

# 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

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## HEARING

BEFORE THE

SUBCOMMITTEE ON

DOMESTIC AND INTERNATIONAL MONETARY POLICY

OF THE

COMMITTEE ON BANKING AND  
FINANCIAL SERVICES

U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED FIFTH CONGRESS

SECOND SESSION

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# CONDUCT OF MONETARY POLICY

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TUESDAY, FEBRUARY 24, 1968

U.S. HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON DOMESTIC AND  
INTERNATIONAL MONETARY POLICY,  
COMMITTEE ON BANKING AND FINANCIAL SERVICES,  
*Washington, DC.*

The subcommittee met, pursuant to call, at 10:04 a.m., in room 2128, Rayburn House Office Building, Hon. Michael N. Castle, [chairman of the subcommittee], presiding.

Present: Chairman Castle; Representatives Lucas, Metcalf, Paul, Roukema, Cook, Manzullo, Foley, Frank, Sanders, Hinchey, and Bentsen.

Also Present: Representatives Leach, LaFalce, Watt, Weygand and Sandlin.

Chairman CASTLE. The hearing will come to order.

The subcommittee 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 Committee on Banking and Financial Services, the Subcommittee on Domestic and International Monetary Policy. I understand that you are trying to shake a cold, as am I, as probably a lot of other people in this room are. So I hope that we do not overstrain your voice today.

Chairman Greenspan, it is clear that our Nation is experiencing a remarkable and perhaps historic period of economic times. This economic expansion is one of the longest since World War II. Yet, there are still important decisions facing us in the areas of monetary and fiscal policy, and these decisions are tightly connected to all aspects of the foreign and domestic issues facing our Nation.

Obviously, we are interested in your complete assessment of our economy and your assessment and plans for United States monetary policy. As part of this assessment, I have three specific questions that are very much on my mind and I think on the minds of many American people. I hope you will address these issues today.

First, our country is enjoying a low level of inflation. With the need to maintain the economic growth which is benefiting many Americans in all walks of life, will the Federal Reserve lower interest rates to help American families keep more of what they earn?

Second, regarding the Federal budget, is it the most sensible policy for the President and Congress to make achieving and maintaining a balanced budget our top priority, above cutting taxes or new spending programs? In addition, with the prospect of a bal-

anced budget, can we expect to see lower interest rates accompany this success if we adhere to sensible budget policies?

And third, what is your latest analysis of the Asian economic crisis and how it will affect our country? How critical is it for Congress to act on additional U.S. contributions to the International Monetary Fund?

I hope you will directly address these questions in the course of our discussions today.

Since we would surely be blaming the Federal Reserve if the economy was on the skids, we should accord you the credit you undoubtedly deserve for a well-orchestrated monetary policy. The question is what can the Fed do to sustain and build on this success?

In addition, the balanced budget agreement and responsible fiscal policy agreed to by Congress and the Administration go hand in hand with successful monetary policy. Yet, some are getting giddy over the prospect of budget surpluses and are already making plans to spend the surplus. I know you do not share this view and want to discuss all the ramifications of changing our currently prudent fiscal policy.

The current Asian economic crises illustrate the dangers of superheated economies hitting the wall. Yet, the United States economy has thus far not suffered from the "Asian flu." Under what circumstances could this change?

I would be interested in how you view the prospects for economic growth this year in comparison to the 4 percent rate of the last quarter of 1997. The contrasting impact of lower earnings for United States firms with heavy investment in the affected regions of Asia and the potential for even lower-priced imports to keep downward pressure on inflation must make it difficult to call the economy from quarter to quarter.

Other echoes of the problems in the Far East are our continuing inflows of foreign capital at a rate of 2 percent of gross domestic product. Is this a problem or something our economy can sustain? The troubled Japanese economy remains a major cause for concern, but it is hard to believe that their government will permit that economy to tank.

Your opinion on the steps our Government should take in addressing the threat to our own economy from the problems in Asia carries great weight. What is your advice to Congress on this issue?

From a larger perspective, we should ask is our Nation now in a new economy that can sustain continued growth without reigniting inflation? Should the Federal Reserve worry less about inflation and focus more on allowing more growth to create additional jobs for Americans? Those are questions that Members also want to discuss even if they are addressed in your testimony.

I believe that this Congress acted responsibly in seeking a balanced budget, and that responsible fiscal policy must go hand in hand with monetary policy to support long-term economic growth. The marketplace first had to believe that the Federal Government was serious about balancing the budget before it could incorporate the possibility of ever arriving at this outcome as a factor in future planning.

The high relative value of the dollar seems to reflect both the leading position of our economy with regard to Europe and the Far East and the flight capital that has arrived from areas suffering economic insecurities. As integration of the various world economies continues in the direction of a unitary world marketplace, the leverage exerted by the Federal Reserve grows accordingly. There are few obvious negative signals that might predict a turn of the cycle to a downward phase. What we all want to know is how long can we continue with price stability and full employment?

As the economy continues to run ahead of what would be indicated by traditional models, we would welcome any insight you can impart about adjustments being incorporated into your model.

Again, Mr. Greenspan, inquiring minds want to know: Can we expect lower interest rates to sustain the good conditions of our policy? How should the Federal Government handle the prospects of a budget surplus? And how do we effectively address the problems in Asia?

As always, we are delighted to have you with us and look forward to a lively discussion.

I will now turn to Mr. Frank for his opening statement.

[The prepared statement of Chairman Michael N. Castle can be found on page 38 in the appendix.]

Mr. FRANK. Thank you, Mr. Chairman.

I note you mentioned that Mr. Greenspan has a cold. I hope he will issue a statement very soon thereafter that he is in fact in generally very good health, because I have learned never to underestimate the neurosis of the market. And there is the saying, "When the American economy gets a cold, the world gets a fever." Now we are going to find out what happens when Mr. Greenspan gets a cold. Will the market fall into a swoon? I hope not. But we may have to give him a physical.

The country has had a major debate over the past few years, and I think it is important to note that, at least as of now, it appears we have gotten an answer to a question. There is this view, I said this before, that you are supposed to pretend that you don't like saying "I told you so." But I never met anyone who did not greatly enjoy saying "I told you so," and I personally find it is one of the few pleasures that improves with age. So I think those of us who were very critical of people who thought we had to raise interest rates because the economy was too good a few years ago are entitled to say, "I told you so."

I think maybe we should have a little burial policy for the concept known as the "NAIRU" which recently, about a year ago, was a hot topic. The Non-Accelerating Inflation Rate of Unemployment, which there was a great economic consensus about, it seemed to me, a couple of years ago, that it was close to 6 percent, and that unemployment dropped, and then the NAIRU dropped and unemployment dropped more, and the NAIRU dropped more. It is now clear what the historical role of that is: it is a lagging indicator of the unemployment rate. Whatever unemployment is, the so-called "Non-Accelerating Inflation Rate of Unemployment" is one-half a point higher in the hands of some economists.

We had this debate, and there were people who argued that you could not possibly in the American economy grow at the rate we

have grown over the past 4 or 5 years and get inflation down below 5 percent on a consistent basis and not have inflation. Many of us felt that there were trends in the economy that made that explicable and that it would in any case be a grave error to preempt an inflation which had not yet lifted its head at the cost of increasing unemployment.

And I welcome the fact, Mr. Greenspan, that you resisted what I believe were considerable pressures for you to take the preemptive route. And it was interesting for many of us to watch things evolve, because it did seem that we went from the *New York Times*, *Financial Times*, the bastion of orthodoxy in America. The *New York Times* financial pages is to the high interest rate clergy of Wall Street, it seems to me, what *L'Osservatore Romano* is to the Vatican. And it was interesting to see them go from being your strong advocates to them seeing you as a little bit of a rebel and being a little bit worried about maverick tendencies on your part. But those who argued that there was no reason to raise interest rates, and I urge people to go back and read the financial pages about this, because it was implicit and sometimes explicit criticism of the failure to raise interest rates, we were proven correct; there have been things in the American economy that have allowed us, apparently, to grow at a higher rate and have a lower unemployment rate without inflation than people thought possible, and that has meant that it would not have been a good thing to raise interest rates.

Now it is time to open up the next part of that, and I think it is time now to start talking about a preemptive strike against recession and against disinflation. And it is interesting, given the biases in the financial community, that the notion of a preemptive strike against inflation is the model of fiscal responsibility, but talking about a preemptive strike against a turn-down in the economy will shock some people. But it is clearly where we ought to be.

To the extent that you can measure, we see no signs of inflation. We do see, as you look ahead, potential problems. Obviously, the troubles in Asia are going to have a deflating effect to some extent on the American economy. How bad, we don't know. But I would hope that we are in the mode of being ready to move preemptively not to do away with a nonexistent, so far, inflation, but to do away with what seems to be a more real threat of a turn-down.

And I would say, Mr. Greenspan, that you have a very important role to play in this, for this reason: This committee next week will, I believe, take up the question of the International Monetary Fund. The Chairman and the Ranking Member, the acting Ranking Member of the full committee, have been working diligently trying to put something together. Many of us who have some problems with the way things have been done in the past are looking to find a way to work something out now. And the central element, I believe, in whether or not we will succeed in coming to an agreement here, and it is not foretold that we will, but there are some people that would like to reach an agreement, taking into account some important values like the rights of labor and environmental concerns, one critical question will be the extent to which there is a readiness to protect people in the American economy against negative consequences. And a domestic economy in which people think that the

Federal Reserve might be prepared to reduce interest rates to offset negative effects on the American economy that come from Asia is a world in which it is going to be easier to get this kind of support.

If you want to mobilize American support, domestic support, for what I know you believe to be necessary in Asia, American dollars pledged through the IMF to help out, then the American people need to be reassured that their own economic interests are at least as much in people's minds as those overseas. I understand in your view that they are, and that is obviously—in part you are motivated by that. But I think you understand also that perception is not 100 percent translated domestically, and therefore I think it is essential to create the climate in which you can get the votes for the IMF, that it be clear that American authorities, including the Federal Reserve, will be prepared to respond if things turn down in the United States. And I think that is a very important question that you have to address both for its own worth and because of the climate that I know you want to promote to get passage of international cooperation.

Thank you, Mr. Chairman.

Chairman CASTLE. Thank you, Mr. Frank.

What I would like to do now is to give the Chairman and the Ranking Member of the full committee, Mr. Leach and Mr. LaFalce, the chance to use 5 minutes if they wish, and then to try to limit what we say to 2 minutes orally and with submission of statements in order to get to Mr. Greenspan's testimony. Some of you were not here, but Mr. Greenspan has a cold and is not feeling that well, and we would like to leave sufficient time for questions.

Let me turn to Mr. Leach for his statement if he wishes.

Mr. LEACH. I thank the Chairman for his offer, but I would desire to move ahead as rapidly as we can this morning. I will defer to the Chairman and want to thank him for his great leadership in these issues.

Chairman CASTLE. Mr. LaFalce.

Mr. LAFALCE. I thank the Chairman, and I won't take more than a few minutes.

Mr. Greenspan, I am sorry about your cold. Do you think it is safe to say that there is an improbable but not negligible chance that this is the Asian flu?

Mr. GREENSPAN. I asked my physician whether I could characterize it as Asian flu concerning how appropriate it would be; and he said, "Medically speaking, no."

Mr. LAFALCE. That is the most definitive answer you have ever given.

Dr. Greenspan, I think that both the Chairman of the subcommittee and Mr. Frank have raised some good points with respect to the possible lowering of interest rates. I am hesitant to talk about preemptive strikes this week. We pursue a diplomatic solution, but maybe you could achieve a diplomatic solution.

In negotiating a diplomatic solution with other countries, might not they like the idea, I want you to get into this, of lower interest rates in the United States? Might not that bring about a better realignment of our dollar with their currencies, cause less flight from their countries to the United States? So isn't that something that



might be helpful not only to the United States, but to some of the countries, especially in Asia, experiencing some difficulties?

I would also like you to go into the question of the burgeoning trade deficit that we have in the United States and its significance. It is not simply with the countries that are having difficulty in need of IMF assistance, it is with Japan, it is with China, and so forth. But these trade deficits are a double-edged sword to be sure. I want you in your testimony to explore the double-edged nature of it and to what extent is it much more harmful than good. What do we have to be careful of? Is it on our radar screen right now?

Also, one of the prescriptions the IMF gives to countries is—or very frequently has been in the past at least—export, export. But to what extent can we use that as a model for virtually every country; then who would be left to import? The United States? And who else? Japan has been very reluctant, and there are enough in the European Community. To what extent can we be the safety valve for this policy of export platform approaches that are being taken?

I would also like you to address what I think is a difficulty on the horizon, and that is, in acceleration of the down-sizing phenomenon, the recent data that I have seen suggests that this is increasing tremendously. What should we be on the lookout for in connection with that?

And then to a certain extent parochially, but also on a much larger scale, I am interested in the relative value of the United States dollar and the Canadian dollar. Everybody is talking about the Asian currencies, the yen and the mark, and so forth. But in January the U.S. dollar reached its strongest point, the Canadian its weakest point, in the history of our two countries. And this, especially for the ten border States, but for all the United States, certainly Canada, too, has profound significance.

It would seem to me that we have had too much of a swing, and we need some type of a stabilization and modification of the extreme swing that we have seen in the past several years. I would be interested in your comments on that.

I thank you, Mr. Chairman.

[The prepared statement of Hon. John J. LaFalce can be found on page 41 in the appendix.]

Chairman CASTLE. Thank you Mr. LaFalce.

Mr. Lucas.

Mr. LUCAS. No comments, Mr. Chairman.

Chairman CASTLE. Mr. Sanders.

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

Welcome, Mr. Greenspan. I am going to have to be running back and forth, so you will forgive me, but I hope maybe you will address maybe two or three concerns in your remarks.

Number one, as you know, the United States has by far the most unequal distribution of wealth and income in the industrialized world. In 1976, the wealthiest 1 percent of the population owned 19 percent of the wealth, while today they own 42 percent of the wealth. In 1960, the CEO of a major corporation was earning about 12 times more than the average worker. Today that gap is over 200 times. CEOs now make 200 times what their workers make. We are seeing a huge proliferation of millionaires and billionaires, and yet we continue to have by far the highest rate of poverty in the

industrialized world. So I hope that you will address the issue of whether or not you think that that very unfair distribution of wealth and income in the United States is healthy and what role you think you can play in trying to change that.

Second of all, picking up on a point that Mr. Frank made a moment ago of the IMF, some of us think in fact that the IMF by and large has been a failure, that in Africa and Latin America, after years of IMF structural adjustment programs, what has happened is there has been a significant increase in poverty; major cutbacks in health, in education; increases in unemployment.

In fact, in Africa what we are seeing is a dismal situation and in recent years has been made even more dismal. In Latin America, I think with the exception of Chile, every country there has seen an increase in poverty. Also, as you know, the IMF told us a year ago how splendidly the Asian economies were doing in Indonesia, in Korea, and so forth, and now they are in the middle of a meltdown.

Given the very poor record of the IMF, and given the fact that a number of economists think that the major role of the IMF is to help multinational banks and corporations rather than the poor people of Third World countries, perhaps you can elaborate on why you think the taxpayers of this country should put up \$18 billion in order to replenish the IMF? So I hope you will address some of those issues.

Thank you, Mr. Chairman.

Chairman CASTLE. Mr. Metcalf, I understand you do not have an opening statement. Let's go to Dr. Paul then.

Dr. PAUL. Thank you, Mr. Chairman.

And welcome, Mr. Greenspan.

It seems like the most appropriate subject for now would be the interrelation of the crisis in Asia with our own domestic monetary policy. And if I am not mistaken, it seems like there has already been in effect the foreign holdings of debt, our debt now has been decreased by approximately \$50 billion. It seems like it has changed our domestic monetary policy because we are expanding our Federal Reserve holdings, as well as M-3 is rising now.

In the old-fashioned definition of "inflation," we are well into it, we are inflating a lot. If we do not rely on the erroneous messages that we get from the CPI—during the 1920's certainly the CPI was rather stable, and yet we had inflation that ended up with a lot of problems.

I must remind everyone that when we debase a currency, which means we inflate a currency, it inevitably leads to trade deficits which we suffer from, it inevitably leads to uneven distribution of income which we suffer from, and it always gives interest rates that are higher than the people want. But to argue for lower interest rates to me seems to compound our problem, because it requires more inflation of the money supply.

At the same time, if we want to rescue the Southeast Asian currencies by an IMF bailout, we only do that by inflating our own currency and setting the stage for a dollar crisis.

I yield back.

Chairman CASTLE. Thank you, Dr. Paul.

Mr. Hinchey.

Mr. HINCHEY. Thank you very much, Mr. Chairman. And good morning, Mr. Greenspan, and I, too, hope that you are feeling better.

These are very interesting times indeed. I can recall when I first came to Congress 5 years ago, we were facing the problem of ever-growing budget deficits, up around \$300 billion at that time and predicted to be close to \$400 billion by now. Thanks largely to the 1993 budget resolution of the Clinton Administration, that deficit has come down very dramatically. We are even facing the prospect of actual budget surpluses this year. So these are extraordinary, and indeed very interesting, times for you and the Federal Reserve and for us in the Congress.

In that context, we are seeing some dramatic changes in the international economic situation, particularly as it relates to the problems in the Far East. I am particularly interested in your reaction to that situation and its impact on our economy.

Among other things, inflation is dramatically low, 1.7 percent last year, and continues to go down. The economy remained strong through 1994 and 1995 in spite of the interest rate increases that occurred that year. The impact of the Asian crisis is just beginning to express itself. Our trade deficit is up in the most recent reporting period by almost 25 percent, and that includes everything from electronic products to agriculture. Agriculture is being particularly hard hit in terms of our exports to the Far East.

I am very interested in what we are going to do to anticipate the full effects of the Asian financial crisis on our economy. The full effects of it will not be evident until some time later this year, or perhaps not even until next year. Because actions taken by the Federal Reserve have a lag time of about 18 months, it is important for us to act now if we are going to do anything to offset the disinflationary effects of the dramatically dropping prices in East Asia, the growing trade deficit, and the strength of the dollar.

It is my hope and expectation that the Federal Reserve will take these matters into account and deal with this issue before the Asian crisis has its full impact. That, of course, would mean lowering interest rates at the earliest opportunity. Real interest rates now are very high and I think that this is having a depressing effect on the economy. I think the economy could be even stronger if interest rates were lower. And if we fail to relax interest rates, I think that during the next year, we are going to see some difficult economic circumstances that we ought not to experience.

I am hoping that in anticipation of the full effects of the Asian crisis, that the Federal Open Market Committee will examine this issue very closely at its next meeting and take appropriate action.

[The prepared statement of Hon. Maurice D. Hinchey can be found on page 40 in the appendix.]

Chairman CASTLE. Thank you, Mr. Hinchey.

Mrs. Roukema.

Mrs. ROUKEMA. I thank the Chairman.

Chairman Greenspan, I welcome you here, and I want to leave as much time as possible to get to you, so I will abbreviate my remarks and simply observe that I would like to reinforce some of the observations and questions already raised by the Chairman and the Ranking Member. And I would simply like to reinforce them

again because they reflect my own concerns, and particularly with respect to addressing the questions regarding the Balanced Budget Act, the question of interest rates relative to lower taxes or the spending questions.

I think there has been a lot of premature talk from both sides of the aisle about a spending binge on the one hand, or a tax cutting binge on the other. I would hope that you could address how either action would affect interest rates.

I also want to reinforce what has already been raised concerning the Asian contagion, and that is in two regards. One, how do we deal with the trade deficit question? I don't know whether or not your assessment is that the IMF proposal successfully addresses that or not, but I would hope that you would focus on the IMF proposal. I believe that it is absolutely essential for this Congress to pass IMF funding. Beyond that, I would like to know if there is anything more that we should be doing in order to address the already developing problems relating to the growing trade deficit? We welcome you and value your opinion on all these issues. Thank you.

Chairman CASTLE. Thank you, Mrs. Roukema.

Mr. Bentsen.

Mr. BENTSEN. No, Mr. Chairman.

Chairman CASTLE. Mr. Cook.

Mr. COOK. In the interest of getting to the Chairman's testimony, I will forego any opening comments.

Chairman CASTLE. Thank you.

Mr. Manzullo.

Mr. Foley.

Mr. FOLEY. No, thank you.

Chairman CASTLE. We have two other Members of the full committee here, Mr. Sandlin and Mr. Watt. We welcome them. If we get through with the questioning, we will try to give you an opportunity to participate as well at that time. I think all the Members of the subcommittee who are here and want to speak have had the opportunity.

So the time comes to turn to you, Mr. Chairman, for your distinguished comments. Mr. Greenspan.

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

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

Chairman CASTLE. Without objection.

Mr. GREENSPAN. Mr. Chairman, and Members of the subcommittee, I very much welcome this opportunity to present the Federal Reserve's Semiannual Report on Economic Conditions and the Conduct of Monetary Policy.

The American economy delivered another exemplary performance in 1997. Over the four quarters of last year, real gross domestic product expanded close to 4 percent, its fastest annual increase in 10 years. To produce that higher output, about three million Americans joined the Nation's payrolls, in the process contributing to a reduction in the unemployment rate to 4¾ percent, its lowest sus-

tained level since the late 1960's. Last year also saw strong growth of real income of workers and corporations. This was not unrelated to the economy's continued good performance on inflation.

Taken together, recent evidence supports the view that such low inflation, as closely approaching price stability as we have known in the United States in three decades, engenders many benefits. When changes in the general price level are small and predictable, households and firms can plan more securely for the future. The perception of reduced risk encourages investment. Low inflation also exerts a discipline on costs, fostering efforts to enhance productivity. Productivity is, as you know, the ultimate source of rising standards of living, and we witnessed a notable pickup in this measure in the past two years.

The dramatic improvements in computing power and communication and information technology appear to have been a major force behind this beneficial trend. Those innovations, together with fierce competitive pressures in our high-tech industries to make them available to as many homes, offices, stores, and shop floors as possible, have produced double-digit annual reductions in prices of capital goods embodying new technologies. Indeed, many products considered to be at the cutting edge of technology as recently as 2 to 3 years ago have become so standardized and inexpensive that they have achieved near "commodity" status, a development that has allowed businesses to accelerate their accumulation of more and better capital.

With new high-tech tools, American businesses have shaved transportation costs, managed their production and use of inventories more efficiently, and broadened market opportunities. The threat of rising costs in tight labor markets has imparted a substantial impetus to efforts to take advantage of possible efficiencies. In my Humphrey-Hawkins testimony last July, I discussed the likelihood that the sharp acceleration in capital investment in advanced technologies beginning in 1993 reflected synergies of new ideas, embodied in increasingly inexpensive new equipment, that have elevated expected returns and have broadened investment opportunities.

More recent evidence remains consistent with the view that this capital spending has contributed to a noticeable pickup in productivity—and probably by more than can be explained by usual business cycle forces. For one, the combination of continued low inflation and stable to rising domestic profit margins implies quite subdued growth in total consolidated unit business costs. With labor costs constituting more than two-thirds of those costs and labor compensation per hour accelerating, productivity must be growing faster, and that step-up must be roughly in line with the increase in compensation growth. Our more direct observations on output per hour roughly tend to confirm that productivity has picked up significantly in recent years, although how much the ongoing trend of productivity has risen remains an open question.

The acceleration in productivity, however, has been exceeded by the strengthening of demand for goods and services. As a consequence, employers had to expand payrolls at a pace well in excess of the growth of the working age population that profess a desire for a job, including new immigrants. As I pointed out last year

in testimony before the Congress, that gap has been accommodated by declines in both the officially unemployed and those not actively seeking work but desirous of working. The number of people in those two categories decreased at a rate of about one million per year on average over the last 4 years. By December 1997, the sum had declined to a seasonally adjusted 10½ million, or 6 percent of the working-age population, the lowest ratio since detailed information on this series first became available in 1970. Anecdotal information from surveys of our twelve Reserve banks attests to our ever-tightening labor markets.

Rapidly rising demand for labor has had enormous beneficial effects on our work force. Previously, low or unskilled workers have been drawn into the job market and have obtained training and experience that will help them even as they later change jobs. Large numbers of underemployed have been moved up the career ladder to match their underlying skills, and many welfare recipients have been added to payrolls as well, to the benefit of their long-term job prospects.

The recent acceleration of wages is likely owed in part to the ever-tightening labor market and in part to rising productivity growth, which, through competition, induces firms to grant higher wages. It is difficult at this time, however, to disentangle the relative contributions of these factors. What is clear is that unless demand growth softens or productivity growth accelerates even more, we will gradually run out of new workers who can be profitably employed.

Should demand for new workers continue to exceed new supply, we would expect wage gains increasingly to exceed productivity growth, squeezing profit margins and eventually leading to a pick-up in inflation. Were a substantial pickup in inflation to occur, it could, by stunting economic growth, reverse much of the remarkable labor market progress of recent years.

History teaches us that monetary policy has been its most effective when it has been preemptive. The lagging relationship between the Federal Reserve's policy instrument and spending, and, even further removed, inflation implies that if policy actions are delayed until prices begin to pick up, they will be too late to fend off at least some persistent price acceleration and attendant economic instability. Preemptive policymaking is key to judging how widespread are emerging inflationary forces, and when, and to what degree, those forces will be reflected in actual inflation.

