real consumer spending over the same time span.

According to preliminary estimates (that are subject to potentially large revisions), the personal saving rate averaged a bit less than 4 percent during the first five months of this year—quite a low rate by historical standards. The level was so low partly because of a one-time charge against income to account for the wealth lost in the Los Angeles earthquake. In addition, the higher taxes due on returns filed this spring probably pushed down the amount of personal saving. Still, a good part of the decline in the saving rate from the 5 percent level prevailing two years ago reflects a burst of spending on motor vehicles and other durable goods. Such a decline in the saving rate often accompanies cyclical surges in outlays for consumer durables, which are counted as consumption in the national accounts; in reality, much of the initial expenditure on durables is a form of saving, as these goods are assets that provide a flow of services for years to come.

Household balance sheets have remained relatively strong despite the lower prices in financial markets this year. The total value of household assets—which includes housing and consumer durables as well as financial assets—rose moderately on balance over the year ended in the first quarter of 1994. Moreover, survey data indicate that households, in the aggregate, continue to view their current and expected financial positions in a favorable light. This greater sense of financial security, and the attendant willingness to take on debt, helps explain the rapid growth of consumer credit since the middle of last year. Other measures of household financial conditions also remain positive. Debt-service burdens, measured as a percent of disposable income, held about steady in the first quarter at a level well below the peak reached several years ago. Delinquency rates on consumer loans and home mortgages were little changed in the first quarter, with most measures of delinquencies holding near their lowest levels in a decade or more.

The market for single-family housing has softened in recent months. Starts of single-family homes, which strengthened over the course of 1993, plummeted in January and remained low in February. Much of this sharp decline can be attributed to adverse weather. With the return to more normal weather in the spring, starts did recover, but the rebound was relatively weak, leaving the May level below that in the fourth quarter of last year. Sales of both new and existing homes in May also were down from their respective fourth-quarter levels. In

Private Housing Starts



* April–May average.

addition, consumer attitudes toward homebuying have deteriorated somewhat since late winter.

Nonetheless, the level of sales and building activity in the single-family market has remained fairly high. Even with the rise in mortgage rates, new homes continue to be quite affordable by the standards of recent decades. A simple measure of affordability is the monthly payment on a fixed-rate mortgage for a new home with a given set of attributes, divided by average household income. By this measure, the cost burden of homeownership in the second quarter of this year was lower than at any time from mid-1973 to early 1992. Moreover, in response to the rise in long-term rates, an increasing share of households have financed home purchases this year with adjustable-rate mortgages; the lower initial rates on ARMs allow some households to obtain financing when they would be unable to qualify for a fixed-rate loan. As another support for housing demand, the strong labor market in recent quarters has lessened the perceived likelihood of job loss, encouraging many households to assume the financial commitment of homeownership.

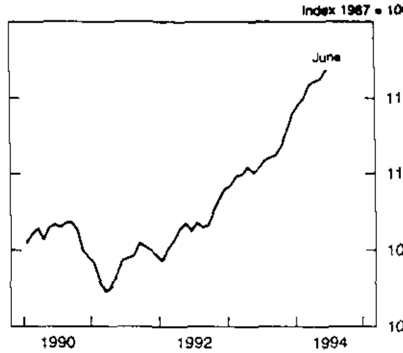
Starts of multifamily housing units this year have picked up from the extraordinarily low levels registered from 1991 through 1993. This rise likely reflects an improving balance between demand and supply in some local markets. Lenders have shown a greater willingness to fund multifamily projects, owing not only to the firming real estate market, but also to their own improved financial conditions; equity investors—including real estate investment trusts—also have been participating more actively in this market. However, for the nation as a whole, vacancy rates for multifamily rental units remain high, and rent increases have continued to be relatively small, suggesting that a major recovery in this sector is unlikely in the near term.

The Business Sector

Developments in the business sector remained favorable during the first half of 1994. Apart from losses from the Los Angeles earthquake, earnings have continued to be strong, and the repair of balance sheets over the past few years has improved the access to credit for many businesses. Fixed investment has moved up further, supported by widespread efforts to boost productivity.

Business output, excluding that in the farm sector, continued to increase at a brisk pace in the first quarter. In real terms, the gross domestic product of this sector rose at an annual rate of 4¼ percent in the

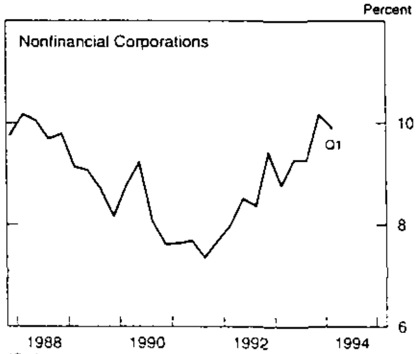
Industrial Production



first quarter, about the same rate of advance recorded in 1993. Focusing on the industrial sector—for which output data are available on a more timely basis—production advanced at an annual rate of 5 percent over the first half of 1994, with the strongest gains registered early in the year. This pattern largely reflects developments in the motor vehicle industry, where production rose sharply from last August to February of this year in response to strengthening demand and dwindling inventories. Since February, assembly rates have moved lower on a seasonally adjusted basis, as capacity constraints have hindered the automakers from achieving their normal seasonal gains. Excluding motor vehicles and parts, industrial production continued to advance strongly in the second quarter.

After rising sharply over 1993, the profits of U.S. corporations from current operations fell back in the first quarter of 1994. However, this decline in economic profits appears to have been due entirely to the effects of the Los Angeles earthquake and the severe weather last winter; these events greatly increased the volume of claims against insurance companies and also resulted in uninsured damage to plant and equipment. Abstracting from these losses, pre-tax economic profits in the first quarter rose slightly from the already high fourth-quarter level. Profits of nonfinancial corporations have been boosted by the strong growth in sales and by continued tight control of costs. For financial corporations, domestic profits surged over 1993 and remained high in the first quarter (after adjusting for the jump in insurance payouts), buoyed by the relatively wide margin between their cost of funds and the interest rates earned on their assets.

Before-tax Profit Share of Gross Domestic Product*



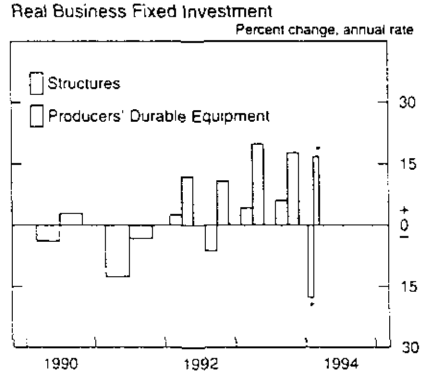
*Profits from domestic operations with inventory valuation and capital consumption adjustments divided by gross domestic product of nonfinancial corporate sector.

Real outlays for business equipment continued to rise rapidly in the first quarter, increasing about 17 percent at an annual rate. This was the eighth consecutive quarter with a double-digit advance. Monthly data through May on orders and shipments of business capital goods point to further sizable gains in real equipment purchases.

The increase in equipment investment this year has been quite broad, as firms have attempted to cut costs and improve product quality through the use of more advanced technology. Real outlays for computers and related devices climbed at an annual rate of 20 percent in the first quarter, reaching a level more than double that of three years earlier. Businesses have invested heavily in computers to take advantage of the increasingly powerful equipment available at ever lower prices. Outlays for industrial and other types of machinery, which turned up in the middle of 1992, continued to expand at a solid pace early this year. Business spending for motor vehicles also rose substantially in the first quarter, led by another large increase in purchases of trucks; these purchases likely *have been bolstered by improvements in the safety* and efficiency of new models and by the increased demand for shipping to support just-in-time inventory management. In contrast to this widespread strength in investment, domestic purchases of commercial aircraft dropped in the first quarter to a very low level, reflecting the excess capacity in the airline industry.

Business investment in nonresidential structures fell sharply in the first quarter, after having posted a moderate gain over 1993. Severe weather was responsible for the skid in activity during January and February. Construction spending then recovered during the spring, leaving the level in May about equal to that registered in December of last year. The absence of growth, on net, over this period might suggest that the sector has lost some momentum, quite apart from the effects of weather. However, the monthly construction data are prone to large revisions, which limits the information conveyed by the initial estimates. Two leading indicators of private nonresidential construction—permit issuance and contract awards—remained on a choppy uptrend through May.

Real Business Fixed Investment

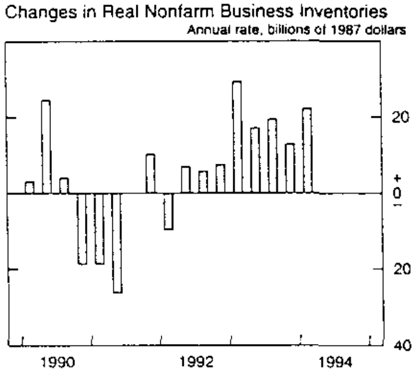


* Percent change, 1993:Q4 to 1994:Q1, at an annual rate.

Looking at the major components of nonresidential construction, some progress has been made in reducing the huge stock of unoccupied office space, and the plunge in prices for office properties appears to have abated. Nonetheless, the national vacancy rate remains high by historical standards, and starts of new office buildings continue to be limited. In contrast, outlays for commercial structures other than offices moved up smartly last year. Financing for these projects has become more readily available, and the proliferation of large-scale discount stores in suburban locations has been a major source of construction activity. In the industrial sector, utilization rates have risen considerably over the past year, but little sign has yet emerged of a significant rise in construction of new plants. Public utilities, according to surveys taken this spring, anticipate only a small rise in investment this year, in part because of the perceived difficulty in gaining approval for rate hikes and because of new rules requiring utilities to purchase power generated by other sources. Meanwhile, real investment in petroleum drilling structures fell somewhat in the first quarter to a level about unchanged from that of a year earlier.

Nonfarm inventory investment picked up substantially during the first five months of 1994 from the pace of late last year. Part of the pickup reflected efforts to replenish stocks at automotive dealers, which had been depleted during the third quarter of 1993. In addition, the rate of inventory accumulation increased this year for producers of machinery, likely in response to the robust orders for these goods. At the wholesale level, stocks of machinery and other durable goods increased considerably during the spring; the pace of stockbuilding in the retail sector spurted at about the same time.

Changes in Real Nonfarm Business Inventories



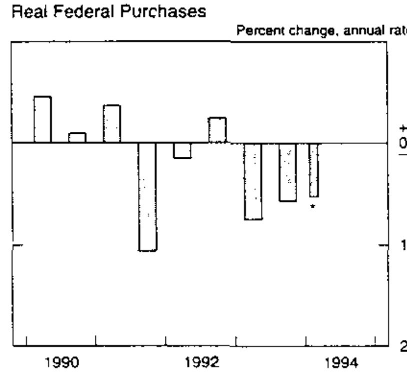
In the farm sector, output last year was depressed by floods in the Midwest and by drought conditions further east. As a result, inventories of some major field crops—principally corn and soybeans—are unusually low at present. This year, changes in government subsidy programs encouraged farmers to increase their planted acreage, and favorable weather during the spring facilitated rapid planting. Although the harvest is still several months away, field conditions appear to be reasonably good at present.

