

# CONDUCT OF MONETARY POLICY

Report of the Federal Reserve Board pursuant to the  
~~Full Employment~~ and Balanced Growth Act of 1978

P.L. 95-523

and The State of the Economy

---

## HEARING

BEFORE THE

COMMITTEE ON BANKING AND  
FINANCIAL SERVICES

U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED SIXTH CONGRESS

FIRST SESSION

\_\_\_\_\_  
JULY 22, 1999  
\_\_\_\_\_

Printed for the use of the Committee on Banking and Financial Services

**Serial No. 106-33**



U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON : 1999

---

For sale by the U.S. Government Printing Office  
Superintendent of Documents, Congressional Sales Office, Washington, DC 20402  
ISBN 0-16-059947-4

HOUSE COMMITTEE ON BANKING AND FINANCIAL SERVICES

JAMES A. LEACH, Iowa, *Chairman*  
BILL McCOLLUM, Florida, *Vice Chairman*

MARGE ROUKEMA, New Jersey  
DOUG K. BEREUTER, Nebraska  
RICHARD H. BAKER, Louisiana  
RICK LAZIO, New York  
SPENCER BACHUS III, Alabama  
MICHAEL N. CASTLE, Delaware  
PETER T. KING, New York  
TOM CAMPBELL, California  
EDWARD R. ROYCE, California  
FRANK D. LUCAS, Oklahoma  
JACK METCALF, Washington  
ROBERT W. NEY, Ohio  
BOB BARR, Georgia  
SUE W. KELLY, New York  
RON PAUL, Texas  
DAVE WELDON, Florida  
JIM RYUN, Kansas  
MERRILL COOK, Utah  
BOB RILEY, Alabama  
RICK HILL, Montana  
STEVEN C. LATOURETTE, Ohio  
DONALD A. MANZULLO, Illinois  
WALTER B. JONES JR., North Carolina  
PAUL RYAN, Wisconsin  
DOUG OSE, California  
JOHN E. SWEENEY, New York  
JUDY BIGGERT, Illinois  
LEE TERRY, Nebraska  
MARK GREEN, Wisconsin  
PATRICK J. TOOMEY, Pennsylvania

JOHN J. LaFALCE, New York  
BRUCE F. VENTO, Minnesota  
BARNEY FRANK, Massachusetts  
PAUL E. KANJORSKI, Pennsylvania  
MAXINE WATERS, California  
CAROLYN B. MALONEY, New York  
LUIS V. GUTIERREZ, Illinois  
NYDIA M. VELAZQUEZ, New York  
MELVIN L. WATT, North Carolina  
GARY L. ACKERMAN, New York  
KEN BENTSEN, Texas  
JAMES H. MALONEY, Connecticut  
DARLENE HOOLEY, Oregon  
JULIA M. CARSON, Indiana  
ROBERT A. WEYGAND, Rhode Island  
BRAD SHERMAN, California  
MAX SANDLIN, Texas  
GREGORY W. MEEKS, New York  
BARBARA LEE, California  
VIRGIL H. GOODE JR., Virginia  
FRANK R. MASCARA, Pennsylvania  
JAY INSLEE, Washington  
JANICE D. SCHAKOWSKY, Illinois  
DENNIS MOORE, Kansas  
CHARLES A. GONZALEZ, Texas  
STEPHANIE TUBBS JONES, Ohio  
MICHAEL E. CAPUANO, Massachusetts  
BERNARD SANDERS, Vermont

# CONTENTS

---

|                     | Page |
|---------------------|------|
| Hearing held on:    |      |
| July 22, 1999 ..... | 1    |
| Appendix:           |      |
| July 22, 1999 ..... | 43   |

## WITNESSES

THURSDAY, JULY 22, 1999

|  |   |
|--|---|
| Greenspan, Hon. Alan, Chairman, Board of Governors, Federal Reserve System ..... | f |
|--|---|

## APPENDIX

|                            |    |
|----------------------------|----|
| Prepared statements:       |    |
| Leach, Hon. James A. ....  | 44 |
| Paul, Hon. Ron .....       | 47 |
| Greenspan, Hon. Alan ..... | 48 |

## ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

|  |    |
|--|----|
| Sanders, Hon. Bernard:   |    |
| Congressional Budget Office Preliminary Estimates of Effective Tax Rates, July 15, 1999 .....                                      | 96 |
| Greenspan, Hon. Alan:  |    |
| <i>Monetary Policy Report To the Congress Pursuant to the Full Employment and Balanced Growth Act of 1978, July 22, 1999</i> ..... | 69 |
| Written response to questions from Representative Bentsen .....  | 65 |
| Written response to questions from Representative Mascara .....  | 66 |

# CONDUCT OF MONETARY POLICY

THURSDAY, JULY 22, 1999

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

The committee met, pursuant to call, at 11:00 a.m., in room 2128, Rayburn House Office Building, Hon. James A. Leach, [chairman of the committee], presiding.

Present: Chairman Leach; Representatives McCollum, Roukema, Bachus, Castle, Royce, Lucas, Kelly, Paul, Cook, Riley, Ryan, Ose, Sweeney, Biggert, Terry, Green, Toomey, LaFalce, Vento, Frank, Kanjorski, Waters, Sanders, C. Maloney of New York, Watt, Bentsen, J. Maloney of Connecticut, Hooley, Sherman, Sandlin, Lee, Goode, Mascara, Inslee, Schakowsky, Moore, and Capuano.

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

Chairman Greenspan, welcome back to the House Banking Committee. To ensure that all Members have an opportunity to question Chairman Greenspan, it is the intention of the Chair to limit opening statements to the Chairman and Ranking Member of the Full Committee, as well as the Subcommittee on Domestic and International Monetary Policy. All other opening statements will be included for the record.

This is our second Humphrey-Hawkins hearing this year and the last such hearing mandated under current law. As Members may recall, the Semiannual Report is one of several thousand reports, including approximately one-hundred under the jurisdiction of this committee, which are scheduled to sunset on December 31 under broad legislation approved by Congress four years ago.

As Chairman of the committee of jurisdiction, let me emphasize that I believe these Humphrey-Hawkins hearings are the most important oversight hearings conducted by the Congress. The Federal Reserve System has become, in effect, a fourth branch of Government, and the reports to this committee and its Senate counterpart by the Chairman of the Fed have become the chief mechanism for democratic review of the monetary policy decisions of the Federal Reserve.

To discontinue these oversight hearings would be congressionally negligent. The Fed should not be de-democratized.

Thus, it is my intention to move forward with legislation immediately after the August break to require continued semi-

annual Humphrey-Hawkins hearings by the Federal Reserve on the Conduct of Monetary Policy. In addition, certain selected other reports by Federal banking, housing, and international financing agencies will be reauthorized.

We meet today, at a propitious moment, to review the Fed's conduct of monetary policy. The current economic expansion is now one-hundred months old. It is already the longest peacetime expansion in American history and in six months could become the longest expansion ever recorded anywhere. Despite robust domestic demand, core inflation is running into a 34-year low.

Over the past several years, the economy has performed in a way that has defied historical precedents and modern academic theory. Perhaps the most significant macro-economic views of the last generation is that the Fed appears to have concluded that we are in an economic terra incognita and that the productivity gains associated with the unprecedented age of information technology means that past economic modeling doesn't fit today's circumstances. Yesterday's models may fit tomorrow's, but for the moment, belt-tightening interest rates don't seem to be necessary to curb an inflation that hasn't emerged with the low levels of unemployment that were once assumed to trigger it.

To some degree, luck has been a factor on the inflation front, with a silver lining appearing in what otherwise were dark clouds in the world economy. Last summer's troubles abroad impoverished a lot of people in Asia and Russia, but the crisis pushed down the prices of goods that we buy from these countries, boosting America's consumer purchasing power.

In addition, more restrained congressional spending—producing surpluses rather than deficits—has helped high-tech investors find capital at credible rates, even though America's saving rate has declined to a negative level.

More fundamentally, the economy has been propelled by gains in productivity.

I would just like to conclude by stressing that there are two Americas, however, and that on the farm side in the Midwest we are experiencing difficulties associated with the deflation. And Congress, in my judgment, is going to have to act forthrightly on the agricultural problem, including the approval of Fast Track trade authority.

I would also like to comment on an issue involving another base of the committee, and that is gold. It is my intention to move swiftly on a debit relief initiative immediately following the August break, but I would stress that it is unlikely that the committee will endorse the Administration's proposal to authorize the IMF to sell 10 percent of its gold holdings as a method of payment for debt relief for the world's poorest countries. Debt relief is a societal and indeed moral imperative, but care must be taken not to jeopardize the mining industry that provides many of the most stable jobs in the developing world.

At this point, let me turn to Mr. LaFalce, our distinguished Ranking Member. I would ask unanimous consent to expand my statement as well as Mr. LaFalce's and to put in the record anyone else's statement.

[The prepared statement of Hon. James A. Leach can be found on page 44 in the appendix.]

Mr. SANDERS. Mr. Chairman, reserving the right to object, I would respectfully request that any Member who wants to make an opening statement have a minute-and-a-half to do so. I know that you want to get on to the questioning, I don't know how many Members do, but I think it is appropriate that any Member have at least a minute-and-a-half to make a statement.

Chairman LEACH. I appreciate the gentleman's request. The gentleman has led in that concern at each Humphrey-Hawkins hearing. But opening statements are at the discretion of the Chair and it is the belief of the Chair that we are better off holding opening statements to the four institutional positions, and that the gentleman would be allowed to comment as he sees fit during the five-minute question and answer session.

Mr. LaFalce.

Mr. LAFALCE. I thank the Chairman. I thank him for his opening statement, too. In large part I associate myself with his remarks. I am especially pleased that we will be marking up the bill that we have co-sponsored on debt relief as soon as we return in September. I think it is extremely important. As a matter of fact, I can't think of anything that we could do that is more important to help the people in the highly indebted impoverished countries in the world.

I also want to join in the high praise that was recently given both by President Clinton and Vice President Gore to Chairman Greenspan for his outstanding stewardship of the Federal Reserve Board and the conduct of domestic international monetary policy during his tenure as Chairman. You have done an outstanding job, Chairman Greenspan, and we are all very grateful for that fact.

This is now the 99th month of economic expansion, the longest peacetime expansion in American history. We have reason to be pleased, but we do not have reason to be overconfident. We need to work to continue this prosperity. It is not inevitable. We also must work, primarily within the Congress and the Administration, to make sure that this prosperity is shared by all. This has not happened and we must address this.

But I am profoundly concerned that the Congress might be taking actions today that could jeopardize our future economic prosperity. I am concerned about the economic implications of the massive and, in my judgment, very misguided tax cut proposal proposed by some of our colleagues.

In the first year of this Administration, it worked with the 93rd Congress to control the record deficits of the 1980's and put us on a clear and consistent path toward economic prosperity. We have been successful. It would be foolhardy in the extreme to jeopardize that success. A massive tax cut at this juncture, I believe, would be fiscally irresponsible and threaten the economic growth that we are now enjoying.

I appreciate very much that both the Administration and the Congressional Budget Office are estimating a Government surplus over the next decade. But these are projections, projections of what could be under a very highly suspect set of assumptions. They are not forecaster predictions of what actually will be.

If there is a surplus, I do not think that we should throw this surplus away on huge tax cuts, especially since the preponderance of those cuts would go to those already very well off. Further, that projected surplus is premised on further significant cuts in spending for education, defense, and the environment, cuts that are problematic at best. Those cuts would also deter us from taking the meaningful steps that we should to shore up Social Security and Medicare.

Chairman Greenspan, I hope during the course of your testimony or certainly in response to questions, you would address certain issues. First of all, what are your thoughts on the likelihood of the projected surplus becoming a reality? Second, you have said before that placing priority on Government debt reduction would be a sounder economic policy than massive tax cuts. I am anxious to know if that remains your view. Third, I would like to know what effect an approximate trillion dollar tax cut over a ten-year period might have on interest rates and on your ability to conduct the type of domestic and international monetary policy you would like to.

There are a number of other subjects in which I am interested, but time is limited so I will just mention two additional ones.

First, yesterday the Department of Commerce announced that our trade deficit had ballooned to a record \$23.1 billion in May, one month. I understand the economic theory that suggests this may not be a problem, but I am nevertheless concerned that this trade deficit reflects reliance on the United States, either alone or certainly overwhelmingly amongst all of the other industrialized nations, to help pull the world out of a recession; that we are by far the primary and most exclusive escape valve.

As everyone knows, our current account has swelled as well, reflecting primarily capital inflows associated with global financial problems. I am concerned that this has led to our having the highest short-term interest rates amongst the G-7 and that our short- and long-term interest rates, though nominally low, are still very high in a real sense, once inflation is taken into account.

And as a second additional concern, earlier this year many analysts suggested that the international economic and financial crisis was over. I remain skeptical about that. Japan's economy has not recovered. Germany's is in recession, and other European Monetary Union economies are suffering. Russia's economy remains a basket case and Latin America is still vulnerable.

I want to thank you and your staff for being very helpful to us, my staff, in monitoring all of these situations and I look forward to your thoughts on these and other issues.

Mr. GREENSPAN. Thank you very much.

Chairman LEACH. Thank you, John.

Mr. Bachus.

Mr. BACHUS. Thank you, Mr. Chairman. Welcome, Mr. Chairman.

Chairman Greenspan, you have focused on productivity a lot. You have talked about technology, the advances we have had in technology. And I think we all tried to figure out when that might slow and if it will slow. I am curious as to what the Federal Reserve's predictions or outlook or how you track productivity as far

as looking into the future. I saw this morning where I think Internet growth may have finally slowed. I would like your comments on where you think maybe we are on the S-curve as far as innovation. I know biotech, there is an explosion of activity in that regard, and whether that is something that is sustainable for five, ten, fifteen or twenty more years or whether we may be at the end of a wave there.

Mr. LaFalce mentioned the \$21.3 billion trade deficit. I think we all realized that is not sustainable. It has obviously brought a lot of good-quality products to American citizens. We have all benefited from it.

I have a chart here of raw industrial costs and I thought I would ask you about this chart. Basically it shows that we had kind of a flat raw industrial cost until about September of 1997. And then we had a dramatic downward trend in raw industrial cost until the end of February of this year. It has flattened out again. That to me indicates that we have sort of had the wind at our back with falling costs and cheap foreign goods perhaps even aiding in that. And then technology innovation, all of those, bringing down the price of computers.

But I am wondering if this particularly—I know that is a gauge that you pay a lot of attention to. I am going to ask you about the significance that that at least appears on the chart that raw industrial cost may have stopped their fall and have flattened out.

The last thing that I want to ask you about is again what Mr. LaFalce mentioned, and that is the global situation. This morning there was a survey out that deflation, that there is evidence again of deflation again in Japan. So things may not be as good. That is one survey. As here, we have one survey showing one thing one day and another the next. But I am curious as to your opinion on the world economy, Europe, Latin America, the Far East, and how you see that affecting our economy. Just maybe some thoughts on that. I will be interested in hearing your comments.

I will close by saying I think that, as others have said, we are in the longest peacetime expansion in the history of this country. In fact, in February it will be longest economic expansion in the history of our country. It is a record-setting economy. I think you are the chief architect of that sound monetary policy, and I want to commend you on that.

And in that regard, I want to say this. I know that the Fed has this super-secret high-tech econometric modeling system over there where you plot plausible scenarios in the U.S. economy. I would like to ask you to go back this afternoon and have your top economist feed two "what ifs" into this multi-million dollar computer and examine near-term—give us near-term and long-term results of this.

Here are the two scenarios. Number one is Greenspan is renominated as Chairman of the Federal Reserve. And number two, you are not renominated.

So could you feed that in and could your economist run those two scenarios and get back to us on the results of that?

Mr. GREENSPAN. Is that supposed to be a dummy variable?

Mr. BACHUS. If you would rather reply in writing, I appreciate that. I appreciate that very much.



Chairman LEACH. I thank the distinguished Chairman for his macro-economic query.

Ms. Waters.

Ms. WATERS. Mr. Chairman and Members and Mr. Greenspan, a few days ago President Clinton was in South Central Los Angeles and it was the last stop on a tour that he made around the country to talk about his new markets initiative. He came basically to the area where you have been, Mr. Greenspan. If you recall, you were my guest and you created such a stir when you came to South Central Los Angeles. Hundreds of photographers came, the community leadership was there. You encouraged CEOs of some of the major banks to be there. And we talked about the lack of growth and economic development in inner cities and in that community in particular. So really the President was following on the tails of the tour that you made there and the conversations and the discussions that we had at that time about the fact that the well-performing economy in this country had missed inner cities and other areas. I think the President went on an Indian reservation, and so forth.

So we remain puzzled about what to do. The President's new initiative may offer a glimmer of hope, but I am wondering as we are trying to figure out how to get investment in these inner cities so that we can reduce the awesome unemployment rate that still exists among young blacks—about a 35 percent rate, I am told. And if you factor in incarceration and some other things, it is about 50 percent. At the same time that I am trying to figure that out, and perhaps you and others, we have to guard against and we have to be a little bit worried about whether or not you are going to raise interest rates and what that will mean to poor communities. In addition to that, we have to be concerned about a Congress of the United States that is now discussing a huge budget surplus and the desire by some of my colleagues to give great tax cuts to somebody, I suspect the rich and the more fortunate of our society.

I would like you, in your presentation to us, to comment on the discussion that is going on, and if there is a big tax cut or rebate what will that do to interest rates, what will that do to the economy. I want you to specifically help us to understand whether or not it is going to drive up interest rates if in fact we have this tax cut. I want to know if you have any new thoughts about what we can do to spur investment in the inner cities so that we can deal with the still unconscionable unemployment. And I want you to commit that you are not going to raise the interest rates, no matter what.

Thank you. I yield back the rest of my time.

Chairman LEACH. Well, thank you, Ms. Waters.

Mr. Chairman, please proceed.

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

Mr. GREENSPAN. Thank you very much, Mr. Chairman, and other Members of this committee for the opportunity to present the Federal Reserve semiannual report on monetary policy.

To date, 1999 has been an exceptional year for the American economy, but a challenging one for American monetary policy.

Through the first six months of this year, the U.S. economy has further extended its remarkable performance. Almost a million-and-a-quarter jobs were added to payrolls on net, and gross domestic product apparently expanded at a brisk pace, perhaps near that of the prior three years.

At the root of this impressive expansion of economic activity has been a marked acceleration in productivity of our Nation's work force. This productivity growth has allowed further healthy advances in real wages and has permitted activity to expand at a robust clip while helping to foster price stability.

Last fall, the Federal Open Market Committee eased monetary policy to counter a seizing-up of financial markets that threatened to disrupt economic activity significantly. As those markets recovered, the FOMC had to assess whether that policy stance remained appropriate. By late last month when it became apparent that much of the financial strain of last fall had eased, that foreign economies were firming, and that the demand in the United States was growing at an unsustainable pace, the FOMC raised its intended Federal funds rate a quarter of a percentage point, to 5 percent. To have refrained from doing so, in our judgment, would have put the U.S. economy's expansion at risk.

If nothing else, the experience of the last decade has reinforced earlier evidence that a necessary condition for maximum sustainable economic growth is price stability. While product prices have remained remarkably restrained in the face of exceptionally strong demand and expanded potential supply, it is imperative that we do not become complacent.

The already shrunken pool of job-seekers and the considerable strength of aggregate demand suggest that the Federal Reserve will need to be especially alert to inflation risks. Should productivity fail to continue to accelerate and demand growth persist or strengthen, the economy could overheat. That would engender inflationary pressures and put the sustainability of this unprecedented period of remarkable growth in jeopardy. One indication that inflation risks were rising would be a tendency for labor markets to tighten still further. But the FOMC also needs to continue to assess whether the existing degree of pressure in these markets is consistent with sustaining our low inflation environment. If new data suggest that it is likely that the pace of costs and price increases will be picking up, the Federal Reserve will have to act promptly and forcefully so as to preclude imbalances from arising that would only require a more disruptive adjustment later—one that could impair the expansion and bring into question whether the many gains already made can be sustained.

Data becoming available this year have tended to confirm that productivity growth has stepped up. It is this acceleration of productivity over recent years that has explained much of the surprising combination of a slowing in inflation and sustained rapid real growth. Increased labor productivity has directly limited the rise of unit labor costs and accordingly damped pressure on prices. This good inflation performance, reinforced also by falling import prices, in turn has fostered further declines in inflation expectations over recent years that bode well for pressures on costs and prices going forward.

In testimony before this committee several years ago, I raised the possibility that we were entering a period of technological innovation that occurs perhaps once every fifty or one-hundred years. The evidence then was only marginal and inconclusive. Of course, tremendous advances in computing and telecommunications were apparent, but their translations into improved overall economic efficiency and rising national productivity were conjectural at best.

That American productivity growth has picked up over the past five years or so has become increasingly evident. Non-farm business productivity—on a methodologically consistent basis—grew at an average rate of a bit over 1 percent per year in the 1980's. In recent years productivity growth has picked up to more than 2 percent, with the past year averaging about 2½ percent.

To gauge the potential for similar, if not larger, gains in productivity going forward, we need to attempt to arrive at some understanding of what has occurred to date. A good deal of the acceleration in output-per-hour has reflected the sizable increase in the stock of labor-saving equipment. But that is not the whole story. Output has grown beyond what normally would have been expected from increased inputs of labor and capital alone. Business restructuring and the synergies of the new technologies have enhanced productive efficiencies. They have given businesses greater ability to pare costs, increase production flexibility, and expand capacity that are arguably the major reasons why inflationary pressures have been held in check in recent years.

Other factors contributing to subdued inflation have included the one time fall in the prices of oil, other commodities, and imports more generally. In addition, a breakdown of barriers to cross-border trade, owing both to the new technologies and to the reduction of Government restrictions on trade, has intensified the pressures of competition, helping to contain prices. Coupled with a decline in military spending worldwide, this has freed up resources for more productive endeavors, especially in a number of previously non-market economies.

Despite the remarkable progress witnessed to date, history counsels us to be quite modest about our ability to project the future path and pace of technology and its implications for productivity and economic growth. We must remember that the pickup in productivity is relatively recent, and a key question is whether that growth will persist at a high rate, drop back toward the slower standard of much of the last twenty-five years, or climb even more. By the last I do not just mean that productivity will continue to grow, but that it will grow at an increasingly faster pace through a continuation of the process that has so successfully contained inflation and supported economic growth in recent years.

The business and financial community does not as yet appear to sense a pending flattening in this process of increasing productivity growth. This is certainly the widespread impression imparted by corporate executives and it is further evidenced by the earnings forecasts of more than 1,000 securities analysts who regularly follow S&P 500 companies on a firm-by-firm basis. Except for a short hiatus in the latter part of 1998, analysts' expectations of five-year earnings growth have been revised up continually since early 1995. If anything, the pace of those upward revisions has quickened of

late. Analysts and the company executives they talk to appear to be expecting that unit costs will be held in check or even lowered as sales expand. Hence, implicit in upward revisions of their forecasts, when consolidated, is higher expected national productivity growth.

That said, we must also understand the limits to this process of productivity-driven growth. To be sure, the recent acceleration in productivity has provided an offset to our taut labor markets by holding unit costs in check and by adding the competitive pressures that have contained prices. But once output-per-hour growth stabilizes, even if at a higher rate, any pickup in the growth of nominal compensation-per-hour will translate directly into a more rapid rate of increase in unit labor costs, heightening the pressure on firms to raise prices of the goods and services they sell. Thus, should the increments of gains in technology that have fostered productivity slow, any extant pressures in the labor market should ultimately show through to product prices.

Meanwhile, though, the impressive productivity growth of recent years also has had important implications for the growth of aggregate demand. If productivity is driving up real incomes and profits and hence gross domestic income, then gross domestic product must mirror this rise with some combination of higher sales of motor vehicles, other consumer goods, new homes, capital equipment, and net exports. By themselves, surges in economic growth are not necessarily unsustainable—provided they do not exceed the sum of the rate of growth in the labor force and productivity for a protracted period. However, when productivity is accelerating it is very difficult to gauge when an economy is in the process of overheating.

In such circumstances, assessing conditions in the labor market can be helpful in forming those judgments. Employment growth has exceeded the growth of working-age population this past year by almost one-half percentage point. It implies that real GDP is growing faster than its potential. To an important extent, this excess of growth of demand over supply owes to the wealth effect as consumers increasingly perceive their capital gains in the stock and housing markets as permanent and evidently, as a consequence, spend part of them.

There can be little doubt that if the pool of job-seekers shrinks sufficiently, upward pressures on wage costs are inevitable, short—as I have put it previously—of a repeal of the law of supply and demand. Such cost increases have invariably presaged rising inflation in the past and presumably would in the future, which would threaten the economic expansion.

By themselves, neither rising wages nor swelling employment rolls pose a risk to sustained economic growth. Indeed, the Federal Reserve welcomes such developments and has attempted to gauge its policy in recent years to allow the economy to realize its full enhanced potential. In doing so, however, we must remain concerned with evolving short-run imbalances that can constrain long-term economic expansion and job growth.

In its deliberations this year, the FOMC has had to wrestle with the issue of what policy setting has the capacity to sustain this remarkable expansion now in its ninth year. For monetary policy to

foster maximum sustainable economic growth, it is useful to preempt forces of imbalance before they threaten economic stability. But this may not always be possible. The future at times can be too opaque to penetrate. When we can be preemptive, we should be, because modest preemptive actions can obviate more drastic actions at a later date that could destabilize the economy.

Preemptive policymaking is equally applicable in both directions, as has been evident over the years both in our inclination to raise interest rates when the potential for inflationary pressures emerge, as in the spring of 1994, or to lower rates when the more palpable risk was economic weakness, as in the fall of last year. This evenhandedness is necessary because emerging adverse trends may fall on either side of our long-term objective of price stability.

In the face of uncertainty, the Federal Reserve at times has been willing to move policy based on an assessment that risks to the outlook were disproportionately skewed in the one direction or the other rather than on a firm conviction that, absent action, the economy would develop imbalances. For instance, both the modest policy tightening of the spring of 1997 and some portion of the easing of last fall could be viewed as insurance against potential adverse economic outcomes.

As I have already indicated, by its June meeting the FOMC was of the view that the full extent of this insurance was no longer needed. It also did not believe that its recent modest tightening would put the risks of inflation going forward completely into balance. However, given the many uncertainties surrounding developments on both the supply and demand side of the economy, the FOMC did not want to foster the impression that it was committed in short order to tightening further. Rather, it judged that it would need to evaluate the incoming data for more signs that further imbalances were likely to develop.

As a result of our Nation's ongoing favorable economic performance, not only has the broad majority of our people moved to a higher standard of living, but a strong economy also has managed to bring into the productive work force many who had for too long been at its periphery. The unemployment rate for those with less than a high school education has declined from 10¾ percent in early 1994 to 6¾ percent today, twice the percentage point decline in the overall unemployment rate. These gains have enabled large segments of our society to obtain skills on the job and the self-esteem associated with work.

The questions before us today, Mr. Chairman, are what macroeconomic policy settings can best extend this favorable performance. No doubt, a monetary policy focused on promoting price stability over the long run and a fiscal policy focused on enhancing national saving by accumulating budget surpluses have been key elements in creating an environment fostering the capital investment that has driven the gains to productivity and living standards. I am confident that by maintaining this discipline, policymakers in the Congress, in the Executive Branch, and at the Federal Reserve will give our vital U.S. economy its best chance of continuing its remarkable progress.

Thank you very much, Mr. Chairman. I would appreciate it if my full remarks were included for the record.

[The prepared statement of Hon. Alan Greenspan can be found on page 48 in the appendix.]

Chairman LEACH. Without objection, so ordered.

Let me just begin by noting that Ms. Waters asked if you would promise never to raise interest rates, which I suspect is as likely as asking liberal Members of Congress to never ever raise spending or taxes.

But that aside, the question that I have is will the Federal Reserve Board of the United States be as vigilant in combating deflation as it has been vigilant in combating inflation? As we look at American history, particularly the Great Depression, we saw an example of deflation. As we look around the world, possibly Japan has suffered a bit from deflation today. And in the farm belt, there is real deflation in aspects of agricultural policy. My concern is, is this a concern of the Fed; and if it becomes evident in the statistics, is the Fed prepared to act in this area as well?

Mr. GREENSPAN. Most certainly, Mr. Chairman. As I indicated in my prepared remarks, the evidence is becoming increasingly persuasive that price stability is that which contributes to maximum sustainable growth. It is our judgment, based on the evidence, that both inflation and deflation create levels of uncertainty which inhibit capital investment, economic growth, and stability. And in our view, both must be avoided if our goal is maximum sustainable economic growth.

Chairman LEACH. Thank you.

My second question is an esoteric one that relates to a conference that is about to take place on banking modernization. A year ago you testified before the Senate that the Federal Reserve Board favored elimination of the unitary loophole. Is that still your position?

Mr. GREENSPAN. It is, Mr. Chairman.

Chairman LEACH. Thank you very much.

Mr. LaFalce.

Mr. LAFALCE. I thank the Chair.

I have to point out that provisions in the law which explicitly call for a certain course of conduct or legal structure are not loopholes. They are provisions of the law, especially if they have been in existence for 30 or 40 years. You may not like them, but you mischaracterize them when you refer to them as a loophole.

Having said that, let's return to the questions that I posed in my opening statements. First of all, there has been a lot of talk, by both the Democratic Administration and the Republican Congress, about surpluses. I suspect these surpluses are in large part a mirage.

What are your thoughts on the likelihood of the so-called surplus ever coming about, becoming a reality?

Mr. GREENSPAN. Congressman, projecting five or ten years out is a very precarious activity, as I think that we have demonstrated time and time again. If you look at the assumptions that are employed by both OMB and CBO, they are not unreasonable. I wouldn't say they are reasonable, I would say they are not unreasonable. I use that phraseology purposely because the range—

Mr. LAFALCE. That is why I purposely used the word "likelihood."