Over most of the last year, the evident strains on resources were sufficiently severe to steer the Federal Open Market Committee toward being more inclined to tighten than to ease monetary policy. Indeed, in March, when it became apparent that strains on resources seemed to be intensifying, the Federal Open Market Committee imposed modest incremental restraint, raising its intended Federal funds rate a quarter of a percentage point to 5½ percent.

We did not increase the Federal funds rate again during the summer and fall, despite further tightening of the labor market. Even though the labor market heated up and labor compensation rose, measured inflation fell, owing to the appreciation of the dollar, weakness in international commodity prices, and faster productivity growth.

Although the nominal Federal funds rate was maintained after March, the apparent drop in inflation expectations over the balance of 1997 induced some firming in the stance of monetary policy by one important measure—the real Federal funds rate, or the nominal Federal funds rate less a proxy for inflation expectations. Some analysts have dubbed the contribution of the reduction in inflation expectations to raising the real Federal funds rate a “passive” tightening, in that it increased the amount of monetary policy restraint in place without an explicit vote by the FOMC. While the tightening may have been passive in that sense, it was by no means inadvertent. Members of the FOMC took some comfort in the upward trend of the real funds rate over the year and the rise in the foreign exchange value of the dollar because such additional restraint was viewed as appropriate given the strength of spending and building strains on labor resources. They also recognized that in virtually all other respects financial markets remained quite accommodative, and, indeed, judging by the rise in equity prices, were providing additional impetus to domestic spending.

Mr. Chairman, there can be no doubt that domestic demand retained considerable momentum at the outset of this year. Production and employment have been on a strong uptrend in recent months. Confident households, enjoying gains in income and wealth and benefiting from the reductions in intermediate- and longer-term interest rates to date, should continue to increase their spending. Firms should find financing available on relatively attractive terms to fund profitable opportunities to enhance efficiency by investing in new capital equipment. By itself, the strength in spending would seem to presage intensifying pressures in labor markets and on prices. Yet, the outlook for total spending for goods and services produced in the United States is less assured of late because of storm clouds massing over the Western Pacific and heading our way.

This is not the place to examine in detail what triggered the initial problems in Asian financial markets and why the subsequent deterioration has been so extreme. I covered that subject recently before several committees of the Congress. Rather, I shall this morning confine my discussion to the likely consequences of the Asian crisis for demand and inflation in the United States.

With the crisis curtailing the financing available in foreign currencies, many Asian economies have had no choice but to cut back their imports sharply. Disruptions to their financial systems and economies more generally will further damp demands for our exports of goods and services. American exports should be held down as well by the appreciation of the dollar, which will make the prices of competing goods produced abroad more attractive, just as foreign-produced goods will be relatively more attractive to buyers here at home. As a result, we can expect a worsening net export position to exert a discernible drag on total output in the United States. For a time, such restraint might be reinforced by a reduced willingness of U.S. firms to accumulate inventories as they foresee weaker demands ahead.

The forces of Asian restraint could well be providing another, more direct offset to inflationary impulses arising domestically in the United States. In the wake of weakness in Asian economies

and of lagged effects of the appreciation of the dollar more generally, the dollar prices of our non-oil imports are likely to decline further in the months ahead. These lower import prices are apparently already making domestic producers hesitant to raise their own prices for fear of losing market share, further contributing to the restraint on overall prices. Lesser demands for raw materials on the part of Asian economies as their activity slows should help to keep world commodity prices denominated in dollars in check. Import and commodity prices, however, will restrain U.S. inflation only so long as they continue to fall, or to rise at a slower rate than the overall pace of domestic goods prices.

The key question going forward is whether the restraint building from the turmoil in Asia will be sufficient to check inflationary tendencies that might otherwise result from the strength of domestic spending and tightening labor markets. The depth of the adjustment abroad will depend on the extent of weakness in the financial sectors of Asian economies and the speed with which structural inefficiencies in the financial and nonfinancial sectors of those economies are corrected.

If, as we suspect, the restraint coming from Asia is sufficient to bring the demand for American labor back into line with the growth of the working-age population desirous of working, labor markets will remain unusually tight, but any intensification of inflation should be delayed, very gradual, and readily reversible. However, we cannot rule out two other, more worrisome possibilities.

On the one hand, should the momentum of domestic spending not be offset significantly by Asian or other developments, the American economy would be on a track along which spending could press too strongly against available resources to be consistent with contained inflation. On the other hand, we also need to be alert to the possibility that the forces from Asia might damp activity and prices by more than is desirable by exerting a particularly forceful drag on the volume of net exports and the prices of imports.

When confronted at the beginning of this month with these, for the moment, finally balanced, though powerful forces, the members of the Federal Open Market Committee decided that monetary policy should most appropriately be kept on hold. With the continuation of a remarkable 7-year expansion at stake and so little precedent to go by, the range of our intelligence gathering in the weeks ahead must be wide and especially inclusive of international developments.

Before closing, Mr. Chairman, I would also like to flag a few areas of concern about the economy beyond those mentioned already in regarding Asian developments.

Without doubt, lenders have provided important support to spending in the past few years by their willingness to transact at historically small profit margins and in large volumes. Equity investors have contributed as well by apparently pricing in the expectation of substantial earnings gains and requiring modest compensation for the risk that those expectations could be mistaken. Approaching the eighth year of the economic expansion, this is understandable in an economic environment that, contrary to historical experience, has become increasingly benign. Businesses have



been meeting obligations readily and generating high profits, putting them in outstanding financial health.

But we must be concerned about becoming too complacent about evaluating the payment risks. All too often at this stage of the business cycle, the loans that banks extend later make up a disproportionate share of total nonperforming loans. In addition, quite possibly, 12 or 18 months hence, some of the securities purchased on the market currently could be looked upon with some regret by investors.

As one of the Nation's bank supervisors, the Federal Reserve will make every effort to encourage banks to apply sound underwriting standards in their lending. Prudent lenders should consider a wide range of economic situations in evaluating credit; to do otherwise would risk contributing to potentially disruptive finance problems down the road.

A second area of concern involves our Nation's continuing role in the new high-tech international financial system. By joining with our major trading partners and international financial institutions in helping to stabilize the economies of Asia and promoting needed structural changes, we are also encouraging the continued expansion of world trade and global economic and financial stability on which the ongoing increase of our own standards of living depend. If we were to cede our role as world leader, or backslide into a protectionist policy, we would threaten the source of much of our own sustained economic growth.

A third risk is complacency about inflation prospects. The combination and interaction of significant increases in productivity-improving technologies, sharp declines in budget deficits, and disciplined monetary policy has damped product price changes, bringing them to near stability. While part of this result owes to good policy, part is the product of the fortuitous emergence of new technologies and of some favorable price developments in imported goods.

However, as history counsels, it is unwise to count on any string of good fortune to continue indefinitely. At the same time, though, it is also instructive to remember the words of an old sage that "luck is the residue of design." He meant that to some degree we can deliberately put ourselves in a position to experience good fortune and be better prepared when misfortune strikes. Some of what we now see helping rein in inflation pressures is more likely to occur in an environment of stable prices and price expectations that thwarts producers from indiscriminately passing on higher costs, puts a premium on productivity enhancement, and rewards more effectively investment in physical and human capital.

Continuing to make progress toward this objective will make future supply disruptions less likely and our Nation's economy less vulnerable to those that occur. In this way, Mr. Chairman, we raise the odds that the outstanding performance of our Nation's economy in recent years can be sustained.

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

[The prepared statement of Hon. Alan Greenspan can be found on page 45 in the appendix.]

Chairman CASTLE. Thank you very much, Mr. Chairman. We appreciate your statement. I found it to be very upbeat in the register

of statements that you have made before this subcommittee and perhaps before the Congress. I even saw a silver lining in the Asian crisis in terms of the dampening of inflationary aspects in the United States. So, hopefully, all this will come to bear.

We will each take 5 minutes on questioning, and I will begin.

I would like to ask you a two-part question. It is going to be two related parts. First, since we seem to agree that achieving a balanced budget is a higher priority than cutting taxes or new spending, and the markets appear to accept this as a serious goal, if we stay on course to balance, can the Federal Reserve lower interest rates further?

And then second, the related part to that first question, in testimony before the Congress over the last several years, at least while I have chaired this subcommittee, I believe you said that a balanced budget will result in about a 2 percent reduction in interest rates. In your testimony today you indicated we have seen some of these savings. How much remains to be realized?

Mr. GREENSPAN. That is a very good question, Mr. Chairman. When I made the statement with respect to reaching a balanced budget would bring long-term interest rates down approximately 2 percentage points or thereabouts, interest rates at that time were quite significantly above where they are today, and the budget deficit was in excess of \$200 billion.

I do think that the evidence strongly suggests that a substantial part—we don't know how much—of the very considerable decline in long-term interest rates in recent years has been a function of the decline in the budget deficit, because it has removed pressures of Federal Government borrowing from the marketplace.

As I have said in other testimony, I do believe that were we to now move to a unified budget surplus and start to repay the debt to the public, that that would have further downward impact on long-term interest rates. I don't know how much. And the reason I don't know how much is that it is pretty clear that even though we have now had a very substantial reduction in inflation expectations in this economy in recent years, there is still evidence that there is an inflation premium of not insignificant dimension still embodied in long-term interest rates, a residue of the big inflationary pressures of the 1970's. Unless and until we can get that down to where it was, say, in the 1950's and 1960's, the downside move of long-term rates while there is clearly much more limited than the declines that have occurred in recent years.

I would hesitate to put a specific forecast on it, but as I said in testimony to other committees recently, if we have a Federal surplus, we are very likely to get further downward pressures on long-term rates, and as we have observed in recent years, it has been that decline which perhaps more than anything else in our economy has been the factor which has been driving this really quite extraordinary 7-year economic expansion. And further declines in long-term rates as a consequence of further fiscal improvement is something which is of great importance.

Chairman CASTLE. Thank you.

The Dow Jones Industrial Average is now above where it was when you expressed the opinion that it might be overvalued. Is that still your view today?

Mr. GREENSPAN. You are referring to my now rather infamous two-word remark, which I will leave unrepeatd in this context.

What I indicated back then—in December 1996—was that I was quite concerned about how we would know, as I put it at the time, when the markets exhibited “irrational exuberance,” meaning when it got beyond various different measures of evaluation.

What has occurred since, as I have in fact indicated in my testimony, is that the market has been driven by very significantly improved expectations of increase in earnings, in part a reflection of a real improvement in underlying productivity which had not been apparent back then. Nonetheless, even when looking at various different evaluation processes, there is no question, as I point out in my prepared remarks, that the extent to which so-called equity premiums are being embodied in the evaluation of stock prices are on the low edge of historical experience.

But then again, an awful lot of things are at the lower edge. We have all sorts of risk premiums lower and various different types of margins lower, and the implication is that the market is saying that there is something different about this particular economic environment. I am not inclined to go that far. I have been around much too long to expect another new era. But there is no question that there is something different about what is going on in this economy.

As I pointed out earlier, we have not had, as I recall in any recent measurable experience, 7 years of a business cycle expansion in which not only did the underlying forces of destabilization not occur, but things are improving. And that really is an extraordinary element in this recovery.

Chairman CASTLE. Thank you, Mr. Chairman.

Mr. Frank.

Mr. FRANK. I agree, Mr. Greenspan, it is not only an extraordinary element in the recovery, but this state of unexpected good news is something I sometimes feel economists may never recover from. I have to say their dismay at the inaccuracy of their negative predictions sometimes seems the dominant emotion we get here.

Let me ask you, on page 5 of your prepared statement, you talk about “...rising demand for labor has had enormous beneficial effects... Previously, low or unskilled workers have been drawn into the job market... large numbers of underemployed have been moved up the career ladder... welfare recipients have been added to payrolls.”

Now, that obviously happened while we were raising the minimum wage. Can we infer from this that the most recent increase of the minimum wage had no significant, if any, negative effects on the employability of people in those categories? Because I would assume, if anybody in the economy is in the minimum wage category, it is low-skilled workers, welfare recipients, and the large numbers of underemployed.

Mr. GREENSPAN. No. I would say, first of all, the minimum wage has, from what we can judge, filtered through into higher nominal wages in various different segments of the economy. You cannot find, as best I can judge at this stage, any significant reduction in employment as a consequence, because what we are observing, as

I indicated earlier, is an overall demand for labor, which at this moment, exceeds the supply.

Mr. FRANK. And the fact that we were raising the minimum wage, therefore, had no negative effect that we could see.

Mr. GREENSPAN. No, I would not say that. I would say it has not.

Mr. FRANK. I know you do not want to say that, Mr. Greenspan, but what is the evidence?

Mr. GREENSPAN. The question really is a much broader issue. If you are asking me broadly does history tell us—

Mr. FRANK. No, I did not ask you specifically about history, because I am asking you about what happened last time. I am asking about this past minimum wage increase. Because the economy changes. Look, your whole statement is a discussion of why the lessons of history have in many ways no longer been directly relevant.

Mr. GREENSPAN. The way you phrased the question, you made it as a more general statement.

Mr. FRANK. I am talking about the most recent minimum wage increase.

Mr. GREENSPAN. The most recent minimum wage increase has not, as yet, shown through.

Mr. FRANK. I think the "as yet" is a testimony to the continuing power of the economic theology, because we have just been through this.

My next question: In 1993, when taxes were increased as part of the budget package and they were increased more on higher income people, you said at the time you thought that would have a negative effect on growth. Has that had a negative effect as yet, or are we still in the "as yet" phase on that one?

Mr. GREENSPAN. I would say it has had a negative effect. There are other effects which have overridden that. If you ask me in general—

Mr. FRANK. No, Mr. Greenspan, I would never ask you anything in general in a 5-minute question period. I am asking you specifically about your prediction that raising taxes—or your comment that "...having raised taxes in 1993 would have a negative effect on growth." And I am looking at a statement which talks about how we could barely live with the amount of growth we have had. We have had more growth than we expected. You are worried that we may have too much growth, although fortunately we have not. So I am wondering about the 1993 tax effect.

Mr. GREENSPAN. Well, first of all, I did not say that the President's 1993 budget proposal would have a contractionary effect on the economy.

Mr. FRANK. I asked you specifically, and I will get you the transcript and send it to you. In the past, I asked you if you thought the fact that taxes were increased was going to have a negative effect, and you said it was.

Mr. GREENSPAN. Yes, I generally believe that over the longer run, if you raise marginal tax rates, you will get a lower extension of long-term growth than you would have had otherwise.

Mr. FRANK. I often, when I do not have any specific evidence, talk about general trends over the long-run, too. I do think we have two arguments here, because Mr. Sanders talked about equity, and I think this is important. There have been two efforts in recent

times to deal with the equity question, the minimum wage increase and an effort to make the tax incidence fairer. In both cases, we had very negative consequences predicted, which I do not think have been borne out and which certainly do not appear. If they were borne out, they were overborne, clearly from your statement, by other things.

The last point I want to make I will make briefly, and you can respond. Right here on page 10 and 11 you say there were two sort of equal dangers as you raise them. On the one hand, should momentum of domestic spending not be offset significantly, we can get into inflation. On the other hand, we also need to be alerted to the possibility that they might dampen activity by more than is desirable. So it is one or the other.

My problem is, and I go back to my opening statement, on page 6 you talk about preemption, but you have got a one-way preemption here. You have two dangers. There is a danger that Asia will not offset growth enough and it will be inflationary, or that Asia will do too much and it will be inflationary. But you are only going to preempt one of those dangers.

Mr. GREENSPAN. I was not aware that I said that.

Mr. FRANK. Said what?

Mr. GREENSPAN. That I want to preempt one and not the other.

Mr. FRANK. Page 6, your discussion of preemption, "History teaches us that monetary policy has been most effective when it has been preemptive."

Mr. GREENSPAN. That is correct.

Mr. FRANK. And the whole discussion of preemption is about preempting inflation.

Mr. GREENSPAN. No, I was talking about the extent of inflation.

Mr. FRANK. But you do not talk about preempting the negative. It is just your mindset. When you think preemption, you think about cutting off inflation. You never think about—apparently, I think this is a fact when the people in the Federal Reserve talk about preemption—you are never preempting something negative. And I urge you to look at your discussion on page 6 and page 7. Preemption occurs only in the context of cutting off inflation, not in the context of offsetting too much.

Mr. GREENSPAN. Mr. Frank, I would suggest in our previous conversations on this that I have made statements on both sides of that issue; namely, that preemption works both ways.

Mr. FRANK. I agree when I press. But I am continually disturbed by what seems to be the mindset, and I understand you are representing the institution there as well, that preemption still tends to be a one-way street and there is not enough concern about preempting the negative of too little growth.

Mr. GREENSPAN. No, I would disagree with that. I would say that our fundamental goal is to maintain maximum sustainable growth, which means effectively that you want to try to fend off tendencies of monetary policy instability on one side and on the other.

In previous discussions which we have had on this, in fact, in the last 6 months this issue has come up and we discussed both sides of that. The problem that is relevant right here is that, with these very finely balanced sets of forces on both sides of this issue, we may not be fully successful in preemptive policy. In other words,

preemptive policy requires that one has the capability of capturing a change in direction significantly far in advance so that actions can be taken to fend it off.

I think the real concern we have today is that what we have are two basic forces—both rather powerful, but both 180 degrees apart. And what we hope to be able to do is to capture the trend in either direction sufficiently in advance to focus policy in a manner which most effectively increases the probability that we can maintain this 7-year long economic expansion with its benefits.

Mr. FRANK. I like that better than your prepared statement.

Chairman CASTLE. Thank you, Mr. Frank.

I would like to at this time go to the Chairman and acting Ranking Members of the subcommittee for their questions. Then we will go in regular order through the subcommittee.

Chairman Leach.

Mr. LEACH. Thank you, Mr. Chairman.

Just looking at your statement, I want to focus on one paragraph for a second. You note that our own standard of living depends on us "...joining our trading partners and international institutions in helping stabilize the economies of Asia." You also note that we would "...threaten the source of much of our own sustained economic growth if we were to cede our role as a world leader or backslide into protectionism." I take it that means you strongly endorse the IMF approach that the Administration has proposed to Congress?

Mr. GREENSPAN. I do, Mr. Chairman.

Mr. LEACH. Second, you have in your past testimony been a little bit inebriated with the exuberance of the skepticism of the market. But in your statement today, you say that 12 or 18 months hence some of the securities purchased in the market could be looked upon with some regret by investors. So what you are suggesting is that in the next 18 months some stocks may go down, not necessarily that the market as a whole may decline; is that correct?

Mr. GREENSPAN. I am basically saying that at this stage, when you look at all the relative value relationships, which get to the questions of equity premiums in stocks, the rate of return that is required for equity investments is lower than it usually is. It is not outside of any credible range, but it is in the lower end. Similarly, yield spreads on various types of private bond issues are relatively low.

And, if you take a look across the spectrum of commercial bank lending, spreads are low. In other words, the notion of benevolence which has been continuously spreading during this 7-year growth in economic activity, much to the contrary of what history tells us, is creating a state in which one must presume that, if history returns, we will find these spreads will start to open up.

And I am mainly concerned, frankly, in this particular paragraph, about the issue of bank lending. Banks never make bad loans on purpose. Nobody does. But what we do find, in retrospect, is that a higher proportion of loans which turn out to be bad are made at times when yield spreads are low and risk premiums are perceived to be exceptionally low. There are very few bad loans that are made when the economy is not doing well. It is only in

periods, such as today, that those tendencies are higher than normal.

Mr. LEACH. I appreciate that.

One final question. In terms of the subject of preemption, we discussed monetary policy here, and now I want to get your advice on fiscal policy. Is it good preemption at this time to increase by three to five times the inflation rate the Federal spending, or is it greater preemption to try to keep a little greater discipline in Federal spending given what might be new forces on the economy?

Mr. GREENSPAN. Mr. Chairman, when we look at the budget projections we should have some contingency plans. Those which are demographically determined are the ones which we can have some reasonable assurance of, and what we do know is that our retirement demographics are changing in a really quite dramatic way as we move into the latter part of the next decade and into the second decade of the 21st Century, and the pressures on spending are going to be really quite significant.

And it is important for us, as I indicated elsewhere, to recognize that it is far easier to pass legislation today that focuses on a period 10 years from today than it is to wait for 5 years or 6 years and then find that the politics become unbelievably difficult.

I think it is crucially important that if we are going to make significant changes in various different elements of what I would call retirement and demographic spending that we end up with the necessity of communicating to the people who are the recipients sufficiently well in advance what they can expect from Government so that they can plan their lives accordingly. I think we owe it to that generation.

Mr. LEACH. Well, I appreciate that, Mr. Chairman, that was not exactly the answer to the question I asked, but it was a better answer than it was a question. So thank you very much.

Mr. FRANK. We will give you unanimous consent to redo the question in the record if you want.

Chairman CASTLE. Thank you, Chairman Leach.

Mr. LaFalce.

Mr. LaFALCE. Thank you, Mr. Chairman.

Chairman Greenspan, everyone is concerned about the declining values of various currencies *vis-a-vis* the dollar. And I alluded in my opening comments to the probability that these countries might like to see the United States lower their interest rates and that would perhaps help them stabilize their dollars, increase the value of their currencies. It would minimize the flood of imports coming into the United States. We probably would be in a better position to do that than ever before because of the fact that we are going to get a flood of imports now minimizing inflation risks.

I am wondering what other countries are saying to you about this and to what extent you are factoring this into the judgmental equation?

Mr. GREENSPAN. As I have mentioned many times in the past, there are innumerable things which converge and determine what monetary policy is. And even as we think our way through various implications with respect to international financial forces, it is ultimately the long-term benefits of the American people which are at root, the determinants, of our policy. So to the extent that we rec-

ognize that the international financial system is much to our advantage—because it has facilitated trade and there is just no question that the expansion of trade has been a major factor in rising standards of living around the world, and in the United States especially—we have from our general purview a very considerable interest on what is going on with respect to our trading partners.

I have not heard any real discussions about the effect of American rates on other exchange rates because there have been so many other profound forces involved. Mr. LaFalce, you raised the Canadian issue in your opening remarks. The weakness—

Mr. LAFALCE. The Canadians raised their interest rates recently, didn't they, as a means of coping with the declining value of their currency?

Mr. GREENSPAN. Yes. And, in fact, they have succeeded. The Canadian dollar is up about 3 percent from where it was at the bottom. But the primary cause of the Canadian problem, as best I can judge, was the Asian deterioration. Because the Asian deterioration contributed to a major weakness in international commodity prices and the Canadian economy.

Mr. LAFALCE. If you are looking at it from the period of the last several months, yes. If you are looking at it from the period of the last several years, no.

Mr. GREENSPAN. That is true. I am saying the short-term recent Canadian experience has been essentially a reflection of the weakness in commodities which the Canadian economy is so dependent on. And that, as you point out, has had a significant effect on numbers of American competitors along the border. For example, we compete across the Canadian border in virtually the same types of materials.

Mr. LAFALCE. I am very sensitive to this bilateral relationship because we have more trade with the country of Canada than we do with the entire European Community. We have more trade with the province of Ontario than we do with the second largest trading company we have, Japan. We trade more with Ontario than we do with Japan. And so, the relative value of our two currencies is extremely important. And whether they are raising their interest rates, that is going to have consequences on their economy and on ours. And I was just wondering if maybe we should not be thinking of lowering our interest rates.

Let me point to one last question, Dr. Greenspan. We tend to focus in on large macro figures to be sure. But to what extent does the Federal Reserve Board have figures with disparities that exist within our economy, disparities not only with respect to wages—and I think we probably do have some fairly decent data on that—but also disparity with respect to wealth?

And you have spoken considerably about the stock market recently. I am wondering to what extent this rise in the wealth of those individuals who are participating within the stock market may well be bringing about disparities within the United States economy, and I am wondering what policy implications exist now or in the future on account of that, and I am wondering to what extent the Federal Reserve is studying this and thinking about it?

Mr. GREENSPAN. Well, we do, as you know, periodically survey households and others to get a general sense of the distribution of



wealth. It is not the direct purpose of a lot of these evaluations, but it turns out that we have a fairly good insight as to what is going on. And, as you know, we do have aggregate data on balance sheets of all aspects of the American economy and we can see this extraordinary change as it occurs as a consequence of the huge increase of equity values in our system.

First of all, the one thing that is very apparent from the data that we have is the extent to which equity ownership, both direct and indirect, has risen very substantially in this economy. The extent of mutual fund ownership, 401Ks and just plain equity purchases, has really been very large. And the proportion of households which own stocks directly and indirectly, as you know, has gone up a very significant amount in the last 6 or 7 years, so that there is a substantial amount of participation really by a very large part of the society. And hence, the rewards have been fairly widespread.

Nonetheless, there is no question because of the inherent distribution of wealth *vis-a-vis* incomes, that as equity values have risen substantially relative to the values of homes, which has historically been the major place of where middle income wealth has been, we have had a spreading of the wealth effect in this economy. How significant it is is not easy to tell.

Mr. LAFALCE. When you say, "a spreading of the wealth effect," you mean a growing disparity?