Farmers hurt by bad weather last year suffered income losses, and their financial positions may have weakened in some instances. Nonetheless, the financial condition of the farm sector as a whole appears to be sound. Delinquency rates on farm loans at the end of 1993 were quite low compared with the experience of the past decade, and land values rose noticeably last year across most of the farm belt. Reflecting these favorable conditions, investment in farm machinery has been relatively strong this year.

The Government Sector

Federal purchases of goods and services—the part of federal spending included in gross domestic product—fell at an annual rate of 5¼ percent in real terms in the first quarter. Real federal purchases have been trending down since the first half of 1991, and the level of outlays in the first quarter of this year stood roughly 12 percent below the peak reached three years earlier. This decline has been driven by the ongoing reduction in military outlays. Real defense spending plunged at an annual rate of about 15 percent in the first quarter, after declining more than 9 percent over 1993. Real nondefense outlays jumped in the first quarter, more than reversing the drop in late 1993; however, given the appropriations for nondefense spending in the FY1994 budget, these outlays are not likely to increase much further in the near term.

Real Federal Purchases



* Percent change, 1993:Q4 to 1994:Q1, at an annual rate

As measured in nominal terms in the unified budget, total federal expenditures during the first eight months of FY1994—the period from October through May—were only 2½ percent above the level during the comparable part of FY1993. Although the drop in defense spending has figured importantly in the overall restraint on outlays, other factors have contributed as well. First, substantial gains in income and the expiration of the emergency unemployment compensation program have tempered the growth of income security payments. Second, net interest payments on the national debt have been about flat thus far in FY1994, as a further decline in the average interest rate paid on federal debt has offset the effect of increases in the stock of debt. In addition, farm subsidy payments have fallen because of the rise in crop prices. The main stimulus to federal outlays still comes from spending on Medicare, Medicaid, and other health programs. Health-related outlays during the first eight months of FY1994 were up 10 percent from the same period in FY1993; this increase, although considerable, is a bit less rapid than that during 1993 and is much smaller than the increases registered from 1990 to 1992.

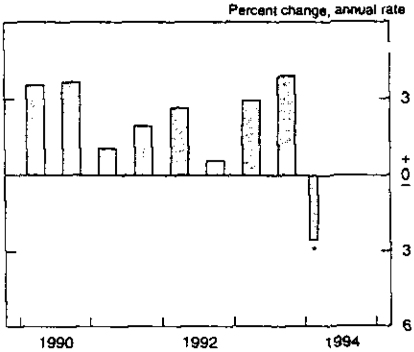
The growth of federal receipts was strong during the first eight months of FY1994, with all major categories posting solid gains. The 9¾ percent rise in receipts over the comparable part of FY1993 exceeded the increase in nominal GDP by a wide margin. Receipts from corporate income taxes have been especially robust, reflecting the upswing in corporate profits and various provisions of the 1993 Budget Act. Receipts from individual income and social insurance taxes have also been boosted by the tax hikes in the 1993 Act. In addition, revenues from excise taxes thus far in FY1994 are up markedly from the year-earlier level, due in part to the higher tax on transportation fuels that became effective last October.

As a result of the slow growth in federal outlays and the robust rise in receipts, the federal budget deficit narrowed during the first eight months of FY1994. The deficit, as measured in the unified budget, totaled $165 billion during this period, down from the $212 billion deficit recorded over the same part of FY1993.

In contrast to the improved budget picture at the federal level, the fiscal pressures facing state and local governments have not abated much. It is true that, for most states, receipts during the past year have matched or exceeded projected levels, as economic growth turned out to be somewhat more buoyant than anticipated. Even so, as measured in the national income accounts, the deficit (net of social insurance funds) in state and local operating and capital accounts has remained large. The $57 billion deficit during the year ended in the first quarter of 1994 amounted to 6¼ percent of the sector's expenditures, about the same percentage as in the preceding three years.

State and local outlays have continued to rise at a fairly rapid pace, despite the efforts to curb spending. Over the year ended in the first quarter of 1994, these outlays increased 6¾ percent in nominal terms, about 1 percentage point faster than the rise in nominal GDP. Transfer payments to individuals have remained the fastest growing component of state and local spending, reflecting large increases for Medicaid. Although the growth in Medicaid spending has slowed markedly from the 30 percent jump during 1991, these outlays still rose 13 percent over the year ended in the first quarter. In addition, state and local governments remain under pressure to fight crime, to repair aging infrastructure, and to meet the needs of a growing school-age population. Boosted by higher spending on highways and schools, outlays for construction rose almost 7 percent in real terms over the year ended in the first quarter. This rise occurred even though adverse weather depressed construction activity early this year, dragging down total state and local purchases in the first quarter in real terms. Apart from transfer payments and construction spending, state and local outlays—mainly compensation for employees—have continued to grow at a relatively slow pace.

Real State and Local Purchases



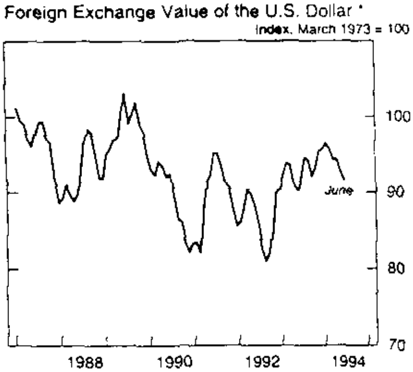
* Percent change, 1993:Q4 to 1994:Q1, at an annual rate.

The receipts of state and local governments moved up about 6½ percent in nominal terms over the year ended in the first quarter, also outpacing the growth in nominal GDP. As noted above, this outcome was somewhat better than most states had anticipated. In response, tax cuts are now on the agenda in about one-third of the states. However, most of these proposals are fairly narrow in scope and, in the aggregate, would have only a small effect on expected revenues.

The External Sector

Since December 1993, the trade-weighted foreign exchange value of the dollar has declined about 8 percent relative to the currencies of the other members of the G-10. In terms of the currencies of a wider group

Foreign Exchange Value of the U.S. Dollar *



* Index of weighted average foreign exchange value of U.S. dollar in terms of currencies of other G-10 countries. Weights are based on 1972–76 global trade of each of the 10 countries.

of major U.S. trading partners, the value of the dollar has dropped roughly 4 percent since last December, when adjusted for changes in consumer prices here and abroad. Taking a longer view, the exchange value of the dollar—adjusted for these price changes—has held within a rather narrow range since the end of 1992, despite the decline this year. (See section 3 of this report for a further discussion of developments in foreign exchange markets.)

Economic activity appears to be strengthening in the major foreign industrial countries. In Canada and the United Kingdom, where recovery has been under way for some time, real GDP continues to expand at a fairly steady pace. Continental European countries, most of which were in recession during 1993, are showing signs of a turnaround. Real GDP rose moderately in western Germany in the first quarter; although indicators suggest that growth during the second quarter may have slowed somewhat, economic activity continues to move back toward pre-recession levels. There is also some evidence of a turnaround in Japan: After no growth on net in 1993, real GDP moved up strongly in the first quarter; for the second quarter, the data point to continued, albeit slower, expansion.

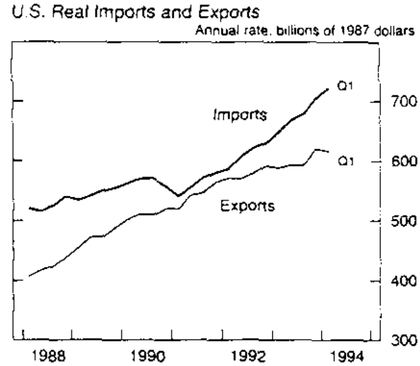
The level of real GDP remains substantially below potential in all of the major foreign industrial countries, and inflation generally has continued to slow. In western Germany, the twelve-month change in the consumer price index was 3 percent in June, down from more than 3½ percent at the end of 1993. In Japan, consumer prices rose less than 1 percent over the year ended in June, an even more modest increase than that recorded over the twelve months of 1993.

Jobless rates remain very high in France and drifted somewhat higher in western Germany over the first half of this year. The unemployment rate in Japan is essentially unchanged from its level at the end of 1993; the number of job offers per applicant, a more sensitive indicator of labor market conditions in Japan, also has shown no improvement since the end of last year. In contrast, in both the United Kingdom and Canada, the unemployment rate has continued to edge down from the peaks reached in mid-1993.

So far this year, growth in the major developing countries appears to have slowed slightly, on balance, from its rapid pace in 1993. The growth of real output in China has moderated from its previously very strong—and unsustainable—pace in response to tighter macroeconomic policy, while real growth in the other Asian developing countries has remained robust on average. Real output in Mexico has rebounded somewhat this year after the declines experienced during the second half of 1993. The rebound appears to have been due, in part, to the somewhat more expansionary fiscal policy in Mexico and to the ratification of the North American Free Trade Agreement, which resolved uncertainty that had held down investment activity during 1993.

After having surged in the fourth quarter of last year, real U.S. exports of goods and services fell back in the first quarter of this year, but remained about 4¾ percent above the year-earlier level. Preliminary data for April indicate that real exports moved somewhat above the first-quarter average. The uptrend largely reflects a boom in sales of capital goods; for other goods, and for services as well, exports have risen only slightly over the past year. Looking across

U.S. Real Imports and Exports

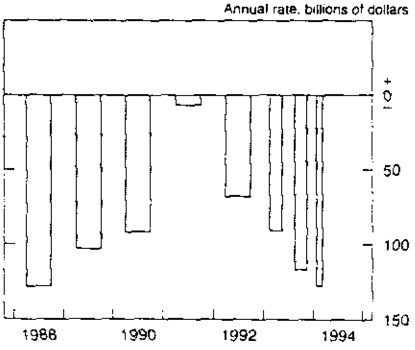


our major trading partners, exports to Canada and Latin America remained on an upward path through the first quarter. Although exports to Asia dropped back in the first quarter, they also remain on a strong upward trend. Exports to continental Europe continued to expand sluggishly through the first quarter.

Real imports of goods and services posted another sizable increase in the first quarter, reflecting the strength in U.S. economic activity. Over the year ended in the first quarter, real imports jumped more than 11 percent, and the level of imports in April stood somewhat above that in the first quarter. Imports of capital goods and industrial supplies have continued to be especially robust. Prices of non-oil imports rose relatively little over the year ended in May, as inflation abroad generally remained subdued and the dollar's foreign exchange value was little changed on net over this twelve-month period against the currencies of the other G-10 countries.