Mr. GREENSPAN. The range of error on those types of projections are quite large. For example, we observe that there has been a very significant proportion of increased revenues in recent years, which is the consequence of what is euphemistically called technical adjustments, which is essentially factors that we cannot explain. If we were to presume that those uncertainties, those technical adjustments which are plus at the moment—they have been in the area of plus 1 percent of the GDP, which is not an insignificant number.

Mr. LAFALCE. It is a rather large number.

Mr. GREENSPAN. This is a regularly reversed sign. Indeed, we are not certain at all that that is the absolute upper magnitude, so that there is a great deal of uncertainty about the range of possibilities with respect to what that surplus will look like, if it continues to exist.

Mr. LAFALCE. Well, given the tremendous uncertainty, and given the precarious nature of the projections, would you recommend that we pass a tax cut of approximately \$1 trillion over the next ten years?

Mr. GREENSPAN. Mr. LaFalce, I remain where I was last time I was here and the time before. I think that the reduction that is occurring in the Federal debt at this stage as a consequence of the ongoing surplus is an extraordinarily effective force for good in this economy. It has moved interest rates lower than they otherwise would have been. The cost of capital is lower. And for a number of other reasons, I think it has been a major factor in the expansion of economic growth.

As I have said before, I would therefore prefer—because we are being confronted with a very large demographic change down the road, which means the ratio of retirees to workers is going to go up very dramatically—that our emphasis be on national savings, which creates capital investment, which creates increasing productivity and therefore the capacity, when finally the baby boomers retire, so that their standard of living will be kept high without creating problems in growing standards of living for our working population.

Mr. LAFALCE. Chairman Greenspan, would it be unreasonable for me to conclude that you have just said no?

Mr. GREENSPAN. I was about to conclude. Therefore, as I have said previously, my first priority, if I were given such a priority, is to let the surpluses run. As I have said before, my second priority is if you find that as a consequence of those surpluses, they tend to be spent, then I would be far more in the camp of cutting taxes, because the least desirable is using those surpluses for expanding outlays.

Mr. LAFALCE. Thank you.

Chairman LEACH. Mrs. Roukema.

Mrs. ROUKEMA. Thank you, Mr. Chairman. I am glad that you added that qualification there about surpluses tending to be spent, because that has been an endemic problem here in our Congress. I don't want to go into every bit of the tax cut question and know there is going to be a lot of questions on both sides here, but having been one of those Republicans that worked with the committee, the Ways and Means Committee, over several hours yesterday, and

one that is equally concerned about bringing down the debt and the cost to all of us of the continuing debt. We tried to work out a proposal. You and I had some conversations as to what—not what the general purposes of the proposal were, but exactly how it would be worked out. Whether the proposal is tied to interest rates or tied to the public debt was the issue.

I want to give you an opportunity for a general statement on this, because it relates to the question that you just answered regarding national savings. The tax bill—in particular on the Senate side—is very much targeted toward national savings; increasing national savings.

People like myself that were involved in those negotiations yesterday were very concerned that we shouldn't be having some portions of the tax cut, if we are not able to demonstrate a reduction in the national debt; whether it is measured by the interest rates or whether it is measured by the total amount of debt. It seems to me that is good policy, and therefore, we had integrated into the tax bill a proposal that anything for the first—I think it is six or seven years, and it is in the tax bill—would trigger a delay or a postponement of the across-the-board tax cut. In other words, there would be no tax cut across the board for any of those first years unless we demonstrated that surpluses had been used to reduce the debt.

No tax bill is perfect, but I would think that this would be a great plus in terms of how we balance out the need for more national savings and block the unfortunate prospect of surpluses increasing Government spending.

So I wonder if you could just make a general statement on that, recognizing that you haven't yet seen the precise language, but in principle we are talking about putting debt payment—reducing debt payment as a priority over the across-the-board tax cuts.

Mr. GREENSPAN. Congresswoman, I definitely agree that a trigger is a very useful device in this particular problem, which, I must admit, is really sort of a highly favorable type of problem to be confronted with considering all of the years that we have been trying to confront the deficit.

I would add one other important element. At some point, I don't know when that is going to be, this economy is going to slow down and perhaps slow down quite significantly. The business cycle is not dead, and all of the technology with which we are dealing and which is very crucial doesn't really relate to the dynamics of the business cycle, only to long-term growth. At that point I would suspect that a significant tax cut mainly of marginal tax rates and capital gains tax rates might be a very useful and timely vehicle to sustain an economy which is otherwise weakening.

So in the way in which you devise the law, I would not only keep a trigger for making certain that, in effect, that we do have the surpluses before you reduce taxes, but we also had better be keeping in mind the fact that we can get some very powerful positive incentives imparted to an economy which is weakening by an across-the-board marginal tax cut and a capital gains tax cut, which would be far more difficult to do if we didn't have the surplus. But if we have the surplus, we have the capacity to very substantially alter the tax structure in a way which would be a posi-



tive fiscal policy for us. So I would really add that to your contingencies of when it would be appropriate to allow the tax cut to emerge.

Mrs. ROUKEMA. Thank you very much. I do appreciate that. It is certainly very helpful. We will apply the wisdom of it. Thank you.

Chairman LEACH. Thank you, Mrs. Roukema.

Mr. Vento.

Mr. VENTO. Thank you, Mr. Chairman. It is always a pleasure to be in a debate and discussion with our Republican colleagues as they give us a lot of the Republican hyperbole and generally shower the Federal Reserve Board, and you specifically, Mr. Greenspan, with credit in a noble effort to deny any credit to the Administration with regards to our remarkable economic performance. I think you are due some of that credit, but I think a goodly part of it is due to a functioning of a responsible Congress and Executive as well as an independent Fed. We might disagree on monetary policy, as we have most recently, as you immodestly raised interest rates while at the same time, large trillion dollar tax cuts are being considered here for the next ten years.

I heard that next year, in the year 2000, we may actually have an on-budget surplus. That surplus may be surging out of control. So our remarkable economic performance is what we are talking about today. But you know, as my professor told me, he stated—and I've always remembered—that "nobody lives on the average."

We are really reminded of that in the Midwest as we look at the sectorial displacements that are going on with regards to the rural economy. I don't represent farmers, I just come from them. So I feel deeply and very, very concerned about what is happening there as we look at all of the aspects of this economy in terms of record trade deficits, which are backloading the cost of today's positive economic news.

And as we look at programs nationally which disinvest in people—you were quick to point out—productivity. But if I remember my economics right, it was capital, research and investment in people. I would expect the last one is perhaps the most important. We are charged with that through the Federal Government's fiscal policy. I know monetary policy you can't do much other than with student loan interest rates, but we really have a responsibility.

As we look at poverty in our society, we have knocked it down. Frankly, 20 percent of our children are under the poverty line. That is twice the number that are in poverty. Twenty percent of our children live in poverty.

The lack of health care coverage, the number of housing problems that we have, are greatly accelerated with 5.3 million families living in inadequate and poor housing.

And, of course, we have the weakened advocacy roles of labor unions because of changes in the economy and other legal factors. And we have the merger phenomena we all see going on, which seems to me to weaken the very basic markets that we advocate.

Everyone likes free enterprise, they don't like to practice it so much. They don't like the part about losing money. Certainly we at the Federal Government, the Federal Reserve, must be free to address the monetary policy and the integral independent function to which reasonable people may disagree, but also of course the fis-

cal policy. And this fiscal policy, is topic A of the discussion on the floor today as we move forward with this practically trillion-dollar change in terms of what is going down.

Last, in an effort to try and gain a majority on the floor, we have now apparently tied the fiscal policy to the monetary policy train. It has been hitched up, welded together as it were, and placed on this automatic pilot. This, in essence, surrenders, in my judgment, our constitutional responsibility and that of the Executive upon the altar of monetary policy.

Indeed we could say to the people that we represent, "Look, Mom, no hands." The fiscal locomotive will follow, would be welded, as I said, to these non-elected individuals' actions of the Federal Reserve Board, led by, of course, our revered Chairman today. Who knows who tomorrow?

The Federal Reserve Board, which disavows establishing interest rates, masks its actions and decisions in the cloak and clothing of market-oriented responses. In reality, frankly, that garment has worn paper-thin as the Fed has nakedly stepped forward in the past; and, just most recently, with such actions as preemptive strikes in judgments, a market irrational exuberance.

I don't deny you that role. I think it is an important role. I think what you did and your governor did in New York with the hedge fund problem was very important. I just wish that there would be a little more candor with regards to admitting to the role that was played.

We need a full functioning team, in my judgment, not one that is surrendered and subservient, and not one that places the so-called crown jewel decision of policy on the Federal Reserve Board midnight express train. That is my concern.

What do you think, Mr. Chairman, about our decisions that are predicated on other things in terms of monetary policy? Do you think it is important from an economic sense that Congress remain responsive and have the decisionmaking ability to in fact exercise sound fiscal judgments with regards to productivity investment in people, with regards to housing, with regards to the litany of issues that I have expressed here?

Mr. GREENSPAN. I certainly do, Congressman. Congress has to make decisions on what the fiscal policy of this country is, and because you have created effectively a central bank to which you delegate the responsibility of monetary policy, it is important that Congress continuously oversee what we do. Because as you point out, we are not elected representatives, we are appointed. What we endeavor to do is carry out the will of the Congress as mandated by the law. That, in my judgment, requires—and indeed necessitates—appropriate oversight on the part of the Congress.

Mr. VENTO. My time is expired.

Chairman LEACH. Thank you.

Before turning to Mr. Bachus, I would say that he asked the question what the Fed computers would indicate if the Chairman wasn't reappointed. I have asked staff to check our Cray computers in the Banking offices. They have indicated by the year 2008, there would be a 6.32 percent reduction in the GDP. So then we asked it should the Chairman be reappointed and it came out with a little card that said, "no brainer."

Mr. Bachus.

Mr. BACHUS. What you are saying, Mr. Chairman, is that in our models it is not a dummy factor.

We talked about the surpluses here this morning. You have been asked about—you have commented it is difficult to project surpluses. I would most definitely agree. I would say to my colleagues on both sides of the aisle that if we don't have Social Security reform and real Social Security reform, there are not going to be any surpluses. I think that we can certainly project that. I am not going to ask you to comment on that or try to draw you into that.

I asked you about the trade deficit, the \$21.3 billion record trade deficit. Is that sustainable? What are the ramifications? We have got a strong dollar right now. Can that continue?

Mr. GREENSPAN. The issue of what has the broader definition, namely the current account deficit which is essentially what we borrow from abroad, or what is invested from abroad, which is the other side of that, is becoming an increasingly larger proportion of the GDP.

We have obviously asked ourselves how long could that be sustained without inducing imbalances to the structure of our economy. One of the reasons for it is the fact that we have a far higher sensitivity to import goods; namely, that the relationship between imports and domestic income is far more sensitive in the United States than it is abroad. What that means is that if you have a generally flat world economy, the United States would continue to import more and create a larger deficit, offset by larger surpluses abroad.

In other words, our elasticity to import is out of whack. If you put that into a computer indefinitely and if you project indefinitely into the future, you get very large numbers.

Nonetheless, what we see is the fact that in the current environment, as I point out in my prepared remarks, a goodly part of the opening up of the current account deficit is apparently being driven by the high rates of return on new facilities in the United States, largely high-tech type facilities, which has attracted capital to the United States, kept the dollar strong—which is one way that you know this is in fact what is happening. And the result of that, effectively—because capital is being moved into the United States—is that it necessitates that the current account deficit, meaning the difference between exports of goods and services on the one hand and imports of goods and services, widens; meaning a higher proportion of imports relative to exports.

Theoretically, that obviously cannot go on indefinitely. Something has got to give somewhere. And where it apparently will give at some point in the future is a lesser inclination to hold dollar claims on the United States. At the moment, there is almost no evidence that that is the case. Indeed, it is the other way around. So the first sign that we may be in some difficulty would be a disinclination on the part of foreigners to continue to purchase dollar-denominated assets in the quantity in which they are, on net balance.

Mr. BACHUS. I have handed you a chart showing the raw industrial cost and they basically are flat through about October of 1997. Then there is a steep decline through March of 1999. Then we see a flattening out again. I think what the flattening out shows is that

we are not—you are not—it is not having an influence one way or the other. But how significant—

Mr. GREENSPAN. Well, we have looked at these data in some detail. We obviously find them useful but, strangely, in ways different from the ways that most people would think. Because we are becoming increasingly high tech—an economy which is more conceptual than physical—the impact of commodity prices on the general price level is overwhelmed by the high-tech price effects. As has been mentioned on many occasions before this committee, the prices of computers, software, and telecommunications equipment are all going down as we move toward this outer edge of technology.

I find the raw industrial component of the Commodity Research Bureau (CRB) futures index, which is what we measured here, actually is a pretty good measure of what industrial activity is likely to do. You are talking about, I presume, what is happening to steel scrap, copper wire bar—not so much wire anymore, but copper, aluminum—these are all highly sensitive industrial commodities which tend to fluctuate far more than general industrial production. These prices tend to reflect the order intake that is going on, which in turn is not a bad measure of what activity is.

So as we go to a more impalpable economy, things far less physical than they were 50 years ago, the actual impact of industrial commodities on the general price level diminishes, but they are nonetheless fairly important indicators to tell us what is going on in still a very significant part of our economy; namely, basic industrial activity.

Chairman LEACH. Thank you.

Mr. Frank.

Mr. FRANK. Preliminarily, Mr. Chairman, I was interested in your comment in response to Ms. Waters' comment of the proclivity of Democrats to increase spending. And I was particularly interested in how that would fit with your strong plea for increased agricultural spending. So I don't know whether that passage is some further switch, although I guess it does reflect the view that to many of my conservative friends, agricultural spending is somehow exempt from Government spending.

On that point, I was very pleased to see Mr. Greenspan repeat a point that he has made before on page 3—page 5 rather—where he notes that the decline in military spending worldwide has freed up resources for more productive endeavors. We have a mistaken view around here that military spending somehow has, as a partial justification, the effect of stimulating the economy. It is important if you need it for defense, but as Mr. Greenspan has noted on several occasions, it is a negative rather than a positive, everything else being equal in terms of the economy.

Chairman LEACH. If the gentleman would yield, this gentleman acknowledges sin, but he does believe that it is rooted in Biblical aphorisms; that is, that we want to move from swords into plow shares spending.

Mr. FRANK. Are you going to put that up on the wall, too, like you voted to put everything else up on the wall in the Bible?

The question is, though, about preemption. I find much of the statement is very admirable and I appreciate you talking about the

social importance of bringing people into the economy. You have been on the periphery, and I appreciate your acknowledgment that preemption is a two-way street, as you did I think when we had the international crisis in 1997 when you raised interest rates to preempt depression or recession.

But I have a question about preemption. The tone of the statement, the tone of much of what the Federal Reserve has said, is to acknowledge that there are no present indicators of inflation and no indicators that it is coming. The argument for preemption is, and I understand it, that a little now would be better than a lot later. But it assumes in part—and this has all been part of the argument for preemption—that inflation was a particularly infectious problem in the economy. The argument for preemption has often been that once inflation begins, it is too late to try to stop it, that you must in effect preempt it because it travels so fast.

The point I would make is this. In your statement you have a couple of arguments which I think note that is no longer as much the case. For example, on page 5, "The consequent erosion of pricing power has imparted an important imperative to hold down costs."

On page 2, "The good inflation performance reinforced by fallen import prices has fostered further declines in inflation expectations over recent years."

There have been, as you noted, structural changes in the economy over and above technological change: deregulation; removal of oligopoly and semi-monopoly. My point would be this. Isn't it the case that many of the same factors that have reduced inflation, in fact, also not destroy, but lessen the infectiousness of inflation? In other words, the diminution of inflation is in part a diminution of inflationary expectations of reactions built into the economy, and it does seem to me that that weakens somewhat one of the arguments for preemption which was, oh, my God it is too late, you can't be a little bit inflationary, and so forth.

So to what extent do the factors that have changed the economy, that have helped reduce inflation, also alter one of the arguments that says do you really have to pounce on it like a hawk? Which I must say I think applies to some of the other members of the FOMC rather than to yourself.

Mr. GREENSPAN. Well, Congressman, it is not at all clear the extent to which the degree of infection was as virulent as a lot of us thought it was indeed in the past. It is an open question. The issue of preemption, as I point out in my remarks—

Mr. FRANK. To clarify, Mr. Greenspan, if I could on that point, what you are acknowledging, it seems to me, is that it is less virulent than people thought it used to be. Whether they are correct in thinking that or not, we can debate. But clearly it is not now as virulent as people thought it used to be.

Mr. GREENSPAN. Yes. And it is also the case that the issue of being preemptive is something which, by definition, we really ought to be if we can. I mean, the alternative is to say we perceive things occurring and we won't do anything about it. So it is an issue of the capacity to perceive that something may be emerging and decide whether something is desirable to do.

Mr. FRANK. I understand. But the preemption, the more preemptive you get, the less reality you need to trigger the preemption. I think I understand that reality is one of the more important factors, given the negative factors that preemption can have.

Mr. GREENSPAN. Most of the time we can't be preemptive because, as I point out in my remarks, the future is opaque. It is very difficult to forecast successfully. We do not believe that it is appropriate for us to act until we have a reasonable conviction that certain imbalances will arise.

Mr. FRANK. I appreciate that very much. I think preemption has been somewhat overrated. One other question which you may not want to answer, or convey in writing if we run out of time. You talk about the trend in the economy. For instance, page 11, "Mechanisms are in place that should help to slow the growth of spending and will pace more consistent with that of potential output growth." And you acknowledge that our capacity for growth appears to be greater than it was. There has been an increase. You talk here that you expect the growth rate of real GDP to be between  $3\frac{1}{2}$  and  $3\frac{3}{4}$  percent. What is it? What is the potential output growth rate of the economy? At what rate can we grow without giving you agita?

Mr. GREENSPAN. I will answer the question in a very unusual way.

Mr. FRANK. Like, directly?

Mr. GREENSPAN. That would give you a heart attack.

Mr. FRANK. It would, it would.

Mr. GREENSPAN. We cannot tell at any particular point in time what the actual potential is, because it is a very difficult thing to measure. But it shouldn't be our concern. Our concern should be the imbalances that emerge, not an issue of a judgment as to what a fixed rate of growth is and, beyond that, problems of imbalances.

Mr. FRANK. That is very important. I appreciate that. I must say I was under a misapprehension, I think maybe others were, and I appreciate the indulgence, briefly, Mr. Chairman, because I do think that many had thought—some of the financial writers talk about a number. You speak 2 and  $2\frac{1}{2}$  percent. It is now 3 percent. What you are saying is that the number is actually irrelevant in the sense that the number is the product of these forces and you wouldn't get the forces. So that people should not get too concerned if it is 3,  $3\frac{1}{2}$ , or 4.

Mr. GREENSPAN. I don't. Other people do.

Mr. FRANK. If you don't, a lot of people don't. Thank you.

Chairman LEACH. Mr. Castle.

Mr. CASTLE. Thank you, Mr. Chairman, and thank you, Chairman Greenspan. Unfortunately, I have been over in the Intelligence Committee and haven't heard all of what you have said. I want to talk about an important matter on the House floor today that we are going to be dealing with shortly and that is obviously of tremendous interest to you, of overwhelming interest to the United States of America, and that is the tax cut package of \$792 billion.

First, my understanding from all you have said here today and you have always said in the past is that you believe that debt retirement is probably the best thing that we could do; and if not

that, perhaps the thing that could really get us in trouble from your perspective is to spend it all. That is a generalization, but I want to know what your thoughts are about the specifics of a tax cut of that magnitude. I am not interested in the individual subject matters therein. One could kick that in terms of who benefits and who does not.

But this is a tax cut of significant proportions and I am sure that—or I would hope, because it is both in the House and the Senate the same number—that you and your folks have spent some time analyzing not only—how you predict ten years, I don't know, but not only projecting what is happening over the next ten years, but even the out ten years. I would be interested in your views on that.

Mr. GREENSPAN. As I indicated earlier, it is very difficult to project with any degree of conviction when you get out beyond twelve or eighteen months. As a consequence, if you try to simulate what is going on out there, you need to answer an awful lot of questions which we don't have the answers to.

For example, as I indicated in my prepared remarks, the rate of productivity growth has been increasing; that is, the rate of growth itself has been rising. The normal projections that we make with respect to what the economy will be doing in the longer run requires that we have a very firm judgment on what the long-term productivity growth is.

I would submit at the moment we don't have that good judgment, so that the potential, if you want to put it that way, of what the economy is doing and therefore what the impact of a specific type of cut in taxes will do is not easy to judge.

As I said earlier, I think that we would be well-advised to be prepared in the event of the next weakening of the economy—which as I indicated is bound to occur. I don't know when it is. I hope it is extended out very significantly into the future. But there will come a time. And because of the fact that we have seen such a remarkable expansion in the surplus and a reduction in the debt, which is a very positive effect as a consequence, I can very readily see that we will get out to a period where the debt has been reduced very significantly—indeed, according to some of the projections to zero—and at that point I would think that all of the surplus would be going to tax reduction.

Mr. CASTLE. Let me be specific on this. I don't know if you agree with CBO or have looked at CBO's estimates that we are going to have an on-budget surplus of \$996 billion over the next ten years or not, but I would like to know, if you have and if you have, if you agree with our estimates.

That involves two things. It involves not only revenue projections but predicting the behavior of Congress in terms of spending habits. If that is the case, are we safe in allocating 80 percent of that now for tax reductions, or is that a step too far at this point? Or what are your views—

Mr. GREENSPAN. Congressman, I don't want to get into the specific details of any of the bills up there, but I will say the following: that we do know a significant amount of the revenue projections presuppose what I was mentioning before, namely, the so-called technical adjustment. The technical adjustment, as I indicated ear-

lier, is a euphemism for our lack of understanding of the relationship between what is going on in the economy generally and what happens to tax receipts.

There are very complex reasons for that degree of uncertainty. We can make usual adjustments on average, and what has happened to those usual adjustments in the last four or five years is that they have been wrong. Very significantly wrong.

If you go back and look at the long-term projections of the budget deficit four or five years ago, it looks remarkably unlike what is actually happening. And so I think we have to understand if you are dealing with a level of outlays and receipts approaching \$2 trillion, very small changes in your estimate on either side of those come together and they can create a very significant deficit. As a consequence, our ability to project is weakened.

That is the reason why I have argued that we ought to allow the surplus to run the debt down. Remember, if we reduce the debt, for every dollar we reduce it we are increasing the capacity to borrow it back by one dollar. So you always have the capability of, if need be, letting the surplus run, run down the debt to the public, and then if we decide at some later date that there is some structural positive force there, we can borrow all of that back and cut taxes with it if we so choose. So it is not an issue that that decision has to be made immediately.

There is nothing that I can see that would be lost by allowing the process to delay unless, as I have indicated many times, it appears that the surplus is going to become a lightning rod for major increases in outlays. That is the worst of all possible worlds from a fiscal policy point of view and that, under all conditions, should be avoided.

I have great sympathy for those who wish to cut taxes now to preempt that process, and indeed if it turns out that they are right, then I would say moving on the tax front makes a good deal of sense to me. I hope that that is not true. In any event, I think that we can wait a short while to make a judgment whether it is true.

Mr. CASTLE. Thank you, Mr. Chairman. I yield back, Mr. Chairman.

Chairman LEACH. Thank you very much.

Mr. Kanjorski.

Mr. KANJORSKI. Thank you, Mr. Chairman.

Mr. Greenspan, I am starting to suffer from a problem of thinking that, rather than being in the House of Representatives, I am in the House of Orwell. Some thirteen months ago the House of Representatives passed a resolution to terminate the tax code by 219-to-9. I suspect that vote was rather along party lines. Today we are about to add 500 pages to that tax code.

It seems to me that all hope of simplification has now disappeared. While we are on this tremendous march to hand out the benefits of the surplus that none of us is certain is going to occur over the next ten years, we cannot spend the time to solve the problems of Social Security, Medicare, defense spending, and other programs that seem to have had a high priority prior to this time.

Just last week I had occasion to travel across America with the President. I visited places like the Mississippi Delta, where 44 percent of the people do not even continue on past high school and all



suffer from relatively high unemployment and very low income. I visited areas of Kentucky, where the income borders just a little above the minimum wage and they are obviously not sharing in the prosperity that presently exists in America. I visited the Indian tribe country of South Dakota where 75 percent of the adult population is unemployed.

Then I had occasion to witness some inner-city Hispanic communities, newly-arrived in this country, and becoming part of the American opportunity, as it were. Finally, I visited youths who, a few years ago, were in gangs and are now studying computer technology, helping to design automobiles and doing things that are really, surprisingly, pleasurable, shocking.

However, we have been focused on this theme today of tax cuts, and I go back to what I said about the House of Orwell. One day we were for devolution. Then I go out and I find Mississippi, the 50th-ranked State in education, and very poor. Here we can test this methodology and determine how it is being used on the State level to help things out. We have this dry run on the national level to get out of education, to get out of these responsibilities and turn them back to the States. But yet we have these bad problems, these serious devolution problems.

I know in the past you have expressed dissatisfaction with the ongoing shift of income distribution toward the very highest earners. As you know, two-thirds of the benefits of this tax bill on the floor today go to the top 10 percent of earners in this country, those people earning over \$115,000. It hardly promotes what you would call a shift in the distribution of income to solve the imbalances that obviously have been exacerbated by the prosperity of the last few years.

How is monetary policy, under the present conditions, affecting this trend and what might be done to address the shift in the future? More specifically, would the President's plan to promote economic growth in our underserved areas, harnessing the power of the private sector's capital markets, help us to achieve the goal of evening the income distribution across all wage earners? Can you express your opinion on that?

Mr. GREENSPAN. Congressman, first of all, let me say that the shift toward concentration of income, which has been quite pronounced from the early periods of the expansion, is now at least flattening out. In other words, it is not progressing in the last couple of years, largely as a consequence of a significant number—as I indicated in my prepared remarks—of people, for example, with less than a high school education moving into the work force, learning skills, and getting up on the first step of the ladder to economic capability.

The basic problem that I am concerned about, as you mentioned, is that we should be moving to a society where the broad segment of society believes that the distribution of rewards are fair. And the issue of fairness is a very subjective issue, but I think that it really means that people earn what they get. And what is good about our society is that it has never, as best I can judge, been envious of those who make huge amounts of income, because they have earned them. There is always concern about the unearned income, and I think that is a very legitimate issue.

I can't comment very specifically on the President's program, because I am not sufficiently knowledgeable about the specific detail. But as I mentioned to your colleague to your right many times in the past, I believe that we should be very proactive in endeavoring to find means to get equity into those areas of our society where the level of productiveness—the level of employment is low and the amount of capital investment is subnormal. And in my judgment, the way to come at this is to try to create the same forces of economic incentives which have done so much to the vast proportion of our economy and apply it to the inner cities and apply it to those areas of our economy which are falling far short, which is what I hope most would like to see.

Chairman LEACH. Thank you, Mr. Kanjorski.

Mr. Royce.

Mr. ROYCE. Thank you, Mr. Chairman.

Chairman Greenspan, the first question that I would ask you is, some of the Asian countries that were in crisis seem to be recovering, others not so well. What is your assessment of the region's economies and what, if anything, we should be doing to promote Asia's economic recovery?

Second, I am well aware of your views on capital gains tax relief, but for those who haven't heard it, could you tell us your views on capital gains taxes and what the effective rate should be?

Lastly, high taxes do cause distortions in the economy. What we will probably end up with here, in terms of the Congress, the vote in the Congress, is something that sets aside two-thirds of the surplus for Social Security and Medicare and the other one-third for tax relief. But probably we will tie that to some type of tax trigger where, if the surplus continues to grow, one-third would be for tax relief.

The question I have is, if it comes down to the two different choices, the Archer plan or the Roth plan, they both address distortions in the economy, but the Archer plan addresses higher marginal rates and that reduces incentives to work and reduces the return on savings and thus reduces economic growth. The Roth plan, on the other hand, reduces the distortion in savings and capital formation by creating the tax free savings accounts and allows individuals to receive the full pretax return, and this causes the creation of additional capital and increases productivity and increases real wages. So we have got a choice here between the 401(k) plans and the IRAs and the Roth plan, to go from 15 to 14 percent, versus the Archer plan that has the 10 percent rate on the lower capital gains and the reduction of the inheritance tax over time.

Which of those—in terms of distortions in the economy, which of those would be preferable if we do come up to making a choice between them?

Thank you, Mr. Chairman.

Mr. GREENSPAN. Congressman, with respect to your question on Asia, I think that the evidence does indicate that there has been significant recovery in some of the countries. Certainly in South Korea there has been fairly dramatic increase in both industrial production and gross domestic product. The other areas of East Asia are also recovering somewhat slightly less so than South Korea.

In all cases, there is considerable concern, however, that that very fact is probably lessening the intensity of the willingness to create the types of reforms that they are going to need in those economies to prosper in the years ahead. And I am fairly well convinced that the economic policymakers within those governments are acutely aware of that problem and are concerned about it. One can only hope that the areas where progress has been most significant, namely where they have opened up their economies and done the types of things which in the long term are very productive, they will continue to do so.

With respect to the capital gains taxes, I have said here before that I think the capital gains tax is a very poor tax to raise revenue. I think it inhibits capital allocation and capital productivity; and as a consequence, if it is a bad tax, the obvious rate should be zero. That is where I come out.

On the issue of the choices of the various different types of tax cuts, I don't wish to characterize the plans of either of the two people who are both good friends of mine for a long period of time. I will merely repeat what I have said in the past, namely, I very strongly favor that tax cuts be directed at marginal tax rates and at capital gains taxes, largely because I think to enhance economic growth and maintain the type of viability that we have seen in this economy in recent years, we should be focusing on incentives and incentives largely are reflected in their impacts at the margin.

Mr. ROYCE. Thank you, Mr. Chairman.

Chairman LEACH. Thank you, Mr. Royce.

Ms. Waters.

Ms. WATERS. Thank you very much.

