

**FEDERAL RESERVE'S FIRST MONETARY POLICY  
REPORT FOR 1999**

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**HEARING**  
**BEFORE THE**  
**COMMITTEE ON**  
**BANKING, HOUSING, AND URBAN AFFAIRS**  
**UNITED STATES SENATE**  
**ONE HUNDRED SIXTH CONGRESS**

**FIRST SESSION**

*ON*

**OVERSIGHT ON THE MONETARY POLICY REPORT TO CONGRESS PURSU-  
ANT TO THE FULL EMPLOYMENT AND BALANCED GROWTH ACT OF 1978**

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**FEBRUARY 23, 1999**

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(III)

# FEDERAL RESERVE'S FIRST MONETARY POLICY REPORT FOR 1999

TUESDAY, FEBRUARY 23, 1999

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

The Committee met at 10 a.m., in room SD-106 of the Dirksen Senate Office Building, Senator Phil Gramm (Chairman of the Committee) presiding.

## OPENING STATEMENT OF CHAIRMAN PHIL GRAMM

Chairman GRAMM. Good morning.

I want to give our colleagues an opportunity to give a short opening statement. I hope to set the standard in my opening statement.

I want to thank Chairman Greenspan for coming.

We are in a climate where everybody wants to take credit for the current level of economic activity in our economy. Politicians of all stripes want to take credit for the fact that we have prosperity in the American system that is broad-based and probably deeper than at any time in the modern history of the country.

Most politicians have about as much to do with the current level of prosperity as the rooster has in crowing over the sun coming up. My opinion is that basically the emergence and absorption of new technology, the productivity of the American worker, the expansion in world trade, the end of the cold war, the fundamental strengths that were laid in previous Congresses and previous Administrations, really have much to do with our current level of prosperity, and probably dominate it.

But if there is any person currently in a public policy position who is due at least partial credit for the current state of the American economy, that person is sitting in front of us today.

Chairman Greenspan, I want to thank you for the great job you have done. We have had many great men who have been Chairman of the Federal Reserve System, many great and effective leaders, but I think that while you still have much of your career in front of you, and I am grateful for that, I don't have any doubt about the fact that you will go down as the greatest Chairman in the history of the Federal Reserve System.

You have done an extraordinary job in balancing the needs of the economy, and we are very proud of the work that you have done. I wanted you to know how I feel about it.

Chairman GREENSPAN. I thank you very much, Mr. Chairman.

Chairman GRAMM. Let me call first on Senator Schumer.

### OPENING STATEMENT OF SENATOR CHARLES E. SCHUMER

Senator SCHUMER. Thank you, Mr. Chairman. I appreciate this opportunity to be here. I have heard Chairman Greenspan many times, but this is my first from this side of the Capitol, and I'm glad to be here.

I also want to add my commendation to Chairman Greenspan for his steadfastness and understanding and the important role that he plays in assuring people that the economy will stay on an even keel, that there is a rock at the Fed. I think that has served everybody in the country well. The fear of inflation, which had been so prevalent in the first years I came here, is so reduced that we hear more talk about deflation than inflation. I think, Chairman Greenspan, you deserve a heck of a lot of credit for doing that. As you have prophesied for many decades, even before you were Chairman, one of the best ways to make sure the economy stays on an even keel is to make sure people know that their money is going to continue to be worth a whole lot, and you have done that.

Today, I would also like to commend you for your leadership in pointing out the risks ahead. We are doing just great and, in a sense, this is a golden era. But that is not to say that there aren't problems that we have to be mindful of; if we're not, we may find that the golden era comes to an end when we could have kept it going much longer. A rational and considered outlook, rather than a euphoric outlook, is always best for producing economic results, and I thank you for presenting one today.

I look forward to your testimony, and thank Chairman Gramm for the opportunity to make an opening statement.

Chairman GRAMM. Senator MACK.

### OPENING STATEMENT OF SENATOR CONNIE MACK

Senator MACK. I want to associate myself with the comments made by Chairman Gramm, and also make a further statement, if I could.

The U.S. economy is exceptionally strong, and while some economists still cling to an outdated theory that says faster growth leads to higher inflation, a growing body of evidence is proving this false.

During the past 3 years, the economy has grown at a 4-percent rate. Meanwhile, as measured by gross domestic purchases, inflation is lower than at any time since 1950, when we actually had deflation. Lower inflation is one of the main reasons for faster economic growth. Lower inflation means a lower effective tax on capital gains and a better return on business investment. By keeping prices stable, the Federal Reserve keeps the long-term interest rates down, making it easier for families to buy homes, and for businesses to expand, hire more workers, and increase wages and salaries.

It's been 16 years since the Fed broke the back of double-digit inflation and President Reagan cut taxes across the board. Since then, the economy has grown at an annual rate of 3.2 percent, and we have had only 9 months of an official recession. This 16-year period is the longest the United States has gone with only 9 months of recession since at least the 1850's, and perhaps since the Nation started.

Clearly, the United States is not without its problems. Too many families are still struggling to make ends meet and get ahead. The best way to address this is through pro-growth, pro-family tax relief that helps people save and invest for the future. Before President Reagan, the Federal Government taxed people at rates up to 70 percent and still couldn't balance the books. Now we tax people at a top rate of approximately 40 percent, and we have surpluses as far as the eye can see. In other words, lower tax rates can generate both economic growth and more revenue.

Meanwhile, the best assistance we can get from the Federal Reserve is to keep prices stable, avoiding both inflation and deflation. With Chairman Greenspan at the helm, I remain confident the Fed will stick to this course.

However, Mr. Greenspan will not be running the Federal Reserve forever—at least I think that's an accurate statement.

[Laughter.]

That's why I intend to reintroduce legislation that would keep the Fed focused on the one target it has the tools to consistently hit, and that's price stability.

As always, Chairman Greenspan, I welcome you to the Banking Committee.

Chairman GREENSPAN. Thank you, sir.

Chairman GRAMM. Thank you, Senator Mack.

Let me remind the people who are just coming in that we're trying to do these opening statements quickly.

Senator Bayh.

#### OPENING STATEMENT OF SENATOR EVAN BAYH

Senator BAYH. Thank you, Chairman Gramm.

Senator Mack, your comments about Chairman Greenspan serving in perpetuity bring to mind something my wife once said at the end of my second term as Governor. She said if there weren't term limits, perhaps there would be a sanity limit. I don't know, Chairman Greenspan, whether that would apply to the Federal Reserve as well or not, but we certainly appreciate your service, as long as you can continue to serve.

I wish to associate myself with the comments made by Chairman Gramm and praise you for your leadership and stewardship of our economy. It is good to see you again. I'm going to save the bulk of my remarks for our question period. I would much rather listen to you than to myself. I would just make two quick observations.

We have a wonderful opportunity, as public policymakers, to try to do some good for our country on a long-term basis, in our determinations about what to do with the surplus. I would be grateful for your thoughts about how we go about setting those priorities. That's number one.

Number two, it would be very helpful if you would share your insights, at some point, on those things that we might do to help improve the long-term productivity growth rates of our economy.

Thank you for your appearance today. I am grateful to you for your service.

Chairman GRAMM. Thank you.

Senator Enzi.

#### OPENING STATEMENT OF SENATOR MICHAEL B. ENZI

Senator ENZI. Thank you, Mr. Chairman. I, too, want to thank Chairman Greenspan for appearing before the Committee, for his ever-helpful thoughts on the national economic trends, and, today, also for some insights into financial modernization.

Much credit has to be given to you and the current policies of the Federal Reserve for one of the longest periods of economic growth in the post-World War II era.

I also want to commend you and *TIME* magazine on the article in *TIME* magazine last week. I think it came at a time that is particularly critical in the history of our Nation.