The nominal trade deficit on goods and services widened to $97 billion (at an annual rate) in the first quarter, significantly larger than in any recent quarter, and then remained at about that level in April. Net investment income showed a small deficit in the first quarter, somewhat weaker than the average performance in 1993. The current account deficit widened to $128 billion (at an annual rate) in the first quarter, compared with $104 billion for all of 1993.

U.S. Current Account



Recorded net capital inflows for the first quarter about balanced the current account deficit. Foreign official inflows slowed, particularly on the part of some developing countries that had substantial accumulations of reserves in 1993.

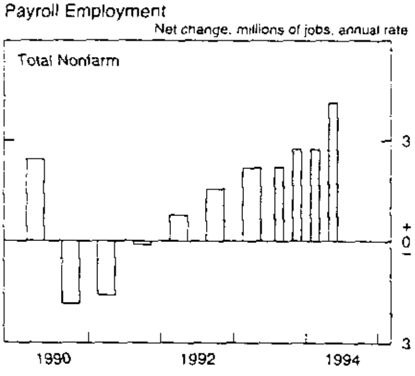
Net inflows of private capital into the United States picked up in the first quarter of 1994. Private foreign net purchases of U.S. securities were strong, as foreign investors added to their holdings of U.S. government securities, corporate bonds, and stocks. U.S. net purchases of foreign securities also remained very high in the first quarter. Banking offices in the United States reported substantial inflows, as foreign chartered banks, in particular, continued to substitute borrowing abroad for funding in the United States. Foreign branches of U.S. banks also became net providers of funds to their U.S. offices. Direct investment inflows and outflows were spurred by a revival of mergers and acquisitions. U.S. direct investment abroad continued at near-record levels; foreign direct investment in the United States was also significant, although far below the peaks reached in the late 1980s.

Labor Market Developments

The labor market continued to strengthen in the first half of 1994. Nonfarm payroll employment increased at an average rate of about 285,000 per month during this period, up from the average monthly gain of roughly 200,000 during 1993. These increases brought the total rise in payrolls to about 5 million since the beginning of the current expansion in early 1991.

The job gains this year have been spread across most major sectors of the economy. In manufacturing, employment turned up last October, and a choppy advance continued during the first half of 1994. The hiring has been concentrated in two industries that have experienced robust sales growth, machinery and

Payroll Employment



motor vehicles; payrolls also have expanded in industries that supply materials and parts to these producers. In contrast, employment in defense-related industries has continued to drop this year. Meanwhile, construction employment was held down early in the year by the severe weather, but then moved up sharply in March and April and rose somewhat further in May and June.

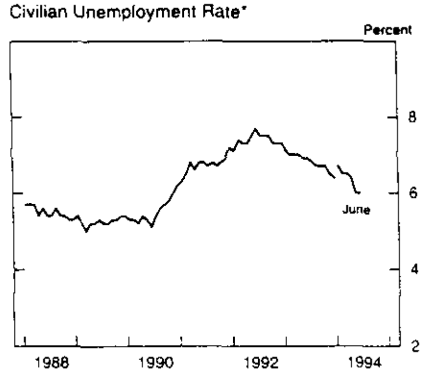
Considerable employment growth also has taken place this year in the service-producing sector. Continuing the pattern of recent years, employment in business services rose at a rapid clip in the first half of 1994. Employment in health services has remained on a fairly brisk uptrend, and job gains have been widespread in other service industries. Another area of strength has been wholesale and retail trade, where the sizable employment gains recorded during 1993 and again this year contrast with the absence of job growth on net over the preceding four years.

In addition to boosting the pace of hiring, employers have continued to rely on a longer workweek to increase aggregate labor input. Indeed, in April, the workweek of production or nonsupervisory workers in manufacturing reached a record high for the post-World War II period; it has since edged off only slightly. Prior to this expansion, the typical pattern had been for the workweek to rise as the recovery got underway, but then to drift back down with the eventual pickup in hiring.

Firms also have shown an increased preference for using temporary workers. In the employment data, these workers appear on the payrolls of personnel supply agencies (a component of business services), where employment growth continued to be extremely fast in the first half of 1994. Although these agencies represent only about 2 percent of total payroll employment, they accounted for more than 15 percent of the total rise in employment in 1993 and for nearly that share so far this year. Manufacturing firms, in particular, have increased their use of temporary workers. Both the growing employment of temporary workers and the rise in the workweek may be motivated, in part, by the desire to avoid the rising costs of health insurance and other fringe benefits for new permanent workers. Moreover, given the greater costs now associated with hiring and firing employees, such behavior may be a response to uncertainty about future staffing needs.

In January, the introduction of the redesigned household survey, along with the incorporation of population estimates from the 1990 Census, created a break in the household measure of employment, the

Civilian Unemployment Rate*



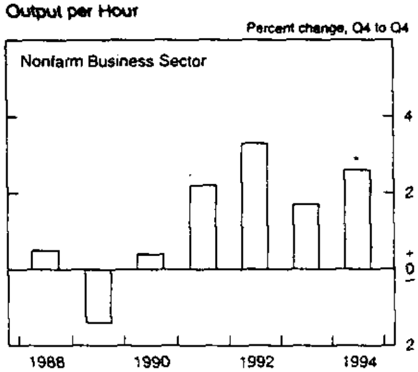
* Data after December 1993 are not consistent with earlier data because of major revisions to the survey from which the series is generated.

civilian unemployment rate, and numerous other series. Nonetheless, the decline in the unemployment rate from 6.7 percent in January to 6 percent in June provides additional evidence of strong labor demand this year. On a regional basis, unemployment rates have generally moved lower since January, and the dispersion across regions also has narrowed; the declines since January have been largest in California and other states in the Pacific region and in New England.

The strength in hiring has not drawn many workers into the civilian labor force. In fact, between January and June, the labor force contracted a bit, pushing down the labor force participation rate—which measures the percentage of the working age population that is either employed or looking for work. The participation rate has changed little on net during the current expansion, in contrast to the upswing that typically occurs with a strengthening of labor demand. Although the reasons for this departure from the usual pattern are not entirely clear, more young women appear to be opting for activities outside the labor market, and survey data reveal that many individuals still perceive jobs as hard to find, which may limit their desire to search for employment.

Output per hour in the nonfarm business sector rose at an annual rate of 1¼ percent in the first quarter, after advancing at a far more rapid pace over the second half of 1993. Averaging through these movements, labor productivity rose about 2½ percent over the year ended in the first quarter of 1994, roughly in line with the increases during the first two years of the current expansion. Most of the productivity gain over

Output per Hour



* Percent change, 1993:Q1 to 1994:Q1.

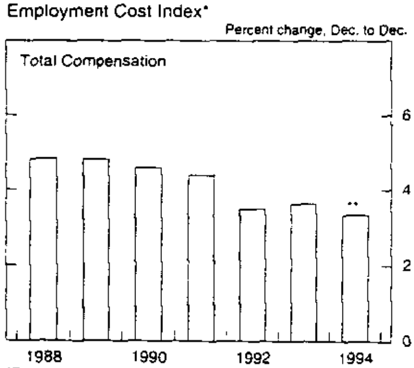
this three-year period likely reflects the normal cyclical upswing that accompanies the strengthening of output after a recession. Nonetheless, there does appear to have been some speed-up in the trend rate of productivity growth from the relatively slow pace in the 1970s and 1980s.

The growth in labor compensation remained subdued early this year. The employment cost index (ECI) for private industry—a measure that includes both wages and benefits—rose 3¼ percent over the year ended in March 1994, a shade below the increase registered over the preceding twelve months. The cost of employee benefits decelerated quite a bit over the past year, due largely to more moderate increases in employer costs for health insurance and workers' compensation. In contrast, wage increases have held fairly stable. The ECI for wages and salaries rose almost 3 percent over the year ended in March, a figure at about the midpoint of the twelve-month changes recorded over the past two years. Separate data through June on average hourly earnings of production or nonsupervisory workers also show no significant change in the rate of wage inflation. With the rise in labor compensation largely offset by improvements in productivity, unit labor costs in nonfarm business rose only a little more than ½ percent over the year ended in the first quarter of 1994.

Price Developments

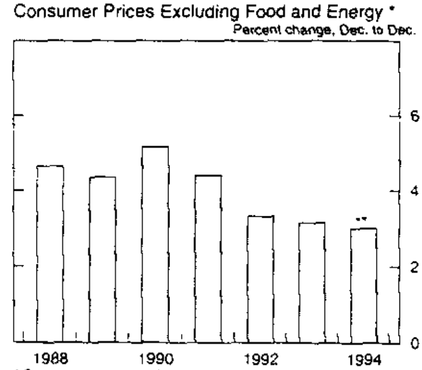
Inflation slowed slightly further during the first half of 1994. The CPI excluding food and energy—a measure of the underlying trend of inflation—rose 3 percent during this period, down a bit from the 3¼ percent increases recorded in 1992 and 1993. "Core" inflation has not been this low for an extended period since the early 1970s, when wage and price controls were in place; apart from that episode, the core inflation rate over a twelve-month span was last below 3 percent in 1966. Food prices have risen only slightly this year, and energy prices have been flat on net, holding the increase in the total CPI over the first half of the year to 2½ percent at an annual rate. Price pressures have been evident in the markets for raw materials, but these increases have not had an obvious effect on inflation at the retail level.

Employment Cost Index*



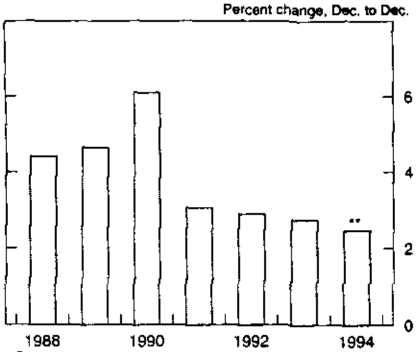
*Employment cost index for private industry, excluding farm and household workers.
** Percent change, March 1993 to March 1994.

Consumer Prices Excluding Food and Energy *



* Consumer price index for all urban consumers.
** Percent change, December 1993 to June 1994.

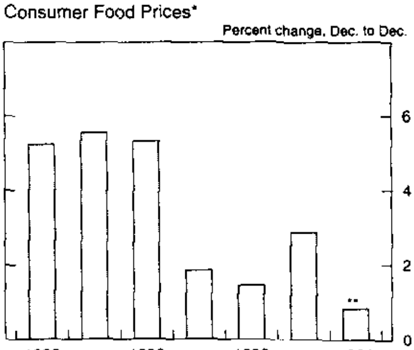
Consumer Prices *



* Consumer price index for all urban consumers.
** Percent change, December 1993 to June 1994.