Mr. Greenspan, Mr. Kanjorski and others have talked with you, raised questions about the intractable problems of the inner cities and areas where the economy is not performing in the glorious ways that you have described overall—about the overall economy. And this problem persists. You mentioned that there was a flattening out of the gap, or the haves and have-nots. But my latest information shows that the richest 1 percent of Americans now control 40.1 percent of America's wealth, and that is double the 19.9 percent of wealth the top 1 percent held in 1976, I believe it is, or 1996. So it does not appear that there is a flattening out, and if that is not correct, please correct me.

Second, when you talk about maximum sustainable growth, is there anything that prevents against a discussion about a surplus being used for the poorest of our society in some ways? For example, there are people that come with capital formation plans that talk about Government providing capital, not giving it, but providing capital that would be used for loans and investments to entrepreneurs and business persons who cannot get capital from our traditional institutions, and the Government being paid back because there is a strong belief that this capital can be invested in ways that can reap profits and the money can be paid back. But there is never any discussion.

Of course, we discuss the debt and why it is important, perhaps, to have the surplus pay down the debt. But can you discuss any positives relative to surpluses being used for investment in these communities that were described on this tour by Mr. Kanjorski in

ways that can help fuel—that would be helpful to the economy? I never hear that kind of discussion, as you talk about what it takes for maximum sustainable growth. I would like to know if you can entertain some discussion in that area.

Second, Mr. Frank alluded to some comments or discussion about the agricultural community and investment, I suppose, of dollars that would go into the agricultural community. We have seen historically that Government dollars spent in the agricultural community have grown the ability of farmers to produce wealth in this country, whether it was the old electrification or investment in infrastructure that would support agriculture. It appears to have been very, very productive in this country in the same communities where we are talking about a lack of capital, a lack of investment.

I know your response about what equity investment can do. Aside from that, can you also discuss what perhaps it could mean for investment to close the digital divide and the computer gap, so that we don't continue to have these communities fall further and further behind. It appears that unless these communities are wired, unless they can build what is referred to as backbone or have portals, and so forth, that again this new technology is going to elude these communities and create more poverty.

So I would like to hear some discussion about Government investment in capital formation, moneys that will be paid back, can be paid back with interest; but the capital is not available in these traditional institutions, so it has got to come from somewhere. And while we allude to what good equity investment can do, it is just not forthcoming. They who have it don't do it.

Can Government play any role in that?

Mr. GREENSPAN. Well, Congresswoman, let me say first, there is no question that in the agricultural area there has been a very dramatic increase indeed. Productivity growth in agriculture far exceeds the rate of growth in the rest of the economy. It is a very questionable proposition, however, in my judgment, that that has been the consequence of Government programs. I don't think so.

A substantial part of what has been going on there is the result of many technologies which have occurred outside of agriculture and happen to apply in the agricultural area—biotech, electronic, and computer-type of technologies.

I do think the same type of focus in the inner cities is an appropriate issue. My own priorities are twofold. I think, one, you cannot have a dramatically extended type of high-tech capital stock without the people there who know how to use it and can function with that technology. So in my judgment, the crucial issue is education, to get people to know how to use and apply these things. I don't think it automatically happens if you put a computer in front of somebody that they learn how to use it. That is effectively a presumption which, in my judgment, doesn't work, and I have had considerable unfortunate experiences in that regard.

We have to build up basic learning skills in math, in all numerical types of professions, to enable people to address this new high-tech reality. If you cannot do that, if you cannot get the people to do that, if you cannot get the resources to do that, it is going to be hard to get the investment in those particular areas.

I am not very sanguine about Government finding a way to create investment which somehow the private sector does not perceive to be desirable and end up with some new, great, higher standard of living. All of our experience, regrettably, with Government investment where private sector does not wish to go, both in the United States and, I might add, elsewhere, has been, in my judgment, most ineffective.

What we have got to keep focusing on is the issue of getting private investment in our inner cities. I will reemphasize, it has got to be largely equity investment. There is too much debt being engendered and subsidized in our inner cities and in our lower-income communities. We have got to create incentives, because it is only in that way, I am convinced, that we can move these economies up to a viable level which gets them into the mainstream of the American economy.

It is a crucial priority. I think it is very important that that be done. Unless all Americans perceive that our society works, I don't think that we can look forward to having a functioning system the way that we would want it to be.

So, I fully agree with your purposes. I don't think that endeavoring to try to get Government programs to do it will succeed. We have done that time and time again in the past, and I think we have failed in doing so. And I think that we have to try to do something different, because we cannot take continuing failure time and time again without creating huge levels of discouragement among people. That would be terribly destabilizing to our society.

Ms. WATERS. Mr. Chairman, I wish I had more time to really engage Mr. Greenspan in some of the comments that he just made. I don't have that time. I hope that I will have time to get with him to talk about subsidies, irrigation, sponsored activities by Government, electrification, SBICs that have fueled MCI and others, because it is all Federal. It is all Federal.

And beyond that, certainly education is extremely important, and we have got to push and fight for it. But I want to tell you about young folks graduating from high school in Silicon Valley, who are making \$70,000 and \$80,000 a year the first year, not because they are not capable of doing so, but simply because the investment was there and the opportunities were there. Now is not the time, I don't have the time, but I certainly want to talk to you about that.

Mr. GREENSPAN. I would be most interested in discussing that with you.

Chairman LEACH. The Chair would simply note the gentlelady's contributions to this committee have been extraordinary, and I would hope that the staff, in particular, would be willing to come up and speak at any time with the lady.

Dr. Paul.

Dr. PAUL. Thank you, Mr. Chairman. I appreciate this opportunity.

First, I would like to say that I hope the Humphrey-Hawkins requirement continues; I think that is important. I do also note that frequently at these hearings we don't talk much about monetary policy, which is the purpose of the meeting. We frequently talk about taxes and welfare spending.

I would like to concentrate more on the monetary policy and the value of the dollar. There are some economists who in the past, such as Mises, von Hayek, as well as Friedman have emphasized that inflation is a monetary phenomenon and not a CPI phenomenon, it is not a labor cost phenomenon. When we incessantly talk about this, whether it is the Federal Reserve, the Treasury, Congress, or the financial markets, we really distract from the source of the problem and the nature of our business cycle.

I certainly agree that technology has given us a free ride and has allowed us this leverage, but we have also been permitted a lot of inflation, that is, the increase in the supply of money and credit. Since 1987, we have had a tremendous increase in money. The monetary base has doubled; M3 has gone up \$2.5 trillion. This money has gone into the economy, but we have reassured ourselves that the CPI has been stable so therefore everything is OK. Yet the CPI has gone up 44 percent since 1987.

Real growth in the GDP has not been tremendous. It is about 2.3 per year. But we have had a tremendous increase in capitalization of our stock market going from \$3.5 trillion up to \$14 trillion. That is where the money is going. This generates revenues to the Government. This has helped us with our budgetary problems.

At the same time, we ignore the fact that hard money people emphasize that not everybody benefits, and there has been a lot of concern expressed that people are left behind, farmers are left behind, the marginal workers are left behind. Some people suffer more from a higher CPI than others. These are all monetary phenomena that we tend to ignore.

But you have admitted here today and in the past that the business cycle is alive and well and that we shouldn't ignore it—in your opening statement, you said that we should be especially alert to inflation risks. I think that we certainly should be. And you have expressed concern today and at other times about the current account deficit, and this is getting worse, not better. Our trade balances are off. But I would suggest maybe we have seen some early signs of serious problems because foreign central bank holdings now of our dollars have dwindled to a slight degree. In 1997, they were holding over \$650 billion and they are slightly below \$600 billion. At the same time, we have seen the income from our investments dwindle to a negative since 1997. So I think the problems are certainly there.

But I would like to talk a little bit more about, or ask you a question about, this balance of trade and the value of the dollar, because history shows that these dollars eventually will come back. And you have assumed that, that they will, but that essentially the problem that we got into in 1979 and 1980, there is no guarantee that that won't happen again. That means that the markets will drive interest rates up, we will have domestic inflation, the value of the dollar will go down.

My question is, what will your monetary policy be under the circumstances? In 1979 and 1980, you were—not you, but the Fed—was forced to take interest rates as high as 21 percent to save the dollar. My suggestion is, it is not so much that we should anticipate a problem, but the problem is already created by all of the inflation in the past twelve years and that we have generated this

financial bubble worldwide and we have to anticipate that. When this comes back, we are going to have a big problem. We will have to deal with it.

My big question is, why would you want to stay around for this? It seems like I would get out while the getting is good.

Mr. GREENSPAN. Dr. Paul, you are raising an issue which a significant number of people have been raising over the years and for which, frankly, we are not quite sure what the answers are. It is by no means clear, for example, that one can trace the increase in money supply, which presumably has not reflected itself in CPI, into stock values. A lot of people say it is happening and a lot of people assume that is what it is, but the evidence is not clear by any means.

Dr. PAUL. May I interrupt, please? Did you not write that that was the case with the 1920's and that was the problem that led to our Depression?

Mr. GREENSPAN. No, I didn't raise the issue that it was in effect the money supply, per se. What I was arguing many, many years ago, and I still think, is that in 1927 involving ourselves with an endeavor to balance the flow of gold in favor of Britain at that time, we did create a degree of monetary ease which was one of the possible creators of speculation in the market in 1928 and 1929. What is not evident in today's environment is anything like that is going on.

We cannot trace money supply to a speculative bubble. If a bubble, in fact, turns out to be the case, after the fact, we will have a considerable amount of evaluation of where it came from. But as I have said before this committee and, indeed, before the Congress on numerous occasions, we are uncertain as to the extent to which there is a bubble because, as I said in my prepared remarks, to presume there is a bubble of significant proportions at this particular stage and that the bubble isn't significant doesn't have any meaning; we have to be saying that we know far more than the millions of very sophisticated investors in the markets. And I have always been very reluctant to conclude that.

We do know that a significant part of the rise in prices reflects rising expected earnings, and a goodly part of that is a very major change in the view of where productivity is going. What we do not know is whether it is being overdone or to what extent it is being overdone.

I have always said I suspect it is, but firm, hard evidence in this area is very difficult to come by. It is easy to get concerned about it on the basis of all sorts of historical analogies, but when you get to the hard evidence, we do know that inflation is a monetary phenomenon, but what we have a very great difficulty in knowing is how to measure what that money is.

Remember, M2, M1, all of that are proxies for the money that people are talking about when they are referring to money being the creator of inflation. We have had great difficulty in filtering out of our database a set of relationships which we can call true money. It is not MZM, that is, money with zero maturity, it is not M2, it is not M1, it is not M3, because none of those work in a way which would essentially describe what basically Hayek and Fried-

man and others have been arguing, and I think quite correctly, on this issue.

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

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

Mr. Sanders.

Mr. SANDERS. Thank you, Mr. Chairman.

It is nice to see you again, Mr. Greenspan. I have just a few questions that I would like to ask, Mr. Greenspan.

In 1973, the average American worker earned \$502 a week. In 1998—with a good increase, I should add, over 1997—the average weekly income was \$442, 12 percent less than in 1973. So if the average worker is earning 12 percent less in 1998 compared to 1973, if the typical married couple is now working 247 hours more in 1996 than in 1989—we have seen people all over this country working two or three jobs, and so forth—I don't quite understand; maybe I live in a different world than my colleagues—how the economy is booming. That is question number one.

Number two, we talked a little bit about the distribution of wealth. The wealthiest 1 percent of our population now owns more wealth than the bottom 95 percent. One man, as I understand it, owns more wealth than the bottom 40 percent of our population. CEOs now earn over 400 times more money than do their workers; and we continue to have, by far, the most unequal distribution of wealth in the entire world, proliferation of millionaires, and 22 percent of our children living in poverty. Please be as direct as you can in a moment: How do we address this growing inequality of wealth and income in this country?

Third, you made a statement a moment ago that income distribution was leveling out. I have in front of me a recent CBO report that just came out last week. What it says is that between 1991 and 1999 the top 1 percent of family income went from 12 percent to 15 percent, a very significant increase, whereas every other quintile—lower second, middle fourth—sort of declined in their percentage of income.

Mr. Chairman, I would like to submit that chart to the record. It seems that income distribution in this country is not leveling out, but the rich are continuing to gain more and more.

[The information can be found on page 96 in the appendix.]

The other question that I have is, a couple of years ago you and I dialogued, and I know you were public upon this, about your views on the minimum wage. You and some other people argued that if we raise the minimum wage from \$4.25 an hour to \$5.15, there would be more unemployment and more inflation. But the fact of the matter is, unemployment is lower than it has been in many years. There is virtually no inflation.

Is it still your view that we should not raise the minimum wage so that our lowest-wage workers can escape from poverty?

You, a moment ago, I think reiterated your views on capital gains tax cuts. It seems to me that the evidence is pretty clear, however, that capital gains tax cuts primarily benefit the wealthiest Americans. According to an analysis by Citizens for Tax Justice, the wealthiest 10 percent of all Americans would enjoy more than 90 percent of the capital gains tax cuts in the House tax bill



which is before us today. If we are honestly concerned about addressing the growing gap between the rich and the poor, why would we give upper-income people the lion's share of tax cuts?

The bottom line of my questioning, Mr. Greenspan, is, I do not agree with my friends here. I do not agree with what I see on television every day, that the economy is booming for the middle class and the working families of this country. I think people are stressed out. They are working incredibly long hours. In many instances, they are working for lower real wages than was the case before. I think that we have an obscenely unfair distribution of wealth in this country where so few have so much and so many have no health care, having a hard time sending their kids to college.

These are a few of the points that I would very much appreciate your speaking about.

Mr. GREENSPAN. Congressman, let me come at this seriatim. First of all, the numbers that you are using on decline in the average worker's income, I believe come from a faulty set of data that are being published by the BLS in that if you look at real per capita income, you indeed find there is significant growth and that this is a statistical problem, which we have been struggling with for a while, as to what to do with that set of data.

Second, on the CBO numbers, I was referring to the last two years. The numbers you were referring to, or the CBO was referring to, were the last eight years. Indeed, from 1991 to 1997, I suspect that that is correct. It has not been correct in the last couple of years where the increased concentration, as best I can judge, has not been occurring. It has stabilized and may even flatten out.

We do not yet have detailed data for this year, and as a consequence, it can only be a conjecture. I merely reflected the fact in looking at, as I indicated earlier, the unemployment rate of those who tend to be in the lower income groups, that my impression is that when those data come out, you will find in the last couple of years that the economy has had an extraordinarily positive effect in this direction.

On the issue of wealth and the like, let me just say that a crucial question I think you have to answer is whether or not if somebody gets wealthy, it is at your expense. This is not a zero sum game. What we have seen is a very dramatic increase in overall wealth in the United States, and while I do not deny that there are very major holdings of wealth by individuals, it is by no means clear to me that these have in any way been extracted from other people in the society. They are the consequence of new ideas, new wealth creation, and have been fundamental factors in pulling the whole economy up. I would in no way consider that that is a negative force in a free society that we experience and, I hope, enjoy.

On the issue of the minimum wage, I still hold to what I said previously. I never argued, nor would I, that in a period of strong pressures in the labor market, which is indeed what we have been seeing recently, that you find any result from the minimum wage on the issue of employment. Indeed, I think that it is very unlikely when these labor markets are as tight as they are, that the minimum wage has a significant effect in preventing people from getting on the lower ends of the economic ladder to get a job.

My concern is that when the labor markets begin to weaken, those people who are not allowed by law to accept a wage beneath a certain number can find no job. As a consequence, they do not get on the first rung of the ladder, cannot achieve job skills, cannot achieve the self-esteem that is necessary to move up the ladder.

I do not perceive that the minimum wage is something which is a benevolent force for people in the lower part of our income groups. I frankly think that it is something that deprives them of gaining what they should be obtaining by right, and I do not consider the minimum wage as a positive force in our society. I think it is precisely counterproductive to what you suggest it is trying to do.

Mr. SANDERS. I certainly wish we had the time to engage in a dialogue on this, because I think that you are wrong in many instances. I would just simply say, Mr. Chairman, that I think there is something profoundly wrong when we read in the papers—last week in *The Washington Post*, some 40,000 kids in this city, in the District of Columbia, go hungry—and at the same time, we have a proliferation of millionaires and billionaires. And there are those who want to cut back on taxes for the richest people and, therefore, cut back on programs like nutrition programs. I think that is wrong and fundamentally flawed.

Chairman LEACH. Mr. McCollum.

Mr. MCCOLLUM. Thank you, Mr. Chairman.

Chairman Greenspan, in a section of your testimony entitled "Near-Term Outlook," the quotes are in here that the bank presidents and the governors expect the growth rate of real GDP to be between 3.5 and 3.75 percent over the four quarters of 1999 and 2.5 to 3 percent in 2000. The unemployment rate is expected to remain in the range of the past eighteen months; we talk about the unemployment rate remaining in that range for the next eighteen months.

I assume in the context—I am asking if I am correct to assume that the preceding statement about the GDP rate in 2000 that we are talking about, the expected unemployment rate, to remain in this past range is for the period of the next eighteen months. In other words, your near-term outlook when we talk about the unemployment rate, you are talking about the anticipation of it remaining the same for the year 2000. In other words, we are looking ahead eighteen months here in this portion of your testimony; is that correct?

Mr. GREENSPAN. That is correct. That is a result of a poll of the presidents and the governors as to what they view the outlook to be from their point of view.

Mr. MCCOLLUM. That is what I was getting at. I just wanted to make sure that I had the timeframe you were looking at for all of us. There is no mention of there being polls, so I am going to ask your opinion on this, because I don't see it here as a polling part.

Is there any sign for this next eighteen months, on this near-term outlook, of a slowdown in the rate of productivity in the economy, or is it expected, in your judgment, to continue, based on current signs for this period? I am not talking about the next eighteen months, roughly the same.

Mr. GREENSPAN. We don't ask the individual presidents and governors for their forecast of productivity. I guess we could infer it by looking at the relationship between their growth rate and their unemployment rate and knowing that the labor force is growing at a reasonable rate, but we haven't done that.

My presumption is that in all of the numbers there is a reasonably good growth in productivity, but I do not know nor can I infer what the numbers implicit in their forecast would be.

Mr. MCCOLLUM. I understand that, but I am just asking you personally now, do you see any sign in the slowing of the—

Mr. GREENSPAN. I am sorry. I didn't catch that.

The answer is, I have not; in other words, the productivity growth in the very latest data with which we are dealing shows no evidence of which I am aware that suggests an imminent slowdown.

Mr. MCCOLLUM. In the next paragraph of their outlook, it says, for the nearest term, "Inflation, as measured by the fourth quarter percent change in the Consumer Price Index, is expected to be 2.25 to 2.5 percent over the four quarters of this year. CPI increases thus far in 1999 have been greater than average in 1998, but the governors and bank presidents do not anticipate a further pickup in inflation going forward."

I assume this also is the context of the next eighteen months.

Mr. GREENSPAN. That is correct, yes.

Mr. MCCOLLUM. It also goes on to say, "An abatement of the recent run-up in energy prices would contribute to such a pattern, but policymakers' forecasts also reflect their determination to hold the line on inflation through policy actions if necessary." But I assume, again going back to your perspective on this—not theirs, because theirs is not obviously here for me to ask this of—that there is no reason to anticipate that there is going to be a pickup of inflation going forward over the next eighteen months, whether there are any policy changes or not. There is nothing out there right now to anticipate inflation being picked up, is there, Mr. Chairman, over the next eighteen months at this moment?

Mr. GREENSPAN. Well, as I have said many times, our ability to forecast is really quite limited. What we can do and, hopefully, do well, is try to evaluate what is currently going on in trying to infer what that might imply about the future; and hopefully—I hope at least—that our monetary policy reflects that. In other words, we cannot know—nor can anybody precisely know—what the economy is going to look like eighteen months from today. We don't need to know that, provided we can be aware of what is currently developing and how it is likely to go. We are, of necessity, always dealing with probabilities, and it is a judgment of cost-benefit analysis and probabilities which govern our specific actions.

Mr. MCCOLLUM. Mr. Chairman, I have been in these hearings enough with you to know better than to ask, nor do I want to imply that I am asking, any prediction about policy in terms of Federal Reserve Board. But what I am wanting to tie down here, so I fully understand this in the same context as I have asked the other questions, is that over the next eighteen months—at the present moment, as things stand today, not as they might change—is there no reason to anticipate, based upon what I am seeing here, that the

governors and the bank presidents have said, to anticipate any inflation picking up, whether there is any action taken or not.

Mr. GREENSPAN. Mr. McCollum, I have a problem with the question in the sense that there are always reasons to be concerned, if you are a central banker, that inflation will be picking up. If we become complacent and say there is really no reason, then I think we could get ourselves in trouble. I certainly would hope that inflationary forces will remain submerged. I certainly would hope that if we begin to see them emerge, we will take action to forestall that.

Mr. MCCOLLUM. I hope you do, too.

I don't want to quibble over words. My only point was this: At this moment, this day, at this hour, there is no reason to anticipate that, at this moment, based on what we see now. That is what you are saying, that is what the Board of Governors—

Mr. GREENSPAN. I am saying that the forecast that you are alluding to is the projection of the governors and the presidents. I don't want to characterize that, Congressman.

Mr. MCCOLLUM. I understand. I am not trying to quibble. I just wanted to make sure that I put in that context that we are looking at eighteen months.

Mr. GREENSPAN. Correct.

Mr. MCCOLLUM. Thank you.

Chairman LEACH. Thank you, Mr. McCollum.

Mrs. Maloney.

Mrs. MALONEY. Thank you, Mr. Chairman, and welcome, Mr. Greenspan. I am interested in the international effects of raising the Federal funds rate. In the current issue of economic review of the Federal Reserve Board of Atlanta, there is an article entitled "Understanding Recent Crises in Emerging Markets." and in this article, they place an emphasis on the rapid rise of the U.S. dollar between 1995 and 1997 as a prominent cause of the Asian crisis in 1997. I would like to quote, and I quote now, "Changes in the value of the dollar had a direct effect on the economics at the center of the Asian crisis because all those countries were tying their own exchange rates fairly closely to the dollar."

If the Fed continues to raise the Federal funds rate as it has recently done, how soon do you think there will be increased capital inflows to the United States and increased demand for the United States dollar and then increasing value for the United States dollar; and what effect will such a policy have on the economies in Asia and South America, which are trying to recover?

Mr. GREENSPAN. Well, Congresswoman, if I understand you correctly, what you are saying is that because a number of countries chose to lock their currencies into the dollar, but didn't take the types of policies that would be required to maintain the type of discipline that would be necessary to tie into the dollar, the cause of their problems is the Federal Reserve. It strikes me that if you try to lock your currency into a hard currency, you have the obligation to develop policies that are consistent with that. There is no way of getting the advantages of a hard currency without taking the actions which a country which hosts the hard currency are taking.

I object to a view which stipulates that somehow we are responsible for those who wish to tie their currencies to ours, but not do

what is required to achieve the stability that is implicit in that. I don't frankly think that is true. I think the characterization that you imply in that or what—

Mrs. MALONEY. As I said, I was quoting from the—

Mr. GREENSPAN. All they are saying is, the exchange rate was running against them. They had several choices. They could have floated their exchange rate, they could have done many things, but I object to that sort of analysis. I object largely because it presupposes that we are in charge of other people's policies; and we shouldn't be.

We want to be as helpful as we can. Over the years we have tried to create environments where we can be helpful where we can, but I do not believe that the presumption that the central bank of the United States is responsible for the rest of the world is an idea that we should foster, because I am concerned that were we to do that, we would become the central bank not for the United States, but for the rest of the world.

I do not think that is proper for us, and I certainly do not think it is proper for those with whom we deal in international financial markets or in trade.

Mrs. MALONEY. So, finally, what part do these concerns, if any, play in the current development of the Federal monetary policy?

Mr. GREENSPAN. Congresswoman, I have mentioned time and time again that it is good economic sense for us to remember that we are the central bank of the United States, that our focus has got to be on the stability and viability of the American economy. We are not without awareness of the impacts; one, that we have on others or two, they have on us. And we endeavor in various international fora to find comity among ourselves in integrating policies, one government, one central bank, to another. But the bottom line has got to be that we cannot be the central bank for others. Our problems are difficult enough in the United States.

Mrs. MALONEY. So you don't look at international concerns, only American concerns.

Finally, in today's *Wall Street Journal* there is an article where they welcome more immigration to alleviate the tight labor market. How do you feel about that? Did you see the article?

Mr. GREENSPAN. Yes, I did. I have always been of the view that we have always been a country which has people—indeed, everybody, except for a very small proportion of our society—that have roots in other countries. I have always thought that under conditions such as we now confront that we should be very carefully focused on the contribution which skilled people from abroad, unskilled people from abroad, can contribute to this country, as they have for generation after generation.

Mrs. MALONEY. I have heard you testify many times that the tight labor markets will lead to inflation, yet we seem to have astonishingly low unemployment. It is 4.3 percent right now, and we are creating 170,000 new jobs a month. Could you comment on that? Do you see that moving toward inflation, or do you feel there is a new phenomenon in our economy with high technologies?

Mr. GREENSPAN. If you look at the figures, what we are seeing is that it is the acceleration in productivity which has had such an extraordinary effect on our economy that, indeed, what it has done

is enabled us to grow at a fairly pronounced clip. It has kept inflationary pressures in check. A number of forces, which I described in my prepared remarks, join in with accelerating productivity to sustain a low inflation rate. And, indeed, the only point I make in my prepared remarks, which I have made previously, is that the total pool of those who are job-seekers—in which I include the official unemployed, plus a significant number of people who are not in the labor force, but nonetheless say they would like a job—the combination of those two has been declining.

And the point that I have been making for quite a while is I don't know where that is—the level where that will trigger market pressures. But I do know, because the law of supply and demand has got to work eventually, that there is a point at which, if that pool of people seeking jobs continues to decline, at some point it must have an impact.

If we can open up our immigration rolls significantly, that clearly will make that less and less of a potential problem.

Mrs. MALONEY. My time is up. Maybe we will have a second round. Thank you very much.

Chairman LEACH. Thank you, Mrs. Maloney.

Mr. Cook.

Mr. COOK. Yes, thank you, Mr. Chairman.

Chairman Greenspan, a \$1 trillion tax cut, or \$792 billion tax cut over ten years, like we are going to be voting on today, seems like an awfully large tax cut until you consider that in light of approximately \$28 trillion to \$30 trillion of Government spending that is going to take place during the next ten years and a gross domestic product that will be going through this country of about \$125 trillion over that same ten years.

And my question to you is: Is this tax cut that we are considering today not kind of a modest attempt, but rather positive step toward trying to create some incentive for boosting private savings and investment, something that you have always been very concerned about?

Mr. GREENSPAN. As I have commented before, Congressman, in the short run, I think not. If our purpose is increasing private savings at this particular point, we are probably going to do it at a considerably greater pace if we allow the surpluses to run and Government debt to run down.

Over the longer run, you can only get savings through the private sector. And eventually what you need is to get a significant amount of incentives to increase the aggregate level of output, which will engender the amount of savings that you need to create capital investment.

I think we are in a very special period now, one of the extraordinarily rare periods where I, who have always advocated at any time marginal tax rate cuts and, indeed, as I have indicated to your colleague, a zero capital gains tax, am saying, hold off for a while.

And the reason I am saying that is that I think that the timing is not right. We will need a very important reduction in marginal tax rates and in the capital gains tax rate at some point in the future when this economy inevitably falters; because I argue that the business cycle is not dead, I just don't know when it is going to

turn. I frankly don't have a clue, because at the moment, we are exceptionally well balanced. I just know that human nature being what it is, eventually something is going to happen.

I want to be sure that we are at that point prepared to initiate very substantial cuts in marginal tax rates, and hopefully, a major reduction in the capital gains tax rates because at that point, I think that will be the most effective means that we can have to regenerate the economy and keep the long-term growth path moving higher.

Mr. COOK. Keeping in mind that this tax cut now has some kind of a trigger mechanism to make sure the debt doesn't really increase.

Mr. GREENSPAN. Which I approve. I think that is a very good idea.

Mr. COOK. I really fail to see what is wrong with moving on that path simultaneously. In other words, clearly, this tax cut is at least a chance to build private savings and investment. But what are the best ways of stimulating the things that you have been so worried about over the years, and that is the lack of private savings and investment—what is the best plan for that?

Mr. GREENSPAN. I think that the best way at the moment, in the short run, is to allow the surpluses to run for a while. And the reason I say that, as I said before, is that all we are doing is postponing decisions. Because if the Government debt goes down, as I said before, for every dollar it goes down, you are increasing the borrowing capacity of the Federal Government by that amount. And I see no reason why we have to make decisions crucially at this point until we are sure that we really have got the surplus in tow.

The range of error on our forecasting capacity in the fiscal area is not very impressive. Once we know we really have got it locked in place and, hopefully, if we are not being confronted with large numbers of spending programs which try to eat up the surplus, I think at that point we can basically focus on getting important tax cuts in place.

As I said previously, the only thing which would get me to be strongly in favor of major tax cuts now is if I became concerned that the surplus was going to be employed for increasing spending programs. I hope that is not the case. If that occurs, then I must admit that I would change my view, and I would be strongly in favor of tax cuts now. I think it is the second-best alternative.

To me, currently, the first-best is to allow the surpluses to run and the Government debt to run down.

Chairman LEACH. The gentleman's time has expired. And I thank him.

I would like to make an announcement and a proposal to the committee. I have been informed that we are going to have a series of three and possibly four votes on the floor in about ten minutes, which means the committee can go about fifteen minutes. And I think these votes will take close to an hour on the tax bill. And what I would like to propose is that we divide time, we have five Members that have not spoken at three minutes each. And I think it is unfair, but I think it is fairer than leaving someone out. Would there be objection to that?

If not, that is the way we will proceed, and let me turn to Mr. Watt.

Mr. WATT. Thank you, Mr. Chairman.