Mr. GREENSPAN. Growing disparity. Dispersion is increasing. The disparities have increased. However, the disparity is not that one gains and the other loses; it is that one is gaining more than others.

Mr. LAFALCE. At least for those participating within it. There are still sizable segments of the populous that are not participating.

Mr. GREENSPAN. Yes, as I have indicated before this subcommittee before, and it is an important issue, there are noneconomic questions which we do have to be terribly concerned about with respect to an economy in which you have very great disparities of wealth. And we are certainly nowhere near where we were in generations past. But I do feel uncomfortable when I see data which suggests increasing disparities, because I know it creates tensions in societies which are not healthful.

Mr. LAFALCE. Dr. Greenspan, I do not have the time to pursue this now. My time has expired. I would like to pursue this with you subsequent to this hearing in greater detail. And I would also love to see the Federal Reserve Board sponsor some symposium or conference regarding the issue of the growing wealth disparity in the United States and its social public policy implications. Because I think in the future they are going to be profound.

Chairman CASTLE. Thank you, Mr. LaFalce.

Mr. Lucas.

Mr. LUCAS. Thank you, Mr. Chairman.

Chairman Greenspan, could we step back for just a moment and visit about the comments that you made about the potential impact of the financial situation in Asia and the Western Pacific countries would have both positive potential on the demand for labor and other things in the United States, but also along the lines of the comments about the Canadian wheat growers, what the potential

impact could be on those segments in our economy that are very export-driven into the region, agriculture being close to my particular heart.

Mr. GREENSPAN. Well, the first thing that we have seen with respect to the Asian problem is not so much a huge acceleration of exports from those countries into the United States. What we are seeing is somewhat surprising: namely, there is a very large adjustment, but it is occurring as a consequence of sharp reductions in imports. And as a consequence of the inability to effectively import, it has curbed exports out of Asia even though, with their depreciated currencies, one would think that their competitive advantage had been materially increased.

So that what we are seeing are data from Southeast Asia, East Asia generally, which suggest a fairly substantial swing in trade balances, current account balances, but very largely from declining imports, which means it is going to be impacting lower exports from the United States. We do not as yet see significant impacts.

We do see, for example, that a number of agricultural areas, in wheat and apples and numbers of other agricultural commodities, especially in the West, have been severely impacted. We do not as yet see a very substantial impact throughout the export-producing areas of American manufacturing.

What we do see, as I indicated in my remarks, is that the effects are more materially at this stage in price, not in volume. In other words, American exporters are finding that they are having price problems more than volume problems, which in part is a consequence of the Asian experience.

Now, I do not know yet, and I do not think anyone has any way of really figuring out exactly how this is all going to evolve. The trauma has been so great there that unless we can have a fully effective insight into how this impacts among the countries of East Asia and Japan, it is not going to be possible for us to get a really good fix on what the impact is back here. That is the reason why I say that we do not yet have a really useful sense of what will happen.

Mr. LUCAS. But it is reasonably safe to say that, in addition to Canada, there are places like Australia and New Zealand that compete with us in those markets and that, with the conditions you have just described, it will make it probably more competitive for all of us trying to move pricewise, move our products into that region and, yes, that will play out one way or the other?

Mr. GREENSPAN. Yes. Obviously, in the wheat market, for example, we basically compete with the Canadians and the Australians. And both being commodity-based economies, have had their exchange rates fall, *vis-a-vis* the American dollar, which, since we are dealing with a homogeneous commodity like wheat, gives them a competitive advantage over American shippers.

Mr. LUCAS. Change shoes for just a moment. The comment made earlier, I believe, by the Chairman in regard to the savings and cost of interest rates because of the balanced budget, is it not also reasonable to assume that now that we are in the beginning of, I guess, year four of a Congress that is attempting very strongly to restrain the growth in the Federal spending, when I came in in 1994, we were borrowing a couple-hundred-billion dollars a year to

fund the Federal deficit. If it was possible to have this kind of expansion and possible to be in the same budget situation we were in in previous years, wouldn't that produce a huge demand out there for capital to do what the economy has been doing and at the same time do the Federal spending things that were done in the past? Wouldn't that have led to industries that certainly would not have gone down?

Mr. GREENSPAN. Are you saying if the deficit would start back up it would impact industries? Oh, most certainly.

Mr. LUCAS. Because you cannot fund all those capital demands both in the private and public sector without seeing the cost of capital go up.

Mr. GREENSPAN. Right.

Mr. LUCAS. So, as one Member, let me say I do enjoy the prosperity that we are in.

Thank you, Mr. Chairman.

Chairman CASTLE. Thank you, Mr. Lucas.

Mr. Hinchey.

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

Mr. Greenspan, thank you very much. This has been a very interesting session. I appreciate these semiannual meetings very much. But I continue to be impressed with the ability of the Fed to concentrate almost exclusively on one aspect of its responsibility—for example, inflation—to the detriment of other aspects of the economy.

It seems to me that one of the things that you ought to be concerned about is the need to increase demand. There is an oversupply of virtually every manufactured item around the world. As you just pointed out in your discussion of commodities, we are seeing commodity prices drop dramatically as a result of oversupplies in Australia, New Zealand, and Canada because of the collapse of the market for those agricultural commodities in East Asia. That is having a significant effect on our agriculture commodity prices here in the United States. Oil prices are falling dramatically, in part due to weather conditions, but also due to a decline in demand.

You expressed the belief in your testimony that steps being taken by East Asian countries seem adequate to deal with their problems. As we observe those steps, we can be comfortable in the belief that what they are doing will ameliorate whatever negative effects their economic troubles might otherwise have on our economy. Others would disagree with that.

For example, steps being taken by Japan are regarded as wholly inadequate to increase their domestic demand. Our own Secretary of the Treasury among others, has expressed that view. Without an increase in domestic demand in Japan, producers in East Asia are going to increasingly look at the American economy as the market of last resort. European countries, certainly, are not presently in any condition to absorb the excess production that is coming out of East Asia and elsewhere.

I wonder what we might do in order to deal with the demand side of the equation. We have concentrated so heavily on the supply side, both domestically and in terms of international development around the world. But we have not done enough to increase de-

mand. We have not done enough to make sure that people have the resources to participate fully in the economy. And we see the effects here in our own country.

A number of Members have pointed out the fact that we are seeing increasing disparities of wealth and income in spite of the fact that there have been some reversals during the Clinton Administration. Workers are only just beginning to experience some benefits of the growing economy. Nevertheless, we are not nearly where we ought to be.

So what really is your position with regard to the financial crisis in East Asia? What are its expected effects on the American economy? What can we do to increase demand? And why do we still have real interest rates that are high by historical standards? And I use that phrase "high by historical standards" because that is the phrase that was used at the meeting of the Federal Open Market Committee last August when members admitted that real interest rates are, in fact, high by historical standards.

Mr. GREENSPAN. Well, Mr. Hinchey, let me start with the last question and work back. Statistically, it is a fact that real interest rates are higher now than they have been on the average of the post-World War II period. They are not high by standards of the last 15, 20 years.

Mr. HINCHEY. During that period, Mr. Greenspan, we have had excessively high interest rates. I am talking about high by historical standards, not within that narrow timeframe.

Mr. GREENSPAN. No. I was about to say why it is relevant. We had a different type of financial system when we had Regulation Q, when in effect there were limits on to what extent interest rates could rise for deposits. And that created a different response in short-term interest rates to economic activity. There are those who argue as a consequence that using the data prior to the last 20 years is to average a short-term interest rate effect over two different types of economies. But leave that aside. Because it really doesn't matter.

The crucial question of whether or not real interest rates are biting or not is to look at what happens to interest-sensitive areas of demand within the economy, and what we see today is that despite the fact of where real interest rates are, the interest-sensitive areas of the economy—namely housing, motor vehicles, certain consumer elements of spending—are all doing exceptionally well. And it is very hard to find a case in which real interest rates are significantly retarding demand in the United States at the moment.

The one area where we are arguing that the demand is likely to run into some trouble is foreign accounts. Namely, we perceive and we are in fact projecting that there will be an easing off of demand as it works its way through the system as a consequence of events in southeast Asia. But it is not because of the fact that we believe real interest rates are high and, therefore, suppressing the economy. I just think there is no evidence of that.

Mr. HINCHEY. No. But the fact is that if you have that kind of effect taking place in East Asia, and you have cheap products being dumped on the American market—which is beginning to happen and which we can expect will happen increasingly—and if interest rates are high by historical standards, that is going to complicate

the economic situation for the American economy and particularly for American workers.

Mr. GREENSPAN. Well, Mr. Hinchey, I would say that we would respond one way or the other to whatever is going on. As I indicated in my prepared remarks, we are, in effect, looking at two countervailing forces and it is not clear how the balance is coming out.

What I am saying is that the policy that will be implemented by the FOMC, as it always is, will be responsive to events as they emerge. But I do not think it is appropriate.

Mr. HINCHEY. Well, I am used to hearing you say that it is necessary to anticipate events, not wait until they emerge, because there is an 18-month or so lag time.

Mr. GREENSPAN. Actually, 18 months is more related to inflation. We have shorter lags in certain other aspects. But look, it is quite conceivable to me that even though we would like to be preemptive, we may not be able to be preemptive largely because there are certain types of events in world economies which are very difficult to anticipate.

What I certainly would think would be a mistake would be if we take a preemptive move in either direction which turned out to be 180 degrees wrong. That would worsen the situation rather than make it better. So we may find ourselves being less preemptive than we would like to be. I would say the optimum policy is to be as preemptive as we possibly can, but we may not always be able to implement optimum policy.

Chairman CASTLE. Thank you, Mr. Hinchey.

Mr. Metcalf.

Mr. METCALF. Thank you, Mr. Chairman.

Washington State is the State most dependent on trade with Asia. You stated today support of Secretary Rubin and replenishment of the IMF. Can you specify potential problems that might affect our markets in the short term or the long term from failures of Asian economies if the IMF is not replenished?

Mr. GREENSPAN. Well, as I said in earlier testimony, I believe that if we were to do nothing at this stage with respect to IMF funding, the likelihood is that we will get through reasonably well and the probability is definitely significantly better than 50/50 that that is the way that it would evolve.

The reason why I find myself in strong support of Secretary Rubin and his particular requests is that the low probability that we may be wrong on that is a probability which has very large potential consequences.

I would much prefer that we give the authority to the IMF, to effectively give them a letter of credit, which may not have to be used and, indeed, probably will not have to be used, than not have those resources available in terms of crisis when they would be needed. In the low probability that they would be needed, I do not believe that the Congress would have adequate time to move through authorizations which would be sufficiently useful.

Mr. METCALF. Thank you. This is on a totally different subject, sort of off the wall. But as the stock market reaches dizzying heights, does that not represent in a sense, and just in a sense, an

increase in the money supply, and is the Fed concerned specifically about that?

Mr. GREENSPAN. That is an interesting question, because what we're dealing with is distinctions between money and credit in certain respects or claims; and the issue of asset value changes, which clearly is not the same thing as an increase in the money supply, is nonetheless interrelated.

What we try to do, with hopefully some success, is to be able to understand the interrelationships between money on the one hand, asset value changes on the other, and how both impact on the real economy. I wish we knew more about a lot of these things. They continuously change and we continuously get proxies for what we think real money is and find out that this is not a useful proxy.

The one thing I will say is that all of these elements are essentially monetary phenomena and how money is produced in this economy has profound effects not only on the United States, but on the American dollar and as a consequence of the whole trading system.

Mr. METCALF. Last quick question.

The Fed for a long time was very careful to try to regulate money supply and it seems to me that that is not the case now; that maybe they have given up or it is impossible or whatever. Just a quick comment on that.

Mr. GREENSPAN. We truly have problems with respect to using M2 specifically in a way we used it in the past as a reasonably good indicator of where the economy was going or where spending was likely to go because the relationship between the nominal value of the gross domestic product and M2 was reasonably stable and forecastable. That has changed. But nonetheless, the central bank's fundamental purpose is to maintain a stable financial system.

Unless we recognize that the value of the currency is very crucial to what occurs in the economy, we can find ourselves as central bankers creating either too much or too little in the way of money supply. And even though we may not at this particular stage feel very comfortable in using the specific values of M2 to make judgments about how that is going to impact on the economy, that does not mean we are wholly indifferent to what is happening to money supply or bank credit or all of the other variables in the system of which we have so many difficulties.

Mr. METCALF. Just a quick last question.

Apparently the Fed is creating cash, cash money, Federal Reserve notes, at an increase of about \$3 billion a month. I read an article, it may not be right, but about \$3 billion a month. And that seems to me surprising. Is that because of so many more cash machines?

Mr. GREENSPAN. Creating what? I missed a word that was used.

Mr. METCALF. In the creating of more cash. The dollar bills, the Federal Reserve notes. It seemed to me that I read in an article that said about \$3 billion a month increase.

Mr. GREENSPAN. Yes, that is about right.

Mr. METCALF. And what is the reason for that? Is that because of the increasing number of cash machines? And then I can understand it. If it isn't that, then I do not understand.

Mr. GREENSPAN. Part of the problem, remember, is that a very substantial part of the currency that we issue is held abroad, and when there are crises abroad, really quite remarkable things that the American dollar—currency, cash—has got a terrific demand and it is very hard to know in general where the demand is coming from.

We do, after the fact, know what has been shipped to various countries and the like. But I am sure we do have a very substantial increase in the ability to create, or I should say distribute currency through ATMs domestically. But I would doubt whether that is a big element because so much of our cash demand, currency demand, is foreign.

Mr. METCALF. Thank you, Mr. Chairman. And I will write you a letter. I'd like to get a list of how much we ship to various countries and I will write you a letter on that. Thank you very much for your testimony.

Chairman CASTLE. Thank you, Mr. Metcalf.

Mr. Bentsen.

Mr. BENTSEN. Thank you, Mr. Chairman and Chairman Greenspan. Reading your testimony and reading the report of the Board, it would appear that for the most part, things are pretty good and in reading the wire story of your testimony this morning, it indicates that nowhere in there did you trip the wire that caused the market to be concerned that maybe the Fed is going to tighten.

And if you look at the semiannual report that you have provided us, everything in here seems to be coming up quite good from the standpoint of inflation. Labor costs still are not out of control, interest rates are down, interest cost to businesses are down. Obviously, we know that the Government expenditures are coming down below the rate of inflation. The income to businesses, the corporate sector income, is good. At the same time, we are starting to see real wages rise for American workers.

And in your testimony you comment that the Asian storm clouds in effect are perhaps going to provide us with the regulator that we need in order to keep inflation under wraps. And even I see in the back that your previous concerns about price earning ratios in the equity markets after 3 years, a rational exuberance has apparently become mainstream and now and maybe that will continue on. I agree with your comments that this is all good and it may get bad. But I guess, from what you are telling us, nobody really knows for certain.

I do have a couple of questions for you. And the first is, you talk a lot about productivity growth; and when you testified six months ago, and I think in the prior testimony to that, you indicated that you or the Fed were beginning to believe that we were seeing a jump in productivity growth.

Now, we have the statistics, and it is clear that we have seen a dramatic rise in productivity growth over the last two years, which is quite beneficial not only to workers today, but probably to workers in the future. Do you believe that trend will continue?

And second of all, from reading your testimony, it would appear that the only bottleneck that is occurring, because in your report you also indicate that there is sufficient capacity in the manufacturing sector more so than in previous expansions, but the only

bottleneck that would appear is the availability of skilled labor. And would it now be time that when we have been talking about the need for increasing capital formation that we also look at human capital potential and the fact that maybe looking beyond capital gains tax treatment policy it is time to start looking at education policy and further enhancing that?

And I would also ask if you could give some correlation. I recently looked at some statistics that came from the Council of Economic Advisors that indicated if you look at the past three expansions, including the one we are currently enjoying, that at the top of the expansion, and I do not know whether we are at the top of the expansion or not at this point in time, we saw inflation go up.

Now, obviously in the late 1970's period we did have the second oil price hike that exacerbated the situation. But if you look at rates of 1987, 1988, 1989 starting to go up into the 6 percent range and yet now we see a period of rates coming down 1995 to 1996. So is this a different trend than what we have seen in previous expansions since the Second World War or in the 20th Century?

And the last question I would ask, and I hope you testify before the Budget Committee. We held one hearing in the budget this year and maybe that is all we are going to have, but I hope you do testify. We have had some interesting discussions with the head of the CBO regarding debt held by the public and total debt held owed the Government. But I would be interested in your comments.

Now, that we are in a period of at least annual budget surpluses or operating surpluses, what, in your opinion, is, if at all, the appropriate level of debt-to-GDP?

Mr. GREENSPAN. Congressman, first of all, let me just say that I fully subscribe to your notion that the issue of human capital is becoming increasingly evident from the types of bottlenecks that are emerging. And I wouldn't only put it to skilled labor. I would say it is skills all across the board. There are really pressures virtually everywhere, and we have seen a very fairly dramatic increase in on-the-job training, a very considerable increase in number of people going back to college or starting college in their mid-to late twenties to pick up the skills that they perceive to be required to maintain themselves in work throughout their working careers. So that you are beginning to see a substantial move of the educational resources going to very specific types of skills which are required in this increasingly high-tech economy. That should be encouraged, and it is clearly something which market forces themselves are really beginning to have a significant impact on.

It is hard at this stage to know precisely to what extent the evident acceleration in productivity is a major or a modest change in the long-term underlying trend. We will not know that for a number of years. But in my judgment, and not everyone shares my view on this, there has been a marked change in the long-term trend. I do not think it is a very large shift, because that is hard to engineer in this type of economy, but I do think it is a meaningful one, and I do think it is going to have an effect on our growth rates in the future.

Mr. BENTSEN. Do you think it is a sustainable trend?



Mr. GREENSPAN. Part of it is, yes. Clearly if we go into a degree of economic weakness in any period ahead, what historically happens is that fixed costs all of a sudden become a big problem, and productivity slips. But what we are talking about is the longer-term growth, and what productivity is at successive peaks in the business cycle. The evidence here is that the cyclically-adjusted productivity trend has moved up.

With respect to the debt-to-GDP, there are numbers of ratios which people use. Both numbers are too large to be useful to take a ratio one to the other and get some really useful conclusions. So I would say that, obviously, the extent to which that implies interest payments—and the interest payments must be coming out of the income that is implicit in the GDP—there obviously are relationships. But I would hesitate to give a specific number.

There is difficulty in any particular ratio of one to the other. I think it is too aggregative a set of numbers.

Mr. BENTSEN. With the Chairman's indulgence, though, I guess the question, and we will have to debate this in the future, is, is the appropriate number better than zero?

Mr. GREENSPAN. You mean the aggregate level of debt?

Mr. BENTSEN. I guess the question is should there be any debt at all, or, in your opinion, there should be zero debt?

Mr. GREENSPAN. You are talking about Federal debt?

Mr. BENTSEN. Yes.

Mr. GREENSPAN. That is an interesting academic discussion, but I do not think it is something that is likely to be relevant relatively soon.

Mr. BENTSEN. I agree with that as well.

Mr. GREENSPAN. The evidence does suggest, however, that, as the Federal debt-to-GDP ratio falls, interest rates tend to also move in that direction. But I am not sure what the cause-and-effect relationships necessarily are.

But going to the other extreme, there is no question that at some point countries get themselves into levels of debt-to-GDP which are marginally explosive. In other words, you can get to a point where you have a progressive debt cycle, where the debt goes up, the interest payments go up, which means that the deficit goes up because interest payments become very large, which means the debt goes up, and you can have an unstable acceleration of debt. And indeed we have seen this on innumerable occasions in a number of emerging economies which have run into a debt barrier.

But we, the United States, are nowhere near there at the moment. And if you are asking me would it be better to get our debt down than up at this point, I would say the answer is yes, because that would be far more effective for long-term economic growth than anything I can think of.

Mr. BENTSEN. Thank you, Mr. Chairman.

Chairman CASTLE. Dr. Paul.

Dr. PAUL. Thank you, Mr. Chairman. I have two brief points to make, then I have a couple of questions.

First, your comment about the deficit is very important in keeping interest rates high. It seems to me that the level of Government spending has to be even more important, because if you have a \$2 trillion budget, and you tax that money out of the system, that

is very detrimental, just as detrimental as if you borrowed out of the economy. So I think the level of spending is probably more important.

And as a follow-up to the question from the gentleman from Washington on the currency, we certainly do export a lot of our currencies. More than 60 percent ends up in foreign hands. And it serves a great benefit to us because it is like a free loan. It is not in our own country, it does not bid up prices, So we get to export our inflation. At the same time, they are willing to hold our debt; central banks are holding \$600 billion worth of our debt. So again, we get to export our inflation, and the detriment is the consequence of what we are seeing in Southeast Asia.

But the real problem, though, is not the benefits that we receive temporarily, but the problem is when those dollars come home, like in 1979 and 1980, and then we have to deal with it because it is out of your hands, this money has been created. So I think we should not ignore that.

But my first question has to do with Mexico. It is bragged that we had this wonderful bailout of Mexico three years ago, and yet Mexico still has some of its same problems. They have tremendous bank loans occurring right now. The peso has weakened. Last month it went down 5 percent. Since the conditions are essentially the same, my question to you is when do you anticipate the next currency crisis in the Mexican peso?

And then another question that I would like to get in as well has to do with a follow-up with the gentleman from Massachusetts dealing with the inequity in the distribution of income. And in your statement you come across almost hostile or fearful that wages might go up. And I understand why you might be concerned about that, because you may eventually see the consequence of monetary inflation, and it will be reflected in higher wages. But where has the concern been about the escalation of value of stocks? People are expecting them to go up 30 percent a year. They are benefiting, but labor comes along and they want to get a little benefit. They want to raise their salaries 5 or 10 percent. Unlike the other side, I think the worst thing to do is interfere in the voluntary contract and mandate an increase in wages and give them minimum wage rates. That is not the answer.

But to understand the problem I think is very important. This is a natural consequence. They want to share as well, and this is a natural consequence of monetary inflation is that there is an equal distribution of income.

I would like you to address that and tell me if there is any merit to this argument and why you seem to have much greater concern about somebody making a few bucks more per hour versus the lack of concern of a stock market that is soaring at 30 percent increases per year.

Mr. GREENSPAN. Let me say that when I believe that there are trends within the financial system or in the economy generally which look to me and to my colleagues to be unsustainable and potentially destructive of the economic growth, we get concerned.

I am not aware of the fact that if I see things which I perceive to be running out of line, that I have not expressed myself. At least some people have asserted that I have expressed myself more often

than I should. And I have commented on innumerable occasions, as I have, in fact, done today, that there are certain values in the system which by historical standards, are going to be difficult to sustain. And I am concerned about that, because it potentially is an issue which relates to the long-term values within the economy.

I have no concern whatever about the issue of wages going up. On the contrary, the more the better. It is only when they are real wages, whether they are wages which are tied to productivity or related to productivity gains. But wages which are moving up more than the rate of inflation, for example, I think are highly undesirable, and indeed to the extent that we do not get real wage increases, we do not get increases in standards of living. So I am strongly in favor of any increase in real wages and not strongly in favor at all of wages that go up and are wiped out by inflation.

Dr. PAUL. But the real wage is down compared to 1971. You have a little flip here or so, but since 1971 it is down.

Mr. GREENSPAN. Part of that issue, Congressman, is a statistical problem. I do not believe the real wage is truly down since 1971.

Dr. PAUL. But we cannot convince our workers of that. At least in my district they are not convinced by some statistic.

Mr. GREENSPAN. Let me put it this way: Productivity after the early 1970's flattened out fairly dramatically, and that slowed real wage increases very dramatically as well. And to the extent that the sense in which earlier generations experienced significant increases in standards of living during the 1950's and 1960's and the early post-World War II period, of course productivity was advancing rapidly. That came to a dramatic end in the early 1970's and persisted until very recently. And if people were concerned about that, they should be, and they should have been, and we should have been, as I think we were.

Dr. PAUL. Do you have a comment on when the next Mexico crisis is going to occur?

Mr. GREENSPAN. Yes. I am not concerned about a crisis in Mexico at this particular stage. I think they are doing reasonably well. The peso at this particular stage is floating appropriately. I do not see any immediate crisis at the moment. And while I do not deny that, as in any country, things can go askew, they have come out of the 1995 crisis frankly, somewhat better than I expected they would.

Chairman CASTLE. Thank you, Dr. Paul.

Mrs. Roukema.

Mrs. ROUKEMA. Thank you.

Mr. Chairman, did I hear correctly your response to Mr. Metcalf concerning his export-related State of Washington State? Of course, New Jersey is in a very similar situation. And of course we heard your reference to the agricultural needs with respect to Mr. Lucas, all related to IMF and the Asian contagion.

I appreciate your response to Mr. Leach in strong support for the IMF letter of credit, as you put it. I would like to know, because I am very concerned that the Congress might not feel the urgency that I think we should be feeling, your opinion regarding the timing of congressional action and its relationship to forestalling, if possible, further economic disadvantage with respect to trade deficits. I am particularly interested in your comments regarding the effect on our export markets.