The news on food prices so far this year has been quite favorable. After having risen at close to a 4 percent annual rate during the second half of last year, the CPI for food edged up at an annual rate of less than 1 percent over the first half of 1994. This moderation largely reflects a decline in prices for fruits and vegetables over the first few months of the year, which retraced much of the runup that occurred over the second half of 1993. In addition, plentiful supplies of beef and pork pushed down retail meat prices a bit on balance over the first half of 1994. Prices for other foods—which represent about two-thirds of total food in the CPI—increased at an annual rate of 2¼ percent during the first half of the year. Looking ahead, the path for retail food prices will depend heavily on the outcome of this year's harvest. As discussed above,

Consumer Food Prices*

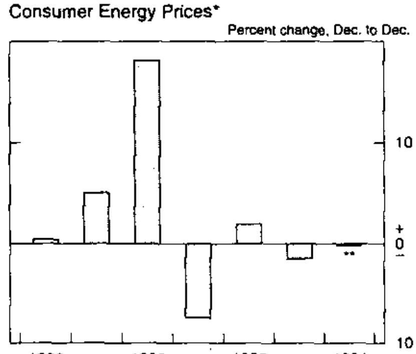


* Consumer price index for all urban consumers.
** Percent change, December 1993 to June 1994.

planting proceeded fairly smoothly this spring, and crops generally were in good condition as of mid-July.

The CPI for energy was about unchanged on balance over the first half of 1994, but this measure has yet to reflect the rise in crude oil prices since March. As the year began, consumer energy prices were still on a downward path, owing to the persistent oversupply of crude oil in world markets. Energy demand then soared when the frigid weather hit in January and February, depleting inventories of fuel oil, gasoline, and natural gas. In response, the CPI for energy jumped in February and rose slightly further in March, but most of this increase was reversed in April and May. Quite apart from any effects of abnormal weather, world oil markets have tightened since March, boosting the price of crude oil by as much as $6 per barrel. This increase appears to have resulted from the expectation of improved economic conditions—and hence stronger demand—in Western Europe and Japan, combined with flat OPEC production and supply disruptions in the North Sea and other areas. Retail energy prices were little changed in June, but the higher crude costs are likely to be passed through to the retail level over the summer.

Consumer Energy Prices*



* Consumer price index for all urban consumers.
** Percent change, December 1993 to June 1994.

The CPI for commodities excluding food and energy increased at an annual rate of 2½ percent over the first half of 1994, a somewhat faster rise than during 1993. However, the increase last year was held down by a huge price drop for tobacco products. Excluding tobacco, as well as food and energy, goods prices rose at an annual rate of 2¼ percent during the first half of this year, about the same rate of advance as in 1993. Price increases for most consumer commodities have been modest this year, due in part to the very limited increases in the prices of imported goods. The only major area in which prices have clearly accelerated is motor vehicles. Reflecting strong demand and the weakness of the dollar vis-à-vis the yen, the CPI for new motor vehicles rose 4¾ percent over the first half of 1994, up from the 3¼ percent increase during 1993.

Inflation for consumer services other than energy has continued to trend lower. During the first half of the year, the CPI for this aggregate rose at an annual rate of 3¼ percent, after increases of nearly 4 percent in 1992 and 1993 and 4½ percent in 1991. Shelter costs—which represent about half of non-energy services—have continued to rise at a relatively subdued rate, while price increases have slowed in a variety of other areas. Indeed, the CPI for medical care services rose only 5 percent over the year ended in June, the smallest twelve-month change in this series in twenty years. Tuition costs, which posted increases of 8 to 9 percent annually for several years, have decelerated as well, rising 6¾ percent over the year ended in June.

The producer price index for finished goods excluding food and energy, which covers domestically produced consumer goods and capital equipment, rose only ½ percent over the year ended in June 1994. As with the CPI, this measure of inflation has been held down by the plunge in tobacco prices; excluding tobacco, the 1¾ percent rise over the past year was about the same as that over the preceding twelve months. At earlier stages of processing, price increases have remained fairly small on balance. The PPI for intermediate materials excluding food and energy rose 2 percent over the year ended in June, after an increase of 1½ percent over the preceding year.

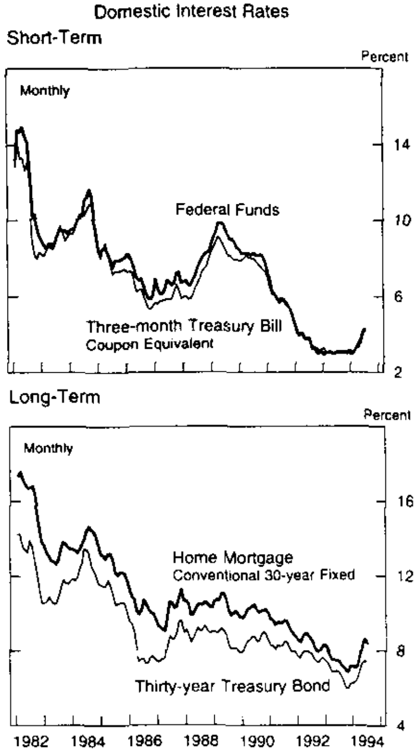
In contrast, inflation pressures continue to be evident in the markets for raw commodities. With the exception of steel scrap, prices of industrial metals have moved up from their lows last fall, in some cases quite substantially. Lumber prices, which have swung widely over the past few years, have been at relatively high levels for most of this year. Prices of other raw materials have been firm as well. As a summary measure of these movements, the PPI for crude materials excluding food and energy rose about 7 percent over the year ended in June. However, crude materials constitute a relatively small part of the value of finished goods, and price increases for these inputs usually have a limited effect on the prices of finished goods in the absence of more general cost pressures.

Expectations of inflation appear to have changed little on net since the end of 1993. According to the survey of households conducted by the Survey Research Center of the University of Michigan, the mean expected increase in the CPI over the coming year rose from 3¾ percent in the fourth quarter of 1993 to 4½ percent in March and April; however, the readings for May through early July dropped back to an average of about 4 percent. In the Conference Board survey of households, the expected rate of inflation over the coming year has held fairly steady at 4¼ percent since last November. Expectations of inflation over longer periods also have not changed much on balance this year. In the University of Michigan survey, the expected rate of CPI inflation over the next five to ten years jumped in March, but has since retraced the increase. Finally, the June 1994 survey of professional forecasters conducted by the Philadelphia Federal Reserve Bank produced the same expectation of inflation over the coming ten years—3.5 percent—as did the survey taken last December.

Section 3: Monetary and Financial Developments in 1994

Interest rates have increased substantially in 1994. Short-term rates started the year at the unusually low levels that prevailed throughout 1993, but they have subsequently risen in response to the Federal Reserve's monetary policy actions and market expectations about future actions. The Federal Reserve has moved away from its previously very accommodative policy posture in four steps, which lifted the federal funds rate a total of 1¼ percentage points. Other short-term rates increased commensurately, and banks raised their prime lending rate, also by 1¼ percentage points.

Domestic Interest Rates



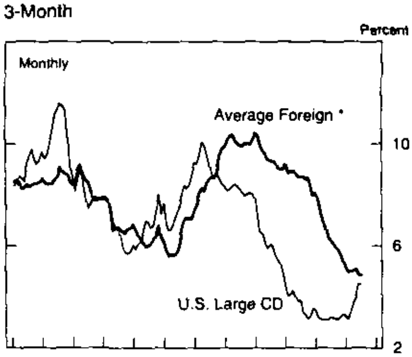
Longer-term interest rates have risen about 1¼ to 1¾ percentage points. These rates have been boosted by stronger-than-expected economic growth, market concerns about higher inflation, and actual and anticipated tightening moves. In addition, a shift in the financial setting, from one marked by yields that were stable or declining to one characterized by rising rates, was accompanied by greater market volatility and a reevaluation of the risks and returns on long-term securities. Investors seemed to become more uncertain about the future path of interest rates, and the resulting portfolio shifts and volatility have contributed to the upward pressure on long-term yields.

Despite the rise in interest rates, overall borrowing has remained fairly strong. The composition of private borrowing, however, has been affected by financial market conditions. Businesses, in particular, have reduced their issuance of long-term debt and stepped up their use of bank loans. Nonetheless, overall bank lending has increased only slightly, as growth in real estate loans has slowed. The expansion of bank securities holdings, after adjusting for certain accounting rule changes, has eased slightly, and bank credit growth has remained close to the pace recorded last year. Higher short-term market interest rates have also restrained the growth of the monetary aggregates. Growth in the broader aggregates has slowed somewhat from last year, and M1 has decelerated substantially.

Since December 1993, the dollar has declined about 10 percent against the German mark and about 11 percent against the Japanese yen, although it has appreciated against the Canadian dollar. Over the same period, stronger growth prospects abroad as well as portfolio adjustments by globally diversified investors have lifted long-term interest rates in the G-10 countries about 1½ percentage points, similar to the rise in U.S. longer-term yields. By contrast, foreign short-term rates, which largely reflect the thrust of monetary policy in individual countries, are about unchanged on a trade-weighted basis; rates have declined substantially in Germany and a number of continental European countries, have changed little in Japan, and have risen more in Canada than in the United States. Dollar weakness against the yen and mark was intense from time to time and seemed to reflect, in part, difficulty in resolving trade tensions, changing expectations about macroeconomic developments in Japan and Germany, and investor concerns that U.S. inflation prospects were no longer improving while inflation abroad seemed likely to continue to move lower. On three occasions when conditions warranted, the U.S. Treasury and the Federal Reserve intervened to buy dollars.

U.S. and Foreign Interest Rates

3-Month



*Multilateral trade-weighted average of comparable bank rates in the other G-10 countries.

10-Year

*Multilateral trade-weighted average of comparable government bond yield in the other G-10 countries.

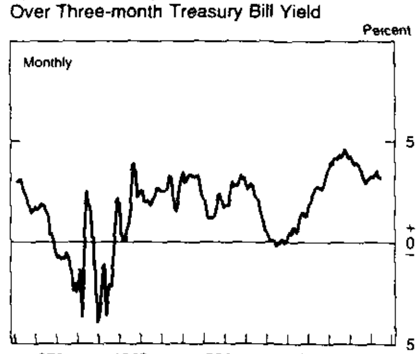
The Course of Policy and Interest Rates

At the beginning of 1994, financial markets had been characterized for several years by falling and then persistently low short-term interest rates, declining long-term rates, and unusually wide spreads between long- and short-term yields. Moreover, the volatility of bond prices had been quite low by recent historical standards. In this environment investors had taken on riskier assets in pursuit of higher returns. For example, small investors had switched out of low-yielding, but low-risk, assets, such as deposits and money market mutual funds, and into such investments as bond and equity mutual fund shares.