I find myself always being exhilarated and depressed when I hear Mr. Greenspan give his presentation, and I don't know which one is greater. My depression, I think, always is centered around this question of employment and whether we can both grow the economy. Maybe the title of the Full Employment and Balanced Growth Act of 1978, which is what you come to report on every year, really is somewhat at odds, based on my understanding of where you come down on this every year.

The concern I have is, on page 2 of your testimony you have a statement: "One indication that inflation risks are rising would be a tendency for labor markets to tighten further." I have heard you—the first time you gave this report, and I was on this committee, I was kind of shocked to hear you say that you thought, as I recall, that if unemployment fell below 5, 5.5 percent, that was going to be dangerous.

And, of course, I guess that is in the context, over time, that I have come to understand that productivity has to be growing more than—in exchange for reducing unemployment, productivity has to be growing to keep inflation from taking place, I take it that is what you are saying.

What is this "tighten further"—well, let me not ask that question, but ask the question: Why is it that it is always the unemployment that is scary and not the earnings growth that is scary?

It seems to me that all of this is a function of inputs and who gets what out of the growth. Wages are what the working people get out of growth. Earnings are what the capital gets out of the growth. Yet, on page 7 when you say "Except for a short hiatus in the latter part of 1998, analysts' expectations of five-year earnings growth have been revised up." You seem to suggest that is a wonderful thing.

What is the interplay here and where do we get to a point where we say—or do we ever get to a point that we say that earnings may be outrageously high as opposed to wages being outrageously high or unemployment being too low?

Chairman LEACH. The Chairman has 30 seconds to respond.

Mr. GREENSPAN. It is unfortunate, because I think the Congressman is raising a very important and, I think, a very thoughtful issue.

Let me say just very quickly that over the years, the ratio of profits to employee compensation tends to be very stable. The reason for this is that the markets are working in a manner in which, when profits go up, so do wages, but both are determined by the degree of productivity in the system. Real per capita income of the average American tends to move very closely with national productivity.

And one of the things about a market economy which works so effectively is it does tend to distribute income between profits and wages and compensation in a remarkably stable way. There is a lot to be said about this issue, and I think it creates considerable concern, because it makes it appear that if wages go up, that that is bad. It is not. If real wages go up, that is good. If nominal wages



go up in the context of inflation, that is bad, because it means real wages are not moving at all.

Chairman LEACH. Mrs. Kelly.

Mrs. KELLY. Thank you. Thank you for being here.

In your last appearance before the committee in May, I asked you about the latest news on the trade deficit, which had then set a new record of \$19.7 billion. On Tuesday, the Department of Commerce came out with even higher trade deficit numbers, \$21.3 billion. It seems as though we are seeing a trend here.

And the last time I asked you about this, you said: "the long-term equilibrium is working against us, but so far it appears long-term. There is very little, if any, evidence that there is anything immediate to create a problem for us."

In your reply to Mr. Bachus' question about the trade deficit, you said: "Theoretically, this cannot go on indefinitely. It will result in a lesser ability to hold dollar claims."

How much bigger do you think the trade deficit would need to get before foreign investors relocate their portfolios out of the dollar denominated assets?

Mr. GREENSPAN. I don't know the answer to that question, nor do I know anyone who does. I would merely repeat what I said to you the last time. So far, the current account is increasingly negative—the trade deficit is increasingly negative but it is being offset by increasing desire on the part of foreigners to invest money in the United States at rates of return which they perceive to be superior to what they can get elsewhere. So, as long as you can finance the deficit, it creates no imbalances.

I must assume that somewhere it is going to change, but so far, it has been really quite impressive.

Mrs. KELLY. What policy changes, if any, would be effective in closing the trade gap? Do you want to—will you be willing to answer that?

Mr. GREENSPAN. I would, if I could. It is a very tough set of questions, and I think the Chairman is suggesting that I had better limit my remarks. The bottom line is sound general monetary and fiscal policies are the best way of approaching this issue. The one thing we do not want to do is engage in protectionism or any other related restriction of movement of goods and services or capital because, in my judgment, that will turn out to be counterproductive.

Mrs. KELLY. Thank you.

Thank you, Mr. Chairman.

Chairman LEACH. Thank you, Mrs. Kelly.

Mr. Bentsen.

Mr. BENTSEN. Thank you, Mr. Chairman.

Chairman Greenspan, let me follow up on your comments regarding the sound monetary and fiscal policy. First of all, you sort of sound like a Keynesian today.

Mr. GREENSPAN. I hope not.

Mr. BENTSEN. I am not saying that in terms of a criticism, I am sure there are many who would. And I do have some other questions regarding monetary policy that I will ask for the record, and I will get those to your staff.

In response to Mrs. Roukema and our colleague from Utah, you had commented that it probably would be better to hold off on the

tax cuts that we are debating or getting ready to vote on on the floor. In your statement, you talk about the action that the Open Market Committee took recently to push up the Fed funds rate because of fear that the economy, having rebounded from the Russian crisis and the Asian crisis, now appears to be on the verge of possibly overheating.

You indicate that in the short run you don't see this tax plan as increasing investment—or private savings; thus, it would appear that you see it as increasing demand or increasing consumption and thus demand. Is that where we are heading with this tax cut?

Second of all, what is your faith or how strong do you believe in the assumptions that have been made with respect to the on-budget surplus—not just one year, but five years and ten years; and what risks are there to the general economy of having locked in a tax cut that we then have to borrow more to pay for, and does that devalue the value of U.S. debt and the U.S. dollar?

Mr. GREENSPAN. Well, let me say, first, Congressman, I think that the first principle that one should apply in this type of outlook is that you should not commit contingent potential resources to irreversible uses. And as a consequence of this, as I indicated to your colleagues earlier, the probabilities of errors around the forecasts we can make—surpluses, deficits, five, six or eight years out—are very large.

Now, I don't think that the issue really at this stage necessarily comes to grips with the problem of demand-side or supply-side issues here, because most of the tax cut proposals do not really take on any volume for quite a while. So you cannot really argue that the proposal is to cut taxes next month. That is not what is being proposed.

These are long-term tax proposals which have, at root, a concern that unless the surpluses are absorbed, they will be used for increased outlays.

I happen to have a very considerable sympathy with that particular concern, and as a consequence, I think that the notion of using a potential trigger in that regard is essential.

But I will repeat, I would prefer that we allow the deficit to run down and, hopefully, that that, in turn, would not engender a whole new series of spending programs, because were that to happen, I think that we would be getting into serious difficulties.

Mr. BENTSEN. Thank you, Mr. Chairman.

Chairman LEACH. Mr. Ryan.

Mr. RYAN. Given the fact that our beepers just went off to vote for this tax cut, I will pursue that line of questioning instead of something else that we wanted to talk about.

Mr. Greenspan, several times in the past you have talked about the dynamic effects associated with certain types of tax cuts, specifically income tax rate cuts, capital gains tax cuts. In modern history, every time Congress has passed those kinds of tax cuts, we have actually stimulated economic growth and raised revenues from those very taxes. One of the things that I am hearing here from all of my colleagues and yourself is that we need to make sure that these surpluses actually materialize, and when these surpluses materialize, that will give us the chance of paying down publicly held debt and paying down the private debt.

Now, given the fact that that this current budget reduces \$6 of debt for every \$1 in tax cuts over the next five years, we are achieving substantial debt reduction; that is, \$6 of debt reduction for \$1 of tax reduction, and the tax reduction that we are imposing and voting on in a few minutes are the very tax cuts that in the past and present you have advocated as ones that increase economic growth and actually increase revenue growth.

Wouldn't you say that this is the best chance, from a fiscal policy standpoint, of ensuring that these surpluses actually do materialize, that growth continues, that jobs are filled, taxes are being paid, and the surpluses actually do materialize?

Mr. GREENSPAN. Well, Congressman, I start with the presumption that for a large number of reasons, not the least of which is the incentives that we have created in this economy, we have got a remarkable acceleration in technology innovations and new types of capital investment at very high rates of return.

I do not foresee the need at this particular stage to argue the question as to whether new taxes or cuts will enhance this. I think it is going at the moment probably about as fast as we can do it technologically. So I would far prefer to hold off on significant further tax cuts to when we will need them to keep this process going.

So I am not against tax cuts as such. On the contrary, I have argued for decades the great advantage of reducing taxes, and I am sort of quite pleased that that has become, to a certain extent, the conventional wisdom. It is merely the timing that I refer to. And at this particular time, the first priority, in my judgment, should be getting the debt down, letting the surpluses run, and, as has been suggested here, to put in contingency plans so that in the event that that is happening, that you could move forward at a later date with tax cuts provided that there is an additional trigger in there in the event that the economy is moving down.

Chairman LEACH. We have to move to the next two speakers.

Mr. RYAN. I yield back the balance of my time.

Chairman LEACH. I want to thank you, Paul, for being here the whole day; and I know how frustrated you are.

Mr. Sandlin.

Mr. SANDLIN. Thank you, Mr. Chairman.

I will go quickly on that same subject, since we are talking about the tax cuts, as Mr. LaFalce mentioned earlier today, recently interest rates were raised in an apparent attempt to hedge against anticipated inflation. If these tax cuts that my colleague is talking about, if \$800 billion to \$1 trillion are unleashed on the economy, what effect would that have on interest rates? And if there are, in fact, some sort of savings, would not those savings be more than outstripped by the additional cost of the interest?

Mr. GREENSPAN. It is very difficult to judge in the abstract what individual fiscal policies will do. We can in the theoretical sense; I haven't found that very effective. I think that what we in the Federal Reserve would be doing is, as we always do, observe what is happening to the economy and respond to the economy.

You can argue effectively on both sides of this issue, and I don't think that we need to come out with a judgment one way or the other, because our response is not going to be to taxes; one way or the other, it is going to be what is happening in the economy.

Mr. SANDLIN. But you must think that inflation is slowed by an increase in the interest rate or you wouldn't do it. If there is money unleashed on the economy, the economy will be fueled and grow and interest rates will increase, and so it seems that American families and business will see a slight savings in tax, but with the interest rates being escalated, that will more than offset it.

Mr. GREENSPAN. I understand the concern you have, and a lot of people hold that particular point of view.

It is not easy to make a judgment in a particular case, especially with the degrees of unknowns that we have with respect to the rate of growth of productivity out there and a number of other elements, which are quite relevant to the decision of how a tax cut will affect the economy.

Mr. SANDLIN. Would you agree that you raised interest rates to hedge against anticipated inflation?

Mr. GREENSPAN. We mainly raised rates to restore levels of rates to where we thought they ought to be, granted that the actions we took last fall were to a substantial extent to address a seizing-up in the financial system which has gradually dissipated.

Mr. SANDLIN. I assume the time is about out. Let me move to something else.

Chairman LEACH. Very quickly.

Mr. SANDLIN. Then I will take that as a cue and thank you for responding. I yield back the balance of my time.

Chairman LEACH. I want to give Mrs. Lee a chance. And I thank you, too. You have been terrific.

Mrs. Lee.

Mrs. LEE. Thank you, Mr. Chairman.

Good morning. It is good to see you again, Mr. Greenspan. You pointed out in your statement that the employment rate for those with less than a high school education has declined from 10.75 percent in 1994 to 6.75 percent today, which is a very positive statistic. But we do know that many of these individuals are minimum-wage earners with little or no benefits and some are really part of the working poor.

Now, as Congresswoman Waters pointed out earlier, not much attention is being given to use some of our surplus to help raise the standard of living for the poor, for children, for those who really have not benefited from this tremendous economic boom. And I agree that we should use most of the surplus or a large part for debt reduction, but that does, of course, reduce interest rates for middle- to upper-income individuals, but those that don't have credit cards, that don't have mortgages and that don't have incomes that will allow for them to benefit from our economic boom still are not part of the mix.

So what I am just asking you once again is, I believe I heard you clearly say to Congresswoman Waters that there should not be really many strategies you believe that utilize the surplus for the benefit of those individuals who have not really benefited, but that it should be the private sector's responsibility only?

Mr. GREENSPAN. Congresswoman, the central thrust of my argument is that we have had program after program which hasn't worked, and I think that creates discouragement. And merely to take a number of programs which haven't worked and just add to

them because it makes it appear as though we are doing something I think is counterproductive. I think we have got to really make certain that what we do does what we want it to do, and that is crucial to me.

And so it is easy to talk in terms of Government programs, but they just haven't worked. We have got to find a way for the private sector to get in there, get real jobs, get things working and not have another failure. That is my major concern.

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

Chairman LEACH. Thank you, Mrs. Lee.

And, Mr. Chairman, I thank you very much. This brings to a conclusion the Humphrey-Hawkins hearing, and we are very appreciative of your patience, your judgment, and the professionalism of the Federal Reserve Board. Thank you.

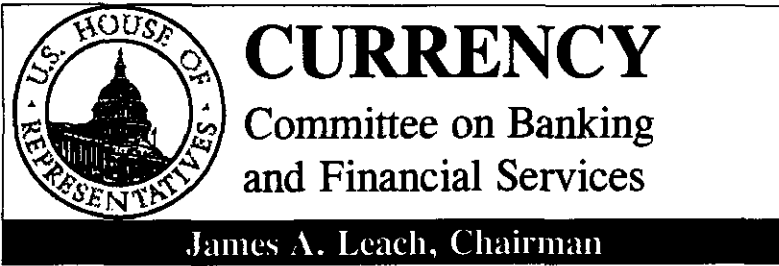
Mr. GREENSPAN. Thank you very much, Mr. Chairman.

Chairman LEACH. The hearing is adjourned.

[Whereupon, at 1:54 p.m., the hearing was adjourned.]

# APPENDIX

May 22, 1999



**For Immediate Release:**  
Thursday, July 22, 1999

**Contact: David Runkel or Andrew Parmentier**  
(202) 226-0471

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

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

Chairman Greenspan, welcome back to the House Banking Committee. To ensure that all Members have an opportunity to question Chairman Greenspan, it is the intention of the Chair to limit opening statements to the Chairman and Ranking Member of the full committee, as well as the Subcommittee on Domestic and International Monetary Policy. All other opening statements will be included for the record.

This is our second Humphrey-Hawkins hearing this year and the last such hearing mandated under current law. As Members may recall, this semiannual report is one of several thousand reports, including approximately 100 under the jurisdiction of this Committee, which are scheduled to sunset on Dec. 31 under broad legislation approved by Congress four years ago.

As Chairman of the Committee of jurisdiction, let me emphasize that I believe these Humphrey-Hawkins hearings are the most important oversight hearings conducted by the Congress. The Federal Reserve System has become, in effect, a fourth branch of government, and the reports to this Committee and its Senate counterpart by the Chairman of the Federal Reserve Board have become the chief mechanism for democratic review of the monetary policy decisions of the Fed.

To discontinue these oversight hearings would be Congressionally negligent. The Fed should not be democratized.

Phone: (202) 226-0471  
[www.house.gov/banking](http://www.house.gov/banking)

Fax: (202) 226-6952

Internet:

Thus it is my intention to move forward with legislation immediately after the August break to require continued semiannual Humphrey-Hawkins reporting by the Fed on the conduct of monetary policy. In addition, certain selected other reports by federal banking, housing and international financing agencies will be re-authorized.

We meet today at a propitious moment to review to the Federal Reserve's conduct of monetary policy. The current economic expansion is now 100 months old. It is already the longest peacetime expansion in American history, and in six months, could become the longest expansion ever recorded anywhere. Despite robust domestic demand, core inflation is running at a 34-year low.

Over the past several years, the economy has performed in a way that has defied historical precedents and modern academic theory. Perhaps the most significant macro-economic news of the last generation is that the Fed appears to have concluded that we are in economic terra incognita and that the productivity gains associated with this unprecedented age of information technology means that past economic modeling doesn't fit today's circumstances. Yesterday's models may fit tomorrow's, but for the moment belt-tightening interest rates don't seem to be necessary to curb an inflation that hasn't emerged with the low levels of unemployment that were once assumed to trigger it.

To some degree, luck has been a factor on the inflation front, with a silver lining appearing in what otherwise were dark clouds in the world economy. Last summer's troubles abroad impoverished a lot of people in Asia and Russia, but the crises pushed down the prices of the goods we buy from these countries, boosting the American consumers' purchasing power.

In addition, more restrained Congressional spending – producing surpluses rather than deficits – has helped high tech investors find capital at credible rates even though America's savings rate has declined to a negative level.

More fundamentally, the economy has been propelled by gains in productivity. And far from tapering off, as one would expect after such a long period of expansion, the pace of productivity increases has apparently been accelerating. As a result, unit costs appear to be going down even as labor costs are going up in a tight – and tightening – labor market.

The inventive genius of our engineers and the heavy investment of our corporations in software and hardware innovations have greatly increased our ability to make affordable things, with the result that production capacity, here and abroad, continues to run well ahead of demand. In the industrial sector, companies find it difficult to raise prices, but on the farm, the pricing dilemma is further compounded. Technical and mechanical productivity advances are augmented by genetic break-throughs, propelling surpluses that have lowered prices for consumers but caused Depression-level returns to producers.

There are two Americas: one enjoying increasing prosperity; the other, largely associated with industries involved with basic commodity production, experiencing a dispiriting recession. While new issues of software companies are selling at hundred-fold multiples, agriculture is on its back. Restrained inflation may be the macro-economic order of the day, but deflation characterizes the Farm Belt.

Many of us believe Congress has little choice but to act forthrightly on the agricultural problem, including approval of fast-track trade authority. But, before closing, I'd like to comment briefly on an



issue involving another basic commodity, and that is gold. It is my intention to move swiftly on a debt relief initiative immediately following the August break, but I would stress that it is unlikely that the Committee will endorse the Administration's proposal to authorize the International Monetary Fund to sell 10 percent of its gold holdings as a method of payment for debt relief for the world's poorest countries.

Debt relief is a societal, indeed moral, imperative, but care must be taken not to jeopardize the mining industry that provides many of the most stable jobs in the developing world.

At this point, I'd like to recognize the Ranking Member, Mr. LaFalce for an opening statement.

**Opening Statement of Rep. Ron Paul**  
**Full Committee Hearing on the Conduct of Monetary Policy**  
**House Committee on Banking and Financial Services**  
**July 22, 1999**

Chairman Leach, Ranking Member LaFalce, thank you for the opportunity to address an issue of great importance to me and my constituents. The economic prosperity of many parts of this country, and in particular, parts of my district, is tied to agricultural markets. Inappropriate monetary meddling is having a disastrous effect. Of course, these concerns of monetary structures and policies affecting agriculture are not new.

David Schoenbrod (professor at New York Law School and an adjunct scholar at the Cato Institute) wrote an interesting article last year (AThe Yellow Brick Beltway, @ *The Wall Street Journal*, November 27, 1998) explaining the film AThe Wizard of Oz (@ (based on the 1900 book by L. Frank Baum) as a parable of William Jennings Bryan=s campaign for bimetallism (using both silver and gold to back the dollar). The use of the Scarecrow as a farmer, who thinks he has no brains only to learn he always had them, is a populist message that Aordinary people can take care of themselves if they realize their full potential, work together and do not put themselves in the thrall of self-professed experts wielding the powers of government. @

Such artistic imageries aside, Murray Rothbard=s classic book, *America=s Great Depression*, explains how government manipulation of the price of credit hurts farmers. Government policy in the 1920s aimed to encourage farm export, raise farm subsidies, subsidize cheap credit to farmers and subsidize farm cooperatives. Such government interventions lead to crop restrictions and other distortions in an attempt to Astabilize @ prices. Such efforts failed to stabilize farm commodity prices and incurred great losses for the Treasury. During the Great Depression, farmers probably suffered from the money managers= tricks at least as much as anyone else.

More recently, during the debate over additional funding for the International Monetary Fund, proponents for more government management of money and credit shed crocodile tears for the farmers. I argued against such funding because (1) IMF-recommended currency devaluations price our agricultural goods out of the market, (2) IMF money subsidizes our agricultural competitors, and (3) IMF bailout countries have higher protectionist barriers than other countries (The Heritage Foundation Backgrounder No. 1178, May 11, 1998, AAgricultural Exports and the IMF: Separating Myth from Reality @). The National Family Farm Coalition points out that following IMF devaluation guidelines exacerbates our agricultural trade deficits. Agricultural exports to Mexico fell by 22% in 1995, while imports from Mexico rose 32%, one year after the peso bailout and currency devaluation of over 40%. US agricultural exports to IMF bailout countries dried up during the Asian crises.

To aid our farmers and others, we should pursue sound monetary and credit policies.

For release on delivery  
11:00 a.m. E.D.T.  
July 22, 1999

Statement of  
Alan Greenspan  
Chairman  
Board of Governors of the Federal Reserve System  
before the  
*Committee on Banking and Financial Services*  
U.S. House of Representatives  
July 22, 1999

Thank you, Mr. Chairman and other members of the Committee, for this opportunity to present the Federal Reserve's semiannual report on monetary policy.

To date, 1999 has been an exceptional year for the American economy, but a challenging one for American monetary policy. Through the first six months of this year, the U.S. economy has further extended its remarkable performance: Almost 1-1/4 million jobs were added to payrolls on net, and gross domestic product apparently expanded at a brisk pace, perhaps near that of the prior three years.

At the root of this impressive expansion of economic activity has been a marked acceleration in the productivity of our nation's workforce. This productivity growth has allowed further healthy advances in real wages and has permitted activity to expand at a robust clip while helping to foster price stability.

Last fall, the Federal Open Market Committee (FOMC) eased monetary policy to counter a seizing-up of financial markets that threatened to disrupt economic activity significantly. As those markets recovered, the FOMC had to assess whether that policy stance remained appropriate. By late last month, when it became apparent that much of the financial strain of last fall had eased, that foreign economies were firming, and that demand in the United States was growing at an unsustainable pace, the FOMC raised its intended federal funds rate 1/4 percentage point, to 5 percent. To have refrained from doing so in our judgment would have put the U.S. economy's expansion at risk.

If nothing else, the experience of the last decade has reinforced earlier evidence that a necessary condition for maximum sustainable economic growth is price stability. While product prices have remained remarkably restrained in the face of exceptionally strong demand and expanding potential supply, it is imperative that we do not become complacent.

The already shrunken pool of job-seekers and considerable strength of aggregate demand suggest that the Federal Reserve will need to be especially alert to inflation risks. Should productivity fail to continue to accelerate and demand growth persist or strengthen, the economy could overheat. That would engender inflationary pressures and put the sustainability of this unprecedented period of remarkable growth in jeopardy. One indication that inflation risks were rising would be a tendency for labor markets to tighten further. *But the FOMC also needs to* continue to assess whether the existing degree of pressure in these markets is consistent with sustaining our low-inflation environment. If new data suggest it is likely that the pace of cost and price increases will be picking up, the Federal Reserve will have to act promptly and forcefully so as to preclude imbalances from arising that would only require a more disruptive adjustment later--one that could impair the expansion and bring into question whether the many gains already made can be sustained.

#### **RECENT DEVELOPMENTS**

A number of important forces have been shaping recent developments in the U.S. economy. One has been a recovery of financial markets from the disruptions of last fall. By the end of 1998, the extreme withdrawal from risk-taking and consequent *seizing-up of markets had* largely dissipated. This year, risk spreads have narrowed further--though generally not to the unrealistically low levels of a year ago--and a heavy volume of issuance in credit markets has signaled a return to their more-normal functioning. Equity prices have risen to new highs and, in the process, have elevated price-earnings ratios to historic levels.

Abroad, *many financial markets* and economies also have improved. Brazil weathered a depreciation of its currency with limited fallout on its neighbors. In Asia, a number of the

emerging market economies seemed to be reviving after the trying adjustments of the previous year or so. Progress has not been universal, and in many economies prospects remain clouded, depending importantly on the persistence of efforts to make fundamental reforms whose necessity had been made so painfully obvious in the crises those economies endured. Nonetheless, the risks of further major disruptions to financial and trade flows that had concerned the FOMC when it eased policy last fall have clearly diminished. Improving global prospects also mean that the U.S. economy will no longer be experiencing declines in basic commodity and import prices that held down inflation in recent years.

In the domestic economy, data becoming available this year have tended to confirm that productivity growth has stepped up. It is this acceleration of productivity over recent years that has explained much of the surprising combination of a slowing in inflation and sustained rapid real growth. Increased labor productivity has directly limited the rise of unit labor costs and accordingly damped pressures on prices. This good inflation performance, reinforced also by falling import prices, in turn has fostered further declines in inflation expectations over recent years that bode well for pressures on costs and prices going forward.

In testimony before this committee several years ago, I raised the possibility that we were entering a period of technological innovation that occurs perhaps once every fifty or one-hundred years. The evidence then was only marginal and inconclusive. Of course, tremendous advances in computing and telecommunications were apparent, but their translations into improved overall economic efficiency and rising national productivity were conjectural at best. While the growth of output per hour had shown some signs of quickening, the normal variations exhibited by such data in the past were quite large. More intriguing was the remarkable surge in capital investment after

1993, especially in high-tech goods, a full two years after a general recovery was under way. This suggested a marked increase in the perceived prospective rates of return on the newer technologies

*That American productivity growth has picked up over the past five years or so has become increasingly evident. Nonfarm business productivity (on a methodologically consistent basis) grew at an average rate of a bit over 1 percent per year in the 1980s. In recent years, productivity growth has picked up to more than 2 percent, with the past year averaging about 2-1/2 percent.*

To gauge the potential for similar, if not larger, gains in productivity going forward, we need to attempt to arrive at some understanding of what has occurred to date. *A good deal of the acceleration in output per hour has reflected the sizable increase in the stock of labor-saving equipment. But that is not the whole story. Output has grown beyond what normally would have been expected from increased inputs of labor and capital alone. Business restructuring and the synergies of the new technologies have enhanced productive efficiencies. American industry quite generally has shared an improved level of efficiency and cost containment through high-tech capital investment, not solely newer industries at the cutting edge of innovation. Our century-old motor vehicle industry, for example, has raised output per hour by a dramatic 4-1/2 percent annually on average in the past two years, compared with a lackluster 1-1/4 percent on average earlier this decade. Much the same is true of many other mature industries, such as steel, textiles, and other stalwarts of an earlier age. This has confirmed the earlier indications of an underlying improvement in rates of return on the newer technologies and their profitable synergies with the existing capital stock.*

These developments have created a broad range of potential innovations that have granted firms greater ability to profitably displace costly factors of production whenever profit margins have been threatened. Moreover, the accelerating use of newer technologies has markedly enhanced the flexibility of our productive facilities. It has dramatically reduced the lead times on the acquisition of new equipment and enabled firms to adjust quickly to changing market demands. This has indirectly increased productive capacity and effectively, at least for now, eliminated production bottlenecks and the shortages and price pressures they inevitably breed.

This greater ability to pare costs, increase production flexibility, and expand capacity are arguably the major reasons why inflationary pressures have been held in check in recent years. Others have included the one-time fall in the prices of oil, other commodities, and imports more generally. In addition, a breaking down of barriers to cross-border trade, owing both to the new technologies and to the reduction of government restrictions on trade, has intensified the pressures of competition, helping to contain prices. Coupled with the decline in military spending worldwide, this has freed up resources for more productive endeavors, especially in a number of previously nonmarket economies.

More generally, the consequent erosion of pricing power has imparted an important imperative to hold down costs. The availability of new technology to each company and its rivals affords both the opportunity and the competitive necessity of taking steps to reduce costs, which translates on a consolidated basis into increased national productivity.

The acceleration in productivity owes importantly to new information technologies. Prior to this IT revolution, most of twentieth-century business decisionmaking had been hampered by limited information. Owing to the paucity of timely knowledge of customers' needs, the location



*of inventories, and the status of material flows throughout complex production systems, businesses built in substantial redundancies.*

Doubling up on materials and staffing was essential as a cushion against the inevitable *misjudgments made in real time when decisions were based on information that was hours, days, or even weeks old.* While businesspeople must still operate in an uncertain world, the recent years' remarkable surge in the availability of real-time information has enabled them to remove *large swaths of inventory safety stocks, redundant capital equipment, and layers of workers, while arming them with detailed data to fine-tune specifications to most individual customer needs.*

Despite the remarkable progress witnessed to date, history counsels us to be quite modest about our ability to project the future path and pace of technology and its implications for productivity and economic growth. We must remember that the pickup in productivity is relatively recent, and a key question is whether that growth will persist at a high rate, drop back toward the slower standard of much of the last twenty-five years, or climb even more. By the last I do not just mean that productivity will continue to grow, but that it will grow at an increasingly faster pace through a continuation of the process that has so successfully contained inflation and supported economic growth in recent years.

The business and financial community does not as yet appear to sense a pending flattening in this process of increasing productivity growth. This is certainly the widespread impression imparted by corporate executives. And it is further evidenced by the earnings forecasts of more than a thousand securities analysts who regularly follow S&P 500 companies on a firm-by-firm basis, which presumably embody what corporate executives are telling them. While the level of these estimates is no doubt upwardly biased, unless these biases have significantly changed over

time, the revisions of these estimates should be suggestive of changes in underlying economic forces. Except for a short hiatus in the latter part of 1998, analysts' expectations of five-year earnings growth have been revised up continually since early 1995. If anything, the pace of those upward revisions has quickened of late. True, some of that may reflect a pickup in expected earnings of foreign affiliates, especially in Europe, Japan, and the rest of Asia. But most of this year's increase almost surely owes to domestic influences.

There are only a limited number of ways that the expected long-term growth of domestic profits can increase, and some we can reasonably rule out. There is little evidence that company executives or security analysts have significantly changed their views in recent months of the longer-term outlook for continued price containment, the share of profits relative to wages, or anticipated growth of hours worked. Rather, analysts and the company executives they talk to appear to be expecting that unit costs will be held in check, or even lowered, as sales expand. Hence, implicit in upward revisions of their forecasts, when consolidated, is higher expected national productivity growth.

Independent data on costs and prices in recent years tend to confirm what aggregate data on output and hours worked indicate: that productivity growth has risen. With price inflation stable and domestic operating profit margins rising, the rate of increase in total consolidated unit costs must have been falling.