Mr. GREENSPAN. As Secretary Rubin said, it may have been before this subcommittee in fact, the amount of free funds available in the IMF after we adjust for the fact that members of the IMF have automatic claims coming from their quota, when you get the net number, it is a relatively small number, meaning that what has been committed to date there are funds for, but if a substantial new problem arises, there may not be. And I think that would be unfortunate. So it is that particular contingency we are endeavoring to cover.

Mrs. ROUKEMA. That is the letter of credit you were referencing?

Mr. GREENSPAN. Yes. Remember that if it is not used, for example, if our quota, or everybody's quota goes up 45 percent, which was indicated in the request of the Secretary, if that happens and there are no crises or no particular problems that are emerging, then it has no impact, in the same sense a letter of credit which is not drawn has no impact. But even if it is drawn in part, it is a highly collateralized loan; it is not an expenditure. You know, we are not buying something, we are making a loan with fairly significant collateral, and over the past 50 years we have always gotten paid back, and there is no reason to expect it to be otherwise.

Indeed, in the late 1970's, we were one of the borrowers. So, I mean, it is not as though the United States is always lending and everyone else is always borrowing. There have been occasions where that situation has been reversed, and we needed the assistance.

Mrs. ROUKEMA. I am sorry, I didn't mean to interrupt you.

Mr. GREENSPAN. Go ahead.

Mrs. ROUKEMA. Your thoughts regarding the timing of Congressional action on IMF funding?

Mr. GREENSPAN. I would say the sooner the better. Obviously, I am saying at the moment I do not see any immediate requirement. That is the problem in the sense that it is not going to be anticipatable, and we are not going to be able at one point to say, "The IMF needs funds to stem a particular crisis, a crisis which would rebound negatively on the United States, but we do not have resources to move," and I would find that most undesirable.

Mrs. ROUKEMA. Well, I thank the Chairman. I appreciate his contribution. I think there are too many people that are demagoguing the issue, making this sound as though we are bailing out big banks or bailing out foreigners, and that is not the case. This is our own economy, and we benefit significantly from exporting to foreign countries.

Mr. GREENSPAN. That is correct.

Mrs. ROUKEMA. I thank you for that observation.

Now, we may not have time for this, or you may choose to defer this question, but in talking about the budget and balancing the budget and the so-called surpluses, I indicated in my opening statement that I was hopeful that we were not going to go on either a spending binge or a tax-cutting binge. You addressed very adequately the spending issues and the paying back the debt issues. Would you like to make any comment about cutting taxes? And if so, what types of tax cuts would you believe to be most favorable?

Mr. GREENSPAN. Well, I have said before this subcommittee for 10 years or more that I am strongly supportive of keeping marginal

tax rates low and, hopefully, the capital gains tax at zero. I still support that as a general proposition and under all conditions, largely because I think that in the long run that would create the highest level of incentives for the overall system.

I would not, however, at this particular stage be moving aggressively to dispense or disperse the pending—I use the word “pending”—unified budget surplus, because it is not clear that we have got one. In the last 12 months, actually ending in January, there was a very small budget surplus, but we have not yet seen anything which resembles something which we feel secure with.

Until we believe we have got a chronic surplus, and until we address the fact that we have got a very large pending outlay scheduled for both Social Security and Medicare as we move into the period 2008 and beyond, and until we address the implications of all of that, it is important for us to think through, before we take any actions, exactly where we want our fiscal stance to be 10 years, 15 years out.

I would very much hope that we could contain expenditures and cut taxes, because I have always argued that the only way that you are going to fundamentally keep deficits down or surpluses up is by restraining expenditures. And I trust that this surplus that seems to be emerging has not softened our order to contain outlays, which I think has been one of the most important elements in fiscal policy that this Congress has been involved with in recent years.

Mrs. ROUKEMA. I thank you. You have confirmed yourself as a traditional fiscal conservative, and I appreciate that. Thank you so much.

Chairman CASTLE. Thank you, Mrs. Roukema.

Mr. Cook.

Mr. COOK. I certainly want to thank you, Chairman Greenspan, for your testimony today.

Following up on the question from the gentlelady from New Jersey, some have estimated that the Federal Government could operate at about a \$50 to \$100 billion surplus in fiscal year 1999. Let's just assume for a minute that that is true. Members of Congress, for the first time in a generation, would be faced with the challenge of what to do with that surplus.

In your view, which of the following would yield the greatest economic benefit in terms of growth, in terms of investment and incentive and even price stability: a tax cut involving the marginal rates to exactly offset that surplus, or using that \$50 to \$100 billion to pay down the \$5.5 trillion national debt?

Mr. GREENSPAN. It is a difficult call. In other words, I am delighted that if those are the two choices that we have, it is one of those choices which I think the policymakers would like to choose between, because both are very positive toward the economy. I do not think we know the answer to that question. Both do work toward economic growth. The third possibility, raising outlays, does not.

And at this particular point, I would be more inclined to allow the unified budget surplus to accumulate at least for a while because there is no urgency to dissipate it. In other words, I know of no economic downside of allowing the surplus to run for a while.

Once you perceive that you have a structural surplus, you could always cut marginal taxes and capital gains taxes and the like, and I would under those conditions. But I do not think we ought to be moving until we are sure we have got the surplus in hand. It is one thing to forecast; it is another thing to achieve it.

Mr. COOK. Sure. But assuming that we do, and if we did use that money for a tax cut, it would still be true, would it not, that our national debt as a percentage of GDP would probably continue to shrink even if we were not paying that down?

Mr. GREENSPAN. That is true.

Mr. COOK. One of your objectives.

Mr. GREENSPAN. Sure. Because, obviously, if the budget were in balance, meaning the total debt to the public were not undergoing change, but the GDP nominally was rising, then obviously with a numerator which does not change and with a denominator which is rising, the ratio does fall. And that is something that we should endeavor to accelerate in part by picking up part, at least, of the surplus rather than dissipating it for any reason before we actually see it.

Mr. COOK. And without engaging in new spending programs, I guess there is another alternative use for that surplus, you know, a budget surplus, and that would be in dedicating it to the Social Security Trust Fund or doing what many of my Salt Lake City constituents have called our office and asked us to do: take Social Security off budget, protect it totally as a trust fund. What is your opinion of that approach or that alternative?

Mr. GREENSPAN. Well, I have always been supportive of the issue of privatizing a significant part, if not all, of the Social Security system. The issue of the bookkeeping of whether in the current system we include it off or on budget is useful for analytical purposes, but from the point of view of the economy, we have found that the unified budget is the one which seems to be most closely tied to economic effects. And in that context, while certainly taking Social Security off budget certainly gives a much better insight into the degree of full funding that is going on in the Social Security system, it has no impact on the unified budget and, hence, no impact on borrowing from the public, which is the crucial element which affects economic activity.

Mr. COOK. Could I just follow up on that and ask if, based on what you just said, you would probably not agree with the President in terms of utilizing the surplus, every last dime of it, for Social Security Trust Fund purposes?

Mr. GREENSPAN. Well, actually—

Mr. COOK. I know it is two different things, but I almost sense that you do not share that opinion.

Mr. GREENSPAN. Leaving aside the issue of at what point you do it, but merely allowing the Social Security Trust Fund to pick up the surplus, since it is a bookkeeping entry, it does not have any effect. In other words, it effectively pays down the unified debt. And to that extent, there are values to be there.

In other words, it is a question of how you interpret what, in fact, he is doing. There are those who say there is a lot of spending in his budget, and then only after the fact is he doing that. That is an issue which the Congress has to address. But if you are mere-

ly asking the sole question of putting the unified budget surplus into the Social Security Trust Fund, that is an intragovernmental transfer which has no effect on the unified budget, and, consequently, if the unified budget is running a surplus, that the debt will be paid down, whatever you call it, you are doing with respect to that intragovernmental transfer.

Mr. COOK. Thank you.

Chairman CASTLE. Thank you, Mr. Cook.

I'd like to thank you, Chairman Greenspan, for being here today. I find it a little hard to believe that we are actually having a serious discussion of what to do with the Federal budget surplus. I wonder if, in your tenure of the Federal Reserve, if you thought that discussion would take place and you are seeing it today?

Mr. GREENSPAN. Never.

Chairman CASTLE. We do appreciate your being here and your attention to the questions we asked. We know that, like a lot of us right now, you are suffering from a cold. We hope you recover from that quickly. There may be questions individual Members may wish to submit in writing, and I hope that you and the people working with you could help us with that, if indeed that occurs, in getting us some answers to that.

With that, again, we very, very much appreciate your taking the time, and your staff taking the time, to be here as well. And we have listened to your comments, and hopefully the economy will continue to prosper.

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

Chairman CASTLE. This hearing stands adjourned.

[Whereupon, at 12:20 p.m., the hearing was adjourned.]

# **A P P E N D I X**

**February 24, 1998**

**(37)**



House Committee on Banking and Financial Services  
 Subcommittee on Domestic and International Monetary Policy  
 Humphrey-Hawkins Hearing with testimony from Alan Greenspan,  
 10:00 a.m., February 24, 1998  
 Room 2128 Rayburn House Office Building

Chairman Michael N. Castle's Opening Remarks:

The Subcommittee will come to order.

The Subcommittee meets today, to receive the semi-annual 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 Committee on Banking and Financial Services, Subcommittee on Domestic and International Monetary Policy. I understand that you are trying to shake a cold, so I hope that we do not overstrain your voice with our questions.

By either good fortune, good governance or a combination of the two, the country appears to be headed for a balanced budget in a period of near stable prices and continuing prosperity. Since we would surely be blaming the Fed if the economy was on the skids, we should accord you the credit you undoubtedly deserve for a well orchestrated monetary policy.

Mr. Chairman, I am increasingly persuaded that responsible spending by Congress and the Administration go hand in hand with successful monetary policy. I do not doubt that just as a cascade of bad news feeds upon itself, continuing indications that price stability is being achieved tends to reinforce your efforts and help to convince the market that inflationary fears are without merit. More to the point, inflationary expectations have been so suppressed that we have begun to hear the "D" word used by certain pundits who posit Deflation as a real risk. Am I safe in assuming that you do not share these fears.

The current Asian economic crises illustrate the dangers of superheated economies hitting the wall. I would be interested in how you view the prospects for additional growth at the 4% rate of the last quarters of 1997. The contrasting impact of lower earnings for U.S. firms with heavy investment in the affected regions of Asia and the potential for even lower priced imports to keep downward pressure on inflation must make it difficult to call the economy from quarter to quarter. Other echoes of the problems in the Far East are our continuing inflows of foreign capital at a rate of 2% of gross domestic product. The troubled Japanese economy remains a major cause for concern, but it is hard to believe that their government will permit that economy to tank.

In other words, we look to you to see what, if anything, we should be worrying about at this stage of the current period of extended economic growth.

Are we in a New Economy that can sustain continued growth without re-igniting inflation? Should the Federal Reserve worry less about inflation and focus more on allowing more growth to create additional jobs for Americans? Those are questions that will surely be raised even if they are addressed in your testimony.

I believe that this Congress acted responsibly in seeking a balanced budget; and that responsible fiscal policy must go hand in hand with monetary policy to support long-term economic growth. The marketplace first had to believe that the Federal Government was serious about balancing the budget before it could incorporate the possibility of arriving at this outcome as a factor in future planning.

The high relative value of the dollar seems to reflect both the leading position of our economy with regard to Europe and the Far East, and the flight capital that has arrived from areas suffering economic insecurity. As integration of the various world economies continues in the direction of a unitary world marketplace, the leverage exerted by the Federal Reserve grows accordingly. There are few obvious negative signals that might predict a turn of the cycle to a downward phase. What we all want to know is, how long can we continue with price stability and full employment?

As the economy continues to run ahead of what would be indicated by traditional models, we would welcome any insight you could impart about adjustments being incorporated into your model.

As always, we are delighted to have you with us and look forward to a lively discussion.

# Maurice Hinchey News

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FOR IMMEDIATE RELEASE  
February 24, 1998

Contact: Kiersten Stewart

## HINCHEY AGAIN CALLS ON FED CHAIRMAN GREENSPAN TO LOWER INTEREST RATES

WASHINGTON -- Citing the stable and, in some cases, dropping, consumer prices released today, U.S. Rep. Maurice Hinchey (D-NY) today once again urged Federal Reserve Board Chairman Alan Greenspan to lower interest rates.

"We have the lowest budget deficit in two decades, five years of steady growth, record low levels of unemployment, and no sign of inflation," Hinchey said during the House Banking Committee hearing. "The fundamentals of our economy are sound. Yet American workers are only now beginning to see any benefit from this growth. We need to pursue policies that help raise wages, so that more Americans can share in the benefits of this strong economy. To accomplish that and prevent deflation, we need to lower interest rates."

Hinchey saw first-hand the disinflation and deflation sweeping across East Asian economies, during his recent trip with the Banking Committee to Hong Kong, China, Korea and Japan.

During his questioning of Greenspan, he pointed to the early indications that these phenomena may be reaching the United States as seen in our increasing trade deficit. Recent figures released by the Commerce Department show that due to rapidly declining prices in the Far East, our trade deficit is significantly higher than expected.

"We've known that the Asian financial crisis was going to affect our economy yet we've done nothing to brace for the impact," Hinchey said. "We now are seeing our trade deficit increase. Mr. Chairman, you yourself have said it often takes a year to 18 months for monetary policy to have an effect. Therefore, I believe it is incumbent upon you to act now and lower interest rates."

The Fed Chairman was speaking before the committee as part of his twice-yearly mandate to report to the Congress on the state of the economy.

COMMITTEE ON BANKING AND FINANCIAL SERVICES  
Opening Statement  
of  
REP. JOHN J. LaFALCE

Humphrey-Hawkins Hearing  
February 24, 1998

Mr. Chairman, we have been witnessing some fascinating developments in the U.S. economy. We continue to marvel at the robustness of economic growth--an outstanding 4.3 percent annual rate in the fourth quarter of 1997. Forecasters continue to caution about slowdowns--and perhaps January's retail figures hint of a possible slowdown--but we have not yet been confronted with an economy that is losing much steam.

Inflation is barely moving. The 1997 annual rate of 2 percent--the lowest since 1965--is certainly encouraging. Productivity growth continues to rise--a 2 percent annual in the fourth quarter of 1997--scoring productivity growth at 1.7 percent for all of 1997.

However, there are two areas of the economy that concern me. First, the U.S. trade deficit continues to climb. The deficit in merchandise trade alone rose to \$198.9 billion in 1997. We recorded a surplus in services trade of \$85 billion. That brought our overall trade deficit for 1997 to \$114 billion--the highest in a decade.

The Asian financial crisis will undoubtedly make this worse. For example, in November-December 1997, U.S. exports to Korea dropped 26 percent. I believe this falloff in exports is just beginning.

It is important to point out, however, that the two Asian trading partners with whom we have the largest--and growing--trade deficit are not among the Asian countries with which the IMF has been involved. The U.S. trade deficits with Japan and China have reached

unacceptably high levels of \$55.7 billion and \$49.7 billion, respectively. Deficits of this magnitude must be stopped.

My second concern is the outlook for U.S. labor. So far, U.S. labor has fared well when measured by macroeconomic indicators. Unemployment remains at 4.7 percent. Wage rates have risen slightly, and newly created jobs were more than 100,000 greater in January than economists predicted.

The disquieting trend, however, is news of a resurgence in downsizing. According to a 1997 fourth-quarter survey, job-cut announcements were up 33 percent over the year earlier. The Asian economic situation will inevitably put greater competitive pressures on U.S. companies in the coming months and that could lead to further layoffs and downsizing. Price competition from lowered import prices--although keeping a lid on inflation--prevents U.S. firms from raising prices to meet costs. This could lead to U.S. workers losing jobs, and we must be prepared for this possible outcome.

Mr. Chairman, these concerns about the outlook for the U.S. trade deficit and more downsizing by U.S. firms and the impact on workers are important reasons for the U.S. to support IMF funding. We must do everything possible to get the Asian nations on their economic feet as quickly as possible. It is in the U.S. economic interest to do so.

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Statement of Congressman Max Sandlin  
House Committee on Banking and Finance  
Subcommittee on Domestic and International Monetary Policy  
February 24, 1998

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Thank you, Mr. Chairman, for allowing me to attend this hearing even though I have not yet received subcommittee assignments. I am still new to the Banking Committee, so this is my first Humphrey-Hawkins Hearing with the Committee, and I am honored to be here.

I would like to welcome you, Chairman Greenspan, to the Committee for your semi-annual report. I share the respect that so many of my colleagues have expressed for you and the work you have done for the past ten years as chairman of the Federal Reserve Bank.

Mr. Chairman, I represent 19 largely rural counties in East Texas. The strength of our local economy depends more on the hard work and ingenuity of East Texans running a farm or a small business than it depends on the fate of a diverse, industrial economy such as that enjoyed in urban areas. Dairy, timber, and energy all play a prominent role in the behavior of our local economy, and the economic fate of a high proportion of the population in East Texas depends on these industries.

Factors that expand growth in Dallas could have a contractionary effect in East Texas, and vice versa. Even when the unemployment rate of Texas falls below 5%, counties in East Texas often still have unemployment rates in the double digits. We enjoy the fruits of an expanding economy

at a different degree and different rate than urban America.

I hope that in your statement you can address not just next year's projected price level, income, and unemployment for the urban centers, but for rural areas as well. Just as not every income group in America responds similarly to growth, rural and urban areas will react differently to technological advancements, credit expansion, and the financial crisis in Asia. In your analysis of the state of our nation's economy, Mr. Chairman, remember the quarter of our nation's population who live in rural communities and small cities. Tell us what the dairy producer, timber harvester, small business, and working family in rural America can expect, as well.

Thank you.

For release on delivery  
10 A.M. E.S.T.  
February 24, 1998

Statement of  
Alan Greenspan  
Chairman  
Board of Governors of the Federal Reserve System  
before the  
Subcommittee on Domestic and International Monetary Policy  
Committee on Banking and Financial Services  
U.S. House of Representatives  
February 24, 1998



## Introduction

Mr. Chairman and members of the Committee, I welcome this opportunity to present the Federal Reserve's semiannual report on economic conditions and the conduct of monetary policy.

## The U.S. Economy in 1997

The U.S. economy delivered another exemplary performance in 1997. Over the four quarters of last year, real GDP expanded close to 4 percent, its fastest annual increase in ten years. To produce that higher output, about 3 million Americans joined the nation's payrolls, in the process contributing to a reduction in the unemployment rate to 4-3/4 percent, its lowest sustained level since the late 1960s. And our factories were working more intensively too: Industrial production increased 5-3/4 percent last year, exceeding robust additions to capacity.

Those gains were shared widely. The hourly wage and salary structure rose about 4 percent, fueling impressive increases in personal incomes. Unlike some prior episodes when faster wage rate increases mainly reflected attempts to make up for more rapidly rising prices of goods and services, the fatter paychecks that workers brought home represented real increments to purchasing power. Measured consumer price inflation came in at 1-3/4 percent over the twelve months of 1997, down about 1-1/2 percentage points from the pace of the prior year. While swings in the prices of food and fuel contributed to this decline, both narrower price indexes excluding those items and broader ones including all goods and services produced in the United States also paint a portrait of continued progress toward price stability. Businesses, for the most part, were able to pay these higher real wages while still

increasing their earnings. Although aggregate data on profits for all of 1997 are not yet available, corporate profit margins most likely remained in an elevated range not seen consistently since the 1960s. These healthy gains in earnings and the expectations of more to come provided important support to the equity market, with most major stock price indexes gaining more than 20 percent over the year.

The strong growth of the real income of workers and corporations is not unrelated to the economy's continued good performance on inflation. Taken together, recent evidence supports the view that such low inflation, as closely approaching price stability as we have known in the United States in three decades, engenders many benefits. When changes in the general price level are small and predictable, households and firms can plan more securely for the future. The perception of reduced risk encourages investment. Low inflation also exerts a discipline on costs, fostering efforts to enhance productivity. Productivity is the ultimate source of rising standards of living, and we witnessed a notable pickup in this measure in the past two years.

The robust economy has facilitated the efforts of the Congress and the Administration to restore balance in the unified federal budget. As I have indicated to the Congress on numerous occasions, moving beyond this point and putting the budget in significant surplus would be the surest and most direct way of increasing national saving. In turn, higher national saving, by promoting lower real long-term interest rates, helps spur spending to outfit American firms and their workers with the modern equipment they need to compete successfully on world markets. We

have seen a partial down payment of the benefits of better budget balance already: It seems reasonable to assume that the decline in longer-term Treasury yields last year owed, in part, to reduced competition--current and prospective--from the federal government for scarce private saving. However, additional effort remains to be exerted to address the effects on federal entitlement spending of the looming shift within the next decade in the nation's retirement demographics.

As I noted earlier, our nation has been experiencing a higher growth rate of productivity--output per hour worked--in recent years. The dramatic improvements in computing power and communication and information technology appear to have been a major force behind this beneficial trend. Those innovations, together with fierce competitive pressures in our high-tech industries to make them available to as many homes, offices, stores, and shop floors as possible, have produced double-digit annual reductions in prices of capital goods embodying new technologies. Indeed, many products considered to be at the cutting edge of technology as recently as two to three years ago have become so standardized and inexpensive that they have achieved near "commodity" status, a development that has allowed businesses to accelerate their accumulation of more and better capital.

Critical to this process has been the rapidly increasing efficiency of our financial markets--itself a product of the new technologies and of significant market deregulation over the years. Capital now flows with relatively little friction to projects embodying new ideas. Silicon Valley is a tribute both to American ingenuity and to the financial system's ever-increasing ability to supply venture

capital to the entrepreneurs who are such a dynamic force in our economy.

With new high-tech tools, American businesses have shaved transportation costs, managed their production and use of inventories more efficiently, and broadened market opportunities. The threat of rising costs in tight labor markets has imparted a substantial impetus to efforts to take advantage of possible efficiencies. In my Humphrey-Hawkins testimony last July, I discussed the likelihood that the sharp acceleration in capital investment in advanced technologies beginning in 1993 reflected synergies of new ideas, embodied in increasingly inexpensive new equipment, that have elevated expected returns and have broadened investment opportunities.

More recent evidence remains consistent with the view that this capital spending has contributed to a noticeable pickup in productivity--and probably by more than can be explained by usual business cycle forces. For one, the combination of continued low inflation and stable to rising domestic profit margins implies quite subdued growth in total consolidated unit business costs. With labor costs constituting more than two-thirds of those costs and labor compensation per hour accelerating, productivity must be growing faster, and that stepup must be roughly in line with the increase in compensation growth. For another, our more direct observations on output per hour roughly tend to confirm that productivity has picked up significantly in recent years, although how much the ongoing trend of productivity has risen remains an open question.

The acceleration in productivity, however, has been exceeded by the

strengthening of demand for goods and services. As a consequence, employers had to expand payrolls at a pace well in excess of the growth of the working age population that profess a desire for a job, including new immigrants. As I pointed out last year in testimony before the Congress, that gap has been accommodated by declines in both the officially unemployed and those not actively seeking work but desirous of working. The number of people in those two categories decreased at a rate of about one million per year on average over the last four years. By December 1997, the sum had declined to a seasonally adjusted 10-1/2 million, or 6 percent of the working age population, the lowest ratio since detailed information on this series first became available in 1970. Anecdotal information from surveys of our twelve Reserve Banks attests to our ever tightening labor markets.

Rapidly rising demand for labor has had enormous beneficial effects on our work force. Previously low- or unskilled workers have been drawn into the job market and have obtained training and experience that will help them even if they later change jobs. Large numbers of underemployed have been moved up the career ladder to match their underlying skills, and many welfare recipients have been added to payrolls as well, to the benefit of their long-term job prospects.

The recent acceleration of wages likely has owed in part to the ever-tightening labor market and in part to rising productivity growth, which, through competition, induces firms to grant higher wages. It is difficult at this time, however, to disentangle the relative contributions of these factors. What is clear is that, unless demand growth softens or productivity growth accelerates even more, we will

gradually run out of new workers who can be profitably employed. It is not possible to tell how many more of the 6 percent of the working-age population who want to work but do not have jobs can be added to payrolls. A significant number are so-called frictionally unemployed, as they have left one job but not yet chosen to accept another. Still others have chosen to work in only a limited geographic area where their skills may not be needed.

Should demand for new workers continue to exceed new supply, we would expect wage gains increasingly to exceed productivity growth, squeezing profit margins and eventually leading to a pickup in inflation. Were a substantial pickup in inflation to occur, it could, by stunting economic growth, reverse much of the remarkable labor market progress of recent years. I will be discussing our assessment of these and other possibilities and their bearing on the outlook for 1998 shortly.

#### **Monetary Policy in 1997**

History teaches us that monetary policy has been its most effective when it has been preemptive. The lagging relationship between the Federal Reserve's policy instrument and spending, and, even further removed, inflation, implies that if policy actions are delayed until prices begin to pick up, they will be too late to fend off at least some persistent price acceleration and attendant economic instabilities. Preemptive policymaking is keyed to judging how widespread are emerging inflationary forces, and when, and to what degree, those forces will be reflected in actual inflation. For most of last year, the evident strains on resources were sufficiently severe to steer the Federal Open Market Committee (FOMC) toward

being more inclined to tighten than to ease monetary policy. Indeed, in March, when it became apparent that strains on resources seemed to be intensifying, the FOMC imposed modest incremental restraint, raising its intended federal funds rate 1/4 percentage point, to 5-1/2 percent.