I appreciate your leadership in focusing the Committee on the issues surrounding our efforts to update the financial services laws. Financial services modernization is an important issue. I believe that it's essential to introduce full and open competition across at least the banking, securities, and insurance industries.

I thank you for being here today.

Chairman GRAMM. Senator Edwards.

#### OPENING COMMENTS OF SENATOR JOHN EDWARDS

Senator EDWARDS. Thank you, Mr. Chairman.

I will join the remarks of those who have gone before me. Chairman Greenspan, for the great work you have done, I would like to add my praise. I want to associate myself with the remarks made by Chairman Gramm.

That's all I have to say at this time.

Chairman GRAMM. Thank you.

Senator Bunning.

#### OPENING STATEMENT OF SENATOR JIM BUNNING

Senator BUNNING. Thank you, Mr. Chairman. I would like to personally thank Chairman Greenspan for testifying today. Mr. Greenspan is here, I hope, to talk about the economy in our country.

I was very happy to see that in 1998 the economy grew at a 4.1-percent rate, including a 5.6 percent rate, which will probably be adjusted upward to about 6 percent, for the fourth quarter of 1998. I was also happy to see that our Nation's unemployment rate is down to 4.3 percent and that approximately 2.8 million new jobs were created last year.

I think Chairman Greenspan is also here to talk about financial modernization. On the surface, the Financial Modernization bill and the Humphrey-Hawkins law may not seem to have very much in common. However, I think the fact that Mr. Greenspan is here today to talk about both of these subjects illustrates very symbolically and very well how interconnected our financial services industry is with the creation of jobs.

Not only do the banking, insurance, and securities industries create jobs, directly in Kentucky and the rest of the United States, but these industries are also directly involved in the creation and maintenance of millions of other jobs through the way they allocate our financial resources. How we reform our financial laws for the new millennium will directly affect those working in these industries and the majority of Americans that they serve.

I look forward to Chairman Greenspan's comments on our current economy and other issues that affect it. I look forward to his insight on what he feels is the best way in which to proceed on financial modernization.

Thank you very much.

Chairman GRAMM. Thank you.

Senator Kerry.

#### OPENING STATEMENT OF SENATOR JOHN F. KERRY

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

Chairman Greenspan, I join with everybody in thanking you for a very extraordinary job. Your stewardship is obvious to all, and I think is gaining the recognition that it appropriately deserves.

I will just make two quick comments. I would like to note that you predict inflation may be at a slightly higher rate, but you also say that unemployment will stay effectively where it is, or close thereto. I have not had the chance to see your entire testimony and will listen to what I can of it, but I wonder if you might comment as you go forward, either in the testimony or afterwards, on two things.

First, the question of the anemic growth for most Americans, in the longer hours worked versus the wages gained. Although the last 18 months have been encouraging and it's going up slightly, the fact is that inflation-adjusted earnings of the median worker are lower than they were in 1989. I wonder if you might give us your thoughts on the wage trend.

The second component is building on the *TIME* magazine article and the role you, the Treasury Secretary, and we have played as a country with respect to globalization. There is a great debate now about putting a human face on the impact of globalization and technology and the changes in the world marketplace. I wonder if somehow you might also find time to comment on how, if there are any ways we aren't, you might see us sharing better the upsides that we have experienced with others so that we can continue the momentum toward the adoption of market economies.

I know in Davos, Switzerland, there was significant discussion at the World Economic Forum of the counterforces that are pulling at people's allegiance or willingness to continue down those roads, and that could have a profound long-term impact, obviously, on our growth and our success.

If those are things you might find time somehow to address, it would be wonderful. Thank you very much for what you're doing, Chairman Greenspan.

Thank you, Mr. Chairman.

Chairman GRAMM. Thank you.

Senator Crapo.

#### OPENING STATEMENT OF SENATOR MIKE CRAPO

Senator CRAPO. Thank you, Mr. Chairman.

I, too, welcome you, Chairman Greenspan. Since you started at the Fed, the Dow has risen from about 2400 to now more than 9000, and I am sure we all hope that you are able to guide us on to continued success of that nature. By the arithmetic I have here, that's about a 14 percent per year increase in the Dow.

I, too, want to associate myself with some of the other comments. It is going to be interesting to see if this hearing can stick to its designated topic, because of the range of interests that have been expressed already by many here.

Although I'm very interested in your comments on financial services modernization and the other issues that you're here prepared to address, I also will be interested in knowing if you have some advice to give us with regard to how we manage the surpluses that the Federal Government now seems fortunate to be able to address in its budget. There are some questions relating to how we should deal with Social Security in the context of those surplus dollars that we now have the opportunity to manage.

Again, I welcome you here and I look forward to your comments today.

Chairman GRAMM. Senator Johnson.

#### **OPENING COMMENTS OF SENATOR TIM JOHNSON**

Senator JOHNSON. I would like to welcome you, Chairman Greenspan. I want to thank you for your willingness to do double duty before the Committee today, both relative to your economic report and to your discussion of financial modernization.

I will submit my statement for the record.

Chairman GRAMM. Thank you.

Senator Santorum.

#### **OPENING COMMENTS OF SENATOR RICK SANTORUM**

Senator SANTORUM. Thank you, Mr. Chairman.

Welcome, Chairman Greenspan. It's a pleasure to have you here. Congratulations. I look forward to your testimony.

Thank you.

Chairman GRAMM. Thank you all very much. As you are aware, Chairman Greenspan is going to give the standard report we receive. At some point we're going to have to sit down, since this report expires with the next presentation, which occurs in the House first and then the Senate. There is an interest on the Committee in maintaining it and maybe broadening it to get beyond the narrow elements of Humphrey-Hawkins, but that's something that we can deal with.

We have been joined by Senator Bennett. I wonder if he has a short opening statement?

#### **OPENING COMMENT OF SENATOR ROBERT F. BENNETT**

Senator BENNETT. No, thank you, Mr. Chairman.

Chairman GRAMM. That's an excellent opening statement.

[Laughter.]

Chairman Greenspan.

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

Chairman GREENSPAN. I was terribly concerned by that remark, Mr. Chairman, because if I say I don't have a statement, you could say it was excellent.

[Laughter.]

Mr. Chairman and Members of the Committee, I very much appreciate the opportunity to present the Federal Reserve's semi-annual report on monetary policy.

The U.S. economy over the past year again performed admirably. Despite the challenges presented by severe economic downturns in a number of foreign countries and episodic financial turmoil abroad and at home, our real Gross Domestic Product (GDP) grew about 4 percent for a third straight year. In 1998, 2.75 million jobs were created on net, bringing the total increase in payrolls to more than 18 million during the current economic expansion, which late last year became the longest in U.S. peacetime history. Unemployment edged down further to a 4.25-percent rate, the lowest since 1970.

And despite taut labor markets, inflation also fell to its lowest rate in many decades by some broad measures, although a portion of this decline owed to decreases in oil, commodity, and other import prices that are unlikely to be repeated. Hourly labor compensation adjusted for inflation posted further impressive gains. Real compensation gains have been supported by robust advances in labor productivity, which in turn have partly reflected a heavy investment in plant and equipment, often embodying innovative technologies.

Can this favorable performance be sustained? In many respects, the fundamental underpinnings of the recent U.S. economic performance are strong. Flexible markets and the shift to surplus on the books of the Federal Government are facilitating the buildup in cutting-edge capital stock. That buildup, in turn, is spawning rapid advances in productivity that are helping to keep inflation well behaved. The new technologies and the optimism of consumers and investors are supporting asset prices and sustaining spending.

But, after 8 years of economic expansion, the economy appears stretched in a number of dimensions, implying considerable upside and downside risks to the economic outlook. The robust increase of production has been using up our Nation's spare labor resources, suggesting that recent strong growth in spending cannot continue without a pickup in inflation unless labor productivity growth increases significantly further. Equity prices are high enough to raise questions about whether shares are overvalued. The debt of the household and business sectors has mounted, as has the external debt of the country as a whole, reflecting the deepening current account deficit. We remain vulnerable to rapidly changing conditions overseas, which, as we saw last summer, can be transmitted to U.S. markets quickly and traumatically. In light of all these risks, monetary policy must be ready to move very quickly in either direction should we perceive imbalances and distortions developing that could undermine the economic expansion.