Even taking into account the evidence of declining unit interest costs of nonfinancial corporations, unit labor cost increases (which constitute three quarters of total unit costs) must also be slowing. Because until very recently growth of compensation per hour has been rising, albeit modestly, it follows that productivity growth must have been rising these past five years, as

well. Accelerating productivity is thus evident in underlying consolidated income statements of nonfinancial corporations, as well as in our more direct, though doubtless partly flawed, measures of output and input.

That said, we must also understand the limits to this process of productivity-driven growth. To be sure, the recent acceleration in productivity has provided an offset to our taut labor markets by holding unit costs in check and by adding to the competitive pressures that have contained prices. But once output-per-hour growth stabilizes, even if at a higher rate, any pickup in the growth of nominal compensation per hour will translate directly into a more-rapid rate of increase in unit labor costs, heightening the pressure on firms to raise the prices of the goods and services they sell. Thus, should the increments of gains in technology that have fostered productivity slow, any extant pressures in the labor market should ultimately show through to product prices.

Meanwhile, though, the impressive productivity growth of recent years also has had important implications for the growth of aggregate demand. If productivity is driving up real incomes and profits--and, hence, gross domestic income--then gross domestic product must mirror this rise with some combination of higher sales of motor vehicles, other consumer goods, new homes, capital equipment, and net exports. By themselves, surges in economic growth are not necessarily unsustainable--provided they do not exceed the sum of the rate of growth in the labor force and productivity for a protracted period. However, when productivity is accelerating, it is very difficult to gauge when an economy is in the process of overheating.

In such circumstances, assessing conditions in the labor market can be helpful in forming those judgments. Employment growth has exceeded the growth in working-age population this

past year by almost  $\frac{1}{2}$  percentage point. While somewhat less than the spread between these growth rates over much of the past few years, this excess is still large enough to continue the further tightening of labor markets. It implies that real GDP is growing faster than its potential. To an important extent, this excess of the growth of demand over supply owes to the wealth effect as consumers increasingly perceive their capital gains in the stock and housing markets as permanent and, evidently as a consequence, spend part of them, an issue to which I shall return shortly.

There can be little doubt that, if the pool of job seekers shrinks sufficiently, upward pressures on wage costs are inevitable, short--as I have put it previously--of a repeal of the law of supply and demand. Such cost increases have invariably presaged rising inflation in the past, and presumably would in the future, which would threaten the economic expansion.

By themselves, neither rising wages nor swelling employment rolls pose a risk to sustained economic growth. Indeed, the Federal Reserve welcomes such developments and has attempted to gauge its policy in recent years to allow the economy to realize its full, enhanced potential. In doing so, we must remain concerned with evolving shorter-run imbalances that can constrain long-run economic expansion and job growth.

With productivity growth boosting both aggregate demand and aggregate supply, the implications for the real market interest rates that are consistent with sustainable economic growth are not obvious. In fact, current real rates, although somewhat high by historical standards, have been consistent with continuing rapid growth in an environment where, as a consequence of greater productivity growth, capital gains and high returns on investment give both households and businesses enhanced incentives to spend.

## OTHER CONSIDERATIONS

Even if labor supply and demand were in balance, however, other aspects of the economic environment may exhibit imbalances that could have important implications for future developments. For example, in recent years, as a number of analysts have pointed out, a significant shortfall has emerged in the private saving with which to finance domestic investment in plant and equipment and houses.

One offset to the decline in household saving out of income has been a major shift of the federal budget to surplus. Of course, an important part of that budgetary improvement, in turn, owes to augmented revenues from capital gains and other taxes that have flowed from the rising market value of assets. Still, the budget surpluses have helped to hold down interest rates and facilitate private spending.

The remaining gap between private saving and domestic investment has been filled by a sizable increase in saving invested from abroad, largely a consequence of the technologically driven marked increase in rates of return on U.S. investments. Moreover, in recent years, with many foreign economies faltering, U.S. investments have looked particularly attractive. As U.S. international indebtedness mounts, however, and foreign economies revive, capital inflows from abroad that enable domestic investment to exceed domestic saving may be difficult to sustain. Any resulting decline in demand for dollar assets could well be associated with higher market interest rates, unless domestic saving rebounds.

**NEAR-TERM OUTLOOK**

Going forward, the Members of the Federal Reserve Board and presidents of the Federal Reserve Banks believe there are mechanisms in place that should help to slow the growth of spending to a pace more consistent with that of potential output growth. Consumption growth should slow some, if, as seems most likely, outsized gains in share values are not repeated. In that event, businesses may trim their capital spending plans, a tendency that would be reinforced by the higher level of market interest rates that borrowers now face. But with large unexploited long-term profit opportunities stemming from still-burgeoning innovations and falling prices of many capital goods, the typical cyclical retrenchment could be muted.

Working to offset somewhat this anticipated slowing of the growth of domestic demand, our export markets can be expected to be more buoyant because of the revival in growth in many of our important trading partners.

After considering the various forces at work in the near term, most of the Federal Reserve governors and Bank presidents expect the growth rate of real GDP to be between 3-1/2 and 3-3/4 percent over the four quarters of 1999 and 2-1/2 to 3 percent in 2000. The unemployment rate is expected to remain in the range of the past eighteen months.

Inflation, as measured by the four-quarter percent change in the consumer price index, is expected to be 2-1/4 to 2-1/2 percent over the four quarters of this year. CPI increases thus far in 1999 have been greater than the average in 1998, but the governors and bank presidents do not anticipate a further pickup in inflation going forward. An abatement of the recent run-up in energy prices would contribute to such a pattern, but policymakers' forecasts also reflect their

determination to hold the line on inflation, through policy actions if necessary. The central tendency of their CPI inflation forecasts for 2000 is 2 to 2-1/2 percent.

### **PREEMPTIVE POLICYMAKING**

In its deliberations this year, the FOMC has had to wrestle with the issue of what policy setting has the capacity to sustain this remarkable expansion, now in its ninth year. For monetary policy to foster maximum sustainable economic growth, it is useful to preempt forces of imbalance before they threaten economic stability. But this may not always be possible--the future at times can be too opaque to penetrate. When we can be preemptive, we should be, because modest preemptive actions can obviate more drastic actions at a later date that could destabilize the economy.

I should emphasize that preemptive policymaking is equally applicable in both directions, as has been evident over the years both in our inclination to raise interest rates when the potential for inflationary pressures emerged, as in the spring of 1994, or to lower rates when the more palpable risk was economic weakness, as in the fall of last year. This even-handedness is necessary because emerging adverse trends may fall on either side of our long-run objective of price stability. Stable prices allow households and firms to concentrate their efforts on what they do best: consuming, producing, saving, and investing. A rapidly rising or a falling general price level would confound market signals and place strains on the system that ultimately may throttle economic expansion.

In the face of uncertainty, the Federal Reserve at times has been willing to move policy based on an assessment that risks to the outlook were disproportionately skewed in one direction or the other, rather than on a firm conviction that, absent action, the economy would develop

imbalances. For instance, both the modest policy tightening of the spring of 1997 and some portion of the easing of last fall could be viewed as insurance against potential adverse economic outcomes.

As I have already indicated, by its June meeting the FOMC was of the view that the full extent of this insurance was no longer needed. It also did not believe that its recent modest tightening would put the risks of inflation going forward completely into balance. However, given the many uncertainties surrounding developments on both the supply and demand side of the economy, the FOMC did not want to foster the impression that it was committed in short order to tighten further. Rather, it judged that it would need to evaluate the incoming data for more signs that further imbalances were likely to develop.

Preemptive policymaking requires that the Federal Reserve continually monitor economic conditions, update forecasts, and appraise the setting of its policy instrument. Equity prices figure importantly in that forecasting process because they influence aggregate demand. As I testified last month, the central bank cannot effectively directly target stock or other asset prices. Should an asset bubble arise, or even if one is already in train, monetary policy properly calibrated can doubtless mitigate at least part of the impact on the economy. And, obviously, if we could find a way to prevent or deflate emerging bubbles, we would be better off. But identifying a bubble in the process of inflating may be among the most formidable challenges confronting a central bank, pitting its own assessment of fundamentals against the combined judgment of millions of investors.

By itself, the interpretation that we are currently enjoying productivity acceleration does not ensure that equity prices are not overextended. There can be little doubt that if the nation's



productivity growth has stepped up, the level of profits and their future potential would be elevated. That prospect has supported *higher stock prices*. The *danger* is that in these circumstances, an unwarranted, perhaps euphoric, extension of recent developments can drive equity prices to levels that are unsupportable even if risks in the future become relatively small. Such straying above fundamentals could create problems for our economy when *the inevitable* adjustment occurs. It is the job of economic policymakers to mitigate the fallout when it occurs and, hopefully, ease the transition to the next expansion.

### CENTURY DATE CHANGE PREPARATIONS

*I would be remiss in this overview of near-term economic developments if I did not relay the ongoing efforts of the Federal Reserve, other financial regulators, and the private sector to come to grips with the rollover of their computer systems at the start of the upcoming century. While I have been in this business too long to promise that 2000 will open on an entirely trouble-free note, the efforts to address potential problems in the banking and financial system have been exhaustive. For our part, the Federal Reserve System has now completed remediation and testing of all its mission-critical applications, including testing its securities and funds-transfer systems with our thousands of financial institution customers.*

As we have said previously, while we do not believe consumers need to hold excess cash because we expect the full array of payment options to work, we have taken *precautions to ensure* that ample currency is available. Further, the Federal Reserve established a special liquidity facility at which sound depository institutions with good collateral can readily borrow at a slight penalty rate in the months surrounding the rollover. The availability of this back-stop funding

should make depository institutions more willing to provide loans and lines of credit to other financial institutions and businesses and to meet any deposit withdrawals as this century closes.

The banking industry is also working hard, and with evident success, to prepare for the event. By the end of May, 98 percent of the nation's depository institutions examined by Federal Financial Institutions Examination Council agencies were making satisfactory progress on their Year 2000 preparations. The agencies are now in the process of examining supervised institutions for compliance with the June 30 milestone date for completing testing and implementation of remediated mission-critical systems. Supervisors also expect institutions to prepare business resumption contingency plans and to maintain open lines of communication with customers and counterparties about their own readiness. The few remaining laggards among financial institutions in Year 2000 preparedness have been targeted for additional follow-up and, as necessary, will be subject to formal enforcement actions.

## CONCLUSION

As a result of our nation's ongoing favorable economic performance, not only has the broad majority of our people moved to a higher standard of living, but a strong economy also has managed to bring into the productive workforce many who had for too long been at its periphery. The unemployment rate for those with less than a high-school education has declined from 10-3/4 percent in early 1994 to 6-3/4 percent today, twice the percentage point decline in the overall unemployment rate. These gains have enabled large segments of our society to obtain skills on the job and the self-esteem associated with work.

The questions before us today are what macroeconomic policy settings can best extend this favorable performance. No doubt, a monetary policy focused on promoting price stability

over the long run and a fiscal policy focused on enhancing national saving by accumulating budget surpluses have been key elements in creating an environment fostering the *capital investment* that has driven the gains to productivity and living standards. I am confident that by maintaining this discipline, policymakers in the Congress, in the executive branch, and at the Federal Reserve will give our vital U.S. economy its best chance of continuing its remarkable progress.

Chairman Greenspan subsequently submitted the following in response to written questions from Congressman Bentsen following the July 22, 1999, hearing:

Q.1. Mr. Chairman, the Blue Book [Monetary Policy Report to the Congress] states that while risk spreads between investment-grade corporate debt securities and Treasuries have narrowed since last fall, such spreads between non-investment-grade securities have not narrowed to their pre-August level. To what do you attribute this disparity?

A.1. As of July 19, 1999--the latest daily observation included in the Monetary Policy Report to the Congress--risk spreads based on the Merrill Lynch AA and BBB investment-grade bond indexes were 11 and 37 basis points wider than on July 31, 1998, respectively. The spread for Merrill Lynch's below-investment-grade bond index, however, was 109 basis above its pre-August 1998 level (table, column 4). Two factors help explain why these risk spreads did not narrow to the same degree:

- (i) Credit quality indicators, particularly changes in bond ratings, for the highest-rated investment-grade bonds have improved in recent months, in part reflecting expectations of increased profits as a result of mergers. However, the default rate on below-investment-grade securities has risen noticeably this year.
- (ii) Perhaps influenced by last fall's financial market turmoil, investors might have adopted a more cautious stance towards below-investment-grade bonds, requiring higher compensation for bearing the greater risk associated with them. Indeed, during the first half of 1998, yield spreads on such securities were near their lows for the decade, prompting some market analysts to question whether investors might have been underestimating the riskiness of their portfolios.

Q.2. The Blue Book also states that commercial bank lending spreads have also not returned to pre-August levels; why is that?

A.2. The same factors that have influenced spreads on corporate bonds have also been affecting bank lending spreads. Indeed, credit spreads in capital market instruments, discussed in the answer to the first question, have not returned to pre-August 1998 levels, and themselves are factors that bank lending officers may consider in loan pricing decisions. In addition, some loan spreads were at below-average levels in the first half of 1998, and a number of analysts then had raised concerns that they were too narrow: Banking industry regulators had expressed such worries in a regulatory letter issued earlier in the summer of 1998, encouraging banks to reassess their attitudes towards credit risk. Third, charge-off and delinquency rates on bank loans, while still relatively low, have been rising in recent quarters. Lastly, it is possible that the events of last fall have led banks to reexamine their lending postures, much as have investors in bond markets.

*Humphrey-Hawkins Testimony*  
Rep. Frank Mascara's Questions for Chairman Greenspan  
July 22, 1999

Q.1. You have stated today that reduction of the national debt has had an extraordinary affect in *the expansion of economic growth* and that this is important for future growth and price stability. You also responded to a question about the trigger by noting that during economic downturn, *capital gains and marginal rate tax cuts* could have a very positive effect on the economy when funded by surplus. Do you then believe that it is short-sighted and harmful to enact tax cuts that *consume the entire surplus* and eliminate the ability of Congress to respond to an economic downturn in a manner that does not explode our national debt?

A.1. As I have noted on a number of occasions since last fall, when the prospect of meaningful surpluses first began to become a feature of short-run economic forecasts, the best possible course is to let those surpluses accumulate for a time. The direct result would be a significant reduction in the publicly held federal debt, which would free up capital for *private investment*. Such investment has played a crucial role in supporting the accelerated *productivity growth that has raised living standards* and damped inflation in recent years.

Tax cuts would best be held in *reserve until we are more assured* that the projected surpluses are being realized, and they could well be a *useful tool at some future time* when aggregate demand is at risk of falling short of what our economy can accommodate. *This* certainly is not the circumstance we are confronted with today.

Q.2. In your statement you noted that productivity keeps rising. If Mr. Bachus' figures are correct that import prices are falling, what is causing the upward pressure on inflation which could trigger interest rate increases? Shouldn't prices be falling? Shouldn't some of these decreasing costs be seen in consumer prices?

A.2. Steeper productivity gains have damped inflation. But, even with the enlarged increases in output per worker hour, the growth of output has exceeded the pace of expansion in the supply of workers and labor markets have tightened. Should that process continue, the pressures of demand on supply are likely to lead to a stepup in the pace of wage hikes relative to the rise in productivity--resulting in accelerated unit labor cost increases. All else equal, unless prices are restrained even more than they have been by competition from imports, domestic inflation will tend to rise.

Q.3. I have been, and continue to be, critical of our trade policies that continue to create massive trade deficits--over \$23 billion in May. I have a serious problem with the steel dumping that has cost over 10,000 steelworkers their jobs (the recent trade agreements with Russia and Brazil notwithstanding). In my opinion those steelworkers' jobs have been sacrificed to keep the Russian economy and Asian economies afloat enabling them to repay their debts and avoid default on their IMF loans and investments of the private sector. Do you believe that the recent Russian trade agreement is a satisfactory response to the illegal dumping problem facing our steel industry? Does this type of action represent a government's best means to challenge illegal subsidies?

A.3. You raise some important policy issues about the potential costs of free trade. But please note that the large U.S. trade deficit is little affected by trade policy. While trade policy can affect the composition of exports and imports, the trade balance is determined primarily by movements in domestic saving and investment. The U.S. trade deficit, or more exactly the related current account deficit, will decline only if domestic

savings increase or domestic investment declines. Moreover, the benefits of free trade are abundant: it promotes the movement of capital and labor into their most productive uses, strengthens competitive forces, facilitates innovation, and raises living standards. Indeed, the experience of many countries in recent years shows a strong positive relationship between openness to trade and income growth. Openness may also help to alleviate inflationary pressures by enhancing price competition.

Judgements with respect to the US-Russia trade agreement are very difficult. I do not believe I can add effectively to the dialogue.

For use at 11:00 a.m., E.D.T.  
Thursday  
July 22, 1999

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 22, 1999



---

## Letter of Transmittal

---

BOARD OF GOVERNORS OF THE  
FEDERAL RESERVE SYSTEM  
Washington, D.C., July 22, 1999

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,

A handwritten signature in black ink, appearing to read "Alan Greenspan", written in a cursive style.

Alan Greenspan, Chairman

**Table of Contents**

|   | <i>Page</i> |
|---|-------------|
| Monetary Policy and the Economic Outlook    |             |
| Economic and Financial Developments in 1999 |             |

---

## Monetary Policy Report to the Congress

---

*Report submitted to the Congress on July 22, 1999, pursuant to the Full Employment and Balanced Growth Act of 1978*

### **MONETARY POLICY AND THE ECONOMIC OUTLOOK**

The U.S. economy has continued to perform well in 1999. The ongoing economic expansion has moved into a near-record ninth year, with real output expanding vigorously, the unemployment rate hovering around lows last seen in 1970, and underlying trends in inflation remaining subdued. Responding to the availability of new technologies at increasingly attractive prices, firms have been investing heavily in new capital equipment; this investment has boosted productivity and living standards while holding down the rise in costs and prices.

Two of the major threats faced by the economy in late 1998—economic downturns in many foreign nations and turmoil in financial markets around the world—receded over the first half of this year. Economic conditions overseas improved on a broad front. In Asia, activity picked up in the emerging-market economies that had been battered by the financial crises of 1997. The Brazilian economy—Latin America's largest—exhibited a great deal of resilience with support from the international community, in the wake of the devaluation and subsequent floating of the *real* in January. These developments, along with the considerable easing of monetary policy in late 1998 and early 1999 in a number of regions, including Europe, Japan, and the United States, fostered a markedly better tone in the world's financial markets. On balance, U.S. equity prices rose substantially, and in credit markets, risk spreads receded toward more typical levels. Issuance of private debt securities ballooned in late 1998 and early 1999, in part making up for borrowing that was postponed when markets were disrupted.

As these potentially contractionary forces dissipated, the risk of higher inflation in the United States resurfaced as the greatest concern for monetary policy. Although underlying inflation trends generally remained quiescent, oil prices rose sharply, other commodity prices trended up, and prices of non-oil

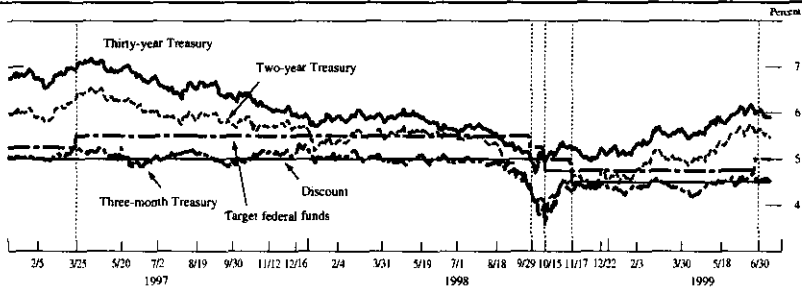
imports fell less rapidly, raising overall inflation rates. Despite improvements in technology and business processes that have yielded striking gains in efficiency, the robust growth of aggregate demand, fueled by rising equity wealth and readily available credit, produced even tighter labor markets in the first half of 1999 than in the second half of 1998. If this trend were to continue, labor compensation would begin climbing increasingly faster than warranted by productivity growth and put upward pressure on prices. Moreover, the Federal Open Market Committee (FOMC) was concerned that as economic activity abroad strengthened, the firming of commodity and other prices might also foster a less favorable inflation environment. To gain some greater assurance that the good inflation performance of the economy would continue, the Committee decided at its June meeting to reverse a portion of the easing undertaken last fall when global financial markets were disrupted; the Committee's target for the overnight federal funds rate, a key indicator of money market conditions, was raised from 4¾ percent to 5 percent.

### *Monetary Policy, Financial Markets, and the Economy over the First Half of 1999*

The FOMC met in February and March against the backdrop of continued rapid expansion of the U.S. economy. Demand was strong, employment growth was brisk, and labor markets were tight. Nonetheless, price inflation was still low, held in check by a substantial gain in productivity, ample manufacturing capacity, and low inflation expectations.

Activity was supported by a further settling down of financial markets in the first quarter after a period of considerable turmoil in the late summer and fall of 1998. In that earlier period, which followed Russia's moratorium on a substantial portion of its debt payments in mid-August, the normal functioning of U.S. financial markets had been impaired as investors cut back sharply their credit risk exposures and market liquidity dried up. The Federal Reserve responded to these developments by trimming its target for the overnight federal funds rate by 75 basis points in three steps. In early 1999, the devaluation and subsequent floating of the Brazilian *real* in mid-January

## Selected interest rates



NOTE: The data are daily. Vertical lines indicate the days on which the Federal Reserve announced a monetary policy action. The dates on the horizon-

tal axis are those on which either the FOMC held a scheduled meeting or a policy action was announced. Last observations are for July 19, 1999.

heightened concerns for a while, but market conditions overall improved considerably.

At its February and March meetings, the FOMC left the stance of monetary policy unchanged. The Committee expected that the growth of output might well slow sufficiently to bring production into close enough alignment with the economy's enhanced potential to forestall the emergence of a trend of rising inflation. Although domestic demand was still increasing rapidly, it was anticipated to moderate over time in response to the buildup of large stocks of business equipment, housing units, and durable goods and more restrained expansion in wealth in the absence of appreciable further increases in equity prices. Furthermore, the FOMC, after taking account of the near-term effects of the rise in crude oil prices, saw few signs that cost and price inflation was in the process of picking up. The unusual combination of very high labor resource utilization and sustained low inflation suggested considerable uncertainty about the relationship between output and prices. In this environment, the Committee concluded that it could wait for additional information about the balance of risks to the economic expansion.

By the time of the May FOMC meeting, demand was still showing considerable forward momentum, and growth in economic activity still appeared to be running in excess of the rate of increase of the economy's long-run capacity to expand output. Borrowers' heavy demands for credit were being met on relatively favorable terms, and wealth was further boosted by rapidly rising equity prices. Also, the economic and financial outlook for many emerging-market countries was brighter. Trends in inflation were still subdued, although consumer prices—even

apart from a big jump in energy prices—were reported to have registered a sizable rise in April.

At its May meeting, the FOMC believed that these developments tilted the risks toward further robust growth that would exert additional pressure on already taut labor markets and ultimately show through to inflation. Moreover, a turnaround in oil and other commodity markets meant that prices of these goods would no longer be holding down inflation, as they had over the past year. Yet, the economy to date had shown a remarkable ability to accommodate increases in demand without generating greater underlying inflation trends, as the continued growth of labor productivity had helped to contain cost pressures. The uncertainty about the prospects for prices, demand pressures, and productivity was large, and the Committee decided to defer any policy action. However, in light of its increased concern about the outlook for inflation, the Committee adopted an asymmetric directive tilted toward a possible firming of policy. The Committee also wanted to inform the public of this significant revision in its view, and it announced a change in the directive immediately after the meeting. The announcement was the first under the Committee's policy of announcing changes in the tilt of the domestic directive when it wants to communicate a major shift in its view about the balance of risks to the economy or the likely direction of its future actions.

In the time leading up to the FOMC's June meeting, economic activity in the United States continued to move forward at a brisk pace, and prospects in a number of foreign economies showed additional improvement. Labor markets tightened slightly further. The federal funds rate, however, remained at

the lower level established in November 1998, when the Committee took its last of three steps to counter severe financial market strains. With those strains largely gone, the Committee believed that the time had come to reverse some of that accommodation, and it raised the targeted overnight federal funds rate 25 basis points, to 5 percent. Looking ahead, the Committee expected demand to remain strong, but it also noted the possibility that a further pickup in productivity could allow the economy to accommodate this demand for some time without added inflationary pressure. In light of these conflicting forces in the economy, the FOMC returned to a symmetric directive. Nonetheless, with labor markets already tight, the Committee recognized that it needed to stay especially alert to signs that inflationary forces were emerging that could prove inimical to the economic expansion.

### *Economic Projections for 1999 and 2000*

The members of the Board of Governors and the Federal Reserve Bank presidents see good prospects for *sustained, solid economic expansion through next year*. For this year, the central tendency of their forecasts of growth of real gross domestic product is 3½ percent to 3¾ percent, measured as the change

between the fourth quarters of 1998 and 1999. For 2000, the forecasts of real GDP are mainly in the 2½ percent to 3 percent range. With this pace of expansion, the civilian unemployment rate is expected to remain close to the recent 4¼ percent level over the next six quarters.

The increases in income and wealth that have bolstered consumer demand over the first half of this year and the desire to invest in new high-technology equipment that has boosted business demand during the same period should continue to stimulate spending over the quarters ahead. However, several factors are expected to exert some restraint on the economy's momentum by next year. With purchases of durable goods by both consumers and businesses having risen still further and running at high levels, the stocks of such goods probably are rising more rapidly than is likely to be desired in the longer run, and the growth of spending should moderate. The increase in market interest rates should help to damp spending as well. And unless the extraordinary gains in equity prices of the past few years are extended, the impetus to spending from increases in wealth will diminish.

Federal Reserve policymakers believe that this year's rise in the consumer price index (CPI) will be larger than that in 1998, largely because of the rebound in retail energy prices that has already occurred. Crude oil prices have moved up sharply, reversing the decline posted in 1998 and leading to a jump in the CPI this spring. For next year, the FOMC participants expect the increase in the CPI to remain around this year's pace, with a central tendency of 2 percent to 2½ percent. Futures market quotes suggest that the prevailing expectation is that the rebound in oil prices has run its course now, and ample industrial capacity and productivity gains may help limit inflationary pressures in coming months as well. *With labor utilization very high, though, and demand still strong, significant risks remain even after the recent policy firming that economic and financial conditions may turn out to be inconsistent with keeping costs and prices from escalating.*

Although interest rates currently are a bit higher than anticipated in the economic assumptions underlying the *budget projections in the Administration's* Mid-Session Review, there is no apparent tension between the Administration's plans and the Federal Reserve policymakers' views. In fact, Federal Reserve officials project somewhat faster growth in real GDP and slightly lower unemployment rates into 2000 than the Administration does, while the Administration's projections for inflation are within the Federal Reserve's central tendencies.

#### 1. Economic projections for 1999 and 2000

| Indicator   | Federal Reserve governors and Reserve Bank presidents |                  | Administration <sup>1</sup> |
|---|---|------------------|-----------------------------|
|   | Range   | Central tendency |                             |
| 1999  |   |                  |                             |
| <i>Change, fourth quarter to fourth quarter<sup>2</sup></i> |   |                  |                             |
| Nominal GDP .....   | 4½-5½   | 5-5½             | 4.8                         |
| Real GDP .....  | 3½-4  | 3½-3¾            | 3.2                         |
| Consumer price index <sup>3</sup> .....                     | 1¾-2¼   | 2¼-2½            | 2.4                         |
| <i>Average level, fourth quarter</i>                        |   |                  |                             |
| Civilian unemployment rate .....                            | 4-4½  | 4-4¼             | 4.3                         |
| 2000  |   |                  |                             |
| <i>Change, fourth quarter to fourth quarter<sup>2</sup></i> |   |                  |                             |
| Nominal GDP .....   | 4-5¼  | 4-5              | 4.2                         |
| Real GDP .....  | 2-3½  | 2½-3             | 2.1                         |
| Consumer price index <sup>3</sup> .....                     | 1½-2¼   | 2-2½             | 2.4                         |
| <i>Average level, fourth quarter</i>                        |   |                  |                             |
| Civilian unemployment rate .....                            | 4-4½  | 4¼-4½            | 4.7                         |

1. From the Mid-Session Review of the budget.

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

3. All urban consumers.

## Monetary Policy Report to the Congress □ July 1999

2. Ranges for growth of monetary and debt aggregates  
Percent

| Aggregate  | 1998 | 1999 | Provisional for 2000 |
|------------|------|------|----------------------|
| M2 .....   | 1-5  | 1-5  | 1-5                  |
| M3 .....   | 2-6  | 2-6  | 2-6                  |
| Debt ..... | 3-7  | 3-7  | 3-7                  |

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

*Money and Debt Ranges for 1999 and 2000*

At its meeting in late June, the FOMC reaffirmed the ranges for 1999 growth of money and debt that it had established in February: 1 percent to 5 percent for M2, 2 percent to 6 percent for M3, and 3 percent to 7 percent for debt of the domestic nonfinancial sectors. The FOMC set the same ranges for 2000 on a provisional basis.

As has been the case since the mid-1990s, the FOMC views the ranges for money growth as benchmarks for growth under conditions of price stability and the historically typical relationship between money and nominal income. The disruption of the historically typical pattern of the velocities of M2 and M3 (the ratio of nominal GDP to the aggregates) during the 1990s implies that the Committee cannot establish, with any confidence, specific target ranges for expected money growth for a given year that will be consistent with the economic performance that it desires. However, persistently fast or slow money growth can accompany, or even precede, deviations from desirable economic outcomes. Thus, the behavior of the monetary aggregates, evaluated in the context of other financial and nonfinancial indicators, will continue to be of interest to Committee members in their policy deliberations.

The velocities of M2 and M3 declined again in the first half of this year, albeit more slowly than in 1998. The Committee's easing of monetary policy in the fall of 1998 contributed to the decline, but only to a modest extent. It is not clear what other factors led to the drop, although the considerable increase in wealth relative to income resulting from the substantial gains in equity prices over the past few years may have played a role. Investors could be rebalancing their portfolios, which have become skewed toward equities, by reallocating some wealth to other assets, including those in M2.