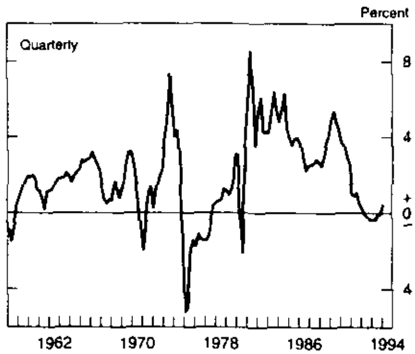
In February, when the Federal Open Market Committee gathered for its first meeting of the year, the available data suggested that the economic expansion was solid and self-sustaining. Spending had picked up considerably, partly reflecting declines in long-term interest rates and the improved financial condition of businesses and households. Short-term interest rates had been at historically low levels for some time, measured both absolutely and relative to inflation, and banks and other lenders had been loosening their terms and standards for extending credit. In this environment, the Committee was concerned that keeping policy so accommodative risked elevating demands on productive capacity to the point where inflation pressures might emerge. Even though current inflation readings were favorable, delaying a policy move until these indicators signaled an actual acceleration of prices would permit an inflationary process to become embedded in the economy. In that event, larger and possibly disruptive actions eventually would be needed to bring inflation back under control. Against this backdrop, the Committee decided to take steps toward eliminating the considerable degree of monetary accommodation that had prevailed for some time.

When discussing how to implement this decision, the FOMC considered the possible reaction of financial markets. Market participants, while anticipating that interest rates would rise at some point, generally did not expect a tightening of policy at this meeting. The Committee was concerned that the capital losses engendered by the firming action might unsettle many investors, who had not faced a policy firming in nearly five years and whose portfolio choices in some

Spread of Thirty-year Treasury Bond Yield Over Three-month Treasury Bill Yield



Real Federal Funds Rate *

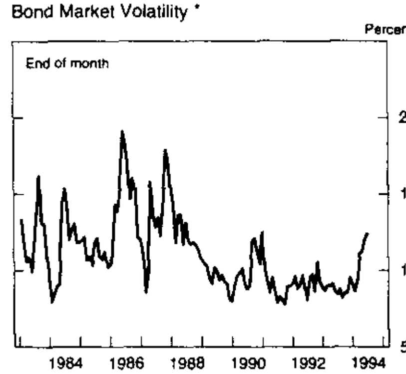


* Real federal funds rate is the nominal federal funds rate minus the change in the CPI less food and energy over the last four quarters.

cases seemed not to anticipate the consequences of rising rates. In these circumstances, the response to the policy action might be outsized, especially if a large adjustment were made. Consequently, the Committee decided to initiate its move toward a less accommodative stance with a small step, although it thought that additional firming steps likely would be necessary in the months ahead. The FOMC instructed the Domestic Trading Desk to increase slightly the degree of pressure on reserve positions and authorized the Chairman to announce the action in order to avoid any misinterpretation of its action or purpose. The tightening of reserve conditions pushed up the federal funds rate by about 1/4 percentage point, to a range around 3 1/4 percent.

Although the structure of market interest rates had built in a policy firming in the months ahead, the timing of the move caught many market participants by surprise and, by itself, seemed to precipitate a substantial shift in expectations. When the move was followed by information indicating a much stronger path for U.S. economic activity than had been anticipated and by an associated heightening of concerns about inflationary pressures, short- and long-term interest rates moved sharply higher throughout the remainder of the winter. International developments, such as trade tensions, improving foreign economic prospects and rising long-term interest rates, and a declining value of the dollar, also may have played a role in elevating yields by raising investor concerns about price pressures in the United States and about foreign investor appetite for dollar-denominated assets. Rates were volatile on occasion, owing to shifting perceptions about the future course of economic and financial developments. Market participants generally believed that the System's firming action was the first of a series, but they were unsure of the timing and cumulative magnitude of future policy steps. This heightened uncertainty, as well as the capital losses in the wake of the firming action, prompted market participants to reduce their risk exposure by attempting to shorten the maturities of their investments and by trimming the degree to which positions were leveraged. They sold long-term assets denominated not only in dollars but in other currencies as well. This rebalancing of portfolios contributed to sharp rate swings and may have exacerbated the upward pressure on long-term interest rates, both in the United States and abroad.

Bond Market Volatility *

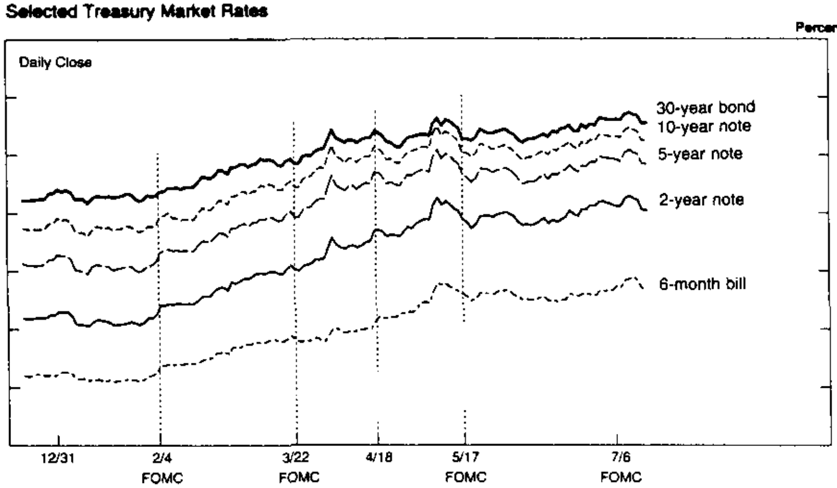


* Expected volatility derived from prices of options on Treasury bond futures.

When the Committee convened in mid-March, the evidence suggested that the expansion in economic activity remained robust. There was a small risk that the weakness and volatility in financial markets might have significantly affected household and business confidence and spending. But, the Committee believed that, on balance, its policy stance still was overly accommodative and likely to promote inflationary pressures. The FOMC therefore decided to continue the process begun in February to remove the excess degree of monetary accommodation and, in light of recent financial market conditions, it chose to take another small step. The resultant increase in reserve pressures lifted the funds rate by 1/4 percentage point, to about 3 1/2 percent.

Data released over the next several weeks indicated considerable strength in economic activity. Yields increased across the maturity spectrum, with long-term rates rising especially sharply into early April

Selected Treasury Market Rates



* Dotted vertical lines indicate days on which a monetary policy move was announced.

before settling back somewhat. On April 18, the FOMC reviewed the incoming data, as well as the apparently more stable conditions in financial markets, during a telephone consultation. Following that review, Committee members supported the Chairman's decision to continue the process of reducing the degree of monetary accommodation. Reserve pressures were tightened slightly further, and the federal funds rate again rose by ¼ percentage point.

Yields continued to increase, on balance, through mid-May. Short-term rates were affected by expectations of additional firming actions, while long-term rates were subject to countervailing forces. Incoming data that showed signs of a possible cooling in the pace of the economic expansion, favorable price reports, and more stable trading conditions helped to push bond yields down for a time. Later, however, a falling dollar, especially in late April and early May, and the release of a stronger-than-expected employment report caused long-term yields to retrace some of the earlier decline.

Despite the earlier firming actions, real short-term rates were still fairly low at the time of the May FOMC meeting. The economy continued to exhibit forward momentum and a considerable portion of the remaining margin of slack in resource utilization had eroded. In financial markets, many of the more risk averse investors had made the initial portfolio adjustments to a rising rate environment. Under these circumstances, the Federal Reserve thought that conditions warranted eliminating much of the remaining degree of monetary stimulus. The Board of Governors, therefore, approved an increase in the discount rate to 3½ percent, from 3 percent, and the FOMC directed the Domestic Trading Desk to permit the entire ½-percentage-point rise to show through to the federal funds rate, which moved up to 4¼ percent. These moves, along with the three earlier steps, were judged to have substantially removed the degree of monetary accommodation that had prevailed throughout 1993. Still, the FOMC would have to monitor incoming financial and economic data carefully to determine whether additional policy adjustments were needed to accomplish its objective of maintaining favorable trends in inflation and thereby sustaining the economic expansion.

Long-term interest rates dropped immediately following the May 17 policy moves, but, since that time, they have retraced the decline. Market participants initially interpreted the Federal Reserve's policy announcement as signaling that it had completed its firming actions, at least for a while. In addition, investors apparently viewed the actions as reducing the degree and frequency of tightening that might be needed in the future. Long-term yields, however, began to move up in June, reflecting the further depreciation of the dollar, intermittent jumps in commodities prices, less sanguine inflation reports, and rising foreign long-term interest rates.

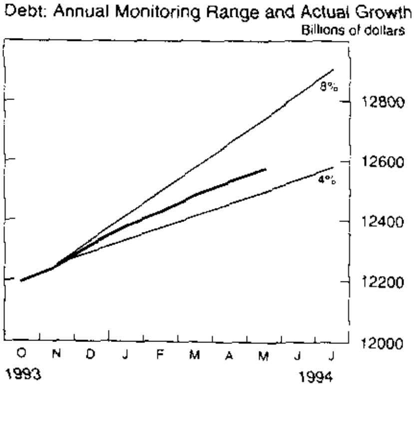
At the time of the July FOMC meeting, data on employment and hours worked suggested that the economy was still growing at a brisk rate, and there remained a risk that an inflationary process could begin to build. However, data on spending showed some signs of a moderation, and growth in money and credit had not picked up. In these circumstances, the Committee decided to maintain the existing degree of reserve pressure and await additional information to judge the trajectory of the economy and prices and the appropriateness of its policy stance.

Credit and Money Flows

Since mid-1993, credit expansion has picked up as the economy has strengthened and the restraint exerted by financial restructuring has ebbed. Lower debt-service burdens and improved balance sheets have encouraged businesses and households to take on new debt, while stronger capital positions and more robust economic conditions apparently have made banks and other lenders more willing to extend credit. Growth of the debt of nonfederal nonfinancial sectors (nonfinancial businesses, households, and state and local governments) picked up in the second half of 1993 and has increased a bit more this year—to a 5 percent annual rate. Total domestic nonfinancial sector debt, which includes the debt of the federal government, rose at a 5¼ percent annual rate between the fourth quarter of last year and May, close to its pace over the second half of 1993 and a little below the midpoint of its monitoring range of 4 to 8 percent.

Rising market interest rates and less hospitable capital market conditions have affected the growth and composition of borrowing by nonfinancial businesses. The debt of such firms has expanded at a somewhat faster pace in 1994, after three years of very little growth, in part reflecting a shift away from equity issuance as stock prices fell. Moreover, rising and more volatile interest rates have played a role in discouraging businesses from issuing long-term debt securities. Such issuance had been strong in 1993 as businesses took advantage of relatively low interest rates to refinance high-rate longer-term debt and replace shorter-term debt, such as bank loans. In 1994, however, businesses have turned more to banks and finance companies to meet their financing needs.