The Federal Open Market Committee conducted monetary policy last year with the aim of sustaining the remarkable combination of economic expansion and low inflation. At its meetings from March to July, the inflation risks accompanying the continued strength of domestic demand and the tightening of labor markets necessitated that the Federal Open Market Committee place itself on heightened inflation alert. In August, the FOMC returned to an unbiased policy predilection in response to the adverse implications for the

U.S. outlook of worsening conditions in foreign economies and in global financial markets, including our own.

Shortly thereafter, in the wake of the Russian crisis and subsequent difficulties in other emerging-market economies, investors perceived that the uncertainties in financial markets had broadened appreciably and as a consequence they became decidedly more risk averse. As a result, quality spreads escalated dramatically, especially for lower-rated issuers. Many financial markets turned illiquid, with wider bid-asked spreads and heightened price volatility, and issuance was disrupted in some of the private securities markets.

To cushion the domestic economy from the impact of the increasing weakness in foreign economies and the less accommodative conditions in U.S. financial markets, the FOMC, beginning in late September, undertook three policy easings. By mid-November, the FOMC had reduced the Federal funds rate from 5.5 to 4.75 percent. These actions were taken to rebalance the risks to the outlook, and, in the event, the markets have recovered appreciably. Our economy has weathered the disturbances with remarkable resilience, though some yield and bid-asked spreads still reflect a hesitancy on the part of market participants to take on risk. The Federal Reserve must continue to evaluate, among other issues, whether the full extent of the policy easings undertaken last fall in order to address the seizing-up of financial markets remains appropriate as those disturbances abate.

To date, domestic demand and hence employment and output have remained vigorous. Real GDP is estimated to have risen at an annual rate exceeding 5.5 percent in the fourth quarter of last year. Although some slowing from this torrid pace is most likely in the first quarter, labor markets remain exceptionally tight and the economy evidently retains a great deal of underlying momentum despite the global economic problems and the still-visible remnants of the earlier financial turmoil in the United States. At the same time, no evidence of any upturn in inflation has, as yet, surfaced.

Abroad, the situation is mixed. In some East Asian countries that, in recent years, experienced a loss of investor confidence, a severe currency depreciation, and a deep recession, early signs of stabilization and economic recovery have appeared.

The situations in some other emerging-market economies are not as encouraging. Russia's stabilization program with the IMF has been on hold since the financial crisis hit, and the economic outlook there remains troubling.

The Russian financial crisis immediately spilled over to some other countries, hitting Latin America especially hard. As a consequence of high interest rates and growing economic uncertainty, Brazil's economic activity took a turn for the worse.

Brazilian authorities must walk a very narrow, difficult path of restoring confidence and keeping inflation contained with monetary policy while dealing with serious fiscal imbalances. Although the situation in Brazil remains uncertain, there has been limited contagion to other countries thus far. Apparently, the slow onset of the crisis has enabled many parties with Brazilian exposures to hedge those positions or allow them to run off.

The U.S. economy's performance should remain solid this year, though likely with a slower pace of economic expansion and a slightly higher rate of overall inflation than last year. The stocks of business equipment, housing, and household durable goods have been growing rapidly to quite high levels relative to business sales or household incomes during the past few years, and some slowing in the growth of spending on these items seems a reasonable prospect. Moreover, part of the rapid increase in spending, especially in the household sector, has resulted from the surge in wealth associated with a run-up in equity prices that is unlikely to be repeated. And the purchasing power of income and wealth has been enhanced by declines in oil and other import prices, which also are unlikely to recur this year. Assuming that aggregate demand decelerates, underlying inflation pressures, as captured by core price measures, in all likelihood will not intensify significantly in the year ahead, though the Federal Reserve will need to monitor developments carefully. We perceive stable prices as optimum for economic growth. Both inflation and deflation raise volatility and risks that thwart maximum economic growth.

The economic outlook involves a number of risks. The continuing downside risk posed by possible economic and financial instability around the world was highlighted earlier this year by the events in Brazil. Although financial contagion elsewhere has been limited to date, more significant knock-on effects in financial markets and in the economies of Brazil's important trading partners, including the United States, are still possible. Moreover, the economies of several of our key industrial trading partners have shown evidence of weakness, which if it deepens could further depress demands for our exports.

Another downside risk involves a potential correction to stock prices. Such a decline would increase the cost of equity capital, slowing the growth of capital spending. It would also tend to restrain consumption spending through its effect on household net worth.

But on the upside, our economy has proven surprisingly robust in recent years. More rapid increases in capital spending, productivity, real wages, and asset prices have combined to boost economic growth far more and far longer than many of us would have anticipated.

This "virtuous cycle" has been able to persist because the behavior of inflation also has been surprisingly favorable, remaining well contained at levels of utilization of labor that in the past would have produced accelerating prices. That it has not done so in recent years has been the result of a combination of special one-time factors holding down prices and more lasting changes in the processes determining inflation.

Among the temporary factors, the sizable declines in the prices of oil, other internationally-traded commodities, and other imports contributed directly to holding down inflation last year, and also indirectly by reducing inflation expectations. But these prices are not likely to fall further, and they could begin to rise as some Asian economies revive and the effects of the net depreciation of the dollar since mid-summer are felt more strongly.

At the same time, however, recent experience does seem to suggest that the economy has become less inflation prone than in the past, so that the chances of an inflationary breakout arguably are, at least for now, less than they would have been under similar conditions in earlier cycles.

In the current economic setting, businesses sense that they have lost pricing power and generally have been unwilling to raise wages any faster than they can support at current price levels. Firms have evidently concluded that if they try to increase their prices, their competitors will not follow, and they will lose market share and profits.

Given the loss of pricing power, it is not surprising that individual employers resist pay increases. But why has pricing power of late been so delimited? Monetary policy certainly has played a role in constraining the rise in the general level of prices and damping inflation expectations over the 1980's and 1990's. But our current discretionary monetary policy has difficulty anchoring the price level over time in the same way that the gold standard did in the last century.

Enhanced opportunities for productive capital investment to hold down costs also may have helped to damp inflation. Through the 1970's and 1980's, firms apparently found it easier and more profitable to seek relief from rising nominal labor costs through price increases than through cost-reducing capital investments. Price relief evidently has not been available in recent years. But relief from cost pressures has. The newer technologies have made capital investment distinctly more profitable, enabling firms to substitute capital for labor far more productively than they would have a decade or two ago.

According to rough estimates, labor and capital productivity has risen significantly during the past 5 years. It seems likely that the synergies of advances in laser, fiber optic, satellite, and computer technologies with older technologies have enlarged the pool of opportunities to achieve a rate of return above the cost of capital. Moreover, the newer technologies have facilitated a very dramatic foreshortening of the lead times on the delivery of capital equipment over the past decade, presumably allowing businesses to react more expeditiously to an actual or expected rise in nominal compensation costs than, say, they could have in the 1980's. In addition, the surge in investment not only has restrained costs, it has also increased industrial capacity faster than factory output has risen. The resulting slack in product markets has put greater competitive pressure on businesses to hold down prices, despite taut labor markets.

The role of technology in damping inflation is manifest not only in its effects on U.S. productivity and costs, but also through international trade, where technological developments have progressively broken down barriers to cross-border trade. The enhanced competition in tradable goods has enabled excess capacity previously bottled up in one country to augment worldwide supply and exert restraint on prices in all countries' markets. In addition, the resulting price discipline has constrained nominal wage gains in the internationally-tradable goods industries. As workers have attempted to shift to other sectors, gains in nominal wages and in-

creases in prices in nontradable goods industries have been held down as well.