Even if the velocities of M2 and M3 were to return to their historically typical patterns over the balance of 1999 and in 2000, M2 and M3 likely would be at the upper bounds of, or above, their longer-term price-stability ranges in both years, given the Com-

mittee's projections of nominal GDP growth. This relatively rapid expansion in nominal income reflects faster expected growth in productivity than when the price-stability ranges were established in the mid-1990s and inflation that is still in excess of price stability. The more rapid increase in productivity, if it persists for a while and is sufficiently large, might in the future suggest an upward adjustment to the money ranges consistent with price stability. However, considerable uncertainty attends the trend in productivity, and the Committee chose not to adjust the ranges at its most recent meeting.

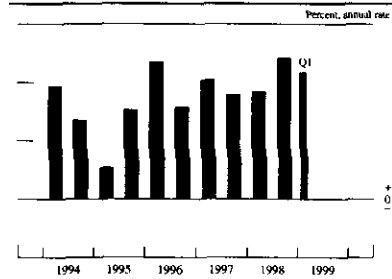
Debt of the nonfinancial sectors has expanded at roughly the same pace as nominal income this year—its typical pattern. Given the stability of this relationship, the Committee selected a growth range for the debt aggregate that encompasses its expectations for debt growth in both years. The Committee expects growth in nominal income to slow in 2000, and with it, debt growth. Nonetheless, growth of this aggregate is projected to remain within the range of 3 percent to 7 percent.

*ECONOMIC AND FINANCIAL DEVELOPMENTS  
IN 1999*

The economy has continued to grow rapidly so far this year. Real gross domestic product rose more than 4 percent at an annual rate in the first quarter of 1999, and available data point to another significant gain in the second quarter.<sup>1</sup> The rise in activity has been

1. All figures from the national income and product accounts cited here are subject to change in the quinquennial benchmark revisions slated for this fall.

## Change in real GDP



NOTE: In this chart and in subsequent charts that show the components of real GDP, changes are measured from the final quarter of the previous period to the final quarter of the period indicated.

brisk enough to produce further substantial growth of employment and a reduction in the unemployment rate to 4½ percent. Growth in output has been driven by strong domestic demand, which in turn has been supported by further increases in equity prices, by the continuing salutary effects of government saving and inflows of foreign investment on the cost of capital, and by more smoothly functioning financial markets as the turbulence that marked the latter part of 1998 subsided. Against the background of the easing of monetary policy last fall and continuing robust economic activity, investors became more willing to advance funds to businesses; risk spreads have receded and corporate debt issuance has been brisk.

Inflation developments were mixed over the first half of the year. The consumer price index increased more rapidly owing to a sharp rebound in energy prices. Nevertheless, price inflation outside of the energy area generally remained subdued despite the slight further tightening of labor markets, as sizable gains in labor productivity and ample industrial capacity held down price increases.

*The Household Sector*

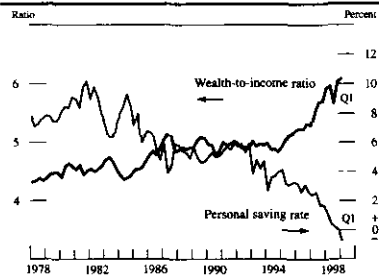
Consumer Spending

Real personal consumption expenditures surged 6¾ percent at an annual rate in the first quarter, and more recent data point to a sizable further advance in the second quarter. The underlying fundamentals for the household sector have remained extremely favorable. Real incomes have continued to rise briskly with strong growth of employment and real wages, and consumers have benefited from substantial gains in wealth. Not surprisingly, consumer confidence—

as measured, for example, by the University of Michigan Survey Research Center (SRC) and Conference Board surveys—has remained quite upbeat in this environment.

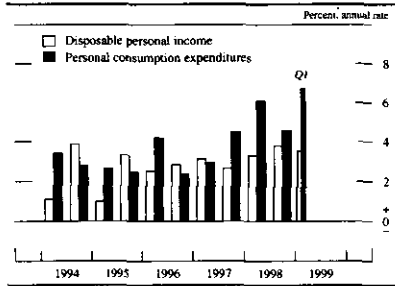
Growth of consumer spending in the first quarter was strong in all expenditure categories. Outlays for durable goods rose sharply, reflecting sizable increases in spending on electronic equipment (especially computers) and on a wide range of other goods, including household furnishings. Purchases of cars and light trucks remained at a high level, supported by declining relative prices as well as by the fundamentals that have buoyed consumer spending more generally. Outlays for nondurable goods were also robust, reflecting in part a sharp increase in expenditures for apparel. Finally, spending on services climbed steeply as well early this year, paced by sizable increases in spending on recreation and brokerage services. In the second quarter, consumers apparently boosted their purchases of motor vehicles further. In all, real personal consumption expenditures rose at more than a 4 percent annual rate in April and May, an increase that is below the first-quarter pace but is still quite rapid by historical standards.

Wealth and saving

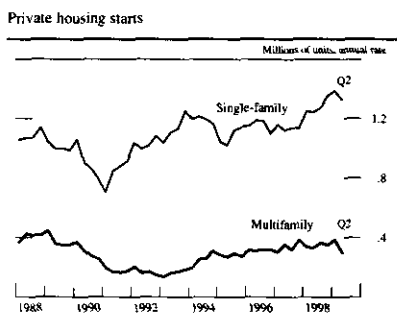


NOTE: The wealth-to-income ratio is the ratio of net worth of households to disposable personal income.

Change in real income and consumption



Real disposable income increased at an annual rate of 3½ percent in the first quarter, with the strong labor market generating marked increases in wages and salaries. Even so, income grew less rapidly than expenditures, and the personal saving rate declined further; indeed, by May the saving rate had moved below negative 1 percent. Much of the decline in the saving rate in recent years can be explained by the sharp rise in household net worth relative to disposable income that is associated with the appreciation



of households' stock market assets since 1995. This rise in wealth has given households the wherewithal to spend at levels beyond what current incomes would otherwise allow. As share values moved up further in the first half of this year, the wealth-to-income ratio continued to edge higher despite the absence of saving out of disposable income.

#### Residential Investment

Housing activity remained robust in the first half of this year. In the single-family sector, positive fundamentals and unseasonably good weather helped boost starts to a pace of 1.39 million units in the first quarter—the highest level of activity in twenty years. This extremely strong level of building activity strained the availability of labor and some materials; as a result, builders had trouble achieving the usual seasonal increase in the second quarter, and starts edged off to a still-high pace of 1.31 million units. Home sales moderated in the spring: Sales of both new and existing homes were off some in May from their earlier peaks, and consumers' perceptions of homebuying conditions as measured by the Michigan SRC survey have declined from the very high marks recorded in late 1998 and early this year. Nonetheless, demand has remained quite robust, even in the face of a backup in mortgage interest rates: Builders' evaluations of new home sales remained very high at mid-year, and mortgage applications for home purchases showed strength into July.

With strong demand pushing up against limited capacity, home prices have risen substantially, although evidence is mixed as to whether the rate of increase is picking up. The quality-adjusted price of new homes rose 5 percent over the four quarters

ended in 1999:Q1, up from 3¼ percent over the preceding four-quarter period. The repeat sales index of existing home prices also rose about 5 percent between 1998:Q1 and 1999:Q1, but this series posted even larger increases in the year-earlier period. On the cost side, tight supplies have led to rising prices for some building materials; prices of plywood, lumber, gypsum wallboard, and insulation have all moved up sharply over the past twelve months. In addition, hourly compensation costs have been rising relatively rapidly in the construction sector.

Starts of multifamily units surged to 384,000 at an annual rate in the first quarter and ran at a pace a bit under 300,000 units in the second quarter. As in the single-family sector, demand has been supported by strong fundamentals, builders have been faced with tight supplies of some materials, and prices have been rising briskly: Indeed, apartment property values have been increasing at around a 10 percent annual rate for three years now.

#### Household Finance

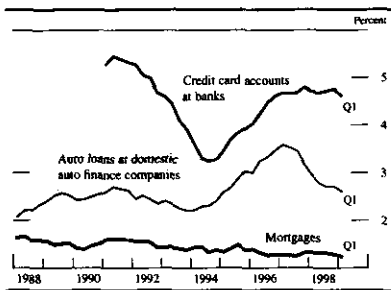
In addition to rising wealth and rapid income growth, the strong expenditures of households on housing and consumer goods over the first half of 1999 were encouraged by the decline in interest rates in the latter part of 1998. Households borrowed heavily to finance spending. Their debt expanded at a 9½ percent annual rate in the first quarter, up from the 8¼ percent pace over 1998, and preliminary data for the second quarter indicate continued robust growth. Mortgage borrowing, fueled by the vigorous housing market and favorable mortgage interest rates, was particularly brisk in the first quarter, with mortgage debt rising at an annual rate of 10 percent. In the second quarter, mortgage rates moved up considerably, but preliminary data indicate that borrowing was still substantial.

Consumer credit growth accelerated in the first half of 1999. It expanded at about an 8 percent annual rate compared with 5½ percent for all of 1998. The growth of nonrevolving credit picked up, reflecting brisk sales and attractive financing rates for automobiles and other consumer durable goods. The expansion of revolving credit, which includes credit card loans, slowed a bit from its pace in 1998.

Households apparently have not encountered added difficulties meeting the payments associated with their greater indebtedness, as measures of household financial stress improved a bit on balance in the first quarter. Personal bankruptcies dropped off considerably, although part of the decline may reflect



## Delinquency rates on household loans



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

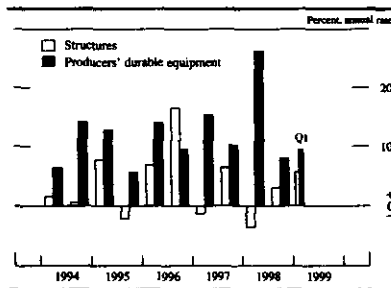
the aftermath of a surge in filings in late 1998 that occurred in response to pending legislation that would limit the ability of certain debtors to obtain forgiveness of their obligations. Delinquency rates on several types of household loans edged lower. Delinquency and charge-off rates on credit card debt moved down from their 1997 peaks but remained at historically high rates. A number of banks continued to tighten credit card lending standards this year, as indicated by banks' responses to Federal Reserve surveys.

## The Business Sector

## Fixed Investment

Real business fixed investment appears to have posted another huge increase over the first half of

## Change in real business fixed investment

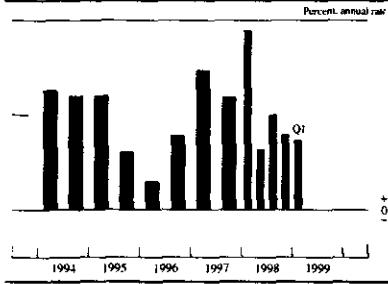


1999. Investment spending continued to be driven by buoyant expectations of sales prospects as well as by rapidly declining prices of computers and other high-tech equipment. In recent quarters, spending also may have been boosted by the desire to upgrade computer equipment in advance of the roll-over to the year 2000. Real investment has been rising rapidly for several years now; indeed, the average increase of 10 percent annually over the past five years represents the most rapid sustained expansion of investment in more than thirty years. Although a growing portion of this investment has gone to cover depreciation on purchases of short-lived equipment, the investment boom has led to a notable upgrading and expansion of the capital stock and in many cases has embodied new technologies. These factors likely have been important in the nation's improved productivity performance over the past few years.

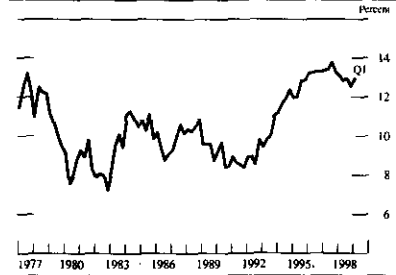
Real outlays for producers' durable equipment increased at an annual rate of 9½ percent in the first quarter of the year, after having surged nearly 17 percent last year, and may well have re-accelerated in the second quarter. Outlays on communications equipment were especially robust in the first quarter, driven by the ongoing effort by telecommunications companies to upgrade their networks to provide a full range of voice and data transmission services. Purchases of computers and other information processing equipment were also up notably in the first quarter, albeit below last year's phenomenal spending pace, and shipments of computers surged again in April and May. Shipments of aircraft to domestic carriers apparently soared in the second quarter, and business spending on motor vehicles, including medium and heavy trucks as well as light vehicles, has remained extremely strong as well.

Real business spending for nonresidential structures has been much less robust than for equipment, and spending trends have varied greatly across sectors of the market. Real spending on office buildings and lodging facilities has been increasing impressively, while spending on institutional and industrial structures has been declining—the last reflecting ample capacity in the manufacturing sector. In the first quarter of this year, overall spending on structures was reported in the national income and product accounts to have moved up at a solid 5¾ percent annual rate, reflecting a further sharp increase in spending on office buildings and lodging facilities. However, revised source data indicate a somewhat smaller first-quarter increase in nonresidential construction and also point to a slowing in activity in April and May from the first-quarter pace.

Change in nonfarm business inventories



Before-tax profits of nonfinancial corporations as a share of GDP



NOTE: Profits from domestic operations, with inventory valuation and capital consumption adjustments, divided by the gross domestic product of the non-financial corporate sector.

Inventory Investment

Inventory-sales ratios in many industries dropped considerably early this year, as the pace of stock-building by nonfarm businesses, which had slowed notably over 1998, remained well below the surge of consumer and business spending in the first quarter. Although production picked up some in the spring, final demand remained quite strong, and available monthly data suggest that businesses accumulated inventories in April and May at a rate not much different from the modest first-quarter pace.

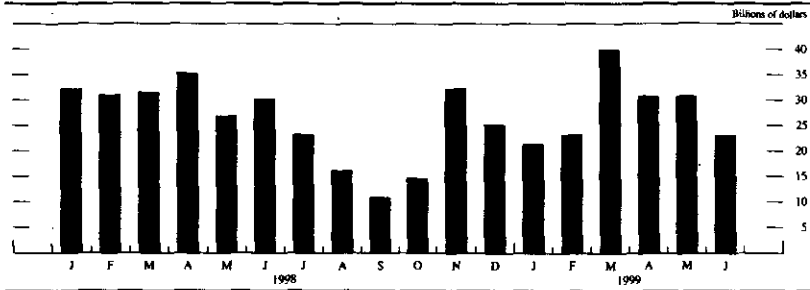
In the motor vehicle sector, makers geared up production in the latter part of 1998 to boost inventories from their low levels after last summer's strikes. Nevertheless, as with the business sector overall, motor vehicle inventories remained on the lean side by historical standards in the early part of this year as a result of surprisingly strong vehicle sales. As a consequence, manufacturers boosted the pace of assemblies in the second quarter to the high-

est level in twenty years. With no noticeable signs of a slowing in demand, producers have scheduled third-quarter output to remain at the lofty heights of the second quarter.

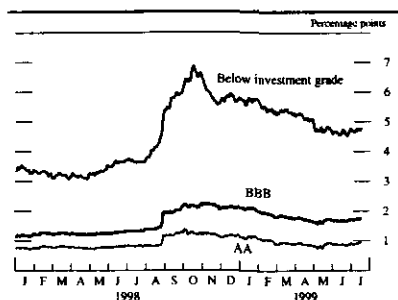
Corporate Profits and Business Finance

The economic profits of nonfinancial U.S. corporations rose considerably in the first quarter, even after allowing for the depressing effect in the fourth quarter of payments associated with the settlement between the tobacco companies and the states. Despite the growth of profits, capital expenditures by nonfinancial businesses continued to outstrip internal cash flow. Moreover, borrowing requirements were enlarged by the net reduction in equity outstanding, as the substantial volume of retirements from merger

Gross corporate bond issuance



Spreads of corporate bond yields  
over Treasury security yields



NOTE: The data are daily. The spread for below-investment-grade bonds compares the yield on the Merrill Lynch Master II high-yield bond index composite with the yield from the seven-year Treasury constant-maturity series; the other two spreads compare yields on the appropriate Merrill Lynch indexes with that on a ten-year Treasury security. Last observations are for July 19, 1999.

activity and share repurchase programs exceeded the considerable volume of gross issuance of both initial and seasoned public equities. As a result, businesses continued to borrow at a brisk pace: Aggregate debt of the nonfinancial business sector expanded at a 9½ percent annual rate in the first quarter. As financial market conditions improved after the turmoil of the fall, businesses returned to the corporate bond and commercial paper markets for funding, and corporate bond issuance reached a record high in March. Some of the proceeds were used to pay off bank loans, which had soared in the fall, and these repayments curbed the expansion of business loans at banks. Partial data for the second quarter indicate that borrowing by nonfinancial businesses slowed somewhat.

Risk spreads have receded on balance this year from their elevated levels in the latter part of 1998. From the end of December 1998 through mid-July, investment-grade corporate bond yields moved up from historically low levels, but by less than yields on comparable Treasury securities, and the spread between these yields narrowed to a level somewhat above that prevailing before the Russian crisis. The rise in investment-grade corporate bond yields was restrained by investors' apparently increased willingness to hold such debt, as growing optimism about the economy and favorable earnings reports gave investors more confidence about the prospective financial health of private borrowers. Yield spreads on below-investment-grade corporate debt over comparable Treasury securities, which had risen consider-

ably in the latter part of 1998, also retreated. But in mid-July, these spreads were still well above the thin levels prevailing before the period of financial turmoil but in line with their historical averages.

In contrast to securities market participants, banks' attitudes toward business lending apparently became somewhat more cautious over the first half of the year, according to Federal Reserve surveys. The average spread of bank lending rates over the FOMC's intended federal funds rate remained elevated. On net, banks continued to tighten lending terms and standards this year, although the percentage that reported tightening was much smaller than in the fall.

The overall financial condition of nonfinancial businesses was strong over the first half of the year, although a few indicators suggested a slight deterioration. In the first quarter, the ratio of net interest payments to corporate cash flow remained close to the modest levels of 1998, as low interest rates continued to hold down interest payments. Delinquency rates for commercial and industrial loans from banks ticked up, but they were still modest by historical standards. Similarly, over the first half of the year, business failures—measured as the ratio of liabilities of failed businesses to total liabilities—stepped up from the record low in 1998. The default rate on below-investment-grade bonds rose to its highest level in several years, an increase stemming in part from defaults by companies whose earnings were impaired by the drop in oil and other commodity prices last year. The total volume of business debt that was downgraded exceeded slightly the volume of debt that was upgraded.

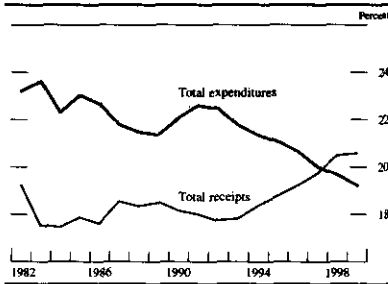
### The Government Sector

#### Federal Government

The incoming news on the federal budget continues to be quite favorable. Over the first eight months of fiscal year 1999—the period from October through May—the unified budget registered a surplus of about \$41 billion, compared with \$16 billion during the comparable period of fiscal 1998. If the latest projections from the Office of Management and Budget and the Congressional Budget Office are realized, the unified budget for fiscal 1999 as a whole will show a surplus of around \$100 billion to \$120 billion, or more than 1 percent of GDP—a striking turnaround from the outsized budget deficits of previous years, which approached 5 percent of GDP in the early 1990s.

Monetary Policy Report to the Congress □ July 1999

Federal receipts and expenditures as a share of nominal GDP

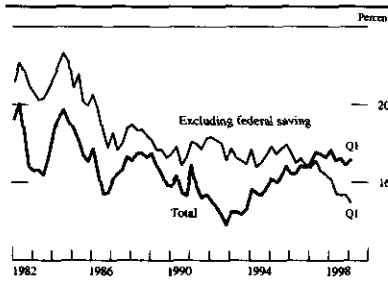


NOTE. Data on receipts and expenditures are from the unified budget. Values for 1999 are estimates from the CBO's July 1 economic and budget update.

As a result of this turnaround, the federal government is now contributing positively to the pool of national saving. In fact, despite the recent drop in the personal saving rate, gross saving by households, businesses, and governments has remained above 17 percent of GDP in recent quarters—up from the 14 percent range that prevailed in the early 1990s. This well-maintained pool of national savings, together with the continued willingness of foreigners to finance our current account deficits, has helped hold down the cost of capital, thus contributing to our nation's investment boom.

This year's increase in the federal surplus has reflected continued rapid growth of receipts in combination with a modest increase in outlays. Federal receipts were 5 percent higher in the first eight months of fiscal 1999 than in the year-earlier period. With profits leveling off from last year, receipts of corporate taxes have stagnated so far this fiscal year.

National saving as a share of nominal GDP

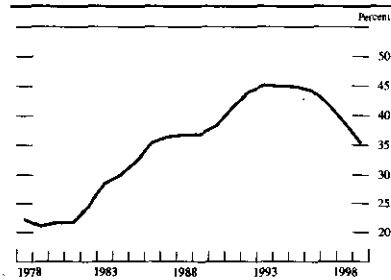


NOTE. National saving comprises the gross saving of households, businesses, and governments.

However, individual income tax payments are up appreciably, reflecting the solid gains in household incomes and perhaps also a rise in capital gains realizations large enough to offset last year's reduction in capital gains tax rates. At the same time, federal outlays increased only 2½ percent in nominal terms and barely at all in real terms during the first eight months of the fiscal year, relative to the comparable year-earlier period. Spending growth has been restrained in major portions of both the discretionary (notably, defense) and nondiscretionary (notably, net interest, social security, and Medicare) categories—although this year's emergency supplemental spending bill, at about \$14 billion, was somewhat larger than similar bills in recent years.

As for the part of federal spending that is counted in GDP, real federal outlays for consumption and gross investment, which had changed little over the past few years, declined at a 2 percent annual rate in the first quarter of 1999. A drop in real defense outlays more than offset a rise in nondefense expenditures in the first quarter. And despite the military action in the Balkans and the recent emergency spending bill, defense spending appears to have declined in the second quarter as well.

Federal debt held by private investors as a share of nominal GDP



NOTE. Federal debt held by private investors is gross federal debt less debt held by federal government accounts and the Federal Reserve System. The value for 1999 is an estimate based on the CBO's July 1 economic and budget update.

The budget surpluses of the past two years have led to a notable decline in the stock of federal debt held by private investors as a share of GDP. Since its peak in March 1997, the total volume of Treasury debt held by private investors has fallen by nearly \$130 billion. The Treasury has reduced its issuance of interest-bearing marketable debt in fiscal 1999.

The decrease has been concentrated in nominal coupon issues; in 1998, by contrast, the Treasury retired both bill and coupon issues in roughly equal measure. Offerings of inflation-indexed securities have remained an important part of the Treasury's overall borrowing program: Since the beginning of fiscal 1999, the Treasury has sold nearly \$31 billion of such securities.

#### State and Local Governments

The fiscal condition of state and local governments has remained quite positive as well. Revenues have been boosted by increases in tax collections due to strong growth of private-sector incomes and expenditures—increases that were enough to offset an ongoing trend of tax cuts. Meanwhile, outlays have continued to be restrained. In all, at the state level, fiscal 1999 looks to have been the seventh consecutive year of improving fiscal positions; of the forty-six states whose fiscal years ended on June 30, all appear to have run surpluses in their general funds.

Real expenditures for consumption and gross investment by states and localities, which had been rising only moderately through most of 1998, jumped at a 7¼ percent annual rate in the first quarter of this year. This increase was driven by a surge in construction expenditures that was helped along by unseasonably favorable weather, and spending data for April and May suggest that much of this rise in construction spending was offset in the second quarter. As for employment, state and local governments added jobs over the first half of the year at about the same pace as they did last year.

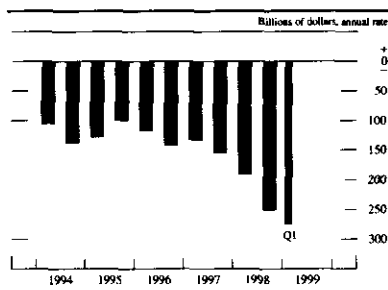
Debt of state and local governments expanded at a 5½ percent rate in the first quarter. The low interest rate environment and strong economy encouraged the financing of new projects and the refunding of outstanding higher-rate debt. Borrowing slowed to a more modest pace in the second quarter, as yields on long-dated municipal bonds moved up, but by less than those on comparable Treasury securities. The credit quality of municipal securities improved further over the first half of the year, with more issues being upgraded than downgraded.

#### External Sector

##### Trade and the Current Account

The current account deficit reached \$274 billion at an annual rate in the first quarter of 1999, a bit more than 3 percent of GDP, compared with \$221 billion

U.S. current account

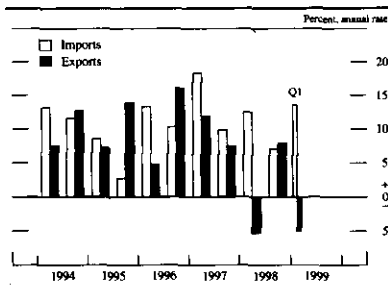


and 2½ percent of GDP for 1998. A widening of the deficit on trade in goods and services, to \$215 billion at an annual rate in the first quarter from \$173 billion in the fourth quarter of 1998, accounted for the deterioration in the current account balance. Data for April and May indicate that the trade deficit increased further in the second quarter.

The quantity of imports of goods and services again grew vigorously in the first quarter. The annual rate of growth of imports, at 13½ percent, continued the rapid pace seen over 1998 and reflected the strength of U.S. domestic demand and the effects of past dollar appreciation. Imports of consumer goods, automotive products, computers, and semiconductors were particularly robust. Preliminary data for April and May suggest that real import growth remained strong, as nominal imports rose steadily and non-oil import prices posted a moderate decline.

The volume of exports of goods and services declined at an annual rate of 5 percent in the first quarter. The decline partially reversed the strong increase in the fourth quarter of last year. The weak-

Change in real imports and exports of goods and services



ness of economic activity in a number of U.S. trading partners and the strength of the dollar damped demand for U.S. exports. Declines were registered in aircraft, machinery, industrial supplies, and agricultural products. Exports to Asia generally turned down in the first quarter from the elevated levels recorded in the fourth quarter, when they were boosted by record deliveries of aircraft to the region. Preliminary data for April and May suggest that real exports advanced slightly.

**Capital Account**

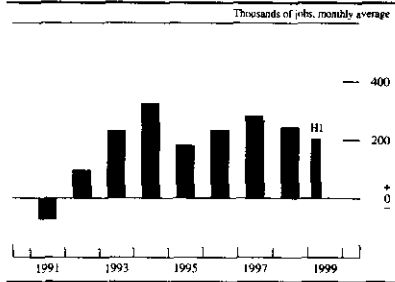
Foreign direct investment in the United States and U.S. direct investment abroad remained robust in the first quarter, reflecting brisk cross-border merger and acquisition activity. On balance, net capital flows through direct investment registered a modest outflow in the first quarter compared with a huge net inflow in the fourth quarter. Fourth-quarter inflows were swollen by several large mergers. Net foreign purchases of U.S. securities also continued to be quite sizable but again were well below the extraordinary pace of the fourth quarter. Most of the slowdown in the first quarter is attributable to a reduced demand for Treasury securities on the part of private investors abroad. But capital inflows from foreign official sources also slowed in the first quarter. U.S. residents on net sold foreign securities in the first quarter, but at a slower rate than in the previous quarter.

*The Labor Market*

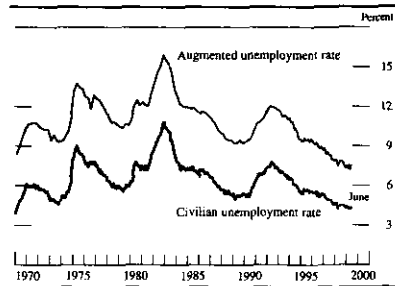
**Employment and Labor Supply**

Labor demand remained very strong during the first half of 1999. Payroll employment increased about

Change in total nonfarm payroll employment



Measures of labor utilization



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

200,000 per month on average, which, although less rapid than the 244,000 pace registered over 1998, is faster than the growth of the working-age population. With the labor force participation rate remaining about flat at just over 67 percent, the unemployment rate edged down further from an average of 4½ percent in 1998 to 4¼ percent in the first half of this year—the lowest unemployment rate seen in the United States in almost thirty years. Furthermore, the pool of potential workers, including not just the unemployed but also individuals who are out of the labor force but report that they want a job, declined late last year to the lowest share of the labor force since collection of these data began in 1970—and it has remained near that low this year. Not surprisingly, businesses in many parts of the country have perceived workers to be in very short supply, as evidenced by high levels of help-wanted advertising and surveys showing substantial difficulties in filling job openings.

Employment gains in the private service-producing sector remained sizable in the first six months of the year and more than accounted for the rise in nonfarm payrolls over this period. Payrolls continued to rise briskly in the services industry, with firms providing business services (such as help supply services and computer services) adding jobs especially rapidly. Job gains were quite sizable in retail trade as well. Within the service-producing sector, only the finance, insurance, and real estate industry has slowed the pace of net hiring from last year's rate, reflecting, in part, a slower rate of job gains in the mortgage banking industry as the refinancing wave has ebbed.

Within the goods-producing sector, the boom in

construction activity pushed payrolls in that industry higher in the first six months of this year. But in manufacturing, where employment began declining more than a year ago in the wake of a drop in export demand, payrolls continued to fall in the first half of 1999; in all, nearly half a million factory jobs have been shed since March 1998. Despite these job losses, manufacturing output continued to rise in the first half of this year, reflecting large gains in labor productivity.