Debt: Annual Monitoring Range and Actual Growth

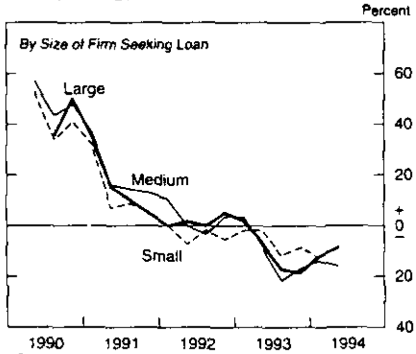


Interest rate developments have also affected borrowing by households. The growth in household mortgage debt has slowed a bit from the pace recorded in the second half of 1993, reflecting the rise in mortgage rates that began late in that year. Higher rates have curbed refinancing, a practice that tended to boost mortgage debt growth as some borrowers took the opportunity to liquefy some of the capital in their homes. In contrast to the behavior of mortgage debt, consumer credit growth has remained brisk, reflecting strong demand for consumer durable goods and relatively attractive rates on many consumer loans. Generally, rates on such loans have risen much less than market rates. Consumer credit at finance companies and at banks have both picked up in 1994.

Total loans at commercial banks have risen at about a 4¼ percent annual rate, a bit above last year's pace. The faster growth of business and consumer loans has been offset by slower expansion of other types of loans, such as those for real estate. In addition, security loans have dropped off as the more subdued pace of debt issuance and the paring of dealer long positions in a rising rate environment has reduced dealer financing needs.

The expansion of bank lending in 1993 and 1994, following two years of virtually no growth, has reflected not only stronger loan demand, but also an increased willingness on the part of banks to make loans. This heightened desire to extend credit stems from the improved financial condition of banks as well as their borrowers. In the early 1990s, banks had been pressed by balance-sheet problems and the need to meet more stringent capital-asset ratios. By early 1993, however, the capitalization ratios of many banks were considerably stronger, and they have continued to improve since then as banks issued sizable volumes of equity and retained a high proportion of their record earnings. In mid-1993, some banks began to report an easing of their standards and terms for

Changes in Bank Lending Standards
for Business Loans *



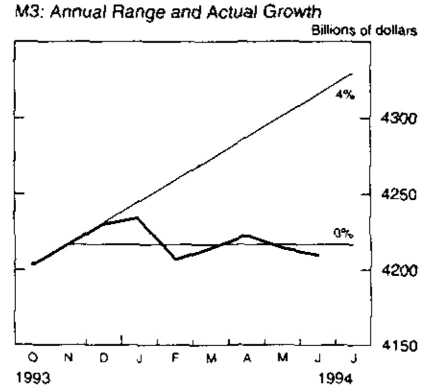
* Percentage of domestic loan officers tightening standards less percentage easing standards.
Source: Federal Reserve surveys of senior loan officers regarding bank lending practices.

business loans and residential mortgages, and this easing has continued, albeit at a reduced rate, into the first two quarters of 1994.

Measured growth in holdings of bank securities this year has been affected by two accounting changes. One change affects how banks report, on their balance sheets, the fair market value of off-balance-sheet items. Banks are no longer permitted to net positions in these items across customers; this change has appreciably boosted the "other securities" component, where these positions are booked. The other change in accounting rules requires banks to value at market prices those securities that they do not plan to hold to maturity. With the decline in securities prices this year, the requirement of "marking to market" likely has restrained the measured growth of bank securities portfolios, although to an uncertain extent. Abstracting from these special factors, growth in bank securities holdings likely has slowed slightly further in 1994. This slowing has been about offset by the pickup in loan growth, leaving underlying bank credit growth close to the pace recorded last year. Meanwhile, thrift institution credit has resumed expanding this year, albeit modestly, after declining over the past five years. Expansion at credit unions has been robust, while the contraction of the remainder of the thrift sector has slowed somewhat further.

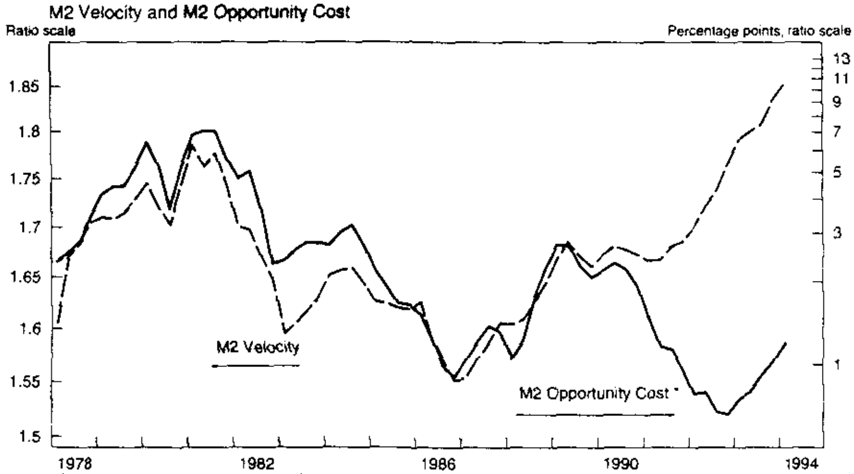
Despite the expansion of depository credit, the broadest monetary aggregate, M3, has edged a bit lower since the fourth quarter of last year, as depository institutions have chosen to fund growth in assets with nondeposit sources. In June, M3 was around the bottom of the 0-to-4 percent growth range established by the FOMC, and its velocity seems to be increasing faster this year than in 1993. The weakness in M3 partly reflects an exodus of investors from institution-only money market mutual funds, whose returns have lagged the rise in market rates. M3 has also been held back by declines in large time deposits. The runoff in this component has been concentrated at U.S. branches and agencies of foreign banks, which have stepped up their borrowings from affiliated foreign offices. Domestic banks have also boosted such borrowings. In December 1993, domestic banks, for the first time, borrowed more from their foreign affiliates than they lent to them. This net borrowed position has expanded considerably since that time. Apparently, weaker credit demands abroad have held down the costs of borrowing overseas relative to the costs of obtaining funds in the United States.

M3: Annual Range and Actual Growth



M2 growth has slowed a bit in 1994, and its velocity appears to have registered another sizable increase. The major factor behind the rise in velocity this year has been higher short-term market interest rates. In the usual pattern, the increases in rates paid on M2 deposits and money market mutual funds have lagged behind the rise in market rates, boosting the earnings forgone (opportunity costs) by holding the components of M2 and thus inducing shifts out of the aggregate. For example, noncompetitive bids at Treasury auctions have increased sharply this year, and some of the funds likely were drawn from the instruments included in M2. Moreover, the composition of M2 has been affected by the varying speed with which rates on different components have adjusted to higher market yields. Rates on money market mutual

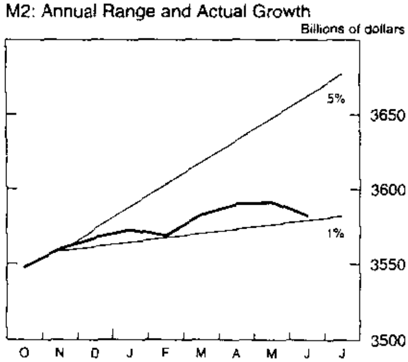
M2 Velocity and M2 Opportunity Cost



* Two-quarter moving average of 3-month Treasury bill rate less average rate paid on M2 components.

funds and retail certificates of deposit (CDs) have moved up considerably since February, while rates on liquid deposits, such as savings and NOW accounts, have been virtually unchanged. Partly as a consequence, money market mutual funds have risen, small CDs have turned around, and the expansion of liquid deposits has languished. From the fourth quarter of 1993 through June, M2 expanded at a 1¼ percent annual rate, placing this aggregate around the lower bound of the 1-to-5 percent growth range set by the FOMC.

M2: Annual Range and Actual Growth

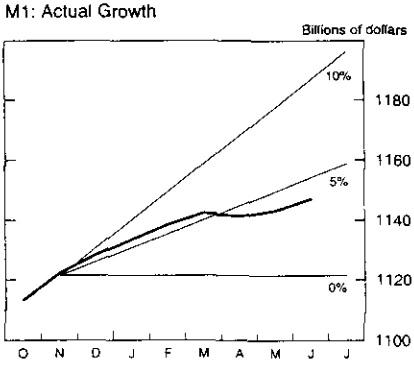


The depressing effect of higher interest rates on M2 was offset for a time by flows from bond and equity (or long-term) mutual funds into money market mutual funds. Declining securities prices and higher volatility prompted households to reconsider their investments in long-term mutual funds and encouraged many to liquidate some of their bond and equity mutual fund holdings. Over the March-to-May period, households pulled more money out of bond funds than they invested. A portion of the proceeds from the redemptions likely was placed in money market mutual funds, which grew quite rapidly. As changes in securities prices became more subdued in late May, flows into long-term mutual funds began to pick up, but they have remained weak by the standards of recent years. Shifts from M2 into direct holdings of securities, such as Treasury bills, as well as the capital losses on long-term mutual funds, have damped the growth of a measure that adds to M2 the net assets of mutual funds not held by institutional investors or in retirement accounts. This series has grown at an estimated 1 percent pace this year, well below its 5½ percent advance in 1993. Its velocity therefore also has increased, after several years of rough stability.

M1 growth has been restrained by wider opportunity costs as well as some special factors. From the fourth quarter of last year through June, M1 expanded at about a 4 percent annual rate, less than half of its 10½ percent rise in 1993. M1 velocity, which fell at a

5 percent rate last year, appears to have increased this year. The growth in M1 has primarily stemmed from the continued rapid rise in currency, as overseas demand has remained robust and domestic demand has expanded with sales. In contrast, increases in transactions deposits have been quite weak. Growth of demand deposits, which pay no interest, has been reined in by higher market rates, the associated rise in earnings credits on compensating balances, and a drop-off in mortgage refinancings. Refinancings boost liquid deposits—especially demand deposits—because they are accompanied by a temporary parking of funds in such an account; however, as the volume of refinancings declines, deposits return to more normal levels. Rate spreads have also depressed the growth of other checkable deposits, whose offering rates have changed little since the beginning of the year. In addition, growth has been restrained by a large bank's introduction of a program that sweeps excess balances out of NOW accounts and into money market deposit accounts. (The program, therefore, has no impact on M2.) The anemic expansion of transactions deposits has contributed to a decline in total reserves. This reserve measure has contracted at a 1¼ percent rate so far this year, a stark contrast with its 12 percent expansion in 1993. The continued strong demand for currency has propped up growth of the monetary base, whose growth has slowed only slightly this year, to a 9¼ percent rate.