The process of price containment has potentially become, to some extent, self-reinforcing. Lower inflation in recent years has altered expectations. Since neither firms nor their competitors can count any longer on a general inflationary tendency to validate decisions to raise their own prices, each company feels compelled to concentrate on efforts to hold down costs. The availability of new technology to each company and its rivals affords both the opportunity and the competitive necessity of taking steps to boost productivity.

Although the pace of productivity increase has picked up in recent years, the extraordinary strength of demand has meant that the substitution of capital for labor has not prevented us from rapidly depleting the pool of available workers. This worker depletion constitutes a critical upside risk to the inflation outlook because it presumably cannot continue for very much longer without putting increasing pressure on labor markets and on costs.

The number of people willing to work can be usefully defined as the unemployed component of the labor force plus those not actively seeking work, and thus not counted in the labor force, but who nonetheless say they would like a job if they could get one. This pool of potential workers aged 16 to 64 currently numbers about 10 million, or just 5.75 percent of that group's population—the lowest such percentage on record, which begins in 1970, and 2.5 percentage points below its average over that period. The rapid increase in aggregate demand has generated growth of employment in excess of growth in population, causing the number of potential workers to fall since the mid-1990's at a rate of a bit under 1 million annually. We cannot judge with precision how much further this level can decline without sparking ever-greater upward pressures on wages and prices. But, should labor market conditions continue to tighten, there has to be some point at which the rise in nominal wages will start increasingly outpacing the gains in labor productivity, and prices inevitably will begin to accelerate.

Mr. Chairman, Americans can justifiably feel proud of their recent economic achievements. Competitive markets, with open trade both domestically and internationally, have kept our production efficient and on the expanding frontier of technological innovation. The determination of Americans to improve their skills and knowledge has allowed workers to be even more productive, elevating their real earnings. Macroeconomic policies have provided a favorable setting for the public to take greatest advantage of opportunities to improve its economic well-being. The restrained fiscal policy of the Administration and the Congress has engendered the welcome advent of a unified budget surplus, freeing up funds for capital investment. A continuation of responsible fiscal and, we trust, monetary policies should afford Americans the opportunity to make considerable further economic progress over time.

Mr. Chairman, you and the Committee have asked that, in addition to my report on the economy, I present the views of the Federal Reserve System on the need for legislation to modernize the U.S. financial system. The Federal Reserve continues to support strongly the enactment of such legislation and I commend the Com-

mittee and you, Mr. Chairman, for taking up this vital matter so promptly.

U.S. financial institutions are today among the most innovative and efficient providers of financial services in the world. They compete, however, in a marketplace that is undergoing major and fundamental change driven by a revolution in technology, by dramatic innovations in the capital markets, and by the globalization of the financial markets and the financial services industry.

In the United States, our financial institutions have been required to take elaborate steps to develop and deliver new financial products and services in a manner that is consistent with our outdated laws. Unless soon repealed, the archaic statutory barriers to efficiency could undermine the competitiveness of our financial institutions, their ability to innovate and to provide the very best and broadest possible services to U.S. consumers, and, ultimately, the global dominance of American finance.

We believe that it is important that the rules for our financial services industry be set by the Congress rather than, as too often has been the case, by banking regulators dealing with our outdated laws. Only Congress has the ability to fashion rules that are comprehensive and equitable to all participants and that guard the public interest.

In designing financial modernization legislation, we at the Fed firmly believe that the Congress should focus on achieving two essential and indivisible objectives: removing outdated, competitively stifling restrictions on financial affiliations and, most importantly, adopting a framework for this modernization that promotes the safety and soundness of our banking and financial system and prevents the extension of the Federal subsidy.

The first objective is achieved by amending the Glass-Steagall Act and the Bank Holding Company Act to permit financial affiliations and broader financial activities.

In our judgment, the other objective of preserving safety and soundness and preventing the spread of the Federal subsidy is best achieved by allowing banks, securities firms, and insurance companies to combine in the financial service holding company structure. While we enthusiastically support the new powers granted to financial service holding companies, we just as strongly believe that they should be financed by the marketplace, not by instruments backed by the sovereign credit of the United States.

The choice of requiring the new powers to be harbored in affiliates of holding companies, not in operating subsidiaries of their banks, will significantly fashion the underlying structure of twenty-first century finance. To inject the substantial new subsidies that would accrue to operating subsidiaries of banks into the currently mushrooming domestic and international financial system could distort capital markets and the efficient allocation of both financial and real resources that has been so central to America's current prosperity.

*New affiliations, if allowed through bank subsidiaries, would accord banking organizations an unfair competitive advantage over comparable insurance and securities firms—both those that are operating independently as well as those that are bank holding company subsidiaries.*

This choice of the holding company structure is also critical to the way in which the financial services industry will develop because it provides better protection for and promotes the safety, soundness, and stability of our banking and financial system. The other route toward full powered commercial bank operating subsidiaries and universal banking would, in our judgment, lead to greater risk for the deposit insurance funds and the taxpayer.

A twenty-first century issue that has become a part of the debate on financial modernization is whether we should move beyond affiliations among financial service providers and allow the full integration of banking and commerce. As technology increasingly blurs the distinction among various financial products, it is already beginning to blur the distinctions between predominantly commercial and banking firms. But how the underlying subsidies of deposit insurance, discount window access, and guaranteed final settlement through Fedwire are folded into a commercial firm, should the latter affiliate with a bank, is crucially important to the systemic stability of our financial system. It seems to us wise to move first toward the integration of banking, insurance, and securities, and employ the lessons we learn from that important step before we consider whether and under what conditions it would be desirable to move to the second stage of the full integration of commerce and banking.

Nothing will be lost, in my judgment, by making this a two-stage process. Indeed, there is much to be gained. The Asian crisis highlighted some of the risks that can arise if relationships between banks and commercial firms are too close, and makes caution at this stage prudent in our judgment. In line with these considerations, the Board continues to support elimination of the unitary thrift loophole, which currently allows any type of commercial firm to control a federally-insured depository institution.

Mr. Chairman, there is one final point I want to make since it appears to have driven Treasury's opposition to the financial modernization legislation considered last year. That legislation would not have altered the Executive branch's supervisory authority for national banks or Federal savings associations; nor would it have resulted in any reduction in the predominant and growing share of this Nation's banking assets controlled by national banks and Federal savings associations. Indeed, as of September 1998, nearly 58 percent of all banking assets were under the supervision of the Comptroller of the Currency, up from 55.2 percent at the end of 1996.

Furthermore, the Congress for sound public policy reasons has purposefully apportioned responsibility for this Nation's financial institutions among the elected Executive branch and independent regulatory agencies. Action to alter this balance would be contrary to the deliberate steps that Congress has taken to ensure a proper balance in the regulation of this Nation's dual banking system.

The markets are demanding that we change outdated statutory limitations that stand in the way of more efficiently and effectively delivering financial services to the public. The Federal Reserve agrees and urges prompt enactment of financial modernization legislation that achieves the two central and indivisible objectives that I have outlined today.

Mr. Chairman, I would appreciate my full testimony being included for the record.

Chairman GRAMM. Chairman Greenspan, both statements will be printed in the record as if read in their entirety.

I want to thank you very much for your testimony. It is unusual to ask you to testify on two things, but we are beginning, as of today, our hearings on financial services modernization. Knowing you're busy and knowing you already spend half your life in front of congressional committees, it didn't make any sense to have you here on Tuesday and then have you come back on Thursday. I appreciate your very strong comments.

I want to pursue a couple of things, and it's repetitive from what you just said, but you have before you the people who are capable of making financial services modernization a reality, so I want to give you one more opportunity to hit on a couple of points. First, the timeliness of acting now.

Why do you think it is so critical that we pass the bill now?