#### Labor Costs and Productivity

Growth in hourly compensation, which had been on an upward trend since 1995, appears to have leveled off and, by some measures, has slowed in the past year. According to the employment cost index (ECI), hourly compensation costs increased 3 percent over the twelve months ended in March, down from 3½ percent over the preceding twelve-month period. Part of both the earlier acceleration and more recent deceleration in the ECI apparently reflected swings in commissions, bonuses, and other types of "variable" compensation, especially in the finance, insurance, and real estate industry. But in addition, part of the recent deceleration probably reflects the influence of restrained price inflation in tempering nominal wage increases. Although down from earlier increases, the 3 percent rise in the ECI over the twelve months ended in March was well above the rise in prices over this period and therefore was enough to generate solid gains in workers' real pay.

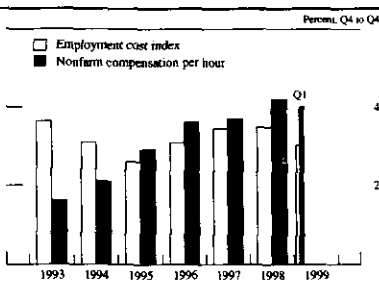
The deceleration in the ECI through March has been most pronounced in the wages and salaries

component, whose twelve-month change slowed ¾ percentage point from a year earlier. More recently, data on average hourly earnings of production or nonsupervisory workers may point to a leveling off, but no further slowing, of wage growth: This series was up at about a 4 percent annual rate over the first six months of this year, about the same as the increase over 1998. Growth in the benefits component of the ECI slowed somewhat as well in the year ended in March, to a 2¼ percent increase. However, employers' costs for health insurance are one component of benefits that has been rising more rapidly of late. After showing essentially no change from 1994 through 1996, the ECI for health insurance accelerated to a 3¾ percent pace over the twelve months ended in March.

A second measure of hourly compensation—the Bureau of Labor Statistics' measure of compensation per hour in the nonfarm business sector, which is derived from compensation information from the national accounts—has been rising more rapidly than the ECI in the past few years and has also decelerated less so far this year. Nonfarm compensation per hour increased 4 percent over the four quarters ended in the first quarter of 1999, 1 percentage point more than the rise in the ECI over this period. One reason these two compensation measures may diverge is that the ECI does not capture certain forms of compensation, such as stock options and hiring, retention, and referral bonuses, whereas nonfarm compensation per hour does measure these payments.<sup>2</sup> Although the two compensation measures differ in numerous other respects as well, the series' divergence may lend support to anecdotal evidence that these alternative forms of compensation have been increasing especially rapidly in recent years. However, because nonfarm compensation per hour can be revised substantially, one must be cautious in putting much weight on the most recent quarterly figures from this series.

Rapid productivity growth has made it possible to sustain these increases in workers' compensation without placing great pressure on businesses' costs. Labor productivity in the nonfarm business sector posted another sizable gain in the first quarter of 1999, and the increase over the four quarters ended in the first quarter of 1999 was 2½ percent. Indeed, productivity has increased at a 2 percent pace since 1995—well above the trend of roughly 1 percent per

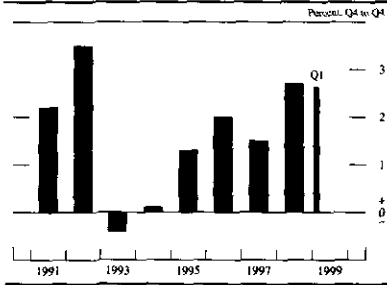
Measures of the change in hourly compensation



NOTE: The ECI is for private industry excluding farm and household workers. Nonfarm compensation per hour is for the nonfarm business sector. Values for 1999:Q1 are percent changes from 1998:Q1 to 1999:Q1.

2. However, nonfarm compensation per hour captures the gains from the actual exercise of stock options, whereas for analyzing compensation trends, one might prefer to measure the value of the options at the time they are granted.

Change in output per hour



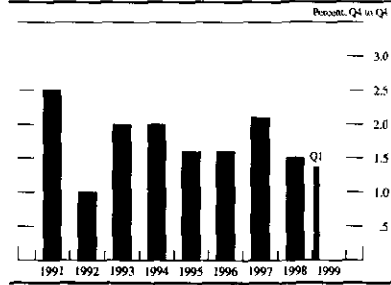
NOTE: Nonfarm business sector. The value for 1999:Q1 is the percent change from 1998:Q1 to 1999:Q1.

year that had prevailed over the preceding two decades.<sup>3</sup> This recent productivity performance is all the more impressive given that businesses are reported to have had to divert considerable resources toward avoiding computer problems associated with the century date change, and given as well that businesses may have had to hire less-skilled workers than were available earlier in the expansion when the pool of potential workers was not so shallow. Part of the strength in productivity growth over the past few years may have been a cyclical response to the rapid growth of output over this period. But productivity may also be reaping a more persistent payoff from the boom in business investment and the accompanying introduction of newer technologies that have occurred over the past several years.

Even these impressive gains in labor productivity may not have kept up fully with increases in firms' real compensation costs of late. Over the past two years, real compensation, measured by the ECI relative to the price of nonfarm business output, has increased the same hefty 2½ percent per year as labor productivity; however, measured instead using nonfarm compensation per hour, real compensation has increased somewhat more than productivity over this period, implying a rising share of compensation in total national income. A persistent period of real compensation increases in excess of productivity

3. About ¼ percentage point of the improvement in productivity growth since 1995 can be attributed to changes in price measurement. The measure of real output underlying the productivity figures since 1995 is deflated using CPI components that have been constructed using a geometric-means formula; these components tend to rise less rapidly than the CPI components that had been used in the output and productivity data before 1995. These smaller CPI increases translate into more rapid growth of output and productivity in the later period.

Change in unit labor costs



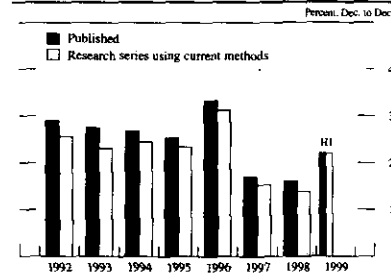
NOTE: Nonfarm business sector. The value for 1999:Q1 is the percent change from 1998:Q1 to 1999:Q1.

growth would reduce firms' capacity to absorb further wage gains without putting upward pressure on prices.

Prices

Price inflation moved up in early 1999 from a level in 1998 that was depressed by a transitory drop in energy and other commodity prices. After increasing only about 1½ percent over 1998, the consumer price index rose at a 2¼ percent annual rate over the first six months of this year, driven by a sharp turnaround in prices of gasoline and heating oil. However, the so-called "core" CPI, which excludes food and energy items, rose at an annual rate of only 1.6 percent over this period—a somewhat smaller increase than that registered over 1998 once adjustment is

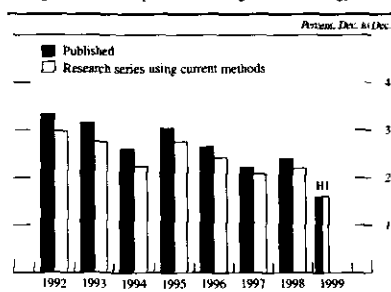
Change in consumer prices



NOTE: Consumer price index for all urban consumers. The research series has been extended into 1999 using the published CPI. Values for 1999:H1 are percent changes from December 1998 to June 1999 at an annual rate.



Change in consumer prices excluding food and energy



NOTE: Consumer price index for all urban consumers. The research series has been extended into 1999 using the published CPI. Values for 1999-H1 are percent changes from December 1998 to June 1999 at an annual rate.

made for the effects of changes in CPI methodology: According to a new research series from the Bureau of Labor Statistics (BLS), the core CPI would have increased 2.2 percent over 1998 had 1999 methods been in place in that year.<sup>4</sup>

The moderation of the core CPI in recent years has reflected a variety of factors that have helped hold inflation in check despite what has been by all accounts a very tight labor market. Price increases have been damped by substantial growth in manufacturing capacity, which has held plant utilization rates in most industries at moderate (and in some cases subpar) levels, thereby reinforcing competitive pressures in product markets. Furthermore, rapid productivity growth helped hold increases in unit labor costs to low levels even as compensation growth was picking up last year. The rise in compensation itself has been constrained by moderate expectations of inflation, which have been relatively stable. According to the Michigan SRC survey, the median of one-year-ahead inflation expectations, which was about 2½ percent late last year, averaged 2¼ percent in the first half of this year.

The quiescence of inflation expectations, at least through the early part of this year, in turn may have come in part from the downward movement in overall inflation last year resulting from declines in prices of imports and of oil and other commodities. These

price declines have not been repeated more recently. This year's rise in energy prices is the clearest example, but commodity prices more generally have been turning up of late. The Journal of Commerce industrial price index has moved up about 6 percent so far this year after having declined about 10 percent last year, with especially large increases posted for prices of lumber, plywood, and steel. These price movements are starting to be seen at later stages of processing as well: The producer price index for intermediate materials excluding food and energy, which gradually declined about 2 percent over the fifteen months through February 1999, retraced about half of that decrease by June. Furthermore, non-oil import prices, although continuing to fall this year, have moved down at a slower rate than that of the past couple of years when the dollar was rising sharply in foreign exchange markets. Non-oil import prices declined at a 1¼ percent annual rate over the first half of 1999, after having fallen at a 3 percent rate, on average, over 1997 and 1998.

Some other broad measures of prices also showed evidence of acceleration early this year. The chain-type price index for GDP—which covers prices of all goods and services produced in the United States—rose at about a 1½ percent annual rate in the first quarter, up from an increase of about 1 percent last year. A portion of this acceleration reflected movements in the chain-type price index for personal consumption expenditures (PCE) that differed from movements in the CPI.

### 3. Alternative measures of price change

| Price measure                     | Percent, annual rate |                    |                    |
|-----------------------------------|----------------------|--------------------|--------------------|
|                                   | 1996:Q4 to 1997:Q4   | 1997:Q4 to 1998:Q4 | 1998:Q4 to 1999:Q1 |
| <i>Fixed-weight</i>               |                      |                    |                    |
| Consumer price index              | 1.9                  | 1.5                | 1.5                |
| Excluding food and energy         | 2.2                  | 2.4                | 1.6                |
| <i>Chain-type</i>                 |                      |                    |                    |
| Gross domestic product            | 1.7                  | 9                  | 1.6                |
| Gross domestic purchases          | 1.3                  | 4                  | 1.2                |
| Personal consumption expenditures | 1.5                  | 7                  | 1.2                |
| Excluding food and energy         | 1.6                  | 1.2                | 1.3                |

NOTE: A fixed-weight index uses quantity weights from the base year to aggregate prices from each distinct item category. A chain-type index is the geometric average of two fixed-weight indexes and allows the weights to change each year. Changes are based on quarterly averages.

Although the components of the CPI are key inputs into the PCE price index, the two price measures differ in a variety of respects: They use different aggregation formulas; the weights are derived from different sources; the PCE measure does not utilize all components of the CPI; and the PCE measure is

4. The most important change this year was the introduction of the geometric-means formula to aggregate price quotes within most of the detailed item categories. (The Laspeyres formula continues to be used in constructing higher-level aggregates.) Although these geometric-means CPIs were introduced into the official CPI only in January of this year, the BLS generated the series on an experimental basis going back several years, allowing them to be built into the national income and product accounts back to 1995.

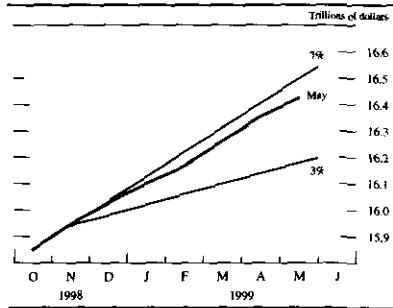
broader in scope, including not just the out-of-pocket expenditures by households that are captured by the CPI, but also the portion of expenditures on items such as medical care and education that are paid by insurers or governments, consumption of items such as banks' checking services that are provided without explicit charge, and expenditures made by nonprofit institutions. Although PCE prices typically rise a bit less rapidly than the CPI, the PCE price measure was unusually restrained relative to the CPI in the few years through 1998, reflecting a combination of the above factors.

Last year's sharp drop in retail energy prices and the subsequent rebound this spring reflected movements in the price of crude oil. The spot price of West Texas intermediate (WTI) crude oil, which had stood at about \$20 per barrel through most of 1997, dropped sharply over 1998 and reached \$11 per barrel by the end of the year, reflecting in part a weakening in demand for oil from the distressed Asian nations and increases in supply from Iraq and other countries. But oil prices jumped this year as the OPEC nations agreed on production restraints aimed at firming prices, and the WTI spot price reached \$18 per barrel in April and has moved still higher more recently. As a result, gasoline prices, which dropped 15 percent over 1998, reversed almost all of that decline over the first six months of this year. Prices of heating fuel also rebounded after dropping in 1998. In all, the CPI for energy rose at a 10 percent annual rate over the December-to-June period.

Consumer food prices increased moderately over the first six months of the year, rising at a 1¾ percent annual rate. Despite the upturn in commodity prices generally, farm prices have remained quite low and have helped to hold down food price increases. Spot prices of wheat, soybeans, and sugar have moved down further this year from already depressed levels at the end of 1998, and prices of corn and coffee have remained low as well.

The CPI for goods other than food and energy declined at about a ½ percent annual rate over the first six months of 1999, after having risen 1¼ percent over 1998. The 1998 increase reflected a sharp rise in tobacco prices in December associated with the settlement of litigation between the tobacco companies and the states; excluding tobacco, the CPI for core goods was about flat last year. The decline in the first half of this year was concentrated in durable goods, where prices softened for a wide range of items, including motor vehicles. The CPI for non-energy services increased about 2½ percent at an annual rate in the first half, down a little from the increase over 1998. Increases in the CPI for rent

Domestic nonfinancial debt: Annual range and actual level



of shelter have slowed thus far in 1999, rising at a 2½ percent annual rate versus a 3¼ percent rise last year. However, airfares and prices of medical services both have been rising more rapidly so far this year.

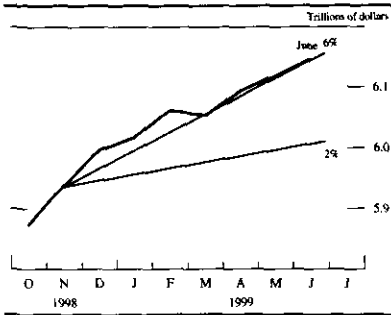
### Debt and the Monetary Aggregates

#### Debt and Depository Intermediation

The total debt of the U.S. household, government, and nonfinancial business sectors increased at about a 6 percent annual rate from the fourth quarter of 1998 through May, a little above the midpoint of its growth range of 3 percent to 7 percent. Nonfederal debt expanded briskly at about a 9 percent annual pace, in association with continued strong private domestic spending on consumer durable goods, housing, and business investment. By contrast, federal debt contracted at a 3 percent annual rate, as budget surpluses reined in federal government financing needs.

Credit extended by depository institutions slumped over the first half of 1999, after having expanded quite briskly in 1998. A fair-sized portion of the expansion in 1998 came in the fourth quarter and stemmed from the turmoil in financial markets. In that turbulent environment, depository institutions postponed securitization of mortgages, and businesses shifted their funding demand from securities markets to depository institutions, where borrowing costs in some cases were governed by pre-existing lending commitments. Depository institutions also acquired mortgage-backed securities and other private debt instruments in volume, as their yields evidently rose relative to depository funding costs. As

M3: Annual range and actual level



financial stresses unwound, securitization resumed, business borrowers returned to securities markets, and net purchases of securities slowed. From the fourth quarter of 1998 through June, bank credit rose at a 3 percent annualized pace, after adjusting for the estimated effects of mark-to-market accounting rules.

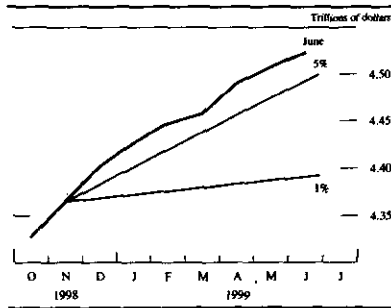
Monetary Aggregates

The growth of M3, the broadest monetary aggregate, slowed appreciably over the first half of 1999. M3 expanded at a 6 percent annual pace from the fourth quarter of 1998 through June of this year, placing this aggregate at the top of the 2 percent to 6 percent price-stability growth range set by the FOMC at its February meeting. With depository credit growing modestly, depository institutions trimmed the managed liabilities included in M3, such as large time

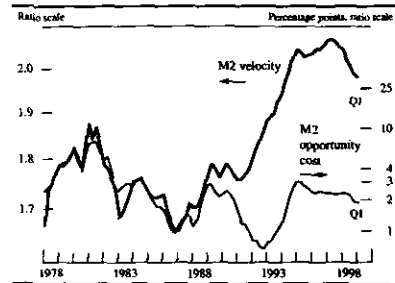
deposits. Growth of institutional money market mutual funds also moderated from its rapid pace in 1998. Rates on money market funds tend to lag the movements in market rates because the average rate of return on the portfolio of securities held by the fund changes more slowly than market rates. In the fall, rates on institutional money market funds did not decline as fast as market rates after the Federal Reserve eased monetary policy, and the growth of these funds soared. As rates on these funds moved back into alignment with market rates this year, growth of these funds ebbed.

M2 advanced at a 6¼ percent annual rate from the fourth quarter of 1998 through June. M2 growth had been elevated in late 1998 by unsettled financial conditions, which raised the demand for liquid money balances, and by the easing of monetary policy, which reduced the opportunity costs of holding the assets included in the monetary aggregates. M2 growth moderated over the first half of 1999, as the heightened demand for money waned; in June this aggregate was above its 1 percent to 5 percent price-stability growth range. The growth in M2 over the first half of the year again outpaced that of nominal income, although the decline in M2 velocity—the ratio of nominal income to M2—was at a slower rate than in 1998. The decline this year reflected in part a continuing lagged response to the policy easing in the fall; however, the drop in M2 velocity was again larger than predicted on the basis of the historical relationship between the velocity of M2 and the opportunity costs of holding M2—measured as the difference between the rate on three-month Treasury bills and the average return on M2 assets. The reasons for the decline of M2 velocity this year are not

M2: Annual range and actual level



M2 velocity and the opportunity cost of holding M2



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

## Monetary Policy Report to the Congress □ July 1999

4. Growth of money and debt  
Percent

| Period                                     | M1   | M2  | M3   | Domestic nonfinancial debt |
|--|------|-----|------|----------------------------|
| <i>Annual<sup>1</sup></i>                  |      |     |      |                            |
| 1989 .....                                 | .6   | 5.2 | 4.1  | 7.5                        |
| 1990 .....                                 | 4.2  | 4.2 | 1.9  | 6.7                        |
| 1991 .....                                 | 8.0  | 3.1 | 1.2  | 4.5                        |
| 1992 .....                                 | 14.3 | 1.8 | .6   | 4.5                        |
| 1993 .....                                 | 10.6 | 1.3 | 1.0  | 4.9                        |
| 1994 .....                                 | 2.5  | .6  | 1.7  | 4.9                        |
| 1995 .....                                 | -1.6 | 3.9 | 6.1  | 5.4                        |
| 1996 .....                                 | -4.5 | 4.6 | 6.8  | 5.1                        |
| 1997 .....                                 | -1.2 | 5.8 | 8.8  | 4.8                        |
| 1998 .....                                 | 1.8  | 6.5 | 10.9 | 6.1                        |
| <i>Quarterly (annual rate)<sup>2</sup></i> |      |     |      |                            |
| 1999:1 .....                               | 2.8  | 7.2 | 7.3  | 5.9                        |
| 2 .....                                    | 3.4  | 5.7 | 5.0  |                            |
| <i>Year-to-date<sup>3</sup></i>            |      |     |      |                            |
| 1999 .....                                 | 2.0  | 6.2 | 6.0  | 6.1                        |

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

ments, households and nonprofit organizations, nonfinancial businesses, and farms.

1. From average for fourth quarter of preceding year to average for fourth quarter of year indicated.
2. From average for preceding quarter to average for quarter indicated.
3. From average for fourth quarter of 1998 to average for June (May in the case of domestic nonfinancial debt).

clear; the drop extends a trend in velocity evident since mid-1997 and may in part owe to households' efforts to allocate some wealth to the assets included in M2, such as deposits and money market mutual fund shares, after several years of substantial gains in equity prices that greatly raised the share of wealth held in equities.

M1 increased at a 2 percent annualized pace from the fourth quarter of 1998 through June, in line with its advance in 1998. The currency component of M1 expanded quite rapidly. The strength appeared to stem from domestic, rather than foreign, demand, perhaps reflecting vigorous consumer spending, although currency growth was more robust than might be expected for the rise in spending. The deposits in M1—demand deposits and other checkable deposits—contracted further, as retail sweep programs continued to be introduced. These programs, which first began in 1994, shift funds from a depositor's checking account, which is subject to reserve requirements, to a special-purpose money market deposit account, which is not. Funds are then shifted back to the checking account when the depositor's account balance falls below a given level. The depository institution benefits from a retail sweep program because the program cuts its reserve requirement and thus the amount of non-interest-bearing reserve balances that it must hold at its Federal Reserve Bank. New sweep programs depressed the growth of M1 by about 5/4 percentage points over the first half of 1999, somewhat less than in previous

years because most of the depository institutions that would benefit from such programs had already implemented them.

As a consequence of retail sweep programs, the balances that depository institutions are required to hold at the Federal Reserve have fallen about 60 percent since 1994. This development has the potential to complicate reserve management by the Federal Reserve and depository institutions and thus raise the volatility of the federal funds rate. It would do so by making the demand for balances at the Federal Reserve more variable and less predictable. Before the introduction of sweeps, the demand for balances was high and stable because reserve balance requirements were large, and the requirements were satisfied by the average of daily balances held over a maintenance period. With sweep programs reducing required balances to low levels, depository institutions have found that they target balances in excess of their required balances in order to gain sufficient protection against unanticipated debits that could leave their accounts overdrawn at the end of the day. This payment-related demand for balances varies more from day to day than the requirement-related demand. Thus far, the greater variation in the demand for balances has not made the federal funds rate appreciably more volatile, in part reflecting the successful efforts of depository institutions and the Federal Reserve to adapt to lower balances. For its part, the Federal Reserve has conducted more open market operations that mature the next business day to bet-

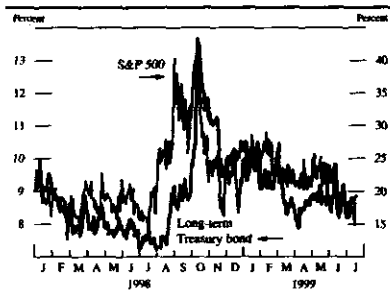
ter align daily supply with demand. Nonetheless, required balances at the Federal Reserve could drop to levels at which the volatility of the funds rate becomes pronounced. One way to address the problem of declining required balances would be to permit the Federal Reserve to pay interest on the reserve balances that depository institutions hold. Paying interest on reserve balances would reduce considerably the incentives of depository institutions to develop reserve-avoidance practices that may complicate the implementation of monetary policy.

### U.S. Financial Markets

Yields on Treasury securities have risen this year in response to the ebbing of the financial market strains of late 1998, surprisingly strong economic activity, concerns about the potential for increasing inflation, and the consequent anticipation of tighter monetary policy. In January, yields on Treasury securities moved in a narrow range, as lingering safe-haven demands for dollar-denominated assets, owing in part to the devaluation and subsequent floating of the Brazilian *real*, about offset the effect on yields of stronger-than-expected economic data. Over subsequent months, however, yields on Treasury securities, especially at intermediate and long maturities, moved up substantially. The demand for the safest and most liquid assets, which had pulled down Treasury yields in the fall, abated as the strength in economic activity and favorable earnings reports engendered optimism about the financial condition of private borrowers and encouraged investors to buy private securities. In addition, rising commodity prices, tight labor markets, and robust economic activity led market participants to conclude that monetary policy would need to be tightened, perhaps in a series of steps. This view, accentuated by the FOMC's announcement after its May meeting that it had adopted a directive tilted toward tightening policy, also boosted yields. Between the end of 1998 and mid-July, Treasury yields added about 80 basis points to 110 basis points, on balance, with the larger increases in the intermediate maturities. The rise in Treasury bill rates, anchored by the modest upward move in the FOMC's target federal funds rate, was much less, about 10 basis points to 40 basis points.

The recovery in fixed-income markets over the first half of the year was evident in a number of indicators of market conditions. Market liquidity was generally better, and volatility was lower. The relative demand for the most liquid Treasury securities—the most recently auctioned security at each maturity—was

Implied volatilities



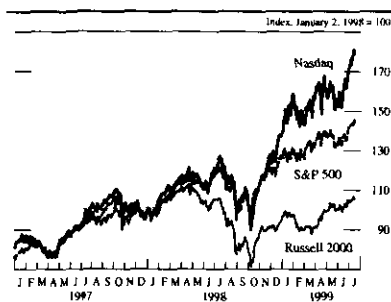
NOTE: The data are daily. Implied volatilities are calculated from options prices. Last observations are for July 19, 1999.

not so acute, and yields on these securities were in somewhat closer alignment with yields on issues that had been outstanding longer. Dealers were more willing to put capital at risk to make markets, and bid-asked spreads in Treasury securities narrowed somewhat, though, in June they were still a bit wider than had been typical. Market expectations of asset price volatility, as reflected in prices on Treasury bond options contracts, receded on balance. The implied volatility of bond prices dropped off until April and then turned back up, as uncertainty about the timing and extent of a possible tightening of monetary policy increased.

Yields on inflation-indexed Treasury securities have only edged up this year, and the spreads between yields on nominal Treasury securities and those on comparable inflation-indexed securities have widened considerably. Yields on inflation-indexed securities did not decline in late 1998 like those of their nominal counterparts, in part because these securities were not perceived as being as liquid as nominal Treasury securities. Thus, as the safe-haven demand for nominal Treasury securities unwound and nominal yields rose, yields on inflation-indexed securities did not move up concomitantly. Moreover, these yields were held down by some improvement in the liquidity of the market for inflation-indexed securities, as suggested by reports of narrower bid-asked spreads, which provided additional impetus for investors to acquire these securities. Because of such considerations, the value of the yield spread between nominal and inflation-indexed Treasury securities as an indicator of inflation expectations is limited. Nonetheless, the widening of the spread this year may have reflected some rise in inflation expectations.

## Monetary Policy Report to the Congress □ July 1999

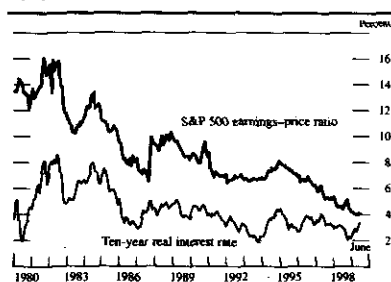
Major stock price indexes



NOTE: The data are daily. Last observations are for July 19, 1999.

Equity prices have climbed this year. Major equity price indexes posted gains of 10 percent to 31 percent, on balance, between the end of 1998 and July 16, when most of them established record highs. The lift to prices from stronger-than-anticipated economic activity and corporate profits apparently has offset the damping effect of rising bond yields. Prices of technology issues, especially Internet stocks, have risen considerably on net, despite some wide swings in sentiment. Share prices of firms producing primary commodities, which tumbled in the fall, rebounded to post large price gains, perhaps because of the firming of commodity prices amid perceptions that Asian economies were improving. Consensus estimates of earnings over the coming twelve months have strengthened, but in June the ratio of these estimates

Equity valuation and the ten-year real interest rate



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

to prices, as measured by the S&P 500 index, was near the record low established in May. Meanwhile, real interest rates, measured as the difference between the yield on the nominal ten-year Treasury note and a survey-based measure of inflation expectations, moved up. Consequently, the risk premium for holding equities remained quite small by historical standards.

## Year 2000 Preparedness

The Federal Reserve and the banking system have largely completed preparing technical systems to ensure that they will function at the century date change and are taking steps to deal with potential contingencies. The Federal Reserve successfully completed testing all of its mission-critical computer systems for year 2000 compliance, including its securities and funds transfer systems. As a precaution to assure the public that sufficient cash will be available in the event that demand for U.S. currency rises in advance of the century date change, the Federal Reserve will increase considerably its inventory of currency by late 1999. In addition, the Federal Reserve established a Century Date Change Special Liquidity Facility to supply collateralized credit freely to depository institutions at a modest penalty to market interest rates in the months surrounding the rollover. This funding should help financially sound depository institutions commit more confidently to supplying loans to other financial institutions and businesses in the closing months of 1999 and early months of 2000.

All depository institutions have been subject to special year 2000 examinations by their banking supervisors to ensure their readiness. Banks, in turn, have worked with their customers to encourage year 2000 preparedness by including a review of a customer's year 2000 preparedness in their underwriting or loan-review standards and documentation. According to the Federal Reserve's May 1999 Senior Loan Officer Opinion Survey, a substantial majority of the respondent banks have largely completed year 2000 preparedness reviews of their material customers. Most banks reported that only a small portion of their customers have not made satisfactory progress.

Banks in the Federal Reserve's survey reported little demand from their clients for special contingency lines of credit related to the century date change, although many expect demand for such lines to increase somewhat as the year progresses. Almost all domestic respondents reported that they are will-

ing to extend such credit lines, although in some cases with tighter standards or terms.

### International Developments

Global economic prospects look considerably brighter than they did only a few months ago. To an important degree, this improvement owes to the rebound in the Brazilian economy from the turmoil experienced in January and February and to the fact that the fallout from Brazil on other countries was much less than it might have been. The fear was that the collapse of the Brazilian *real* last January would unleash a spiral of inflation and further devaluation and lead to a default on government domestic debt, destabilizing financial markets and triggering an intensified flight of capital from Brazil. In light of events following the Russian debt moratorium and collapse of the *ruble* last year, concern existed that a collapse of the *real* could also have negative repercussions in Latin America more broadly, and possibly even in global financial markets.