We did not increase the federal funds rate again during the summer and fall, despite further tightening of the labor market. Even though the labor market heated up and labor compensation rose, measured inflation fell, owing to the appreciation of the dollar, weakness in international commodity prices, and faster productivity growth. Those restraining forces were more evident in goods-price inflation, which in the CPI slowed substantially to only about 1/2 percent in 1997, than on service-price inflation, which moderated much less--to around 3 percent. Providers of services appeared to be more pressed by mounting strains in labor markets. Hourly wages and salaries in service-producing sectors rose 4-1/2 percent last year, up considerably from the prior year and almost 1-1/2 percentage points faster than in goods-producing sectors. However, a significant portion of that differential, but by no means all, traced to commissions in the financial and real estate services sector related to one-off increases in transactions prices and in volumes of activity, rather than to increases in the underlying wage structure.

Although the nominal federal funds rate was maintained after March, the apparent drop in inflation expectations over the balance of 1997 induced some firming in the stance of monetary policy by one important measure--the real federal funds rate, or the nominal federal funds rate less a proxy for inflation expectations.

Some analysts have dubbed the contribution of the reduction in inflation expectations to raising the real federal funds rate a "passive" tightening, in that it increased the amount of monetary policy restraint in place without an explicit vote by the FOMC. While the tightening may have been passive in that sense, it was by no means inadvertent. Members of the FOMC took some comfort in the upward trend of the real federal funds rate over the year and the rise in the foreign exchange value of the dollar because such additional restraint was viewed as appropriate given the strength of spending and building strains on labor resources. They also recognized that in virtually all other respects financial markets remained quite accommodative and, indeed, judging by the rise in equity prices, were providing additional impetus to domestic spending.

#### **The Outlook for 1998**

There can be no doubt that domestic demand retained considerable momentum at the outset of this year. Production and employment have been on a strong uptrend in recent months. Confident households, enjoying gains in income and wealth and benefitting from the reductions in intermediate- and longer-term interest rates to date, should continue to increase their spending. Firms should find financing available on relatively attractive terms to fund profitable opportunities to enhance efficiency by investing in new capital equipment. By itself, this strength in spending would seem to presage intensifying pressures in labor markets and on prices. Yet, the outlook for total spending on goods and services produced in the United States is less assured of late because of storm clouds massing over the



*Western Pacific and heading our way.*

This is not the place to examine in detail what triggered the initial problems in *Asian financial markets* and why the subsequent deterioration has been so extreme. I covered that subject recently before several committees of the Congress. Rather, I shall confine my discussion this morning to the likely consequences of the Asian crisis for demand and inflation in the United States.

With the crisis curtailing the financing available in foreign currencies, many Asian economies have had *no choice* but to cut back their imports sharply. Disruptions to their financial systems and economies more generally will further damp demands for our exports of goods and services. American exports should be held down as well by the appreciation of the dollar, which will make the prices of competing goods produced abroad more attractive, just as foreign-produced goods will be relatively more attractive to buyers here at home. As a result, we can expect a worsening net export position to exert a discernible drag on total output in the United States. For a time, such restraint might be reinforced by a reduced willingness of U.S. firms to accumulate inventories as they foresee weaker demand ahead.

The forces of Asian restraint could well be providing another, more direct offset to inflationary impulses arising domestically in the United States. In the wake of weakness in Asian economies and of lagged effects of the appreciation of the dollar more generally, the dollar prices of our non-oil imports are likely to decline further in the months ahead. These lower import prices are apparently already

making domestic producers hesitant to raise their own prices for fear of losing market share, further contributing to the restraint on overall prices. Lesser demands for raw materials on the part of Asian economies as their activity slows should help to keep world commodity prices denominated in dollars in check. Import and commodity prices, however, will restrain U.S. inflation only as long as they continue to fall, or to rise at a slower rate than the pace of overall domestic goods prices.

The key question going forward is whether the restraint building from the turmoil in Asia will be sufficient to check inflationary tendencies that might otherwise result from the strength of domestic spending and tightening labor markets. The depth of the adjustment abroad will depend on the extent of weakness in the financial sectors of Asian economies and the speed with which structural inefficiencies in the financial and nonfinancial sectors of those economies are corrected. If, as we suspect, the restraint coming from Asia is sufficient to bring the demand for American labor back into line with the growth of the working-age population desirous of working, labor markets will remain unusually tight, but any intensification of inflation should be *delayed, very gradual, and readily reversible*. However, we cannot rule out two other, more worrisome possibilities. On the one hand, should the momentum to domestic spending not be offset significantly by Asian or other developments, the U.S. economy would be on a track along which spending could press too strongly against available resources to be consistent with contained inflation. On the other, we also need to be alert to the possibility that the forces from Asia might damp activity and prices by more than is desirable by

exerting a particularly forceful drag on the volume of net exports and the prices of imports.

When confronted at the beginning of this month with these, for the moment, finely balanced, though powerful forces, the members of the Federal Open Market Committee decided that monetary policy should most appropriately be kept on hold. With the continuation of a remarkable seven-year expansion at stake and so little precedent to go by, the range of our intelligence gathering in the weeks ahead must be wide and especially inclusive of international developments.

#### **The Forecasts of the Governors of the Federal Reserve Board and the Presidents of the Federal Reserve Banks**

In these circumstances, the forecasts of the governors of the Federal Reserve Board and presidents of the Federal Reserve Banks for the performance of the U.S. economy over this year are more tentative than usual. Based on information available through the first week of February, monetary policymakers were generally of the view that moderate economic growth is likely in store. The growth rate of real GDP is most commonly seen as between 2 and 2-3/4 percent over the four quarters of 1998. Given the strong performance of real GDP, these projections envisage the unemployment rate remaining in the low range of the past half year. Inflation, as measured by the four-quarter percent change in the consumer price index, is expected to be 1-3/4 to 2-1/4 percent in 1998--near the low rate recorded in 1997. This outlook embodies the expectation that the effects of continuing tightness in labor markets will be largely offset by technical adjustments shaving a couple tenths from the published CPI, healthy productivity growth, flat or declining

import prices, and little pressure in commodity markets. But the policymakers' forecasts also reflect their determination to hold the line on inflation.

### **The Ranges for the Debt and Monetary Aggregates**

The FOMC affirmed the provisional ranges for the monetary aggregates in 1998 that it had selected last July, which, once again, encompass the growth rates associated with conditions of approximate price stability, provided that these aggregates act in accord with their pre-1990s historical relationships with nominal income and interest rates. These ranges are identical to those that had prevailed for 1997--1 to 5 percent for M2 and 2 to 6 percent for M3. The FOMC also reaffirmed its range of 3 to 7 percent for the debt of the domestic nonfinancial sectors for this year. I should caution, though, that the expectations of the governors and Reserve Bank presidents for the expansion of nominal GDP in 1998 suggest that growth of M2 in the upper half of its benchmark range is a distinct possibility this year. Given the continuing strength of bank credit, M3 might even be above its range as depositories use liabilities in this aggregate to fund loan growth and securities acquisitions. Nonfinancial debt should come in around the middle portion of its range.

In the first part of the 1990s, money growth diverged from historical relationships with income and interest rates, in part as savers diversified into bond and stock mutual funds, which had become more readily available and whose returns were considerably more attractive than those on deposits. This anomalous behavior of velocity severely set back most analysts' confidence in the usefulness of M2 as an

indicator of economic developments. In recent years, there have been tentative signs that the historical relationship linking the velocity of M2--measured as the ratio of nominal GDP to the money stock--to the cost of holding M2 assets was reasserting itself. However, a persistent residual upward drift in velocity over the past few years and its apparent cessation very recently underscores our ongoing uncertainty about the stability of this relationship. The FOMC will continue to observe the evolution of the monetary and credit aggregates carefully, integrating information about these variables with a wide variety of other information in determining its policy stance.

#### **Uncertainty about the Outlook**

With the current situation reflecting a balance of strong countervailing forces, events in the months ahead are not likely to unfold smoothly. In that regard, I would like to flag a few areas of concern about the economy beyond those mentioned already regarding Asian developments.

Without doubt, lenders have provided important support to spending in the past few years by their willingness to transact at historically small margins and in large volumes. Equity investors have contributed as well by apparently pricing in the expectation of substantial earnings gains and requiring modest compensation for the risk that those expectations could be mistaken. Approaching the eighth year of the economic expansion, this is understandable in an economic environment that, contrary to historical experience, has become increasingly benign. Businesses have been meeting obligations readily and generating high profits, putting them in outstanding financial health.

But we must be concerned about becoming too complacent about evaluating repayment risks. All too often at this stage of the business cycle, the loans that banks extend later make up a disproportionate share of total nonperforming loans. In addition, quite possibly, twelve or eighteen months hence, some of the securities purchased on the market could be looked upon with some regret by investors. As one of the nation's bank supervisors, the Federal Reserve will make every effort to encourage banks to apply sound underwriting standards in their lending. Prudent lenders should consider a wide range of economic situations in evaluating credit; to do otherwise would risk contributing to potentially disruptive financial problems down the road.

A second area of concern involves our nation's continuing role in the new high-tech international financial system. By joining with our major trading partners and international financial institutions in helping to stabilize the economies of Asia and promoting needed structural changes, we are also encouraging the continued expansion of world trade and global economic and financial stability on which the ongoing increase of our own standards of living depends. If we were to cede our role as a world leader, or backslide into protectionist policies, we would threaten the source of much of our own sustained economic growth.

A third risk is complacency about inflation prospects. The combination and interaction of significant increases in productivity-improving technologies, sharp declines in budget deficits, and disciplined monetary policy has damped product price changes, bringing them to near stability. While part of this result owes to

good policy, part is the product of the fortuitous emergence of new technologies and of some favorable price developments in imported goods. However, as history counsels, it is unwise to count on any string of good fortune to continue indefinitely. At the same time, though, it is also instructive to remember the words of an old sage that "luck is the residue of design." He meant that to some degree we can deliberately put ourselves in position to experience good fortune and be better prepared when misfortune strikes. For example, the 1970s were marked by two major oil-price shocks and a significant depreciation in the exchange value of the dollar. But those misfortunes were, in part, the result of allowing imbalances to build over the decade as policymakers lost hold of the anchor provided by price stability. Some of what we now see helping rein in inflation pressures is more likely to occur in an environment of stable prices and price expectations that thwarts producers from indiscriminately passing on higher costs, puts a premium on productivity enhancement, and rewards more effectively investment in physical and human capital.

*Simply put, while the pursuit of price stability does not rule out misfortune, it lowers its probability. If firms are convinced that the general price level will remain stable, they will reserve increases in their sales prices of goods and services as a last resort, for fear that such increases could mean loss of market share. Similarly, if households are convinced of price stability, they will not see variations in relative prices as reasons to change their long-run inflation expectations. Thus, continuing to make progress toward this legislated objective will make future supply shocks less likely and our nation's economy less vulnerable to those that occur.*

For use at 10:00 a.m., E.S.T.  
Tuesday  
February 24, 1998

Board of Governors of the Federal Reserve System



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

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February 24, 1998



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## Letter of Transmittal

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BOARD OF GOVERNORS OF THE  
*FEDERAL RESERVE SYSTEM*  
Washington, D.C., February 24, 1998

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". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Alan Greenspan, Chairman

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## Section 1: Monetary Policy and the Economic Outlook

The U.S. economy turned in another excellent performance in 1997. Growth was strong, the unemployment rate declined to its lowest level in nearly a quarter-century, and inflation slowed further. Impressive gains were also made in other important respects: The federal budget moved toward balance much more quickly than almost anyone had anticipated; capital investment, a critical ingredient for long-run growth, rose sharply further; and labor productivity, the ultimate key to rising living standards, displayed notable vigor.

Among the influences that have brought about this favorable performance are the sound fiscal and monetary policies that have been pursued in recent years. Budgetary restraint at the federal level has raised national saving, easing the competition for funds in our capital markets and thereby encouraging greater private investment. Monetary policy, for its part, has sought to foster an environment of subdued inflation and sustainable growth. The experience of recent years has provided additional evidence that the less households and businesses need to cope with a rising price level, or worry about the sharp fluctuations in employment and production that usually accompany inflationary instability, the more long-term investment, innovation, and enterprise are enhanced.

The circumstances that prevailed through most of 1997 required that the Federal Reserve remain especially attentive to the risk of a pickup in inflation. Labor markets were already tight when the year began, and nominal wages had started to rise faster than previously. Persistent strength in demand over the year led to economic growth in excess of the expansion of the economy's potential, intensifying the pressures on labor supplies. In earlier business expansions, such developments had usually produced an adverse turn in the inflation trend that, more often than not, was accompanied by a worsening of economic performance on a variety of fronts, culminating in recession.

Robust growth of spending early in the year heightened concerns among members of the Federal Open Market Committee (FOMC) that growing strains on productive resources might touch off a faster rate of cost and price rise that could eventually undermine the expansion. Financial market participants seemed to share these concerns: Intermediate- and long-term interest rates began mov-

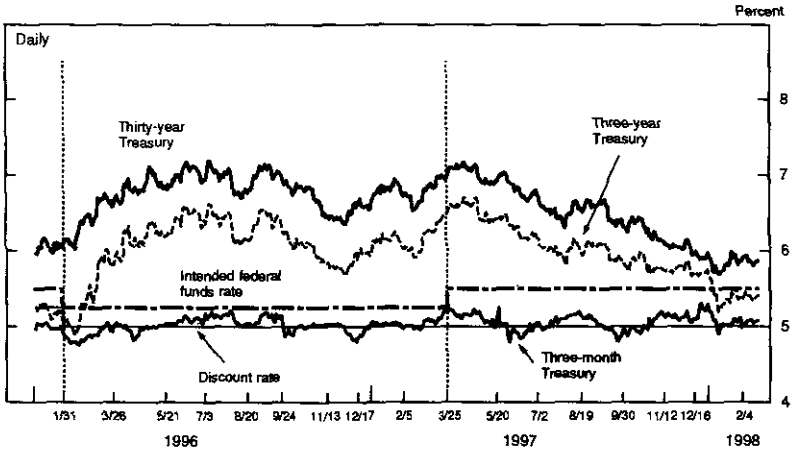
ing up in December 1996, effectively anticipating Federal Reserve action. When the FOMC firmed policy slightly at its March meeting by raising the intended federal funds rate from 5¼ percent to 5½ percent, the market response was small.

The economy slowed a bit during the second and third quarters, and inflation moderated further. In addition, the progress being made by the federal government in reducing the size of the deficit was becoming more apparent. As a consequence, by the end of September, longer-term interest rates fell ¾ percentage point from their peaks in mid-April, leaving them about ¼ percentage point below their levels at the end of 1996. The decline in interest rates along with continued reports of brisk growth in corporate profits sparked increases in broad indexes of equity prices of 20 percent to 35 percent between April and September.

Even with a more moderate pace of growth, labor markets continued to tighten, generating concern among the FOMC members over this period that rising costs might trigger a rise in inflation. Consequently, at its meetings from May through November, the Committee adopted directives for the conduct of policy that assigned greater likelihood to the possibility of a tightening of policy than to the possibility of an easing of policy. Even though the Committee kept the nominal federal funds rate unchanged, it saw the rise in the real funds rate resulting from declining inflation expectations, together with the increase in the exchange value of the dollar, as providing some measure of additional restraint against the possible emergence of greater inflation pressures.

In the latter part of the year, developments in other parts of the world began to alter the perceived risks attending the U.S. economic outlook. Foreign economies generally had seemed to be on a strengthening growth path when the Federal Reserve presented its midyear monetary policy report to the Congress last July. But over the remainder of the summer and during the autumn, severe financial strains surfaced in a number of advanced developing countries in Asia, weakening somewhat the outlook for growth abroad and thus the prospects for U.S. exports. Although the circumstances in individual countries varied, the problems they encountered generally resulted in severe downward pressures on the foreign exchange values of their cur-

## Selected Interest Rates



Note. Dotted vertical lines indicate days on which the Federal Open Market Committee (FOMC) announced a monetary policy action. The dates on the horizontal axis are those on which the

FOMC held scheduled meetings. Last observations are for February 20, 1998.

reencies; in many cases, steep depreciations occurred despite substantial upward movement of interest rates. Asset values in Asia, notably equity and real estate prices, also declined appreciably in some instances, leading to losses by financial institutions that had either invested in those assets or lent against them; nonfinancial firms began to encounter problems servicing their obligations. In many instances the debts of nonfinancial and financial firms were denominated in dollars and unhedged. Concerted international efforts to bring economic and financial stability to the region are under way, and some progress has been made, but it is evident that in several of the affected economies the process of adjustment will be painful. Meanwhile, economic activity in Japan stagnated, in part because of the developments elsewhere in East Asia, and the weaknesses in the Japanese financial system became more apparent.

The steep depreciations of many Asian currencies contributed to a substantial further appreciation of the U.S. dollar. Measured against a broad set of currencies that includes those of the advanced developing countries of Asia, the exchange value of the dollar, adjusted for relative consumer prices, has moved up about 8 percent since October and has increased

about 16 percent from its level at the end of 1996. The dollar has also appreciated, on balance, against an index of currencies of the G-10 (Group of Ten) industrial countries; this G-10 trade-weighted index of dollar exchange rates is up about 13 percent in nominal terms since the end of 1996.

The difficulties in Asia contributed to additional declines of  $\frac{1}{4}$  to  $\frac{1}{2}$  percentage point in the yields on intermediate- and long-term Treasury securities in the United States between mid-autumn and the end of the year. These decreases were due in part to an international flight to the safe haven of dollar assets, but they also reflected expectations that these difficulties would exert a moderating influence on the growth of aggregate demand and inflation in the United States. Equity prices were quite volatile but showed little trend in the fourth quarter. In light of the ongoing difficulties in Asia and the possible effects on the United States, the FOMC not only left interest rates unchanged in December, but shifted its instructions to the Manager of the System Open Market Account to symmetry between ease and tightening in the near term.

Some spillover from the problems in Asia has recently begun to appear in reports on business activ-

ity in the United States. Customers in the advanced developing countries reportedly have canceled some of the orders they had previously placed with U.S. firms, and companies more generally are expressing concerns about the possibilities of both reduced sales to Asia and more intense price competition here as the result of the sharp changes in exchange rates. Nonetheless, the available statistics suggest on balance that overall growth of output and employment has remained brisk in the early part of 1998.

Confronted with the marked cross-currents described above—involving both upside and downside risks to the growth of output and prospects for inflation—the FOMC earlier this month once again chose to hold its federal funds rate objective unchanged. In credit markets, interest rates have fallen further this year as the effects of the Asian turmoil seemed even more likely to restrain any tendencies toward unsustainable growth and greater inflation in the United States. With interest rates lower and the negative effects of the Asian problems seen by market participants as mostly limited to particular sectors, broad indexes of equity prices have risen appreciably, many to new highs.

### Economic Projections for 1998

The outlook for 1998 is clouded with a greater-than-usual degree of uncertainty. Part of that uncertainty is a reflection of the financial and economic stresses that have developed in Asia, the full consequences of which are difficult to judge. But there are some other significant question marks as well, many of them growing out of the surprising performance of the U.S. economy in 1997: Growth was considerably stronger and inflation considerably lower than Federal Reserve officials and most private analysts had anticipated.

Some of the key forces that gave rise to this favorable performance can be readily identified. An ongoing capital spending boom, encouraged in part by declining prices of high-technology equipment, provided stimulus to aggregate demand and at the same time created the additional capacity to help meet that demand. A further jump in labor productivity that was fueled partly by the buildup of capital helped firms overcome the production and pricing challenges posed by tight labor markets. A surprisingly robust stock market bolstered the finances of households and enabled them to spend more freely. Falling world oil prices reduced the prices of petroleum products and helped hold down the prices of other energy-intensive goods. Finally, a rising

dollar imposed additional restraint on inflation, as prices of imported goods fell appreciably. Circumstances as favorable as those of 1997 are not likely to persist, although several elements in the recent mix could help maintain, for some time, a more favorable economic performance than historical relationships would suggest.

In assessing the situation, the members of the Board of Governors and the Reserve Bank presidents, all of whom participate in the deliberations of the FOMC, think that the most likely outcome for 1998 will be one of moderate growth, low unemployment, and low inflation. Most of them have placed their point estimates of the rise in real GDP from the fourth quarter of 1997 to the fourth quarter of 1998 in the range of 2 percent to 2½ percent. The civilian unemployment rate in the fourth quarter of 1998 is expected to be at about its recent level. For the most part, the forecasts have the total CPI for all urban consumers rising between 1¼ percent and 2¼ percent this year. These predictions do not differ appreciably from those recently put forth by the Administration.

Although developments in Asia over the past few months have not yet affected aggregate U.S. economic performance in a measurable way, these influences will likely become more visible in coming months. Growth of U.S. exports is expected to be restrained by weaknesses in Asian economies and by the lagged effects of the appreciation of the dollar since 1995. Moreover, with the rise in the dollar's value making imports less expensive, some U.S. businesses and consumers will likely switch from domestic to foreign sources for some of their purchases. But the timing and magnitude of these developments are hard to predict.

In contrast to the slower growth that seems to be in prospect for exports, domestic spending seems likely to maintain considerable strength in coming quarters. Households as a group are quite upbeat in their assessments of their personal finances—as might be expected in conjunction with expanding job opportunities, rising incomes, and huge gains in wealth. Recently, many households have taken advantage of lower long-term interest rates by refinancing their home mortgages, and this will provide a little additional wherewithal for spending. Moreover, the decline in mortgage rates is also bolstering housing construction.

Business outlays for fixed investment seem likely to advance at a relatively brisk pace in the coming year, although gains as large as those of the past

**Economic Projections for 1998**  
 Percent

Indicator	Federal Reserve governors and Reserve Bank presidents		
	Range	Central tendency	Administration
<i>Change, fourth quarter to fourth quarter<sup>1</sup></i>			
Nominal GDP	3½ to 5	3¾ to 4½	4.0
Real GDP <sup>2</sup>	1¾ to 3	2 to 2¾	2.0
Consumer price index <sup>3</sup>	1½ to 2½	1¾ to 2¼	2.2
<i>Average level, fourth quarter</i>			
Civilian unemployment rate	4½ to 5	about 4¾	5.0

1. Change from average for fourth quarter of 1997 to average for fourth quarter of 1998.

2. Chain-weighted.

3. All urban consumers.

couple of years may be difficult to match. Outlays for computers, which have dominated the investment surge of the past few years, should climb substantially further as businesses press ahead with new investment in the latest technologies, encouraged in part by ongoing price declines. With labor markets tight, firms continue to see capital investment as the key in efforts to increase efficiency and maintain competitiveness. Internally generated funds remain adequate to cover the bulk of businesses' investment outlays, and those firms turning to the debt and equity markets are most often finding financing generously available on good terms. Inventory growth will likely put less pressure on business cash flow this year, after adding to stocks at a substantial clip in 1997, businesses seem likely to scale back such investment somewhat, especially as they perceive a moderation in sales increases.

The Federal Reserve policymakers' forecasts of the average unemployment rate in the fourth quarter of 1998 are mostly around 4¾ percent. The persistence for another year of this degree of tightness in the labor market means that firms will likely continue to face difficulties in finding workers and that hiring and retaining workers could become more costly. Indeed, there are indications that wage inflation picked up further at the end of last year. Improvements in labor productivity have become more sizable in the past couple of years, and if such gains can be extended, wage increases of the magnitude of those of 1997 need not translate into greater price inflation. The

more rapid growth in productivity is consistent with the high level of capital investment in recent years, but the extent to which the trend in productivity has picked up is still uncertain. Furthermore, if momentum in nominal wages continues to build, the pay increases will eventually squeeze profit margins and place upward pressures on prices, even with exceptional productivity gains. The strains in labor markets therefore constitute an ongoing inflationary risk that will have to be monitored closely.

In the near term, however, there are several factors that should lessen the risk of a step-up in inflation. Manufacturing capacity remains ample, and bottlenecks are not hampering production. The recent appreciation of the dollar should damp inflation both because of falling import prices and because the added competition from imports may induce domestic producers to hold down prices. Oil prices have weakened considerably since the latter part of 1997 in response to abundant supplies, the softening of demand in Asia, and a mild winter. Ample supplies and the prospect of softer global demand have been depressing the prices of many other commodities, both in agriculture and in industry. Perhaps most important, as the low level of inflation that has prevailed in recent years gets built into wage agreements, other contracts, and individuals' inflation expectations, it will provide an inertial force helping sustain the favorable price performance for a time.

Although many of the factors currently placing

### Ranges for Growth of Monetary and Debt Aggregates Percent

Aggregate	1996	1997	1998
M2	1 to 5	1 to 5	1 to 5
M3	2 to 6	2 to 6	2 to 6
Debt	3 to 7	3 to 7	3 to 7

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

restraint on inflation are not necessarily long lasting, the Committee judged that their effect in 1998 would abate the pressures from tight labor markets. Consequently, the Board members and Reserve Bank presidents anticipate that the rate of price inflation will change little this year. Again in 1998, the FOMC will be monitoring a variety of price measures in addition to the CPI for indications of changes in inflation and will be assessing movements in the CPI in the context of ongoing technical improvements by the Bureau of Labor Statistics that are likely to damp the reported 1998 rise in that index.