Chairman GREENSPAN. Chairman Gramm, the domestic and international financial system has been expanding very rapidly as a consequence of the vast new set of products that have been essentially made possible by the new technologies, and that proliferation of products is increasing, still, fairly rapidly.

This means that we are endeavoring to run what is essentially already a twenty-first century financial system with, in many respects, early twentieth-century-type supervision and regulation.

To be sure, we regulators have managed to find ways around a goodly part of the obsolescent structure as, indeed, have banks themselves, but it's costly and it unquestionably requires efforts which could far better be directed to servicing consumers and improving our financial products. There is no reason that anyone that I know of can conceive of maintaining this type of structure when it has so evidently long since passed any usefulness.

Chairman GRAMM. Let me talk to you for a minute about unitary thrifts. You're aware, of course, that over the last 18 months there has been an explosion of unitary thrifts, a vast expansion in the number of companies that, I would guess, when we failed to pass a bill over the last 2 years took the unitary thrift as a way of getting around many of these impediments. In fact, commercial companies are getting into financial services through the unitary thrift.

I understand what you're saying when you talk about cutting off the pipeline, but how would you go about doing that? Would you simply say that as of the date that we come forward with our Committee mark, which will be this Friday, any future applications for a unitary thrift would not be accepted? Would you support any restrictions on those that currently exist?

I have strong views about this, but I would like to hear yours.

Chairman GREENSPAN. Well, Mr. Chairman, I think that grandfathering those which would exist at the time of your mark would not create any particular problem, because the very substantial proportion of those unitary thrift applications are from financial companies.

We do not perceive, as yet, any major breach into the commercial area. We do believe it will happen, but it has not happened yet in any material way, so I do not believe there would be a significant

problem in essentially grandfathering those institutions which have already been in application form.

Chairman GRAMM. And imposing no restrictions on them?

Chairman GREENSPAN. That's up to the Congress. I, as far as the principles which I have outlined, see no need to do that.

Chairman GRAMM. Let me ask you a final question. I personally do not oppose commercial affiliation with financial institutions. As I look at the House bill, which basically tries to deal with the problem that banks do come into ownership of commercial enterprises—in my State, for example, they have come into ownership of a lot of oil and gas mineral rights, mostly through people defaulting on loans—the House tries to deal with that with a waiver which you could initially get for 10 years and then expand to 15. I do not like waiver legislation, as such.

An alternative would be to have a small commercial market basket and, interesting enough, that is a proposal that is made by Democrats in the House.

I would like to get your view on this subject as to which of these imperfect solutions you think is best.

Chairman GREENSPAN. I would prefer the former. I think, Chairman Gramm, that when you deal with baskets, they are deceptive in the sense that small numbers look small and, indeed, are usually exceptionally large. I say that mainly because the ingenuity of American business is really without limits. There is no way that Congress is going to set up a basket which is going to work. It will work only for a very short period of time. You will be quite surprised when you talk about small numbers, that the ability to leverage off those numbers is really quite substantial.

I, too, Mr. Chairman, have no objection, per se, in principle, of commercial and banking institutions coming together. In fact, if there was not a Federal subsidy in the bank, I would say there would be no reason why any restrictions at this particular stage would exist or should exist.

It is solely the subsidy question which governs the view that I have been putting forth in my testimony today, Mr. Chairman.

Chairman GRAMM. Chairman Greenspan, thank you very much for your testimony. I think anybody who reads it can very clearly see where you are coming from, and I think it is a boost to what we are trying to do here.

I am going to go ahead and recognize people on the basis of seniority, the reason being that our junior Members came early and had an opportunity to give an opening statement. Our more senior Members came late, so we balance it out that way.

Let me recognize Senator Sarbanes.

#### OPENING STATEMENT OF SENATOR PAUL S. SARBANES

Senator SARBANES. Chairman Greenspan, I join with others in welcoming you here this morning. I want to take a moment or two to comment about the Monetary Policy Report. I would then like to ask you a question with respect to that.

The authorization for the Monetary Policy Report expires at the end of this year. I think that decision was to some extent inadvertent. It was never directly considered by this Committee.

What had happened is in 1995 an overall bill called the Federal Reports Elimination and Sunset Act was added on the floor. During Senate consideration of that bill, there was a catch-all provision that provided a sunset date of 4 years after the date of enactment of the bill for all reports contained on a list prepared by the Clerk of the House. That list contained literally hundreds of reports, and among the reports on that list was not only the Federal Reserve's Monetary Policy Report, but the President's Budget, the Economic Report of the President, and the Annual Report of the Commerce Department's Bureau of Export Administration.

I understand that the Fed itself may not have been aware at the time that the Monetary Policy Report was on the list and that it would be sunsetted. I don't think this Committee was aware of it, frankly, at the time.

The legislation was passed with the intent of forcing a review of all the reports on the list with the expectation that many would be reauthorized. It is my very strongly held view that the Monetary Policy Report to Congress by the Federal Reserve should be among those reauthorized.

It was originally mandated by the Humphrey-Hawkins Act. The submission of the report and the testimony of the Chairman of the Federal Reserve Board before the House and Senate Banking Committees has become perhaps the single most important means of public accountability for the Federal Reserve. The report and the testimony are an important opportunity for the Federal Reserve to explain its actions and its view of the outlook for the economy to the Congress and the public and an opportunity for the market and the general public to gain some insight into the Federal Reserve's view of the economy.

Some people contend that the Congress can ask the Fed to come and testify at any time on its conduct of monetary policy, but it seems to me that an institutionalized requirement of a semiannual report and testimony to Congress has been proven to be an effective means of assuring regular congressional oversight of the Federal Reserve. I would also suggest that the obligation to explain itself on a regular basis to the Congress and the public has been a valuable disciplining tool for the Fed in its own conduct of monetary policy and analysis of the economy.

In fact, the Federal Reserve's Monetary Policy Report to Congress has become a model that has been looked to by central banks and national legislatures around the world. This institutionalization of it is important. The Fed knows that twice a year it's going to have to do this. The public and the financial press know that. That seems to me a better arrangement than a hit-or-miss summoning of the Fed to come in. In some ways, it seems to me advantageous to the Fed to know it is going to happen. It makes it less likely that that summoning will take place perhaps on the spur of the moment, although if a major crisis hits obviously the Congress will want to hear from the Chairman of the Federal Reserve.

I think it is ironic, in a way, that Congress is being confronted with this question of reauthorizing the Fed's Monetary Policy Report, just at the time that the Fed itself has been considering ways to make its policy judgments more transparent. Just this month, with the release of the minutes of the December 22 meeting of the

FOMC, we learned of the decision to expand disclosure of information about its policy decisions after its regular meetings.

Since 1994, you have been announcing whether interest rates have been raised or lowered, but now you have adopted a policy of announcing, at least on an occasional basis, as I understand it, when you alter your view of the direction of possible policy actions during the intervening period. I gather this would only be when the FOMC thinks it important for the public to be aware of this shift in members' views.

I want to commend the Fed. I think this is a very constructive step. It is actually consistent with a general effort of the Fed in recent years to operate in a more open and accountable manner, while maintaining its position as an independent central bank.

The Federal Reserve's semiannual Monetary Policy Report has been the centerpiece of that effort. I think we have a compelling interest to reauthorize that report.

Obviously, my question to you has to deal exactly with that report and the view of the Fed with respect to having to make the semiannual report, now required under law, and whether you see any problem in reauthorizing that requirement?

Chairman GREENSPAN. None, Senator. As I have testified in the past, we are an independent institution in a democratic society, and that means: In order to maintain our independence, it is essential that we are accountable to the public and to the responsible congressional committees to make clear what it is we are doing and why, to the extent that we can do so in a responsible way.