Developments in Brazil turned out better than expected over the weeks after the floating of the *real* in January. Between mid-January and early March, the *real* lost 45 percent of its value against the dollar, reaching a low of 2.2 per dollar, but then started to recover after the Brazilian central bank raised the overnight interest rate from 39 percent to 45 percent and made clear that it gave a high priority to fighting inflation. By mid-May, the *real* had strengthened to 1.65 per dollar, even while the overnight rate had

been cut, in steps, from its March high. The overnight rate was reduced further, to 21 percent by the end of June, but the *real* fell back only modestly and stood at about 1.80 per dollar in mid-July. Brazil's stock market also rose sharply and was up by about 65 percent in the year to date.

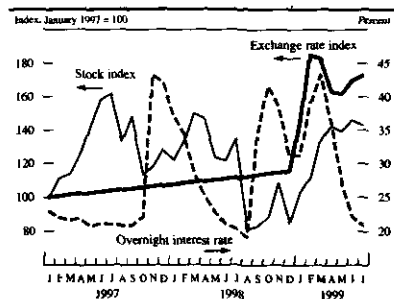
Several favorable developments have worked to support the *real* and equity prices over the past few months. Inflation has been lower than expected, with consumer price inflation at an annual rate of around 8 percent for the first half of the year. Greater-than-expected real GDP growth in the first quarter, though attributable in part to temporary factors, provided some evidence of a bottoming out, and possible recovery, in economic activity over the first part of this year. And in the fiscal arena, the government posted a primary surplus of more than 4 percent of GDP in the first quarter—well above the goal in the International Monetary Fund program. The positive turn of events has facilitated a return of the Brazilian government and private-sector borrowers to international bond markets, albeit on more restrictive terms than those of a year ago.

Since the middle of May, however, the road to recovery in Brazil has become bumpier. The central government posted a fiscal deficit in May that was bigger than had been expected. In addition, court challenges have called into question fiscal reforms enacted earlier this year that were expected to improve the government's fiscal balance by about 1 percent of GDP. In May, the rise in U.S. interest rates associated with the anticipated tightening in the stance of U.S. monetary policy helped push Brady bond yield spreads up more than 200 basis points. Although they narrowed some in June they widened recently on concerns about Argentina's economic situation.

The Brazilian crisis did trigger renewed financial stress throughout Latin America, as domestic interest rates and Brady bond yield spreads increased sharply in January from levels that had already been elevated by the Russian crisis. Nonetheless, these increases were generally smaller than those that had followed the Russian crisis, and as developments in Brazil proved more positive than expected, financial conditions in the rest of the region stabilized rapidly. Even so, the combination of elevated risk premiums and diminished access to international credit markets, as well as sharp declines in the prices of commodity exports, had significant consequences for GDP growth, which began to slow or turn negative throughout the region in late 1998 and early 1999.

Mexico appears to have experienced the least diminution in economic growth, likely because of its

Brazilian financial indicators



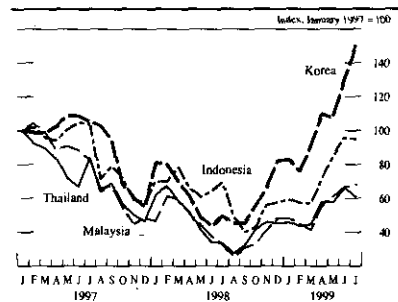
NOTE: The stock index is the Bovespa index from the Sao Paulo Exchange, last trading day of the month. The overnight interest rate is the average monthly SELIC rate. The exchange rate index is the average monthly bilateral exchange rate with the U.S. dollar.

strong trade links with the United States, where growth has been robust. A flattening in Mexican GDP in the final quarter of 1998 has given way to renewed, but moderate, growth more recently, and the Mexican peso has appreciated by about 5½ percent relative to the dollar since the start of the year. By contrast, economic activity in Argentina declined sharply in the first quarter, in part because of the devaluation and relatively weak economic activity in Brazil, Argentina's major trading partner. More recently the earlier recovery in Argentina's financial markets appears to have backtracked as concern has increased about the medium- to long-run viability of the currency peg to the dollar. Several countries in the region, including Venezuela, Chile, and Colombia, also experienced sharp declines in output in the first quarter, stemming in part from earlier declines in oil and other commodity prices.

In emerging Asia, signs of recovery in financial markets and in real activity are visible in most of the countries that experienced financial crises in late 1997. However, the pace and extent of recovery is uneven across countries. The strongest recovery has been in Korea. In 1998, the Korean won reversed nearly half of its sharp depreciation of late 1997. It has been little changed on balance this year, as Korean monetary authorities have intervened to moderate its further appreciation. Korean stock prices have also staged an impressive recovery—moving up about 75 percent so far in 1999. In the wake of its financial crisis, output in Korea fell sharply, with industrial production down about 15 percent by the middle of last year. Since then, however, production has bounced back. With the pace of the recovery accelerating this year, all of the post-crisis drop in production has been reversed. This turnaround reflects both the improvement in Korea's external position, as the trade balance has swung into substantial surplus, and the government's progress in addressing the structural problems in the financial and corporate sectors that contributed to the crisis.

Financial markets in the Southeast Asian countries that experienced crises in 1997 (Thailand, Singapore, Malaysia, Indonesia, and the Philippines) apparently were little affected by spillover from Brazil's troubles earlier this year and have recovered on balance over the past year, with exchange rates stabilizing and stock prices moving higher. Financial conditions have been weakest in Indonesia, in large part a result of political uncertainty; but even so, domestic interest rates have dropped sharply, and the stock market has staged an impressive rebound since April. The recovery of economic activity in these countries has been slower and less robust than in Korea, possibly reflect-

Stock prices in developing Asian countries



NOTE: The data are for the last trading day of the month. The July observations are for July 19. Indexes are capitalization-weighted averages of all stocks traded on a country's stock exchange.

ing slower progress in addressing structural weaknesses in the financial and corporate sectors. However, activity appears to have bottomed out and has recently shown signs of starting to move up in these countries.

Financial markets in China and Hong Kong experienced some turbulence at the start of the year when Chinese authorities put the Guangdong International Trust and Investment Corporation (GITIC) into bankruptcy, leading to rating downgrades for some Chinese financial institutions, including the major state commercial banks. The GITIC bankruptcy also raised concerns about Hong Kong financial institutions, which are heavy creditors to Chinese entities. These concerns contributed to a substantial increase in yield spreads between Hong Kong government debt and U.S. Treasury securities and to a fall in the Hong Kong stock market of about 15 percent. Spreads have narrowed since, falling from about 330 basis points on one-year debt in late January to about 80 basis points by mid-May, and have remained relatively stable since then. Equity prices also rebounded sharply, rising nearly 50 percent between mid-February and early May. Despite sizable volatility in May and June, they are now roughly unchanged from early May levels.

In Japan, a few indicators suggest that recovery from a prolonged recession may be occurring. Principally, first-quarter GDP growth at an annual rate of 7.9 percent was recorded—the first positive growth in six quarters. This improvement reflects in part a shift toward more stimulative fiscal and monetary policies. On the fiscal front, the government announced a set of measures at the end of last year that were slated for implementation during 1999 and



included *permanent cuts in personal and corporate income taxes, various investment incentives, and increases in public expenditures. The large-scale fiscal expansion and concern about increases in the supply of government bonds caused bond yields to more than double late last year and early this year, to a level of about 2 percent on the ten-year bond.*

In mid-February, primarily because of *concern about the prolonged weakness in economic activity and pronounced deflationary pressures but also in response to the rising bond yields*, the Bank of Japan announced a reduction in the target for the overnight call-money rate and subsequently guided the rate to its present level of 3 basis points by early March. This easing of monetary policy had a stimulative effect on *Japanese financial markets*, with the yield on the ten-year government bond falling more than 75 basis points, to 1.25 percent by mid-May. *More recently, the yield has risen to about 1.8 percent, partially in response to the release of unexpectedly strong first-quarter GDP growth. Supportive monetary conditions, coupled with restructuring announcements from a number of large Japanese firms and growing optimism about the economic outlook, have fueled a rise in the Nikkei from around 14,400 over the first two months of the year to over 18,500 in mid-July.*

The improved economic performance in Japan also reflects some progress on addressing persistent problems in the financial sector. In March the authorities injected *7½ trillion yen of public funds into large financial institutions and began to require increased provisioning against bad loans as well as improved financial disclosure. Although much remains to be done, these actions appear to have stabilized conditions, at least temporarily, in the banking system, and the premium on borrowing rates paid by leading Japanese banks declined to zero by March.*

The yen strengthened in early January, supported by the runup in long-term Japanese interest rates, reaching about 110 per dollar—its highest level in more than two years. However, amid apparent intervention by the Japanese authorities, *the yen retreated to a level above 116 per dollar, and it remained near that level until the mid-February easing of monetary policy and the subsequent decline of interest rates when it depreciated to about 120 per dollar. In mid-June, the Japanese authorities intervened in the foreign exchange market in an effort to limit appreciation of the yen after the surprisingly strong first-quarter GDP release increased market enthusiasm for that currency. The authorities noted that a premature strengthening of the yen was undesirable and would weigh adversely on economic recovery.*

In the other major industrial countries, the pace of economic growth this year has been mixed. Economic developments in Canada have been quite favorable. GDP rose 4¼ percent at an annual rate in the first quarter after a *fourth-quarter gain of 4¾ percent, with production fueled by strong demand for Canadian products from the United States. Core inflation remains low, near the lower end of the Bank of Canada's target range of 1 percent to 3 percent, although overall inflation rose some in April and May. Oil prices and other commodity prices have risen, and the current account deficit has narrowed considerably. These factors have helped the Canadian dollar appreciate relative to the U.S. dollar by about 4 percent this year and have facilitated a cut in short-term interest rates of 50 basis points by the Bank of Canada. Along with rising long-term interest rates elsewhere, long rates have increased in Canada by about 30 basis points over the course of this year. Even so, equity prices have risen about 12 percent since the start of the year, although the rise in long-term rates has undercut some of the momentum in the stock market.*

In the United Kingdom, output was flat in the first quarter, coming off a year in which *GDP growth had already slowed markedly. However, the effects of aggressive interest rate reductions undertaken by the Bank of England in late 1998 and earlier this year appear to have emerged in the second quarter, with gains in industrial production, retail sales volume, and business confidence. Inflationary pressures have been well contained, benefiting in part from the continued strength in sterling; the Bank of England cut interest rates, most recently in June, to reduce the likelihood of inflation undershooting its target of 2½ percent. Consistent with expectations of an upturn in growth, equity prices have risen more than 15 percent, and long-term bond yields have climbed nearly 80 basis points since the end of last year.*

First-quarter growth in the European countries that have adopted a common currency (euro area) regained some momentum from its slow pace in late 1998 but was nevertheless below potential, as production continued to react to the decline in export orders registered over the course of 1998 and in early 1999. Still, the drag on overall production from weak export demand from Asia and eastern Europe appears to have lifted a bit in the past few months, although the signs of a pickup in growth were both tentative and uneven across the euro area. In Germany, industrial production was higher in April and May than in the preceding two months, and export orders were markedly higher in those months than they had been at any time since the spring of 1998. But in France,

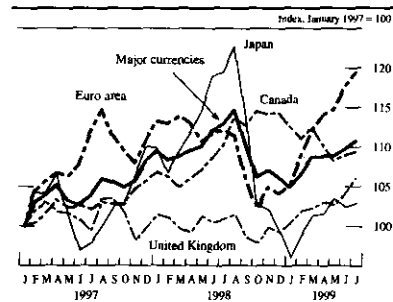
which had been the strongest of the three largest euro-area economies in 1998, GDP growth was a meager 1¼ percent at an annual rate in the first quarter, and industrial production slipped in April.

On average in the euro area, inflation has remained quite tame, even as rising oil prices, a declining euro, and, at least in Germany, an acceleration in wage rates have raised inflationary pressures this year. The low average rate of inflation as well as the still sluggish pace of real activity in some of the euro-area countries led the European Central Bank to lower the overnight policy rate by 50 basis points in April, on top of cuts in short-term policy rates made by the national central banks late last year that, on average, were worth about 60 basis points.

Notwithstanding the easing of the policy stance, long-term government bond yields have risen substantially from their January lows in the largest economies of the euro area. Ten-year rates spiked in early March along with U.S. rates, fell back some through mid-May, and then resumed an upward course around the time the FOMC adopted a tightening bias in mid-May. Since the middle of June, a relatively sharp increase in yields has pushed them to about 100 basis points above their values at the start of the year and has narrowed what had been a growing interest rate differential between U.S. and European bonds. In addition to the pressure provided by the increase in U.S. rates, the runup in European yields likely reflects the belief that short-term rates have troughed, as the incipient recovery in Asia not only reduces the drag on European exports but also attenuates deflationary pressures on European import prices. Concern about the fall in the exchange value of the euro may also have contributed to an assessment that the next move in short-term rates would be up. Gains in equity prices so far this year—averaging about 12½ percent—are also suggestive of the belief that economic activity may be picking up, although the range in share price movements is fairly broad, even considering only the largest economies: French equity prices have risen about 20 percent, German prices are up 13 percent, and Italian prices are up only 5 percent.

The new European currency, the euro, came into operation at the start of the year, marking the beginning of Stage Three of European Economic and Monetary Union. The rates of exchange between the

Nominal dollar exchange rate indexes



NOTE: The data are monthly averages. The euro-area exchange rate uses the revised German mark before January 1999. The major currency index is the trade-weighted average of the exchange value of the dollar against major currencies.

euro and the currencies of the eleven countries adopting the euro were set on December 31; based on these rates, the value of the euro at the moment of its creation was \$1.16675. Trading in the euro opened on January 4, and after jumping on the first trading day, its value has declined relative to the dollar almost steadily and is now about 13 percent below its initial value. The course of the euro-dollar exchange rate likely has reflected in part the growing divergence in both the cyclical positions and, until recently, long-term bond yields of the euro-area economies and the United States. Concerns about fiscal discipline in Italy—the government raised its 1999 deficit-to-GDP target from 2.0 percent to 2.4 percent—and about progress on structural reforms in Germany and France have also been cited as contributing to weakness in the euro, with the European Central Bank recently characterizing national governments' fiscal policy plans as "unambitious."

On balance the dollar has appreciated more than 4½ percent against an index of the major currencies since the end of last year, owing mainly to its strengthening relative to the euro. Nevertheless, it remains below its recent peak in August of last year when the Russian debt moratorium and subsequent financial market turmoil sent the dollar on a two-month downward slide.



CONGRESSIONAL BUDGET OFFICE  
U.S. CONGRESS  
WASHINGTON, DC 20515

Dan L. Crippen  
Director

July 15, 1999

## MEMORANDUM

### *Preliminary Estimates of Effective Tax Rates*

The attached tables, prepared at the request of the Committee on Ways and Means, provide preliminary estimates of effective tax rates and shares of family income and taxes paid by income category for the period from 1977 through 1995 and projected for 1999. The projections for 1999 are based on actual data for 1995. The effective tax rate numbers for all years shown in the table have been published previously but the methodology used to estimate them has changed over time. In particular, we have changed our method of allocating corporate taxes from one that split the corporate income tax between workers and owners of capital to one that assigns the whole tax to owners of capital.

As a result of the changed methodology, a table of effective tax rates derived from previously published numbers would be inconsistent. The values in the attached table were all calculated based on the newer methodology and thus provide comparable information across the period. Values for more recent years match published tables, but values for earlier years differ from previous tables.

The table is labeled as preliminary because we are still in the process of making adjustments to our data bases and methodology. In particular, we are reviewing the measure of income used to classify families. As indicated in the table footnotes, families are classified by adjusted family income, which equals total cash income plus the employer share of Social Security and federal unemployment insurance payroll taxes and the corporate income tax, adjusted for differences in family size by the equivalence scale implicit in the official federal poverty thresholds. The income measure excludes all income received in kind. Any changes to our measure of income, our basis for ranking families, or our calculation of effective tax rates would lead to different values from those shown in the table, so you should exercise caution in how you cite the numbers. We are providing the preliminary table only to ensure that comparable historical values are available rather than the inconsistent values published over the last ten years.

Federal taxes include individual and corporate income taxes, payroll taxes, and excise taxes. Individual income taxes are distributed directly to families paying those taxes. Payroll taxes are distributed to families paying those taxes directly, or indirectly through their employers. Federal excise taxes are distributed to families according to their consumption of the taxed good or service. Corporate income taxes are distributed to families according to their share of capital income.

Attachments

## Preliminary Estimates of Effective Tax Rates

By Income Category, 1977-1995 and Projected 1999

| Income Category                                    | 1977          | 1979          | 1981          | 1983          | 1985          | 1987          | 1989          | 1991          | 1993          | 1995          | Projected 1999 |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| <b>Number of Families (in millions)</b>            |               |               |               |               |               |               |               |               |               |               |                |
| Lowest Quintile                                    | 16.7          | 17.6          | 17.6          | 17.1          | 18.5          | 19.4          | 19.3          | 19.9          | 20.2          | 21.2          | 22.7           |
| Second Quintile                                    | 15.2          | 16.7          | 17.2          | 18.1          | 18.6          | 19.5          | 20.5          | 20.8          | 21.3          | 21.8          | 23.3           |
| Middle Quintile                                    | 14.7          | 16.0          | 16.6          | 17.5          | 18.1          | 18.9          | 19.6          | 20.4          | 21.2          | 21.2          | 22.5           |
| Fourth Quintile                                    | 13.6          | 16.5          | 17.4          | 17.8          | 18.7          | 19.3          | 19.9          | 20.5          | 20.9          | 21.2          | 22.6           |
| Highest Quintile                                   | 17.4          | 18.2          | 19.1          | 19.6          | 20.0          | 20.3          | 21.1          | 21.4          | 21.7          | 22.2          | 23.6           |
| <b>All Families</b>                                | <b>80.4</b>   | <b>86.1</b>   | <b>89.3</b>   | <b>91.8</b>   | <b>95.7</b>   | <b>98.7</b>   | <b>102.1</b>  | <b>104.7</b>  | <b>107.2</b>  | <b>109.6</b>  | <b>116.8</b>   |
| Top 10%  | 8.8           | 9.3           | 9.8           | 10.1          | 10.2          | 10.4          | 10.6          | 10.9          | 10.9          | 11.3          | 11.9           |
| Top 5%   | 4.5           | 4.6           | 5.0           | 5.1           | 5.1           | 5.2           | 5.4           | 5.4           | 5.5           | 5.6           | 5.9            |
| Top 1%   | 0.9           | 1.0           | 1.0           | 1.0           | 1.0           | 1.0           | 1.0           | 1.0           | 1.0           | 1.0           | 1.2            |
| <b>Average Pretax Family Income (1995 dollars)</b> |               |               |               |               |               |               |               |               |               |               |                |
| Lowest Quintile                                    | 10,000        | 9,600         | 8,900         | 8,100         | 8,700         | 8,700         | 9,000         | 8,400         | 7,800         | 8,100         | 8,400          |
| Second Quintile                                    | 23,700        | 23,200        | 21,700        | 19,800        | 21,300        | 21,600        | 21,600        | 20,600        | 19,400        | 20,100        | 21,200         |
| Middle Quintile                                    | 36,400        | 36,200        | 34,600        | 32,800        | 34,200        | 34,900        | 35,000        | 33,600        | 32,200        | 33,300        | 35,400         |
| Fourth Quintile                                    | 49,300        | 50,400        | 48,400        | 48,000        | 49,600        | 51,100        | 50,900        | 49,300        | 49,000        | 49,600        | 53,000         |
| Highest Quintile                                   | 94,300        | 98,300        | 95,900        | 99,500        | 109,000       | 113,000       | 118,000       | 111,000       | 114,000       | 120,000       | 132,000        |
| <b>All Families</b>                                | <b>42,900</b> | <b>43,500</b> | <b>42,000</b> | <b>42,000</b> | <b>44,500</b> | <b>45,800</b> | <b>46,800</b> | <b>44,600</b> | <b>44,100</b> | <b>45,700</b> | <b>49,500</b>  |
| Top 10%  | 125,000       | 130,000       | 125,000       | 132,000       | 148,000       | 153,000       | 166,000       | 153,000       | 158,000       | 168,000       | 188,000        |
| Top 5%   | 166,000       | 179,000       | 168,000       | 182,000       | 207,000       | 216,000       | 236,000       | 217,000       | 225,000       | 244,000       | 276,000        |
| Top 1%   | 356,000       | 389,000       | 367,000       | 435,000       | 524,000       | 544,000       | 635,000       | 547,000       | 584,000       | 660,000       | 719,000        |

... continued ...

## Preliminary Estimates of Shares of Family Income and Taxes Paid

By Income Category, 1977-1995 and Projected 1999

| Income Category   | 1977 | 1979 | 1981 | 1983 | 1985 | 1987 | 1989 | 1991 | 1993 | 1995 | Projected 1999 |
|---|------|------|------|------|------|------|------|------|------|------|----------------|
| <b>Shares of Total Family Income (in percent)</b>         |      |      |      |      |      |      |      |      |      |      |                |
| Lowest Quintile   | 5    | 5    | 4    | 4    | 4    | 4    | 4    | 4    | 3    | 3    | 3              |
| Second Quintile   | 10   | 10   | 10   | 9    | 9    | 9    | 9    | 9    | 9    | 9    | 9              |
| Middle Quintile   | 16   | 15   | 15   | 15   | 15   | 15   | 14   | 15   | 15   | 14   | 14             |
| Fourth Quintile   | 22   | 22   | 22   | 22   | 22   | 22   | 21   | 22   | 22   | 21   | 21             |
| Highest Quintile  | 47   | 48   | 49   | 50   | 51   | 51   | 52   | 51   | 52   | 53   | 54             |
| All Families  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100            |
| Top 10%   | 32   | 32   | 33   | 35   | 35   | 35   | 37   | 36   | 37   | 38   | 39             |
| Top 5%  | 22   | 22   | 22   | 24   | 25   | 25   | 27   | 25   | 26   | 27   | 28             |
| Top 1%  | 9    | 10   | 10   | 11   | 12   | 12   | 13   | 12   | 13   | 14   | 15             |
| <b>Shares of Total Individual Income Tax (in percent)</b> |      |      |      |      |      |      |      |      |      |      |                |
| Lowest Quintile   | 0    | 0    | 0    | 0    | 0    | 0    | -1   | -1   | -1   | -2   | -2             |
| Second Quintile   | 3    | 4    | 4    | 3    | 3    | 3    | 3    | 2    | 2    | 3    | 1              |
| Middle Quintile   | 10   | 10   | 10   | 10   | 9    | 8    | 9    | 9    | 8    | 8    | 7              |
| Fourth Quintile   | 20   | 20   | 20   | 20   | 19   | 18   | 17   | 18   | 17   | 16   | 16             |
| Highest Quintile  | 68   | 67   | 66   | 68   | 68   | 72   | 72   | 72   | 75   | 77   | 79             |
| All Families  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100            |
| Top 10%   | 50   | 50   | 49   | 51   | 52   | 56   | 56   | 55   | 59   | 61   | 62             |
| Top 5%  | 38   | 37   | 36   | 38   | 39   | 43   | 44   | 42   | 46   | 49   | 50             |
| Top 1%  | 20   | 19   | 17   | 20   | 21   | 24   | 24   | 23   | 27   | 29   | 29             |

... continued ...

**Preliminary Estimates of Shares of Family Income and Taxes Paid, continued**  
By Income Category, 1977-1995 and Projected 1999

| Income Category                                   | 1977 | 1979 | 1981 | 1983 | 1985 | 1987 | 1989 | 1991 | 1993 | 1995 | Projected 1999 |
|---|------|------|------|------|------|------|------|------|------|------|----------------|
| <i>Shares of Total Federal Taxes (in percent)</i> |      |      |      |      |      |      |      |      |      |      |                |
| Lowest Quintile                                   | 2    | 2    | 1    | 1    | 2    | 2    | 1    | 1    | 1    | 1    | 1              |
| Second Quintile                                   | 7    | 7    | 6    | 6    | 7    | 6    | 6    | 6    | 5    | 5    | 5              |
| Middle Quintile                                   | 13   | 13   | 13   | 13   | 13   | 12   | 12   | 12   | 12   | 11   | 11             |
| Fourth Quintile                                   | 20   | 21   | 22   | 22   | 21   | 21   | 20   | 21   | 20   | 19   | 19             |
| Highest Quintile                                  | 59   | 58   | 58   | 58   | 57   | 60   | 60   | 60   | 61   | 64   | 65             |
| All Families                                      | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100            |
| Top 10%   | 43   | 42   | 41   | 41   | 41   | 43   | 44   | 43   | 45   | 48   | 49             |
| Top 5%  | 32   | 31   | 29   | 29   | 29   | 32   | 32   | 31   | 34   | 36   | 37             |
| Top 1%  | 16   | 16   | 13   | 14   | 15   | 16   | 17   | 16   | 18   | 20   | 21             |

SOURCE: Congressional Budget Office

Pre-tax family income is the sum of wages, salaries, self-employment income, rents, taxable and non-taxable interest, dividends, realized capital gains, and all cash transfer payments. Income also includes the employer share of Social Security and federal unemployment insurance payroll taxes, and the corporate income tax. For purposes of ranking by adjusted family income (AFI), income for each family is divided by the poverty threshold for a family of that size. Quintiles contain equal numbers of people. Families with zero or negative income are excluded from the lowest income category but included in the total.

Individual income taxes are distributed directly to families paying those taxes. Payroll taxes are distributed to families paying those taxes directly, or indirectly through their employers. Federal excise taxes are distributed to families according to their consumption of the taxed good or service. Corporate income taxes are distributed to families according to their share of capital income.

Preliminary Estimates of Effective Tax Rates, continued

| Income Category  | 1977 | 1979 | 1981 | 1983 | 1985 | 1987 | 1989 | 1991 | 1993 | 1995 | Projected 1999 |
|--|------|------|------|------|------|------|------|------|------|------|----------------|
| <b>Effective Individual Income Tax Rate (in percent)</b> |      |      |      |      |      |      |      |      |      |      |                |
| Lowest Quintile  | -0.6 | -0.8 | -0.2 | -0.5 | -0.2 | -1.3 | -1.9 | -2.9 | -3.4 | -5.6 | -6.8           |
| Second Quintile  | 3.6  | 3.9  | 4.6  | 3.3  | 3.9  | 7.2  | 3.3  | 2.7  | 1.8  | 1.8  | 0.9            |
| Middle Quintile  | 7.1  | 7.5  | 8.3  | 6.8  | 6.8  | 6.3  | 6.5  | 6.3  | 5.9  | 6.1  | 5.4            |
| Fourth Quintile  | 9.7  | 10.4 | 11.3 | 9.5  | 9.3  | 8.7  | 8.9  | 8.7  | 8.5  | 8.7  | 8.4            |
| Highest Quintile   | 15.8 | 16.3 | 17.1 | 14.5 | 14.3 | 15.1 | 15.1 | 14.8 | 15.5 | 16.2 | 16.1           |
| All Families   | 11.1 | 11.6 | 12.6 | 10.7 | 10.7 | 10.8 | 10.9 | 10.5 | 10.9 | 11.3 | 11.1           |
| Top 10%  | 17.6 | 18.0 | 18.7 | 15.9 | 15.6 | 16.9 | 16.6 | 16.3 | 17.4 | 18.2 | 18.0           |
| Top 5%   | 19.3 | 19.7 | 20.0 | 17.1 | 16.8 | 18.5 | 18.0 | 17.6 | 19.1 | 20.0 | 19.6           |
| Top 1%   | 23.1 | 22.6 | 22.0 | 19.3 | 18.7 | 20.9 | 19.7 | 19.9 | 22.8 | 21.4 | 22.2           |
| <b>Effective Total Federal Tax Rate (in percent)</b>     |      |      |      |      |      |      |      |      |      |      |                |
| Lowest Quintile  | 8.7  | 8.4  | 8.0  | 8.5  | 10.2 | 9.0  | 8.8  | 7.9  | 7.8  | 6.0  | 4.6            |
| Second Quintile  | 14.7 | 14.9 | 15.0 | 14.2 | 15.3 | 15.2 | 15.3 | 15.1 | 14.3 | 14.6 | 13.7           |
| Middle Quintile  | 18.5 | 19.2 | 19.5 | 18.2 | 18.8 | 18.5 | 18.9 | 18.9 | 19.1 | 19.7 | 18.9           |
| Fourth Quintile  | 20.9 | 22.1 | 22.9 | 21.0 | 21.5 | 21.2 | 21.5 | 21.6 | 22.0 | 22.5 | 22.2           |
| Highest Quintile   | 28.2 | 28.5 | 27.9 | 24.6 | 24.5 | 26.4 | 25.9 | 26.2 | 27.6 | 29.6 | 29.1           |
| All Families   | 22.8 | 23.4 | 23.5 | 21.4 | 21.6 | 22.6 | 22.5 | 22.6 | 23.5 | 24.7 | 24.2           |
| Top 10%  | 30.7 | 30.5 | 29.0 | 25.2 | 25.1 | 27.6 | 26.8 | 27.2 | 29.0 | 31.3 | 30.6           |
| Top 5%   | 33.4 | 32.6 | 30.1 | 25.7 | 25.5 | 28.5 | 27.4 | 27.9 | 30.2 | 33.0 | 31.8           |
| Top 1%   | 39.7 | 37.3 | 31.7 | 26.9 | 26.2 | 30.2 | 28.1 | 29.1 | 32.5 | 36.5 | 34.4           |

SOURCE: Congressional Budget Office

Pre-tax family income is the sum of wages, salaries, self-employment income, rents, taxable and non-taxable interest, dividends, realized capital gains, and all cash transfer payments. Income also includes the employer share of Social Security and Federal unemployment insurance payroll taxes, and the corporate income tax. For purposes of ranking by adjusted family income (AFI), income for each family is divided by the poverty threshold for a family of that size. Quintiles contain equal numbers of people. Families with zero or negative income are excluded from the lowest income category but included in the total.

Individual income taxes are distributed directly to families paying those taxes. Payroll taxes are distributed to families paying those taxes directly, or indirectly through their employers. Federal excise taxes are distributed to families according to their consumption of the taxed good or service. Corporate income taxes are distributed to families according to their share of capital income.