#### Money and Debt Ranges for 1998

In establishing the ranges for growth of broad measures of money over 1998, the Committee recognized the considerable uncertainty that still exists about the behavior of the velocities of these aggregates. The velocity of M3 (the ratio of nominal GDP to the monetary aggregate) in particular has proved difficult to predict. Last year, the growth of this aggregate relative to spending was affected by the rapid increase in depository credit and by the way in which that increase was funded, as well as by the changing cash management practices of corporations, which have been using the services of institution-only money funds in M3. These factors boosted M3 growth last year to 8¾ percent, 3 percentage points faster than nominal GDP—an unusually large decline in M3 velocity. Going forward, it seems likely that M3 growth will continue to be buoyed by robust credit growth at depositories and continuing shifts in cash management. Thus, its velocity is likely to decline further, though the amount of decline is difficult to predict.

The relationship of M2 to spending in recent years has come back more into line with historical patterns in which the velocity of M2 tended to be fairly

constant, except for the effects of the changing opportunity cost of M2—the spread between yields that savers could earn holding short-term market instruments and those that they could earn holding M2. In the early 1990s, M2 velocity departed from this pattern, rising substantially and atypically. Even after the unusual shift of the early 1990s died out, M2 velocity continued to drift somewhat higher from 1994 into 1997. That drift probably reflected some continued, albeit more moderate, redirection of savings into bond and equity markets, especially through the purchase of mutual funds. However, last year the drift abated. There was little change, on balance, in the opportunity cost of holding M2, and M2 velocity also was about unchanged, as M2 grew 5½ percent, nearly the same as nominal GDP. Nevertheless, the upward drift could resume in the years ahead as financial innovations or perceptions of attractive returns lead households to further shift their savings away from M2 balances. Or velocity might be pushed downward if volatility or setbacks in bond and stock markets were to lead investors to seek the safety of M2 assets, which have stable principal.

In light of the uncertainties about the behavior of velocities, the Committee followed its practice of recent years and established the ranges for 1998 not as expectations for actual money growth, but rather as benchmarks for M2 and M3 behavior that would be consistent with sustained price stability, assuming velocity change in line with pre-1990 historical experience. Thus, the ranges for fourth-quarter to fourth-quarter growth are unchanged from those in 1997: 1 percent to 5 percent for M2, and 2 percent to 6 percent for M3. Given the central tendency of the Committee's forecast for growth of nominal GDP of 3¾ percent to 4½ percent, M2 is likely to be in the range, perhaps in the upper half, if short-term interest rates do not change much and velocity continues recent patterns. For M3, however, a continuation of

recent velocity behavior could imply growth around the upper end of, if not above, the price-stability range.

Debt of the nonfinancial sectors grew  $4\frac{3}{4}$  percent in 1997, near the middle of the range of 3 percent to 7 percent established by the Committee last February. As with the monetary aggregates, the Committee has left the range for debt unchanged for 1998. The range it has chosen encompasses the likely growth of debt given Committee members' forecasts of nominal GDP. Except for the 1980s, the growth of

debt has tended to be reasonably in line with the growth of nominal GDP.

Although the ranges for money and debt are not set as targets for monetary policy in 1998, the behavior of these variables, interpreted carefully, can at times provide useful information about the economy and the workings of the financial markets. The Committee will continue to monitor the movements of money and debt—along with a wide variety of other financial and economic indicators—to inform its policy deliberations.

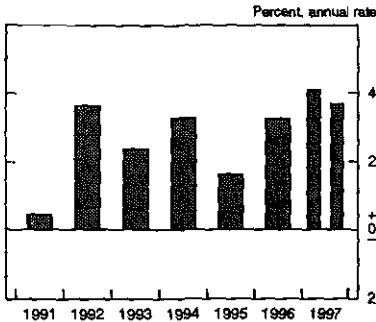


## Section 2: Economic and Financial Developments in 1997 and Early 1998

The past year has been an exceptionally good one for the U.S. economy. Initial estimates indicate that real GDP increased nearly 4 percent over the four quarters of 1997. Household and business expenditures continued to rise rapidly, owing in part to supportive financial conditions, including a strong stock market, ample availability of credit, and, from April onward, declining intermediate- and long-term interest rates. In the aggregate, private domestic spending on consumption and investment rose nearly 5 percent on an inflation-adjusted basis. The strength of spending, along with a further sizable appreciation of the foreign exchange value of the U.S. dollar, brought a surge of imports, the largest in many years. Export growth, while lagging that of imports, also was substantial despite the appreciation of the dollar and the emergence after midyear of severe financial difficulties in several foreign economies, particularly among the advanced developing countries in Asia.

Meanwhile, inflation slowed from the already reduced rates of the previous few years. Although wages and total hourly compensation accelerated in a tight labor market, the inflationary impulse from that source was more than offset by other factors, including rising competition from imports, the price restraint from increased manufacturing capacity, and a sizable gain in labor productivity.

Change in Real GDP

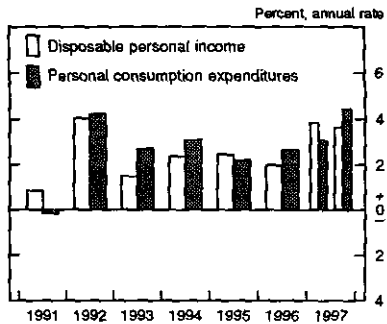


Note. In this chart and in subsequent charts that show the components of real GDP, changes are measured to the final quarter of the period indicated, from the final quarter of the previous period.

### The Household Sector

**Consumption Spending, Income, and Saving.** Bolstered by increases in income and wealth, personal consumption expenditures rose substantially during 1997—about 3½ percent, according to the initial estimate. Expenditures strengthened for a wide variety of durable goods. Real outlays on home computers continued to soar, rising even faster than they did over the previous few years. Strength also was reported in purchases of furniture and home appliances—products that tend to do well when home sales are strong. Consumer expenditures on motor vehicles rose moderately, on net, more than reversing the small declines of the previous two years. Real expenditures on services increased more than 4 percent in 1997, the largest gain of recent years. Personal service categories such as recreation, transportation, and education recorded large increases. Consumers also boosted their outlays for business services, including outlays related to financial transactions.

Change in Real Income and Consumption

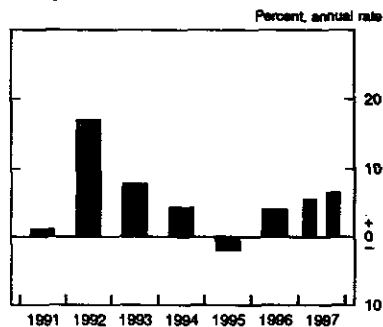


Real disposable personal income—after-tax income adjusted for inflation—is estimated to have increased about 3½ percent during 1997, a gain that was exceeded on only one occasion in the previous decade. Income was boosted this past year by sizable gains in wages and salaries and by another year of large increases in dividends.

Measured in terms of annual averages, the personal saving rate fell further in 1997, according to current estimates. The 1997 average of 3.8 percent was about  $\frac{1}{2}$  percentage point below the 1996 average and roughly a full percentage point below the 1995 average. It also was the lowest annual reading in several decades. Various surveys of households show consumers to have become increasingly optimistic about prospects for the economy, and this rising degree of optimism may have led them to spend more freely from current income. Support for additional spending came from the further rise in the stock market, as the capital gains accruing to households increased the chances of their meeting longer-run net worth objectives even as they consumed a larger proportion of current income.

**Residential Investment.** Preliminary data indicate that real residential investment increased nearly 6 percent during 1997. Real outlays for the construction of new single-family structures rose moderately, and outlays for the construction of multifamily units continued to recover from the extreme lows that were reached earlier in the decade. Real outlays for home improvements and brokers' commissions, categories that have a combined weight of more than 35 percent in total residential investment, moved up substantially from the final quarter of 1996 to the final quarter of 1997. Spending on mobile homes, a small part of the total, also advanced.

Change in Real Residential Investment



The indicators of single-family housing activity were almost uniformly strong during the year. Sales of houses surged, driven by declines in mortgage interest rates and the increasingly favorable economic circumstances of households. Annual sales of

new single-family houses were up about  $5\frac{1}{2}$  percent from the number sold in the preceding year, and sales of existing homes moved up about 3 percent. House prices moved up more quickly than prices in general. Responding to the strong demand, starts of new single-family units remained at a high level, only a touch below that of 1996; the annual totals for single-family units have now exceeded 1 million units for six consecutive years, putting the current expansion in single-family housing construction nearly on a par with that of the 1980s in terms of longevity and strength. In January of this year, starts of and permits for single-family units were both quite strong.

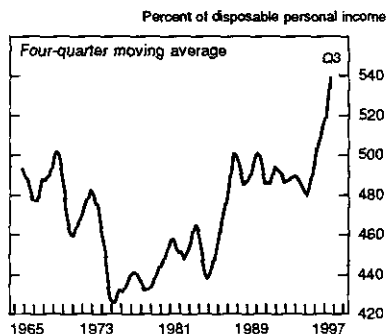
Starts of multifamily units increased in 1997 for the fourth year in a row and were about double the record low of 1993. The increased construction of these units was supported by a firming of rents, abundant supplies of credit, and a reduction in vacancy rates in some markets. The national vacancy rate came down only slightly, however, and it has reversed only a portion of the sharp run-up that took place in the 1980s. This January, starts of multifamily units fell back to about the 1997 average after having surged to an exceptionally high level in the fourth quarter.

The home-ownership rate—the number of households that own their dwellings divided by the total number of households—moved up further in 1997, to about 65 $\frac{1}{2}$  percent, a historical high. The rate had fallen in the 1980s but has risen almost 2 percentage points in this decade.

**Household Finance.** Household net worth appears to have grown roughly  $\$3\frac{1}{2}$  trillion during 1997, ending at its highest multiple relative to disposable personal income on record. Most of this increase in net worth was the result of upward revaluations of household assets rather than additional saving. In particular, capital gains on corporate equities accounted for about three-fourths of the increase in net worth. Flows of household assets into mutual funds, pensions, and other vehicles for holding equities indirectly were exceeded by outflows from directly held equities.

Household borrowing not backed by real estate, including credit card balances, auto loans, and other consumer credit, increased 4 $\frac{1}{2}$  percent in 1997. These obligations grew at double-digit rates in 1994 and 1995 but have slowed fairly steadily since then. Mortgage borrowing, by contrast, has experienced relatively muted swings in growth during the current expansion. Home mortgages are estimated to have grown 7 percent last year, only a bit slower than

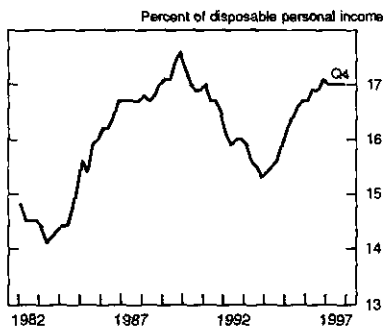
## Household Net Worth



in 1996. Within this category of credit, however, home equity loans have advanced sharply, reflecting in part the use of these loans in refinancing and consolidating credit card and other consumer obligations.

An element in the slowing of consumer credit growth may have been assessments by some households that they were reaching the limits of their capacity for carrying debt and by some lenders that they needed to tighten selectively their standards for granting new loans. In the mid-1990s, the percentage of household income required to meet debt obligations rose to the upper end of its historical range, in large part because of a sharp rise in credit

## Household Debt-Service Burden

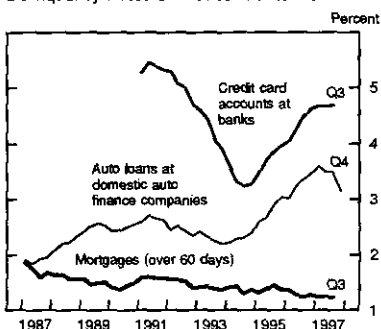


Note: Debt service is the sum of estimated required interest and principal payments on consumer and household-sector mortgage debt.

card debt. Between 1994 and 1996 personal bankruptcies grew at more than a 20 percent annual rate, to some extent because of households' rising debt burden; a change in the federal bankruptcy law and a secular trend toward associating less social stigma with bankruptcy also may have contributed. Over the same period, delinquency and charge-off rates on consumer loans increased significantly.

Last year, however, because the growth of household debt only slightly outpaced that of income while interest rates drifted lower, the household debt-service burden did not change. Reflecting, in part, the stability of the aggregate household debt burden, delinquency rates on many segments of consumer credit plateaued, although charge-off rates generally continued to rise somewhat. Personal bankruptcies advanced again last year but showed some signs of leveling off in the third quarter.

## Delinquency Rates on Household Loans



Note: Data on credit-card delinquencies are from the Call Report; data on mortgage delinquencies are from the Mortgage Bankers Association.

Some of the apparent leveling out of household debt-repayment problems may also have resulted from efforts by lenders to stem the growth of losses on consumer loans. For the past two years, a large percentage of the respondents to the Federal Reserve's quarterly Senior Loan Officer Opinion Survey on Bank Lending Practices have reported tightened standards on consumer loans. But the percentages reporting tightening have fallen a bit in the last few surveys, suggesting that many banks feel that they have now altered their standards sufficiently.

Although banks pulled back a bit from consumer lending, most households had little trouble obtaining credit in 1997. Bank restraint has most commonly taken the form of imposing lower credit limits or raising finance charges on outstanding balances; credit card solicitations continued at a record pace. Furthermore, many respondents to the Federal Reserve's January 1998 survey of loan officers said their banks had eased terms and standards on home equity loans, providing consumers easier access to an alternative source of finance.

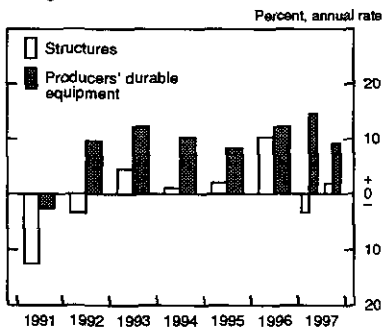
Mortgage rates fell last month to levels that led many households to apply for loan refinancing. When households refinance, they may choose among options that have differing implications for cash flow, household balance sheets, and spending. Some households may decide to reduce their monthly payments, keeping the size of their mortgages unchanged. Others may keep their monthly payments unchanged, either speeding up their repayments or increasing their mortgages and taking out cash in the process, perhaps to augment current expenditures. In any case, the wave of refinancings is likely having only a small effect on the overall economy because the current difference between the average rate on outstanding mortgages and the rate on new ones is not very large.

### The Business Sector

**Investment Expenditures.** Adjusted for inflation, businesses' outlays for fixed investment rose about 8 percent during 1997 after gaining about 12 percent during 1996. Spending continued to be spurred by rapid growth of the economy, favorable financial conditions, attractive purchase prices for new equipment, and optimism about the future. Business outlays for equipment, which account for more than three-fourths of total business fixed investment, moved up about 12 percent this past year, making it the fourth year of the last five in which the annual gains have exceeded 10 percent. As in previous years of the expansion, real investment rose fastest for computers, the power of which continued to advance rapidly at the same time their prices continued to decline. Spending also moved up briskly for many other types of equipment, including communications equipment, commercial aircraft, industrial machinery, and construction machinery.

Real outlays for nonresidential construction, the remaining portion of business fixed investment, declined somewhat in 1997 after moving up in each of the four previous years. Construction of office buildings continued to increase in 1997, but sluggish-

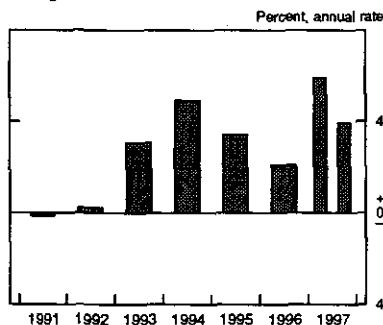
Change in Real Business Fixed Investment



ness was apparent in the expenditure data for many other types of structures. Nonetheless, a tone of underlying firmness was apparent in other indicators of market conditions. Vacancy rates declined, for example, and rents seemed to be picking up. In some areas of the country, more builders have been putting up new office buildings on "spec"—that is, undertaking new construction before occupants have been lined up. The new projects are apparently being spurred to some degree by the ready availability of financing.

Business inventory investment picked up considerably in 1997. According to the initial estimate, the level of inventories held by nonfarm businesses rose about 5 percent in real terms over the course of the year after increasing roughly 2 percent in 1996.

Change in Real Nonfarm Business Inventories

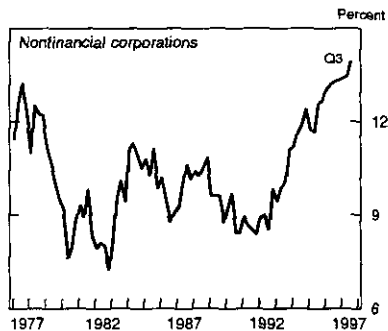


Accumulation was especially rapid in the commercial aircraft industry, in which production has been ramped up in response to a huge backlog of orders for new jets. With the rate of inventory growth outpacing the growth of final sales last year, the stock-to-sales ratio in the nonfarm sector ticked up slightly, after a small decline in the preceding year. Although inventory accumulation does not seem likely to persist at the pace of 1997, businesses in general do not appear to be uncomfortable with the levels of stocks that they have been carrying.

#### Corporate Profits and Business Finance.

The economic profits of U.S. corporations (book profits after inventory valuation and capital consumption adjustments) increased at more than a 14 percent annual rate over the first three quarters of 1997, and profits of nonfinancial corporations from their domestic operations grew at a 13½ percent annual rate. In the third quarter, nonfinancial corporate profits amounted to nearly 14 percent of that sector's nominal output, up from 7¼ percent in 1982 and the highest share since 1969. The elevated profit share reflects both the high level of cash flow before interest costs, which also stands at a multiyear peak relative to output, and the reductions in interest costs that have taken place in the 1990s. Fourth-quarter profit announcements indicate that year-over-year growth in earnings was fairly strong; few corporations reported that they had experienced much fallout yet from the events in Asia, but many warned that profits in the first half of 1998 will be significantly affected.

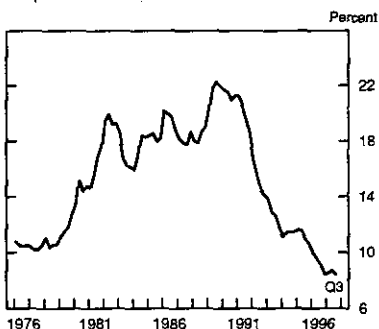
Before-Tax Profit Share of GDP



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

Despite the rapid growth in profits, the financing gap for nonfinancial corporations—capital expenditures less internal cash flow—widened, reflecting the strong expansion of spending on capital equipment and inventories. Furthermore, on net, firms continued to retire a large volume of equity, adding further to borrowing needs, as substantial gross issuance was swamped by stock repurchases and merger-related retirements. Given these financing requirements, the growth of nonfinancial corporate debt picked up to more than a 7 percent rate last year.

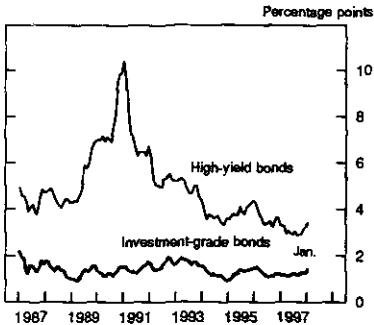
Net Interest Payments of Nonfinancial Corporations Relative to Cash Flow



With the debt of nonfinancial corporations advancing briskly, the ratio of their interest payments to cash flow was about unchanged last year, after several years of decline that had left it at quite a low level. Consequently, measures of debt-repayment difficulties also were very favorable last year: The default rate on corporate bonds remained extremely low, and the number of upgrades of debt about equaled the number of downgrades. Similarly, only small percentages of business loans at banks were delinquent or charged off. The rate of business bankruptcies increased a bit but was still fairly low.

Businesses continued to find credit amply supplied at advantageous terms last year. The spread between yields on investment-grade bonds and yields on Treasury securities of similar maturities remained narrow, varying only a little during the year. The spreads on below-investment-grade bonds fell over the year, touching new lows before widening a bit in the fall and early this year; the widening occurred in large part because these securities benefited less from the flight to U.S. assets in response to events in Asia

### Spreads Between Yields on Private and Treasury Securities



Note. The spread on high-yield bonds compares the yield on Merrill Lynch Master II Index of high-yield bonds with that on a seven-year Treasury note; the spread on investment-grade bonds compares the yield on Moody's Index of A-rated investment-grade bonds with that on a ten-year Treasury note.

than did Treasury securities. Banks also appeared eager to lend to businesses. Large percentages of the respondents to the Federal Reserve's surveys, citing stiff competition as the reason, said they had eased terms—particularly spreads—on business loans last year. Much smaller percentages reported having eased standards on these loans. The high ratios of stock prices to earnings suggest that equity finance was also quite cheap last year. Nevertheless, the market for initial public offerings of equity was cooler than in 1996—new issues were priced below the expected range more often than above it, and first-day trading returns were smaller on average.

The pickup in business borrowing was widespread across funding sources. Outstanding commercial paper, which had declined a bit in 1996, posted strong growth in 1997, as did bank business loans. Gross issuance of bonds was extremely high, particularly bonds with ratings below investment grade. Such lower-rated bonds made up nearly half of all issuance, a new record. Although sales of new investment-grade bonds slowed a bit in the fall, corporations were apparently waiting out the market volatility at that time, and issuance picked back up in January. Banks, real estate investment trusts, and commercial-mortgage-backed securities were the most significant sources of funds for income properties—residential apartments and commercial buildings—the financing of which expanded further last year.

### The Government Sector

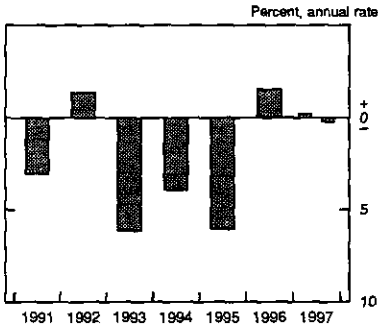
**Federal Expenditures, Receipts, and Finance.** Nominal outlays in the unified budget increased about 2½ percent in fiscal year 1997 after moving up 3 percent in fiscal 1996. Fiscal 1997 was the sixth consecutive year that the growth of spending was less than the growth of nominal GDP. During that period, spending as a percentage of nominal GDP fell from about 22½ percent to just over 20 percent. The set of factors that have combined to bring about this result includes implementation of fiscal policies aimed at reducing the deficit, which has helped slow the growth of discretionary spending and spending on some social and health services programs, and the strength of the economy, which has reduced outlays for income support.

In nominal terms, small to moderate increases were recorded in most major expenditure categories in fiscal 1997. Net interest outlays, which have been accounting for about 15 percent of total unified outlays in recent years, rose only a small amount in 1997, as did nominal outlays for defense and those for income security. Expenditures on Medicaid rose moderately for a second year after having grown very rapidly for many years; spending in this category has been restrained of late by the strong economy, the low rate of inflation in the medical area, and policy changes in the Medicaid program. Policy shifts and the strong economy also cut into outlays for food stamps, which fell about 10 percent in fiscal 1997. By contrast, spending on Medicare continued to rise at about three times the rate of total federal outlays. Growth of outlays for social security also exceeded the rate of rise of total expenditures.

Real federal outlays for consumption and gross investment, the part of federal spending that is counted in GDP, were unchanged, on net, from the last quarter of 1996 to the final quarter of 1997. Real outlays for defense, which account for about two-thirds of the spending for consumption and investment, declined slightly, offsetting a small increase in nondefense outlays. Because of much larger declines in most other recent years, the level of real defense outlays at the end of 1997 was down about 22 percent from its level at the end of the 1980s; total real outlays for consumption and investment dropped about 14 percent over that period.

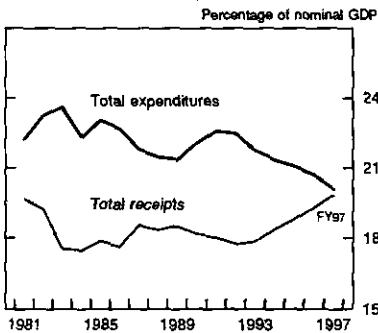
Federal receipts rose faster than nominal GDP for a fifth consecutive year in fiscal 1997; receipts were 19¼ percent of GDP last year, up from 17¼ percent in fiscal 1992. The ratio tends to rise during business expansions, mainly because of cycli-

### Change in Real Federal Expenditures on Consumption and Investment



cal increases in the share of profits in nominal GDP. In the past couple of years, the ratio also has been boosted by the tax increases included in the Omnibus Reconciliation Act of 1993, by a rising income share of high-income taxpayers, and by receipts from surging capital gains realizations, which raise the numerator of the ratio but not the denominator because capital gains realizations are not part of GDP. In fiscal 1997, combined receipts from individual income taxes and social insurance taxes, which account for about 80 percent of total receipts, moved up about 9½ percent, even more than in fiscal 1996. Receipts from the taxes on corporate profits were up about 6 percent in fiscal 1997 after increasing about

### Federal Receipts and Expenditures



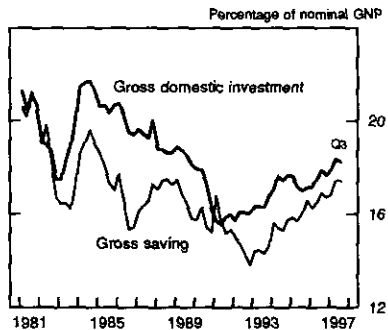
Note. Data on receipts and expenditures are from the unified budget and are for the fiscal year ended in September.