We think that coming up on a regularly-scheduled basis has, in our judgment, been very productive. In a sense, I think you're making a good point, Senator, when you say it requires us on a fairly consistent basis to make certain that we have a structure of policy which is coherent to the Congress. It does discipline us, and I think in an appropriate manner.

There are probably elements of obsolescence in some of the language in the requirements of the report. It may be, as you take up the question of reauthorization, that it might not be a bad idea to have a discussion on how we can improve the particular transmission of information from the Federal Reserve to this Committee and the comparable committee in the House. But that is the choice of the Committee and, as far as we are concerned, we think it is essential that we continue to be required to come up on a periodic basis to this Committee and explain what it is we are doing.

Senator SARBANES. Thank you.

Mr. Chairman, may I make a commendation to the Chairman?

Senator MACK [presiding]. Sure.

Senator SARBANES. I know earlier when Members were making their opening statements, they spoke of the work of the Fed and its contribution toward the strong economy that we have. I want to underscore that there was an article in *The New York Times* on February 6, that said the economic expansion has been:

A terrific boon to workers, especially those at the bottom of the pay ladder who have had the most trouble getting and keeping jobs, especially good ones. Unemployment among both black and Hispanic workers, already the lowest in a generation, drifted even lower last month. So did unemployment among workers with only high school degrees.

I know you have been sensitive to this aspect of the benefit of sustained economic expansion, because you have expressed concern about these very groups that are discussed in this article, and I just want to say that obviously we are impacting in that area. I am hopeful that it can continue as we move forward.

Chairman GREENSPAN. We are very sensitive to that issue, especially the training capabilities that a number of these people have had as a consequence of being on the job; getting on-the-job training and starting up the ladder of a business career, which in other scenarios they may not have gotten a start on.

Senator SARBANES. Thank you, Mr. Chairman.

Senator MACK. Thank you.

I think I want to continue the discussion along the monetary policy side, as opposed to financial modernization.

In the past, you have said that gold and the yield curve are good measures of expectations of future inflation. The price of gold has now been below \$300 an ounce for almost a year, the longest period since the late 1970's, and the yield curve is unusually flat.

What do these facts indicate about the Fed's current monetary policy?

Chairman GREENSPAN. Well, they don't say terribly much about the Fed's monetary policy, but they do say a lot about the general expectations of inflation in the economy, and that has become progressively lower; that is, the inflation expectations that we pick up, either analytically through evaluating such things as yield curves and prices and relationships, as well as actual questionnaires of people who are involved in the business community, shows a progressive decline in expected inflation. We see very little in the pipelines of the inflation process which suggests that there is an imminent acceleration.

The reason we have a modest uptick is that it's hard to envisage the price of oil, and a number of other one-shot declines, continuing at the rate that they did last June. If you merely go from a sharp decline to no change, for example, you will raise the average, and that is to a large extent where our expected pickup in measured inflation is coming from.

It is really a remarkable phenomenon. I tried to explain in my prepared remarks a number of the factors which presumably might be sufficient to explain the phenomenon, but the truth of the matter is that nobody knows quite yet what all of the forces are that are suppressing inflation in the broad sense.

I suspect that we will learn a good deal more in retrospect, say 5 years from now, looking back, but a number of the elements of major improvements in technology very clearly explain a goodly part of it, not only to the extent that the synergies of new technologies create increased productivity and lower unit labor cost, but also the pressure of deregulation, which has occurred on a worldwide basis, largely because when technology takes hold in telecommunications or in the movement of goods and services, and an ever-downsizing of goods in the process, the old ability of governments to try to regulate the economy's trade in goods and services is very dramatically diminished, and that has had an obviously important impact on international trade.

Finally, also as I mentioned in my prepared remarks, the end of this large part of the world which was engaged in central planning and moving in many ways poorly but, nonetheless, toward market economies, has created a larger level of potential supply in the world, and that has helped as well.

Senator MACK. You mentioned trade, so let me move to another area—

Chairman GREENSPAN. May I say one final thing? This refers basically to the views that you have held with respect to monetary policy generally.

It still is the case that at the end of the day, the level of inflation is a monetary phenomenon. That is, if the central bank does not accommodate or constrict it, all of these other forces will not function effectively, so that monetary policy is ultimately what determines, over the long run, the degree of stable or unstable prices. We are very consciously aware of that, as you know from our testimony before you on the bill that you have put forth on numerous occasions.

Senator MACK. Again, I want to move to the trade issue. There has been a discussion in Argentina, Mexico, and El Salvador of giving up their local currencies and adopting the U.S. dollar as their own. Do you support this idea?

Would it increase long-term growth in these markets?

Would it be good for the United States in terms of stabilizing our export markets?

Chairman GREENSPAN. Senator, this is an issue which a number of us are debating. I think we are all aware, but not fully convinced yet, that having larger global areas with single currencies is an element for stability, such as the euro. It is probably the case that, other things being equal, a broadened dollar market would clearly have stabilizing effects, and that is positive not only for those which employ the dollar as their currency, but also for those of us who trade with them.

There are potential downsides. The downsides, very clearly, are that the linkages create some tensions within a dollar or a euro area, and we would have to be particularly careful to remember that our monetary policy is first and always for the United States. We cannot be a central bank for the United States "and others." And in that context, we have to be careful not to be perceived as creating a safety net for institutions in dollarized economies.

There is nothing to prevent, nor do we find any reason to inhibit, the unilateral dollarization of an economy as, indeed, Panama and Liberia did, and I suspect many others are thinking about doing, as you point out.

I do not think there is a unanimity as yet in the American Government on exactly how our views should be consolidated into a central view, but there are discussions underway, if for no other reason than that we have been approached by Argentina to see whether there is a more formal relationship which we can create. I would suspect we will probably have within a short time a unified position between the Treasury and the Fed on this as the crucial areas of Government which must address this issue.

Senator MACK. Thank you, Chairman Greenspan.

Senator Dodd.

**OPENING STATEMENT OF SENATOR CHRISTOPHER J. DODD**

Senator DODD. Thank you very much, Mr. Chairman. Welcome once again to the Committee, Chairman Greenspan.

Mr. Chairman, I am going to ask unanimous consent that my full testimony regarding Humphrey-Hawkins and the financial services modernization be included in the record.

I won't ask that the *USA Today* article be included in the record this morning.

Chairman GREENSPAN. Thank you very much.

Senator DODD. I thought you would appreciate that.

Senator MACK. Without objection.

Senator DODD. My colleagues will now intensely want to read that article this morning.

Let me join in a chorus of praise to you, Chairman Greenspan. You have done a great job in so many areas. We are very fortunate, indeed, to have you at the helm and I mean that most sincerely.

There is obviously a lot of ground here to cover and a lot of Members want to ask some questions. Let me ask you about the foreign markets, if I may, to expand a bit on this. I realize this gets a bit afield here, but to some extent what happens there has a profound impact and effect on these issues of financial modernization and, obviously, Humphrey-Hawkins, as well.

I wonder if you might comment on the impact on the U.S. financial services sector that is involved or that is doing business in the economies of the Asian markets, and with greater specificity, in the Americas and Brazil, and to what extent the crisis in these areas is impacting on U.S. financial institutions.

Then, if you might just give us some expanded thoughts, particularly in the Americas, on the Brazilian issue. For example, to what extent is that impacting on the other economies of the Americas, on Argentina, its approximate neighbor? Also, perhaps you might comment a bit on Mexico. We're going to be confronted here pretty quickly with a drug certification issue that none of us welcome.

We go through this every year, and we all recognize the problems associated with it. There is not a single Member that does not care deeply about what is happening with the proliferation of drugs in our society. We know that we are a great consumer of this. We also know there are some implications when we take actions with fragile economies, such as those which can happen in Mexico.

I wonder if you might just share with us some of your thoughts on that.