M1: Actual Growth



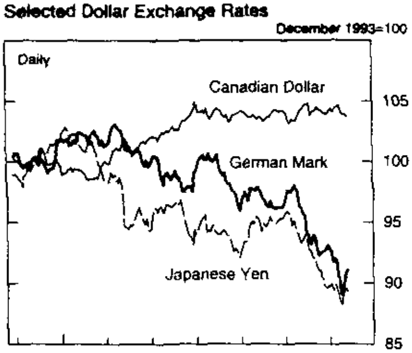
Foreign Exchange Developments

After starting the year with a firm tone, the dollar declined on balance from February through late April. The dollar was supported initially by market expectations that it would rise over the near term as the U.S. economy strengthened and U.S. interest rates rose, in contrast to expected developments abroad. Following the FOMC's firming action on February 4, the dollar rose only modestly and briefly, in part because foreign long-term rates increased with U.S. rates. In the weeks that followed, the dollar weakened with respect to the yen, especially in mid-February, when market participants became more concerned about the sizable external surpluses in Japan in the wake of the lack of progress in the framework talks between the United States and Japan. The dollar also came under downward pressure against the German mark, particularly in February and March. Continued strong growth in German M3, amid signs of economic revival, suggested that further sizable cuts in German and other European rates were not as likely as had been previously thought, and long-term rates in these countries increased further. In early April, the dollar came under renewed downward pressure in terms of the yen. The resignation of Prime Minister Hosokawa rejuvenated concerns that progress on negotiations to open Japanese markets would stall and that plans to stimulate the Japanese economy would not be implemented.

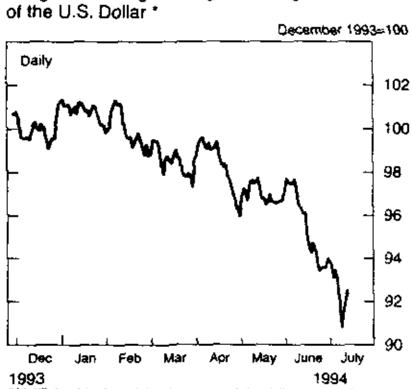
Market sentiment against the dollar became particularly strong in late April and early May, in sometimes disorderly markets. On April 28, with U.S. bond prices falling, the dollar approached its post-war low against the yen in thin trading and, on the following day, it started to drop sharply against the mark as trading became more volatile. In response, the Foreign Trading Desk at the Federal Reserve Bank of New York entered the market and purchased dollars against both marks ($500 million) and yen ($200 million). Treasury Secretary Bentsen confirmed the intervention and explained that it was prompted by disorderly market conditions. The dollar briefly recovered, but resumed falling over the next several days. On May 4, the U.S. Treasury and the Federal Reserve joined other monetary authorities in substantial, coordinated intervention in support of the dollar. Secretary Bentsen again confirmed the intervention and said it was in response to exchange market developments that were inconsistent with economic fundamentals. These actions stemmed the slide of the dollar and contributed to a partial recovery over the subsequent two weeks.

The dollar fluctuated in a narrow range following the May 17 policy actions by the Federal Reserve, but it later lost ground. The Federal Reserve's May policy

Selected Dollar Exchange Rates



Weighted Average Foreign Exchange Value of the U.S. Dollar *



*Multilateral trade-weighted average of the dollar against the currencies of the other G-10 countries.

actions were consistent with the view expressed in the statement accompanying the May 4 intervention that the U.S. Administration did not believe that the prospects for the U.S. economy warranted a weak dollar. However, in mid-June, the dollar declined against the yen as market perceptions resurfaced that the United States was not concerned about a weak dollar, despite official statements to the contrary, and as an easing of trade frictions with Japan appeared less likely following the resignation of Prime Minister Hata on June 24. Downward pressure on the dollar in terms of the German mark intensified at this time as additional data confirmed that an economic recovery was underway in Germany. These data contributed to higher long-term rates and reinforced views that Bundesbank official rates were not likely to be reduced further following the substantial adjustment on May 11. The selling pressure on the dollar may also have been exacerbated by a rise in dollar-denominated commodity prices, which market participants viewed as indicative of a risk of higher U.S. inflation. With the dollar hovering around a postwar low against the yen on June 24, the United States led substantial coordinated intervention with the monetary authorities of the G-7 countries and a number of other countries. Secretary Bentsen confirmed the intervention, citing shared concerns over recent developments in foreign exchange markets. Since that time, sentiment against the dollar has continued, with the dollar recording a new postwar low against the yen on July 12 before rebounding moderately in subsequent days.

Federal Reserve Foreign Currency Transactions

The Federal Reserve has undertaken other foreign currency transactions in 1994 in addition to the intervention actions of April 29, May 4, and June 24. The FOMC has authorized a restructuring of the System's portfolio of foreign currencies and has approved three reciprocal currency arrangements, also known as swap arrangements.

At its December 1993 meeting, the FOMC authorized the Manager for Foreign Operations to sell all non-mark and non-yen foreign exchange reserves held by the Federal Reserve. The Manager sold these reserves, which were equivalent to $750 million, during the first few months of 1994. These holdings along with those of the Exchange Stabilization Fund of the U.S. Treasury were eliminated in light of the practice of U.S. monetary authorities in recent years to conduct intervention operations exclusively in marks and yen.

On March 24, the Committee approved a temporary increase to $3 billion, from $700 million, in the System's swap arrangement with the Bank of Mexico. The value of the Mexican peso against the dollar had been nearly stable during the initial weeks of the year, following ratification of the North American Free Trade Agreement by the United States in November. The peso began to weaken in late February, however, in response to disappointing economic news and political unrest in Mexico. The assassination of presidential candidate Luis Donaldo Colosio on March 23 further undermined the peso, which fell to the lower intervention limit against the dollar set by the Bank of Mexico. Mexican authorities then intervened heavily to support the peso. At the request of the Mexican government and the Bank of Mexico, U.S. monetary authorities established a $6 billion temporary bilateral swap facility for the Bank of Mexico, which was split between the U.S. Treasury and the Federal Reserve. The swap was intended to help prevent any turmoil in Mexican markets, which could have spilled into U.S. financial markets. In the event, no drawings were made on this facility. In late April, the peso moved away from its lower intervention limit as the substantial increase in Mexican interest rates persuaded market participants of the commitment of the Mexican government to maintain the value of the peso.

On April 26, the monetary authorities of the United States, Canada, and Mexico announced the creation of the North American Financial Group to provide an opportunity for more regular consultation on economic and financial developments. Plans for this Group had been under way for several months in recognition of the increasing interdependence of the three economies. In connection with the formation of the Group, the authorities of the three countries established a trilateral foreign exchange swap facility. The United States and Mexico put in place swap arrangements for up to $6 billion, with the Treasury and the Federal Reserve each participating up to $3 billion. The Federal Reserve and the Bank of Canada reaffirmed their existing swap agreement of $2 billion and extended its maturity to December 1995. The Bank of Canada increased its swap line with the Bank of Mexico to 1 billion Canadian dollars. These arrangements expand the pool of potential resources available to the monetary authorities of each country to maintain orderly exchange markets. The FOMC approved the Federal Reserve's participation in these arrangements effective April 26.

Growth of Money and Debt
Percent

Period		M1	M2	M3	Domestic nonfinancial debt
Annual[1]					
1980		7.4	8.9	9.6	9.1
1981		5.4 (2.5)[2]	9.3	12.4	9.9
1982		8.8	9.2	9.9	9.6
1983		10.4	12.2	9.9	12.0
1984		5.5	8.1	10.9	14.0
1985		12.0	8.7	7.6	14.2
1986		15.5	9.3	8.9	13.4
1987		6.3	4.3	5.7	10.3
1988		4.3	5.3	6.3	9.0
1989		0.6	4.8	3.8	7.8
1990		4.2	4.0	1.7	6.6
1991		7.9	2.9	1.2	4.6
1992		14.3	1.9	0.5	5.0
1993		10.5	1.4	0.6	5.0
Semiannual (annual rate)[3]					
1994	H1				5.4[4]
Quarter (annual rate)[5]					
1994	Q1	6.0	1.8	0.2	5.9
	Q2	2.0	1.5	−0.3	4.7[4]

1. From average for fourth quarter of preceding year to average for fourth quarter of year indicated.
2. Figure in parentheses is adjusted for shifts to NOW accounts in 1981.
3. From average for fourth quarter of 1993 to average for second quarter of 1994.
4. Second quarter debt aggregate based on data through May.
5. From average for preceding quarter to average for quarter indicated.

CAN ANTI-INFLATION MONETARY POLICY RAISE LONG-RUN REAL GROWTH ?

Chairman Greenspan has advanced, as an argument for giving high priority to inflation reduction in monetary policy, the hypothesis that lower inflation will lead to higher productivity growth. To support this conjecture the Board of Governors made available the staff paper "Productivity and Inflation: Evidence and Interpretations" by Glenn Rudebush and David Wilcox.

The authors are first-class professional economists. Their paper is a conscientious survey of relevant theory and empirical research, and they add some exploratory modeling and calculations of their own. They are appropriately cautious, concluding that the evidence on the Greenspan hypothesis is at this stage mixed and uncertain. Clearly the paper offers no guidance to monetary policy.

As this staff paper points out, inferences of causation from statistical correlations are always tricky and treacherous. This is true for both time series regressions and cross-national correlations. The problems could hardly be more acute than in the present context, because both productivity growth and inflation, aggregated over whole economies, are difficult to measure *unambiguously, and becaue both are influenced by a whole host of* "third" factors, systematic and random, all interconnected by a large number of dimly understood equations.

I would stress, as the Rudebush-Wilcox paper does not, the monetary policy context in which Chairman Greenspan raises this question. The practical issue is not whether inflation and productivity growth are, on the whole, negatively correlated. It is whether there is any correlation that the central bank can exploit. Can we expect a reduction in inflation engineered by monetary policy to raise productivity growth?

The qualification engineered by monetary policy is of basic importance. It is easy to think of numerous scenarios, shocks, and circumstances in which lower inflation and higher productivity growth are associated. But unless monetary policy is, directly or indirectly, an important and independent one of the sources, those observed correlations are nothing central banks can exploit.

I would stress also that, to make sense, the question concerns long-run trends in prices and productivity. The issue is not how transient cyclical deviations from trends are correlated, when these deviations are affected by monetary policy, but how the trends themselves are related insofar as they are affected by monetary policy.

In the U.S. today the issue seems further circumscribed. Since the Volcker Fed's anti-inflation crusade in 1979-82, which involved a deep recession, the inflation trend has been below 5% and probably declining. Would Federal Reserve action to reduce it further, to two percent or zero, be rewarded by higher trend growth in productivity? A zero inflation policy has been advocated by some inflation hawks in the Fed and outside it, who want to finish the crusade cut short in 1982-83 at 5%. Such action would involve slowing down the growth of output and employment relative to potential real GDP and full employment labor force, slowing this growth to a greater degree than the Fed would do if its objective were simply to avoid overshooting the NAIRU and thus to forestall a wage-price spiral.