9½ percent in the preceding fiscal year. The total rise in receipts in fiscal 1997, coupled with the subdued rate of increase in nominal outlays, resulted in a budget deficit of \$22 billion, down from \$107 billion in the preceding fiscal year.

With the budget moving close to balance, federal borrowing slowed sharply last year. The Treasury responded to the smaller-than-expected borrowing need by reducing sales of bills in order to keep its auctions of coupon securities predictable and of sufficient volume to maintain the liquidity of the secondary markets. The result was an unusually large net redemption of bills, which at times pushed yields on short-term bills down relative to yields on other Treasury securities and short-term private obligations.

Last year saw the first issuance by the Treasury of inflation-indexed securities. The Treasury sold indexed ten-year notes in January and April of last year and again this January, and sold five-year notes in July and October; it also announced it would sell indexed thirty-year bonds this April. Investor interest in the securities at those auctions was substantial, with the ratios of received bids to accepted bids resembling those for nominal securities. As expected, most of the securities were quickly acquired by final investors, and the trading volume as a share of the outstanding amount has been much smaller than for nominal securities.

### Saving and Investment



Note. Gross saving consists of saving of households, businesses, and governments. Gross domestic investment is the sum of gross private domestic investment and government investment. The gap between gross saving and gross domestic investment is equal to the sum of net foreign investment and the discrepancy between gross national income and gross national product. The narrowing of the gap in recent years is more than accounted for by a change in the amount of the discrepancy.

An important macroeconomic implication of the reduced federal deficit is that the federal government has ceased to be a negative influence on the level of national saving. The improvement in the federal government's saving position in recent years has more than accounted for a rise in the total gross saving of households, businesses, and governments, from about 14½ percent of gross national product earlier in the decade, when federal government saving was at a cyclical low and highly negative, to more than 17 percent in the first three quarters of 1997. This rise in domestic saving, along with increased borrowing from abroad, has financed the rise in domestic investment in this expansion. Still higher rates of saving and investment were the norm a couple of decades ago, when the personal saving rate was a good bit above its level in recent years.

**State and Local Governments.** The real outlays of state and local governments for consumption and investment moved up about 2 percent over the four quarters of 1997, similar to the average since the start of the 1990s. Investment expenditures, which have grown about 2½ percent per annum this decade, rose at only half that pace in 1997, according to the initial estimate. However, real consumption expenditures increased 2¼ percent last year, a touch above the average for the decade. Compensation of government employees, which accounts for about three-fifths of real consumption and investment expenditures, rose about 1¼ percent in 1997 and has increased at an annual rate of only about 1¼ percent since the end of the 1980s.

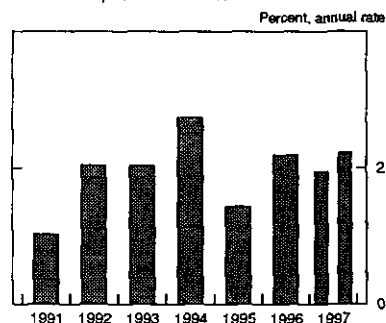
The efforts of state and local governments to hold down their labor expenses are also reflected in the

recent data on nominal wages and hourly compensation. According to the employment cost indexes, hourly compensation of the workers employed by state and local governments increased 2¼ percent in 1997, a little less than in 1996 and the smallest annual increase in the seventeen-year history of the series. The increase in the average hourly wage of state and local employees amounted to about 2¾ percent in 1997, roughly the same as the gain in 1996. The average hourly cost of the benefit packages provided to state and local employees rose only 1¼ percent, a percentage point less than the increase in 1996.

With costs contained and receipts continuing to rise with the growth of the economy, financial pressures that were evident among state and local governments earlier in the expansion have diminished. The increased breathing room in the budgets of recent years is apparent in the consolidated current account of these governments: Surpluses in that account, excluding those that are earmarked for social insurance funds, had dipped to a low of about 1½ percent of nominal receipts in 1991, but they have been larger than 3 percent of receipts in each of the past three years.

State and local debt expanded about 5¼ percent last year after changing little in 1996 and declining in the two preceding years. In those earlier years, municipal debt outstanding had been held down by the retirement of bonds that were "advance refunded" in the early 1990s. In such operations, funds that had earlier been raised and set aside were used to refund debt as it became callable. By the end of 1996, however, the stock of such debt had apparently been largely worked down.

Change in Real State and Local Expenditures on Consumption and Investment



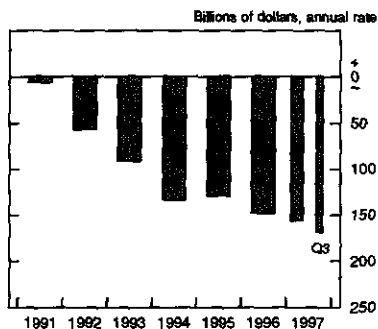
## External Sector

**Trade and the Current Account.** The nominal trade deficit for goods and services was \$114 billion in 1997, little changed from the \$111 billion deficit in 1996. For the first three quarters of the year, the current account deficit reached \$160 billion at an annual rate, somewhat wider than the 1996 deficit of \$148 billion. This deterioration of the current account largely reflects continued declines in net investment income, which for the first time recorded deficits in each of the first three quarters of the year.

The quantity of imports of goods and services expanded strongly during 1997—about 13 percent according to preliminary estimates—as the very rapid growth experienced during the first half of the year moderated slightly during the second half. The expan-



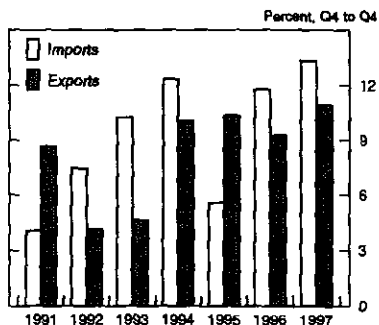
## U.S. Current Account



sion was fueled by continued vigorous growth of U.S. GDP. Additional declines in non-oil import prices—related in large part to the appreciation of the dollar—contributed as well. Of the major trade categories, increases in imports were sharpest for capital goods and consumer goods.

Export growth was also strong in 1997, particularly during the first half of the year. The quantity of exports of goods and services rose nearly 11 percent, after a rise of 9½ percent the preceding year. Despite further appreciation of the dollar, exports accelerated in response to the strength of economic activity abroad. Output growth in most of our industrial-country trading partners firmed in 1997 from the moderate rates observed in 1996. Among our developing-country trading partners, robust

## Change in Real Imports and Exports of Goods and Services



growth continued through much of the year, but the onset of crises in several Asian economies late in 1997 led to abrupt slowdowns in economic activity. Growth of exports to Latin American countries and to Canada was particularly strong. Exports to Western Europe also increased at a healthy pace.

**Capital Flows.** In the first three quarters of 1997, large increases were reported in both foreign ownership of assets in the United States and U.S. ownership of assets abroad, reflecting the continued trend toward the globalization of both financial markets and the markets for goods. Little evidence of the gathering financial storm in Asia was apparent in the data on U.S. capital flows through the end of September. Foreign official assets in the United States rose \$46 billion in the first three quarters of 1997. The increases were concentrated in the holdings of certain industrial countries and members of OPEC. Although substantial, these increases were below the pace for the first three quarters of 1996.

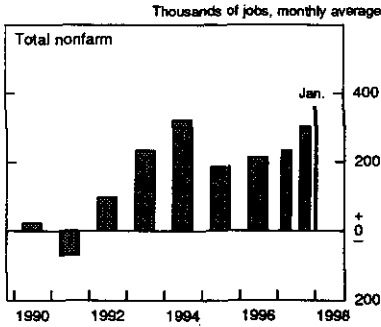
In contrast, increases in assets held by other foreigners in the first three quarters of 1997 surpassed those recorded in 1996. In particular, net purchases of U.S. Treasury securities by private foreigners rose to \$130 billion, net purchases of U.S. corporate and other bonds reached \$96 billion, and net purchases of U.S. stocks were a record \$55 billion. In addition, foreign direct investment in the United States also posted a new high of \$78 billion, as the strong pace of acquisitions of U.S. companies by foreigners continued.

U.S. direct investment abroad in the first three quarters of 1997 also exceeded the 1996 pace, with a record net outflow of \$88 billion. U.S. net purchases of foreign securities in the first three quarters of 1997 were \$74 billion, a little below the pace for 1996. However, net purchases of stocks in Japan and bonds in Latin America were up substantially. Banks in the United States reported a large increase in net claims on foreigners in the first quarter but only a modest increase in the next two quarters combined.

## The Labor Market

**Employment, Productivity, and Labor Supply.** More than 3 million jobs were added to nonfarm payrolls in 1997—a gain of nearly 2¼ percent, measured from December to December. Patterns of hiring mirrored the broadly based gains in output and spending. Manufacturing, construction, trade, transportation, finance, and services all exhibited appreciable strength. In manufacturing, the

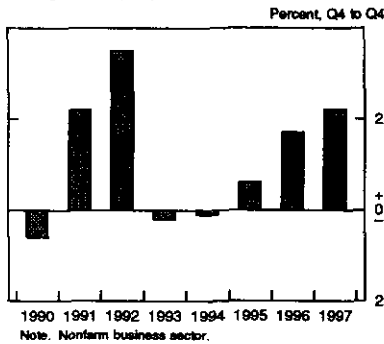
## Change in Payroll Employment



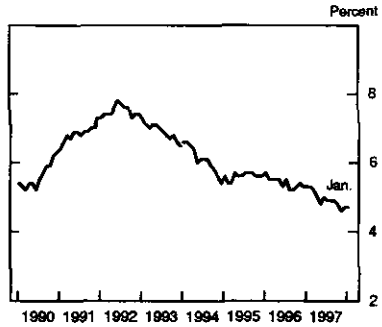
1997 rise in the job count followed two years of little change. Elsewhere, the gains in 1997 came on top of substantial increases in other recent years. Especially rapid increases were posted this past year in some of the services industries, including computer services, management services, education, and recreation. Employment at suppliers of personnel, a category that includes the agencies that supply help on a temporary basis, also increased appreciably in 1997, but the gains in this category fell considerably short of those seen in previous years of the expansion. Help-supply firms reported that shortages of workers were limiting the pace of their expansion.

Labor productivity has risen rapidly over the past two years. Revised data show the 1996 gain in output

## Change in Output per Hour



## Civilian Unemployment Rate



Note. The break in data at January 1994 marks the introduction of a redesigned survey; data from that point on are not directly comparable with the data of earlier periods.

per hour in the nonfarm business sector to have been about 1¼ percent, and the increase in 1997 was larger still—about 2¼ percent, according to the first round of estimates. Although the average rate of productivity increase since the end of the 1980s still is only a little above 1 percent per year, the data for the past two years provide hopeful indications that sustained high levels of investment in new technologies may finally be translating into a stronger trend.

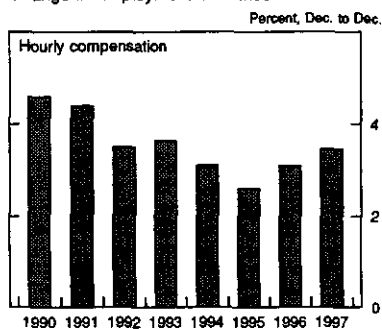
The civilian unemployment rate fell more than ½ percentage point from the fourth quarter of 1996 to the fourth quarter of 1997, to an average of just under 4½ percent. The rate held steady at this level in January of this year. For most of the past year, the rate has been running somewhat below the minimum that was reached in the expansion of the 1980s. A variety of survey data indicate that firms have had increased difficulty filling jobs.

After moving up a step in 1996, the labor force participation rate continued to edge higher in 1997. Without the increment to labor supply from increased participation over these two years, the unemployment rate would have fallen to an even lower level. Changes in the welfare system perhaps contributed to some extent to the small rise in participation in 1997, although this effect is difficult to disentangle from the normal tendency of participation to rise when the labor market is tight. Even though one-third of the adult population remained outside the labor force in 1997, the vast majority of those individuals likely were in pursuits that tended to preclude their workforce participation, such as retirement, schooling,

or housework. The percentage of the working age population interested in work but not actively seeking it moved down further in 1997, to 2¼ percent in the fourth quarter, a record low in the history of the series, which began in 1970.

**Wages and Hourly Compensation.** According to the employment cost indexes, hourly compensation in private industry increased 3.4 percent from December of 1996 to December of 1997. This rise exceeded that of the previous year by 0.3 percentage point and was 0.8 percentage point greater than the increase of 1995. Although the patterns of change in hourly pay have varied quite a bit by industry and occupation over the past two years, the overall step-up seems to have been prompted, in large part, by the tightening of labor markets. The implementation of a higher minimum wage also seems to have been a factor in some industries and occupations, although its impact is difficult to assess precisely.

Change in Employment Cost Index



The wage and salary component of hourly compensation rose faster in 1997 than in any previous year of the expansion. Annual increases in the employment cost index for wages and salaries in private industry amounted to 2.8 percent in both 1994 and 1995, but the increases of 1996 and 1997 were 3.4 percent and 3.9 percent respectively. Wages and salaries in the service-producing industries accelerated nearly a full percentage point in 1997, pushed up, especially, by sharp pay increases in the finance, insurance, and real estate sector, in which commissions and bonuses have recently been boosted by

high levels of mortgage refinancing and trading activity. By contrast, hourly wages in the goods-producing industries slowed a couple of tenths of a percentage point in 1997; the annual gains in these industries have been around 3 percent, on average, in each of the past six years.

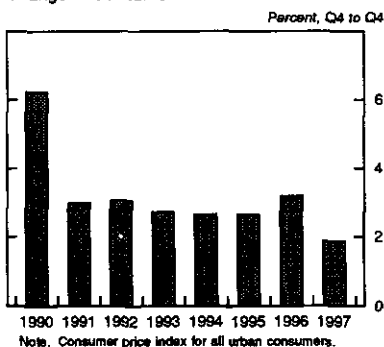
Although the costs of the fringe benefits that companies provide to their employees also picked up in 1997, the yearly increase of 2.3 percent was not large by historical standards. As in other recent years, benefit costs in 1997 were restrained by a variety of influences. Most notably, the price of health care continued to rise at a subdued pace, and the ongoing strength of the economy limited the need for payments by firms to state unemployment trust funds. Even though some firms reported seeing renewed sharp increases in health care costs during the year, the employment cost data suggest that most firms still were keeping those costs under fairly tight control.

With nominal hourly compensation in almost all industries moving ahead at a faster pace than inflation, workers' pay generally increased in real terms, and the real gains were substantial in many occupations. Indeed, the employment cost index does not capture some of the forms of compensation that employers have been using to attract and retain workers—stock options and signing bonuses, for example.

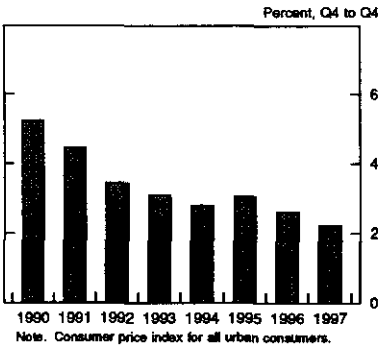
## Prices

Indications of a slowing of inflation in 1997 were widespread in the various measures of aggregate price change. The consumer price index, which had picked

Change in Consumer Prices



Change in Consumer Prices Excluding  
Food and Energy



up to more than a 3 percent rate of rise over the four quarters of 1996, increased slightly less than 2 percent over the four quarters of 1997 as energy prices turned down and increases in food prices slowed. The CPI excluding food and energy—a widely used gauge of the underlying trend of inflation—rose only  $2\frac{1}{4}$  percent in 1997 after increases of 3 percent in 1995 and  $2\frac{1}{2}$  percent in 1996. The CPI for commodities other than food and energy rose about  $\frac{1}{2}$  percent over the four quarters of 1997 after moving up slightly more than 1 percent in 1996. Price increases for non-energy services, which have a much larger weight than commodities in the core CPI, also slowed a little in 1997; a 3 percent rise

during the year was about  $\frac{1}{4}$  percentage point less than the increase during 1996. Only small portions of the slowdowns between 1996 and 1997 in the total CPI and in the CPI excluding food and energy were the result of technical changes implemented by the Bureau of Labor Statistics.<sup>1</sup>

Other measures of aggregate price change also decelerated in 1997. The chain-type price index for gross domestic purchases—the broadest measure of prices paid by U.S. households, businesses, and governments—increased about  $1\frac{1}{2}$  percent during 1997 after moving up  $2\frac{1}{4}$  percent in 1996. The chain-type price index for gross domestic product, a measure of price change for the goods and services produced in this country (rather than the goods and services purchased), increased  $1\frac{3}{4}$  percent in the latest year after rising  $2\frac{1}{4}$  percent rise in 1996. The steeper slowing of the price index for aggregate purchases relative to that for aggregate production was largely a reflection of the prices of imports, which fell faster in 1997 than in 1996. Falling computer prices were an important influence on many of these measures of aggregate price change—more

1. Over the past three years, the Bureau of Labor Statistics has introduced a number of technical changes in its procedures for compiling the CPI, with the aim of obtaining a more accurate measure of price change. Typically, the changes have only a small effect on the results for any particular year, but their cumulative effects are somewhat larger and are tending to hold down the reported increases of recent years relative to what would have been reported with no changes in procedures. Apart from the procedural changes, the reported rate of rise from 1998 forward will also be affected by an updating of the CPI market basket, an action that the BLS undertakes approximately every ten years.

Alternative Measures of Price Change  
Percent

Price measure	1996	1997
<i>Fixed weight</i>		
Consumer price index	3.2	1.9
Excluding food and energy	2.6	2.2
<i>Chain type</i>		
Personal consumption expenditures	2.7	1.5
Excluding food and energy	2.3	1.6
Gross domestic purchases	2.3	1.4
Gross domestic product	2.3	1.8

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

so than on the CPI, which gave small weight to computers through 1997 but has started weighting them more heavily this year.

In real terms, imports of goods and services account for approximately 15 percent of the total purchases of households, businesses, and governments located in the United States. But that figure probably understates the degree of restraint that falling import prices have imposed on domestic inflation, because the lower prices for imports also make domestic producers of competing products less likely to raise prices. Prices have also been restrained by large additions to manufacturing capacity in this country, amounting to more than 5 percent in each of the past three years; this capacity growth helped to stave off the bottlenecks that so often have developed in the more advanced stages of other postwar business expansions. A gain in manufacturing production of more than 6 percent this past year was accompanied by only a moderate increase in the factory operating rate, which, at year-end, remained well below the highs reached in other recent expansions and the peak for this expansion, which was recorded about three years ago.

Reflecting the ample domestic supply and the effects of competition from goods produced abroad, the producer price index for finished goods declined about  $\frac{3}{4}$  percent from the fourth quarter of 1996 to the fourth quarter of 1997; excluding food and energy, it rose only fractionally. Prices of domestically produced materials (other than food and energy) also rose only slightly, on net. The prices of raw industrial commodities, many of which are traded in international markets, declined over the year; the weakness of prices in these markets was especially pronounced in late 1997, when the crises in Asia were worsening. Industrial commodity prices fell further in the first couple of weeks of 1998, but they since have changed little, on balance. The producer price index fell sharply in January of this year; the index excluding food and energy declined slightly.

After moving up more than 4 percent in 1996, the consumer price index for food increased only  $\frac{1}{4}$  percent in 1997. Impetus for the large increase of 1996 had come from a surge in the price of grain, which peaked around the middle of that year; since then, grain prices have dropped back considerably. An echo of the up-and-down price pattern for grains appeared at retail in the form of sharp price increases for meats, poultry, and dairy products in 1996 followed by small to moderate declines for most of those products in 1997. Moderate price increases were

posted at retail for most other food categories last year.

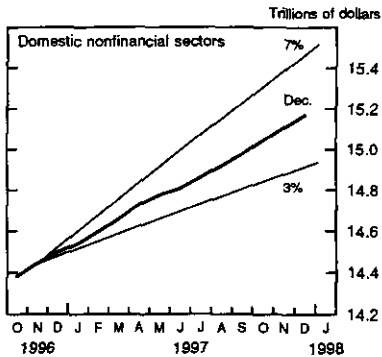
The CPI for energy has traced out an even bigger swing than the price of food over the past two years—a jump of  $7\frac{1}{2}$  percent over the four quarters of 1996 was followed by a decline of about 1 percent over the four quarters of 1997. As is usually the case in this sector, the key to these developments was the price of crude oil, which in 1997 more than reversed the run-up of the preceding year. Prices of oil have been held down in recent months by ample world supplies, the economic problems in Asia, and a mild winter.

Survey data on inflation expectations mostly showed moderate reductions during 1997 in respondents' views of the future rate of price increase, and some of the survey data for early 1998 have shown a more noticeable downward shift in inflation expectations. A lowering of inflation expectations has long been viewed as an essential ingredient in the pursuit of price stability, and the recent data are a sign that progress is still being made in that regard.

### Credit, Money, Interest Rates, and Equity Prices

**Credit and Depository Intermediation.** The debt of the domestic nonfinancial sectors grew at a  $4\frac{1}{4}$  percent rate last year, somewhat below the midpoint of the range established by the FOMC and less than in 1996, when it grew 5 $\frac{1}{4}$  percent. The deceleration was accounted for entirely by the

Debt: Annual Range and Actual Level



federal component, which, because of the reduced budget deficit, rose less than 1 percent last year, after having risen 3¼ percent in 1996. Nonfederal debt grew 6 percent, a bit more than in 1996, as the pickup in business borrowing more than offset the deceleration of household debt.

Depository institutions increased their share of credit flows in 1997, with credit on their books expanding 5¾ percent, up appreciably from growth in 1996. The growth of bank credit, adjusted to remove the effects of mark-to-market accounting rules, accelerated to an 8¼ percent pace, the largest rise in ten years; and banks' share of domestic nonfinancial debt outstanding climbed to its highest level since 1988. Bank credit accelerated in part because banks' hold-

ings of securities—which had run off in 1995 and had been flat in 1996—expanded at a brisk pace last year; securities account for one-fourth of total bank credit. Loans, which make up the remainder of bank credit, also advanced a bit more quickly last year than in 1996, though more slowly than in 1995.

The increase in bank loans occurred despite a net decline in consumer loans on banks' books resulting both from sharply slower growth in loans originated by banks and from continued securitization of those loans. Real estate loans at banks, by contrast, posted solid growth last year. This category of credit benefited from a pickup in home mortgages, the rapid growth in home equity loans, which were substituting in part for consumer loans, an acceleration in

### Growth of Money and Debt Percent

Period	M1	M2	M3	Domestic nonfinancial debt	
<i>Annual<sup>1</sup></i>					
1987	6.3	4.2	5.8	9.9	
1988	4.3	5.7	6.3	8.9	
1989	0.5	5.2	4.0	7.8	
1990	4.2	4.1	1.8	6.8	
1991	7.9	3.1	1.2	4.5	
1992	14.4	1.8	0.6	4.7	
1993	10.6	1.3	1.1	5.1	
1994	2.5	0.6	1.7	5.1	
1995	-1.6	3.9	6.1	5.4	
1996	-4.5	4.6	6.9	5.2	
1997	-1.2	5.6	8.7	4.7	
<i>Quarterly (annual rate)<sup>2</sup></i>					
1997	Q1	-1.4	5.1	8.0	4.3
	Q2	-4.5	4.4	7.7	4.7
	Q3	0.3	5.4	8.1	4.1
	Q4	0.8	6.8	9.8	5.2

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

credit market debt of the U.S. government, state and local governments, households and nonprofit organizations, nonfinancial businesses, and farms.

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

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

commercial real estate lending, and the acquisition of thrift institutions by banks. Commercial and industrial loans expanded considerably last year, reflecting both the general rise in the demand by businesses for funds and an increase in banks' share of the nonmortgage business credit market as they competed vigorously for business loans by easing terms.

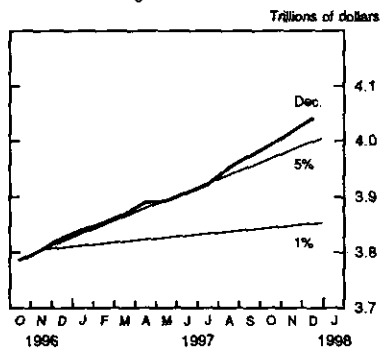
The rapid growth of banks' assets was facilitated by their continued high profitability and abundance of capital; at the end of the third quarter, nearly 99 percent of bank assets were at well-capitalized institutions. Problems with the repayment performance of consumer loans—which, while not deteriorating further, remained elevated by historical standards—hurt some banks; however, overall loan delinquency and charge-off rates stayed quite low, and measures of banks' profitability persisted at the elevated levels they have occupied for several years. Profits at a few large bank holding companies were reduced in the fourth quarter by trading losses resulting from the events in Asia. Nonetheless, the profits of the industry as a whole remained robust.