Chairman GREENSPAN. Senator, I think we are learning a good deal about a number of these interrelationships. Let me start with Brazil, which is, I think, in a sense, the one that's most immediate. We all have very considerable concerns about the potential impact of Brazilian problems on Argentina, Mexico, and, indirectly, on the United States, or even more directly.

As I point out in my prepared remarks, the extended spreading out in time of various different problems in Brazil has enabled a fairly substantial part of those who have temporary commitments in Brazil, bilateral relationships either with the government or the private sector, to either hedge them or allow them to mature. As a consequence of that, because of the stretched-out crisis, if I may call it that, what has obviously been left in Brazil are those with

long-term commitments and financial institutions which have fairly solid ties in the Brazilian financial system and the companies with long-term economic ties there.

As a consequence of that, when the Brazilian currency fell very sharply, instead of seeing a dramatic contagion effect in Argentina and Mexico, we saw, as I remember, on the first day the Mexican peso dropped sharply and has since recovered all of the loss and, indeed, actually gone higher. Argentina's Economy Minister mentioned the other day that, in the past, crises had forced Argentina from being able to get back into the capital market for months because of the unstable nature of the market. As he said, they got back in 3 weeks, and were able to get a significant amount of borrowed funds at reasonable interest rates.

What we are observing is a much greater degree of sophistication emerging in the international financial system in how to hedge against contagion problems. Now, as I also say in my prepared remarks, it is much too soon to assume that the contagion is behind us, but it does say that it is clearly less, and that what problems Brazil has—and they're still having considerable problems—I don't know what the Brazilian real did since I started talking, but it had weakened considerably earlier this morning.

It had risen, I think, to 205, suggestive of the fact that they have problems they are going to have to address, and I think they are very acutely aware of that. People there whom we know are quite competent, quite knowledgeable, and understand what they have to deal with, are working on it. We certainly wish them well and suspect that at the end of the day, we are going to find that Brazil is a very formidable economy, as it has been.

The problems that exist with trade are not yet worked out fully because when you get a 40 percent devaluation of a currency and you have this very tight interrelationship between, say, Brazil and Argentina on trade, it is going to be difficult for Argentina. I think they are acutely aware of that, and there are going to be adjustment problems which are still down the line. Mexico, of course, has its major economic trade ties with us and, as a consequence, is doing fairly well.

The one other area that I think is important to identify here is that what we are learning increasingly is how crucial the banking systems of these emerging nations are, and in fact the importance of having not only a banking system, but hopefully some backup ability to intermediate savings and investment outside the banks if the banks go down.

One of the reasons why we did not get hit as hard as we might have by the Russian crisis is, to be sure, when the Russian crisis hit our capital markets absolutely seized up—we weren't even getting issuances of investment-grade securities—but our commercial banks were able to come in and fill part of the role and, as a consequence, combined with Federal Reserve action, we were able to stabilize the situation reasonably quickly. That type of structure is not available in emerging nations, and we realize that we are going to have to find ways to build that up. The international financial community has, in effect, been quite focused on how to do precisely that, and I think we have time actually to do it. In other words, the crisis has created a great deal of caution, and that has meant

that a lot of the leverage has worked its way back down again, and we do not have an extremely unstable system.

We do have time to be deliberate in solving these problems, but we do not have a great deal of time because if we procrastinate, we will find ourselves with this huge, burgeoning international financial system creating another crisis for which we did not set an appropriate regulatory infrastructure to address.

Senator DODD. There was—I believe it was this Sunday in *The New York Times*—a lead editorial which goes into this and suggests some ideas and some pretty radical thoughts, while talking about a global regulatory scheme of some kind to begin to deal with this. I commend it to my colleagues and ask them to look at it. It was, I thought, a very good editorial that addresses in part the point Chairman Greenspan has raised here.

Thank you, Mr. Chairman.

Senator MACK. Very good. Thank you.

Senator Bennett.

Senator BENNETT. Thank you, Mr. Chairman. I had some questions about the Y2K issues I was going to ask, but I note that Chairman Greenspan addressed those in his formal statement, and I appreciate the fact that he has done that.

I want to use my time to talk about the operating subsidiary question with respect to financial modernization. I do this with great trepidation, because I hate to disagree with Chairman Greenspan about anything. Whenever I do, I usually end up being wrong and being instructed, but I have a different view of the operating subsidiary question in the legislation before us.

Let me phrase it this way: We are focusing on certain basic activities that were deemed impermissible in the 1930's as we talk about the role of the operating subsidiary in the context of financial modernization, securities underwriting, merchant banking, insurance underwriting, and so on. Now, are all of these activities equally dangerous for operating subsidiaries, or can they be distinguished in terms of risk?

It seems to me we should be looking at the specific risks, rather than relying on 60-year-old definitions in the law that we're trying to repeal.

Chairman GREENSPAN. Senator, I actually agree with that. I believe that is a very important issue to address.

Senator MACK. Hearing adjourned.

[Laughter.]

Chairman GREENSPAN. I think there are several elements here. Where there is dispute, there is a question of whether in fact there is a subsidy in the bank which gets transmitted to the sub itself, or whether the amount which gets transmitted to an affiliate of the holding company is of the same order of magnitude.

Our view is that, while there is some spillover into the affiliate of the holding company, it is very much smaller and, indeed, crucially smaller than is the amount of subsidy which can come out of the Federal safety net that inheres in the bank by legislation and moves down to the sub.

But in order to move that subsidy, it has to be financed. In other words, the amount of subsidy that is moved is a function of the degree of equity capital that moves down. As a consequence, we

would argue that agency activities which use very little in the way of assets and equity do not in our judgment create any particular problems in a sub of a bank. And any form of activity which by its nature does not have a significant balance sheet cannot move the subsidy at all.

When you get into other types of activities, the amount of subsidy that is moved is the same. It is certainly the case, however, that they have different competitive relationships with nonbank-related organizations or firms which do not have the subsidy.

It is our view—and I think the data very strongly confirm this—that there is enough difference between the amount of subsidy to create a significant difference for an identical credit-rated organization, for example, a holding company on the one hand and a nonbank institution on the other. Moreover, there is already significant differences in the capital asset requirements that are required between a nonbank and a bank holding company. There is also a significant difference between the holding company of the bank and the bank itself. Those differences are really very significant when you look at the differential impact on the profit that one can get in the bank, versus in the sub of the bank, in the affiliate of the holding company, or in the nonbank-related independent firm doing the same type of activity.

As a consequence of that, it is our position and our strong argument that to allow a subsidiary of a bank to have the powers that we are discussing when we unwind Glass-Steagall risks a significant expansion of underlying subsidies which distort the financial system and, in my judgment, create a structure for banking and for finance in the twenty-first century which is clearly suboptimal.

If there were some really significant negatives in having those powers in the holding company affiliate, then it could be an argument for subs of the banks. But there is no significant structural difference. There is an argument about the efficiency of having a bank sub rather than an affiliate of a holding company. As best we can judge, any efficiencies are small. There may be differences, but we think they are virtually *de minimis*.

In effect, if there is no difference between a holding company and a sub of the bank, why is there such an extraordinary interest among the banks and others for having this operating sub if they did not seriously believe that all of the powers would flow into the sub, because, indeed, that's what would happen, and that that would create something, one, for the banks who support this—if the banks didn't support this, I would change my position—

[Laughter.]

—and for another issue—I mean, the Treasury makes the point that they think the Executive branch should have greater control over banking regulation.

Unless they believed that, indeed, all of the activities would go into the sub of the bank and that, therefore, the Comptroller's Office, rather than the Fed—which oversees the holding company—would take over the regulatory power, I don't think they would have any interest in that. I think there's a general view by the implication of everybody that if you grant those powers to the subs of the banks, that indeed all the powers will end up there. If nobody believes that, then this debate we're having makes no sense.

Senator BENNETT. Let me very quickly ask a followup question, Chairman Greenspan.