Such a policy would have some obvious costs in terms of future productivity growth. It would slow, at least temporarily, national saving and investment. Capital investment -- domestic and foreign, private and public, physical and human, high-tech and low-tech -- are generally regarded as the instruments of productivity gains. It is hard to see how policies that slow them down, even temporarily, can be good for productivity even if they succeed in durably lowering inflation by a couple of points.

The optimal price level trend -- positive, zero, or negative -- is an old issue in economics and is drawing renewed attention today. In the discussion earlier in the century, a good case for moderate stable positive trend inflation was made by William Vickery and Tibor Scitovsky, among others. I mention two arguments here. One starts with the observation that economically efficient changes in relative prices and wages, to attract resources into progressive sectors away from obsolescent sectors, are easier and quicker when they can be made without actual declines in dollar wages. With positive trend inflation these adjustments can be made by holding dollar wages in declining industries and occupations constant or by restricting their rises to sub-average amounts. For this reason, efficient adjustments in resource allocation, crucial to advances in overall productivity, will be surer and faster with a clearly positive price trend -- i.e. 3% to 5% rather than 0% to 2%. The second argument concerns nominal interest rates. At times cyclical recoveries require that some real interest rates, especially on safe short-term assets, be temporarily negative. But since zero is the floor on nominal interest rates, negative real rates cannot be obtained if the inflation ceiling is also zero.

Evidence that economies with hyper-inflation or inflation chronically in triple or double digits have lower productivity growth than economies averaging single-digit inflation is not overwhelming. But even if it were less ambiguous, it would not support the assertion that reducing low inflation by one or two or three percentage points would have any significant effect on productivity. The gross cross-national scatter diagrams do not allow such fine discrimination.

Year-to-year or quarter-to-quarter time series correlations of inflation and productivity growth are also of dubious relevance if --as I think is clear -- the main policy issue involves trends rather than cycles. For the U.S. 1950-72, there is no time series correlation anyway. In that period average inflation was low and productivity growth high. When the years after 1972 are added, the correlation becomes negative, essentially reflecting the contrast of stagflation and its aftermath 1973-82 with pre-1973 performance. Simultaneously with the rise in trend inflation, a sharp worldwide fall in trend productivity growth took place in the early 1970s. Perhaps it was related to the energy crisis, but professional economists specializing in the subject are uncertain about the causes of the productivity slowdown. There is no convincing case that it was due to expansionary central bank policies throughout the world.

Whether monetary policy, rather than exogenous supply shocks, was responsible for stagflation in the 1970s is still a contested and contentious issue. To me it seems pretty clear that, whatever over-accommodative mistakes had been made 1965-72, the two oil shocks triggered inflations that then abated only slowly during the recessions that resulted from the Fed's responses to those shocks. In this sense Fed policy had something to do with a short-run negative correlation of inflation and productivity growth. Inflation-conscious counter-cyclical monetary policy will generate the appearance of negative correlation between inflation and productivity growth. Inflations are high, though slowly declining, during recessions, which also generate temporarily bad productivity statistics.

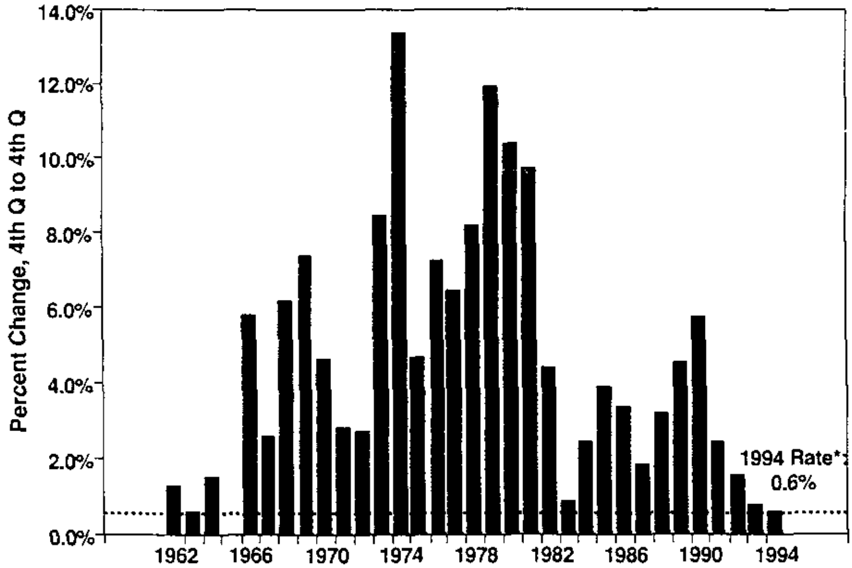
The most likely explanation of evidence that economies with relatively low inflation perform better in many dimensions, including productivity, is that all these desirable results are symptoms of generally good social, political, and economic health. This in turn may reflect good fortune, strong traditions, social cohesion. For example, a society that can agree on how the economic pie is to be divided among its citizens, or on how questions of this kind are to be decided, is likely to be less inflationary and more successful in productivity growth and other aspects of national performance than a society that suffers perpetual internal conflict about the division of income and wealth. Likewise, a society in which families, schools, and other institutions socialize and educate the young is going to be more successful than a society that fails in this basic human task.

Productivity is a real phenomenon, and its long run growth is likely to be affected by real factors -- notably investments of all kinds in future technologies and human skills. So far as government's macro policies are concerned, its fiscal policies are crucial, as Chairman Greenspan often points out. This is not just a matter of public deficits and debts, but also of public investments in future-oriented activities. Monetary policy can help by keeping the economy growing along its full employment potential GDP path. But by itself the Fed cannot expect to accelerate productivity, surely not by tightening policy in order to lower the trend rate of inflation.

James Tobin
July 17, 1994

Labor Costs at 29 -Year Low

Unit Labor Costs, Nonfarm Business

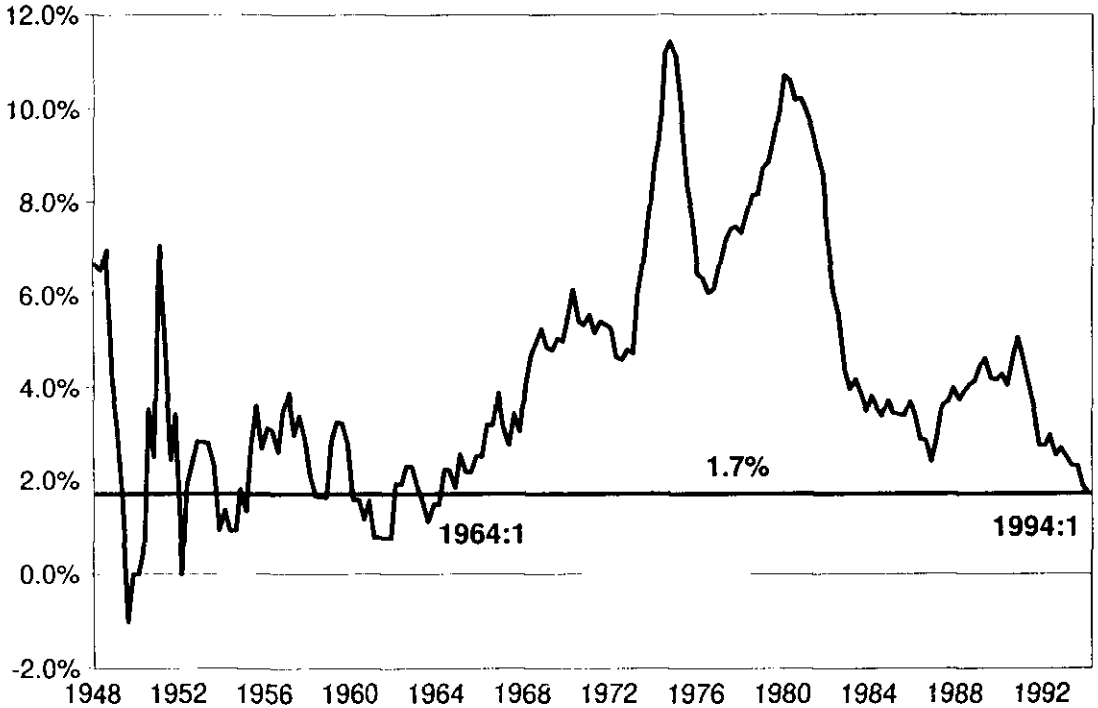


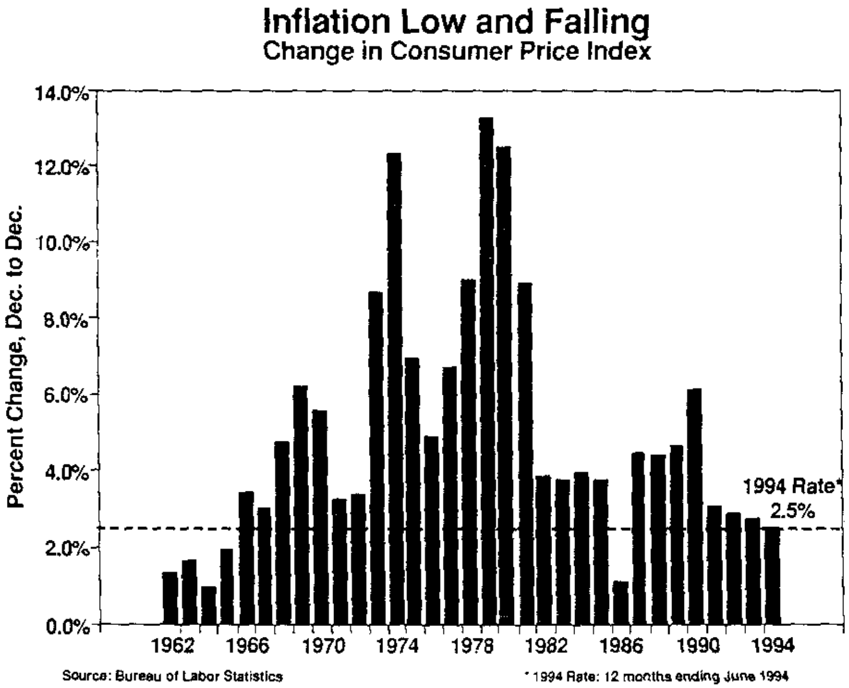
Source: Bureau of Labor Statistics

* 1994 rate is 1st Quarter of 1993 to 1st Quarter of 1994

Inflation Back to Early 1960s' Rate

Four Quarter Change in Deflator for Final Sales to Domestic Purchasers




Inflation Low and Falling
Change in Consumer Price Index
Percent Change, Dec. to Dec.
14.0%
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
1994 Rate*
2.5%
1962
1966
1970
1974
1978
1982
1986
1990
1994
Source: Bureau of Labor Statistics
* 1994 Rate: 12 months ending June 1994