The profits and capital levels of thrift institutions, like those of banks, were high last year, and the thrifts also were aggressive lenders. The outstanding amount of credit extended by thrifts grew at about a 1½ percent pace last year, but this sluggishness reflected entirely the acquisitions of thrifts by commercial banks; among thrifts not acquired during the year, asset growth was similar to that of banks.

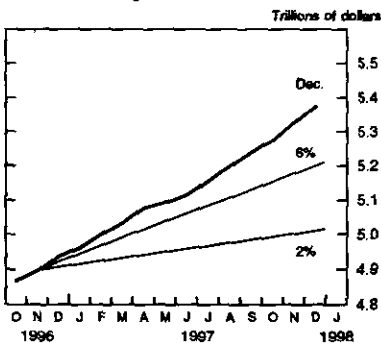
**The Monetary Aggregates.** Boosted in part by the need to fund substantial growth in depository

credit, M3 shot up last year, expanding 8½ percent; this growth was well above the 2 percent to 6 percent annual range, which was intended to suggest the rate of growth over the long run consistent with price stability. M3 was augmented by a shift in sources of funding—mostly at U.S. branches and agencies of foreign banks—from borrowings from related offices abroad, which are not included in M3, to large time deposits issued in the United States, which are. Also contributing to the strength in M3 was rapid growth in institution-only money funds, which reflected gains by these funds in the provision of corporate cash management services. Corporations that manage their own cash often keep their funds in short-term assets that are not included in M3.

M2: Annual Range and Actual Level



M3: Annual Range and Actual Level



Although growth of M2 did not match that of M3, it increased at a brisk 5½ percent rate last year. As the Committee had anticipated, the aggregate was somewhat above the upper bound of its 1 percent to 5 percent annual range, which also had been chosen to be consistent with expected M2 growth under conditions of price stability. Because short-term interest rates responded only slightly to System tightening in March, the opportunity cost of holding M2—the interest earnings forgone by owning M2 assets rather than money market instruments such as Treasury bills—was about unchanged over the year. As M2 grew at about the same rate as nominal GDP, velocity was also essentially unchanged. The ups and downs of M2 growth last year mirrored those of the growth in nominal output. M2 expanded much more slowly in the second quarter than in the first,

consistent with the cooling of nominal GDP growth and almost unchanged opportunity costs. In the second half of the year, M2 growth picked up, again pacing the growth of nominal GDP. In the fall, M2 may also have been boosted a little by the volatility in equity markets, which may have led some households to seek the relative safety of M2 assets.

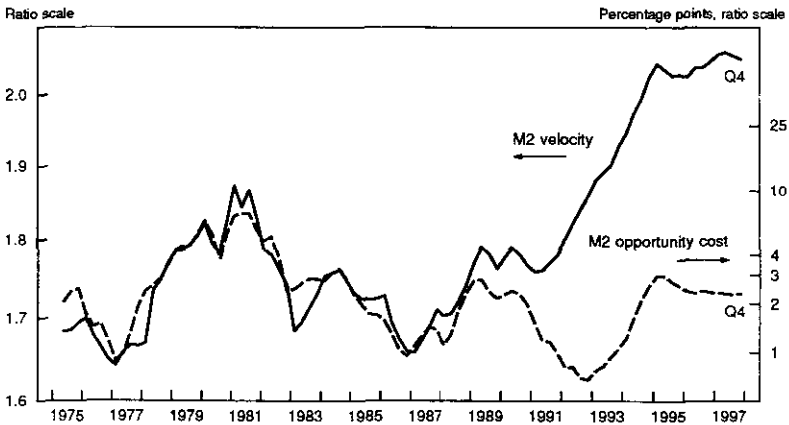
For several decades before 1990, M2 velocity responded positively to changes in its opportunity costs and otherwise showed little net movement over time. This pattern was disturbed in the early 1990s in part by households' apparent decision to shift funds out of lower-yielding M2 deposits into higher-yielding stock and bond mutual funds, which raised M2 velocity even as opportunity costs were declining. The movements in the velocity of M2 from 1994 into 1997 appear to have again been explained by changes in opportunity costs, along with some residual upward drift. This drift suggests that some households may still have been in the process of shifting their portfolios toward non-M2 assets. There was no uprend in velocity over the second half of last year, perhaps because of the declining yields on intermediate- and long-term debt and the greater volatility and lower average returns posted by stock mutual funds. However, given the aberrant behavior of velocity during the 1990s in general, considerable uncertainty remains about the relationship

between the velocity and opportunity cost of M2 in the future.

M1 fell 1¼ percent last year. As has been true for the last four years, the growth of this aggregate was depressed by the adoption by banks of retail sweep programs, whereby balances in transactions accounts, which are subject to reserve requirements, are "swept" into savings accounts, which are not. Sweep programs benefit depositors by reducing their required reserves, which earn no interest. At the same time, they do not restrict depositors' access to their funds for transactions purposes, because the funds are swept back into transactions accounts when needed. The initiation of programs that sweep funds out of NOW accounts—until last year the most common form of retail sweep programs—appears to be slowing, but sweeps of household demand deposits have picked up, leaving the estimated total amount by which sweep account balances increased last year similar to that in 1996. Adjusted for the initial reduction in transactions accounts resulting from the introduction of new sweep programs, M1 expanded 6¼ percent, a little above its sweep-adjusted growth in 1996.

The drop in transactions accounts caused required reserves to fall 7¼ percent last year. Despite this decline, the monetary base grew 6 percent, boosted

#### M2 Velocity and the Opportunity Cost of Holding M2



Note. M2 opportunity cost is a two-quarter moving average of the three-month Treasury bill rate less the weighted-average rate paid on M2 components.

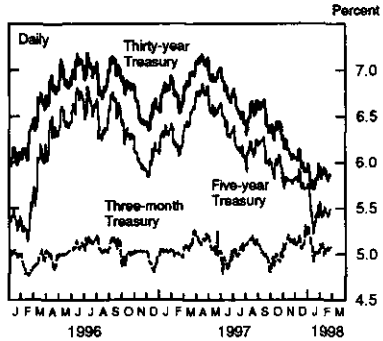


by a hefty advance in currency. Currency again benefited from foreign demand, as overseas shipments continued at the elevated levels seen in recent years. Moreover, domestic demand for currency expanded sharply in response to the strong domestic spending.

The Federal Reserve has been concerned that as the steady decline in required reserves of recent years is extended, the federal funds rate may become significantly more volatile. Required reserves are fairly predictable and must be maintained on only a two-week average basis. As a result, the unavoidable daily mismatches between reserves made available through open market operations and desired reserves typically have been fairly small, and their effect on the federal funds rate has been muted. However, banks also hold reserve balances at the Federal Reserve to avoid overdrafts after making payments for themselves and their customers. This component of the demand for reserves is difficult to predict, varies considerably from day to day, and must be fully satisfied each day. As required reserves have declined, the demand for balances at the Federal Reserve has become increasingly dominated by these more changeable daily payment-related needs. Nonetheless, federal funds volatility did not increase noticeably last year. In part this was because the Federal Reserve intervened more frequently than in the past with open market operations of overnight maturity in order to better match the supply of and demand for reserves each day. In addition, banks made greater use of the discount window, increasing the supply of reserves when the market was excessively tight. Significant further declines in reserve balances, however, do risk increased federal funds rate volatility, potentially complicating the money market operations of the Federal Reserve and of the private sector. One possible solution to this problem is to pay banks interest on their required reserve balances, reducing their incentive to avoid holding such balances.

**Interest Rates and Equity Prices.** Interest rates on intermediate- and long-term Treasury securities moved lower, on balance, last year. Yields rose early in the year as market participants became concerned that strength in demand would further tighten resource utilization margins and increase inflation unless the Federal Reserve took countervailing action. Over the late spring and summer, however, as growth moderated some and inflation remained subdued, these concerns abated significantly, and longer-term interest rates declined. Further reductions came in the latter part of the year as economic problems mounted in Asia. On balance,

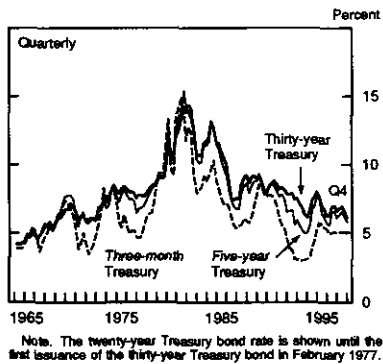
#### Selected Treasury Rates



between the end of 1996 and the end of 1997, the yields on ten-year and thirty-year Treasury bonds fell about 70 basis points. Early this year, with the economic troubles in Asia continuing, the desire of investors for less risky assets, along with further reductions in the perceived risk of strong growth and higher inflation, pushed yields on intermediate- and long-term Treasury securities down an additional 25 to 50 basis points, matching their levels of the late 1960s and the early 1970s, when the buildup of inflation expectations was in its early stages.

Survey measures of expectations for longer-horizon inflation generally did move lower last year, but by less than the drop in nominal yields. As a

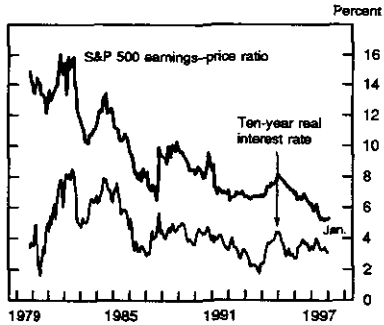
#### Selected Treasury Rates



result, estimates of the real longer-term interest rate calculated by subtracting these measures of expected inflation from nominal yields indicate a slight decline in real rates over the year. In contrast, yields on the inflation-indexed ten-year Treasury note rose about a quarter percentage point between mid-March (when market participants seem to have become more comfortable with the new security) and the end of the year. The market for the indexed securities is sufficiently small that their yields can fluctuate temporarily as a result of moderate shifts in supply or demand. Indeed, much of the rise in the indexed yield came late in the year, when, in an uncertain global economic environment, investors' heightened desire for liquidity may have made nominal securities relatively more attractive.

With real interest rates remaining low and corporate profits growing strongly, equities had another good year in 1997, and major stock indexes rose 20 percent to 30 percent. Although stocks began the year well, they fell with the upturn in interest rates in February. As interest rates subsequently declined and earning reports remained quite upbeat, the markets again advanced, with most broad indexes of stock prices reaching new highs in the spring. Advances were much more modest, on balance, over the second half of the year. Valuations seemed already to have incorporated very robust earnings growth, and in October, deepening difficulties in Asia evidently led investors to lower their expectations for the earnings of some U.S. firms, particularly high-technology firms and money center banks. More rapid price advances have resumed of late, as

#### Equity Valuation and Long-Term Interest Rate

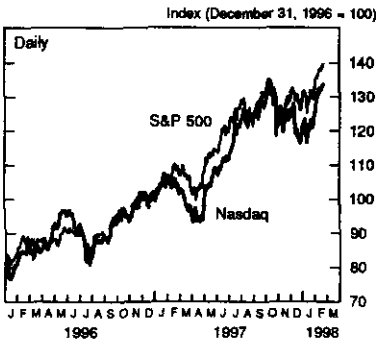


Note. The earnings-price ratio is based on the I/B/E/S International, Inc., consensus estimate of earnings over the coming twelve months. The real interest rate is the yield on the ten-year Treasury note less the ten-year inflation expectations from the Philadelphia Federal Reserve Survey of Professional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

interest rates fell further and investors apparently came to see the earnings consequences of Asian difficulties as limited.

Despite the strong performance of earnings and the slower rise of stock prices since last summer, valuations seem to reflect a combination of expectations of quite rapid future earnings growth and a historically small risk premium on equities. The gap between the market's forward-looking earnings-price ratio and the real interest rate, measured by the ten-year Treasury rate less a survey measure of inflation expectations, was at the smallest sustained level last year in the eighteen-year period for which these data are available. Declines in this gap generally imply either that expected real earnings growth has increased or that the risk premium over the real rate investors use when valuing those earnings has fallen, or both. Survey estimates of stock analysts' expectations of long-term nominal earnings growth are, in fact, the highest observed in the fifteen years for which these data are available. Because inflation has trended down over the past fifteen years, the implicit forecast of the growth in real earnings departs even further from past forecasts. However, even with this forecast of real earnings growth, the current level of equity valuation suggests that investors are also requiring a lower risk premium on equities than has generally been the case in the past, a hypothesis supported by the low risk premiums evident in corporate bond yields last year.

#### Major Stock Price Indexes

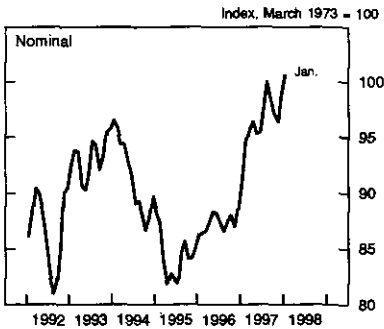


Note. Last observations are for February 20, 1998.

## International Developments

The foreign exchange value of the dollar rose during 1997 in terms of the currencies of most of the United States' trading partners. From the end of December 1996 through the end of December 1997, the dollar on average gained 13 percent in nominal terms against the currencies of the other G-10 countries when those currencies are weighted by multilateral trade shares. In terms of a broader index of currencies that includes those of most industrial countries and several developing countries, the dollar on balance rose nearly 14 percent in real terms during 1997.<sup>2</sup> The trading desk of the New York Federal Reserve Bank did not intervene in foreign exchange markets during 1997.

### Weighted Average G-10 Exchange Value of the U.S. Dollar



Note. In terms of the currencies of the other G-10 countries. Weights are based on 1972-76 global trade of each of the ten countries.

During the first half of 1997, the dollar appreciated in terms of the currencies of the other industrial countries, as the continuing strength of U.S. economic activity raised expectations of further tightening of U.S. monetary conditions. Concerns about the implications of the transition to European Monetary Union and perceptions that monetary policy was not likely to tighten significantly in prospective member countries also contributed to the tendency for the dollar to rise in terms of the

mark and other continental European currencies. In response to varying indicators of the strength of the Japanese expansion, the dollar rose against the yen early in the year but then moved back down through midyear.

The crises in Asian financial markets dominated developments during the second half of the year and resulted in substantial appreciation of the dollar in terms of the currencies of Korea and several countries in Southeast Asia. The dollar also appreciated against the yen in response to evidence of financial sector fragility in Japan and faltering Japanese economic activity, which were likely to be exacerbated by the negative impact of the Asian situation on Japan. During the first weeks of 1998, the dollar has changed little, on average, in terms of the currencies of most other industrial countries, but it has moved down in terms of the yen.

Pronounced asset-price fluctuations in Southeast Asia began in early July when the Thai baht dropped sharply immediately following the decision by authorities to no longer defend the baht's peg. Downward pressure soon emerged on the currencies and equity prices of other southeast Asian countries, in particular Indonesia and Malaysia. Weakening balance sheet positions of nonfinancial firms and financial institutions, rising debt-service burdens, and financial market stresses that resulted in part from policies of pegging local currencies to the appreciating dollar prompted closer scrutiny of Asian economies. As foreign creditors came to realize the extent to which these Asian financial systems were undercapitalized and inadequately supervised, they became less willing to continue to lend, making it even more difficult for the Asian borrowers to meet their foreign currency obligations. Turbulence spread to Hong Kong in October. The depreciation of currencies elsewhere in Asia, in particular the decision by Taiwanese authorities to allow some downward adjustment of the Taiwan dollar, led market participants to question the commitment of Hong Kong authorities to the peg of the Hong Kong dollar to the U.S. dollar. In response, the Hong Kong Monetary Authority raised domestic interest rates substantially to defend the peg, driving down equity prices as a consequence. Near the end of the year, the crisis spread to Korea, whose economy and financial system were already vulnerable as a result of numerous bankruptcies of corporate conglomerates starting in January 1997; these bankruptcies of major non-financial firms further undermined Korean financial institutions and, combined with the depreciations in competitor countries, contributed to a loss of invest-

2. This index weights currencies in terms of the importance of each country in determining the global competitiveness of U.S. exports and adjusts nominal exchange rates for changes in relative consumer prices.

tor confidence. On balance, during 1997 the dollar appreciated significantly in terms of the Indonesian rupiah (139 percent), the Korean won (100 percent), and the Thai baht (82 percent), while it moved up somewhat less in terms of the Taiwan dollar (19 percent) and was unchanged in terms of the Hong Kong dollar, which remains pegged to the U.S. dollar. Since year-end, the dollar has appreciated significantly further, on balance, in terms of the Indonesian rupiah and is little changed in terms of the Korean won.

The emergence of the financial crisis is causing a marked slowdown in economic activity in these Asian economies. During the first half of last year, real output continued to expand in most of these countries at about the robust rates enjoyed in 1996. Since the onset of the crisis, domestic demand in these countries has been greatly weakened by disruption in financial markets, substantially higher domestic interest rates, sharply reduced credit availability, and heightened uncertainty. In addition, macroeconomic policy has been tightened somewhat in Thailand, the Philippines, Indonesia, and Korea in connection with international support packages from the International Monetary Fund and other international financial institutions, and in connection with bilateral aid from individual countries. Announcement of agreement with the IMF on the support packages temporarily buoyed asset markets in each country, but concerns about the willingness or ability of governments to undertake difficult reforms and to achieve the stated macroeconomic goals remained. Additional measures to tighten the Korean program were announced in mid-December and included improved reserve management by the Bank of Korea, removal of certain interest rate ceilings, and acceleration of capital account liberalization and financial sector restructuring. With the encouragement of the authorities of the G-7 and other countries, banks in industrial countries have generally rolled over the majority of their foreign-currency-denominated claims on Korean banks during early 1998, as a plan for financing the external obligations of Korean financial institutions was being formulated. After the announcement on January 28 of an agreement in principle for the exchange of existing claims on Korean banks for restructured loans carrying a guarantee from the Korean government, the won stabilized. In the case of Indonesia, the support package was renegotiated and reaffirmed with the IMF in mid-January, though important elements of the approach of the Indonesian authorities remain in question as this report is submitted.

Signs that adjustment is proceeding within these Asian economies are already evident. For example, Thailand and Korea have registered strong improvements in their trade balances in recent months. Equity prices have recovered in Thailand, Indonesia, and Korea as well. At the same time, signs of rising inflation are beginning to emerge. In particular, consumer prices have accelerated in recent months in these three countries.

Spillover of the financial crisis to the economies of China, Hong Kong, and Taiwan has been limited to date. Steps to maintain the peg in Hong Kong have resulted in elevated interest rates, sharply lower equity prices, and increased uncertainty. However, in Taiwan, equity prices on balance rose nearly 18 percent in 1997 and have risen somewhat further so far this year. Real output growth in these three economies remained robust early in 1997 but may have slowed somewhat in China and Hong Kong in recent months.

Financial markets in some Latin American countries also came under pressure in reaction to the intensification of the crises in Asia in late 1997. After remaining quite stable earlier in the year, the Mexican peso dropped about 8 percent in terms of the U.S. dollar in late October; since then, it has changed little, on balance. In Brazil, exchange market turbulence abroad lowered market confidence in the authorities' ability to maintain that country's managed exchange rate regime; in response, short-term interest rates were raised 20 percentage points. The Brazilian exchange rate regime and the peg of the Argentine peso to the dollar have held. Real output growth in Mexico and Argentina remained healthy during 1997. In Brazil, growth fluctuated sharply during the year, with the high domestic interest rates and tighter macroeconomic policy stance that were put in place late in the year weakening domestic demand. During 1997, consumer price inflation slowed significantly in Mexico and Brazil and remained very low in Argentina.

In Japan, the economic expansion faltered in the second quarter as the effects on domestic demand of the April increase in the consumption tax exceeded expectations; in addition, crises in many of Japan's Asian trading partners late in the year weakened external demand and heightened concerns about the fragility of Japan's financial sector. The dollar rose about 10 percent against the yen during the first four months of 1997 as economic activity in the United States strengthened relative to that in Japan and as interest rate developments, including the FOMC

policy move in March, favored dollar assets. These gains were temporarily reversed in May and June as market attention focused on the growing Japanese external surplus and tentative indications of improving real activity. However, subsequent evidence of disappointing output growth, revelations of additional problems in the financial sector, and concerns about the implications of turmoil elsewhere in Asia for the Japanese economy contributed to a rise in the dollar in terms of the yen during the second half of the year. On net, the dollar appreciated nearly 13 percent against the yen during 1997; so far in 1998, it has moved back down slightly, on balance.

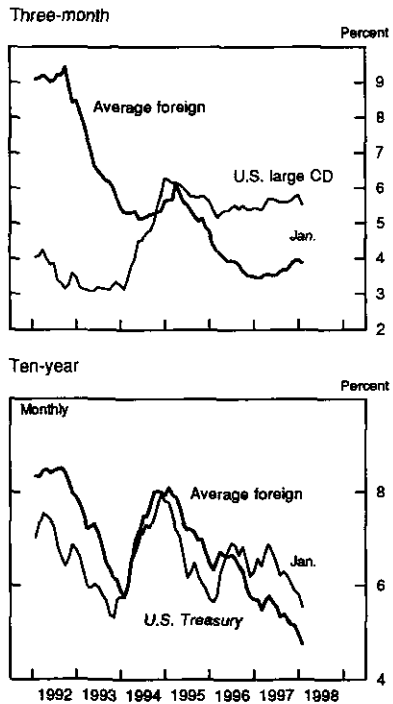
In Germany and France, output growth rose in 1997 from its modest 1996 pace, boosted in both countries by the strong performance of net exports. Nevertheless, the dollar rose in terms of the mark and other continental European currencies through midyear, responding not only to stronger U.S. economic activity but also to concerns about the timetable for launching European Monetary Union (EMU), the process of the transition to a single currency, and the policy resolve of the prospective members. Later in the year the dollar moved back down slightly and then fluctuated narrowly in terms of the mark, as investors concluded that the transition to EMU was likely to be smooth, with the euro introduced on time on January 1, 1999, and with a broad membership. On balance, the dollar rose about 17 percent against the mark during 1997 and has varied little since then.

In the United Kingdom and Canada, real output growth was vigorous in 1997. All the components of U.K. domestic demand continued to expand strongly. In Canada, more robust private consumption spending and less fiscal restraint boosted real GDP growth from its moderate 1996 pace. Central bank official lending rates were raised in both countries during the year to address the threat of rising inflation. The value of the pound eased slightly in terms of the dollar over the year, whereas the Canadian dollar fell more than 4 percent in terms of the U.S. dollar. Much of the movement in the Canadian dollar came during the fourth quarter, as the crisis in Asia contributed to a weakening of global commodity prices and thus a likely lessening of Canadian export earnings. The Canadian dollar depreciated further early in 1998, reaching historic lows against the U.S. dollar in January, but it has rebounded with the tightening by the Bank of Canada in late January.

Long-term interest rates have generally declined in the other G-10 countries since the end of 1996.

Japanese long-term rates have dropped about 90 basis points, with most of the decrease coming in the second half of last year as evidence of sluggish economic activity became more apparent. German long-term rates have also fallen about 80 basis points as expectations of tightening by the Bundesbank diminished, especially toward the end of the year. The turbulence in Asian asset markets likely contributed to inflows into bond markets in several of the industrial countries, including the United States. Long-term rates in the United Kingdom have declined about 150 basis points. Legislation to increase the independence of the Bank of England and repeated tightening of monetary policy during the year reassured markets that some slowing of the very rapid

### U.S. and Foreign Interest Rates



Note. Average foreign rates are the global trade-weighted average, for the other G-10 countries, of yields on instruments comparable to U.S. instruments shown.

pace of economic growth was likely and that the Bank would be aggressive in resisting inflation in the future. Three-month market interest rates generally have risen in the other G-10 countries, although there have been exceptions. Rates have moved up the most in Canada (more than 180 basis points) and the United Kingdom (120 basis points), in response to several increases in official lending rates. German rates have risen about 40 basis points. Short-term rates in the countries that are expected to adopt a single currency on January 1 of next year converged toward the relatively low levels of German and French rates, with Italian rates declining more than 100 basis points over the year.

Equity prices in the foreign G-10 countries other than Japan moved up significantly in 1997. Despite some volatility in these markets, particularly in the

fourth quarter following severe equity price declines in many Asian markets, increases in equity price indexes over 1997 ranged from 17 percent in the United Kingdom to almost 60 percent in Italy. In contrast, equity prices fell 20 percent in Japan. To date this year, equity prices in the industrial countries generally have risen.

The price of gold declined more than 20 percent in 1997 and fell further in early 1998, reaching lows not seen since the late 1970s. Open discussion and, in some cases, confirmation of central bank sales of gold contributed to the price decline. Downward adjustment of expectations of inflation in the industrial countries in general may have added to the selling pressure on gold. More recently, the price of gold has moved up slightly, on net.