Basically, what I think you're saying is your objection is based primarily on the issue of the subsidy and its impact rather than on a safety and soundness question?

Chairman GREENSPAN. I do think there is a safety and soundness issue in the sense—let me give you an example which actually changed my mind on this question.

Back in 1987 during the crash—remember that wonderful October 19, 20, and 21, which were extraordinarily unstable days which we will never forget for decades—one thing that happened which was fascinating is that Continental Illinois had a sub, which they could legally hold, and it dealt in options. Within hours, the sub not only ran through its capital, but also through all of the extension of the loans from the bank to the sub. And that particular sub created significant problems for the capital of the bank.

One of the reasons why it's crucially important is that in today's financial environment, things move so rapidly that this presumption that we can somehow prevent monies moving back and forth by firewalls, is an illusion. Under the press of huge, rapidly moving funds, people do things automatically. I learned a lesson from that. The lesson is that the presumption that you can have a sub which is not a potential threat to the bank is potentially a significant problem.

Senator MACK. Senator Reed.

#### OPENING COMMENTS OF SENATOR JACK REED

Senator REED. Thank you, Mr. Chairman.

Chairman Greenspan, thank you for your testimony, and also for your leadership. I have two questions.

The first question is more on macroeconomic policy, and that is: There have been a lot of arguments recently about the appropriate measures of public debt. In your view, what is the most important measure, debt held by the public or total debt?

Chairman GREENSPAN. They serve two different purposes. First of all, if we're looking at the question of what affects interest rates and what affects the economy, it is the debt held by the public. The huge amount of special issues that exist largely, for example, in the Social Security and Civil Service trust funds are intragovernmental transfers.

There is an issue here which is a broader Social Security question about whether you want to deal with on-budget and off-budget financing, but that is a different type of question. If you're looking at the issue of what is the crucial level of debt in the Government from the economy's point of view, it is total debt owed to the public, and not what we call "the public debt," which includes the gross figures, including the intragovernmental transfers.

Senator REED. Thank you, Chairman Greenspan.

On a different topic, and that is with respect to the proposed modernization bill, first, I note a certain sense of ownership on the op-sub issue because last year, as you know, I was proposing an amendment to allow national banks to have operating subsidiaries. I suspect we will rejoin that debate in the future, but let me put that aside for the moment.

There is concern that I have with respect to the emerging regulatory structure which is incorporated in the Chairman's mark on financial modernization. I think there are several factors. One is, it seems to me that the traditional theory of the bank holding company being a source of strength for the underlying depository institution is being weakened, because now with the proposed advent of insurance powers and of other powers, with the functional regulatory approach where State securities' commissioners and insurance commissioners could essentially decide that they would not provide resources to help an ailing depository institution, that is a concern.

There is also a concern because at this time, when we are expanding dramatically the powers of these financial institutions, we seem to be retracting the regulatory supervision.

For example, there is a proposal that there be no formal approval of mergers; that is, basically a self-certification process. There is also the absence within this regulatory structure of a requirement that you and your colleagues look at safety and soundness issues, look at public purpose issues.

This kind of passive approach raises severe concerns, because I know in the past when we have erred, the big mistakes have come because we have allowed too much discretion and flexibility, I believe, in regulating financial institutions. I wondered if you might reflect on those concerns, Chairman Greenspan.

Chairman GREENSPAN. Senator, I think that we are all engaged in a debate not only between various different private groups, but we have these debates within the Federal Reserve. I think what is causing the debate is we are dealing with a major, ongoing change in the financial structure itself, largely driven by technology, but not wholly. As a consequence, what we have to do is try to address an appropriate regulatory structure for the newly evolving type of financial system that is inevitably going to exist in the twenty-first century.

We have increasingly concluded that the primary source of safety and soundness and containment of risk is, in the larger firms, counterparty evaluation, because there is nobody who knows the underlying potential balance sheet of a customer than somebody who is lending that institution money. Our ability in the past to look at balance sheets on a supervisory context is being rapidly eroded because balance sheets are changing so dramatically that if we get a print of an investment bank, for example, of 3 weeks ago, it is going to tell us very little about what the financial status of that institution is today, except in a very broad sense, obviously. As a consequence of that, we have recognized that counterparty surveillance is going to become increasingly relevant and a major tool to ensure the system's safety and soundness.

As a consequence, we at the Federal Reserve, and I believe at the other regulatory agencies, also recognize that we have to go ever more toward an oversight-type of evaluation of the processes by which a bank or other institution regulates its risk. It is an oversight process which looks at the way they model their risk, both market and credit risk. It looks at the processes by which an institution makes its loans, and we try to address that as distinct from spending innumerable hours going through loan files of an institu-

tion, which was useful maybe 50 years ago, but is increasingly less so now.

As a consequence of those changes, largely driven by market and technology forces, the old notions of source-of-strength and a number of the supervisory structures which we were so used to have ceased to become the effective means to maintain the safety and soundness in the system. To be sure, as we go to functional regulation, the source-of-strength doctrine again erodes.

I think we are all groping for the most effective regulatory structure as, indeed, we are groping to understand this hugely changing financial system—learning as it's happening. I think that we do not yet fully know where we are going to be 20 years from now as far as supervision and regulation. We do know that the models of the past 50 years are increasingly less applicable, and will be, as we move to the early part of the next century.

Senator REED. Thank you, Mr. Chairman.

Could I ask unanimous consent to include my statement in the record?

Chairman GRAMM [presiding]. Sure you can.

Senator REED. Thank you, Mr. Chairman.

Chairman GRAMM. Without objection, so ordered.

Senator Grams.

#### OPENING COMMENTS OF SENATOR ROD GRAMS

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

Welcome, Chairman Greenspan. To follow up on some of those questions that Senator Bennett had dealing with op-subs versus affiliates, under current law, can mortgage banking be done in the bank, or is it restricted to holding company affiliates?

Chairman GREENSPAN. There is no restriction on mortgage banking as far as I am aware, and as far as my colleague, who knows more about this than anybody in the world, says.

[Laughter.]

Chairman GRAMM. A good source.

Senator GRAMS. If a bank can do mortgage banking in the bank, why do some large holding companies do mortgage banking in an affiliate instead? Are they foolish not to take advantage of what you called the "supposed subsidy" that you have talked about?

Chairman GREENSPAN. My recollection is they are moving back toward the bank in most of those types of institutions. Originally, there were a number of geographical restrictions and tax restrictions, which are going by the wayside. Where the choices exist, not only in mortgage banking but in everything—where they have a choice of affiliate of the holding company or the bank itself, or even the sub of the bank, all of the evidence we see shows there has been a major move back toward putting those powers in the bank. And our evaluation of those which have not yet moved back into the bank where they can do so legally shows that it's for very specific reasons.

The one thing which is terribly clear is that when these types of organizations do not use large capital assets or subsidies, then the real pressure to get back into the bank is less.

But everything we have observed—and I'll be glad to give you details for the record, Senator—shows that activities which had been

in the holding company but could be in the bank were there for reasons other than the subsidy. And when those reasons changed, they moved back into the bank.

Senator GRAMS. Your feeling is that certain language in this bill, along with tax ramifications, et cetera, could move from an affiliate back to the bank?

Chairman GREENSPAN. I'm sorry? Do you mean that it would make it difficult?

Senator GRAMS. Or that it would be advantageous for them to do it, or hasten that type of—

Chairman GREENSPAN. Well, no, actually not. I mean, they could do it now, and they are doing it now, so I don't think it's really related to this legislation.

I think there is the presumption that somehow there are numerous organizations which have choices of putting powers in an affiliate of the holding company or in the bank itself, who have chosen the holding company. I think you will find that as of today, there is virtually no subsidy used by those institutions, and hence they don't get the lower cost of capital in the bank, or there are technical issues such as tax or geographical restrictions which, in effect, create costs in moving back to the bank, which is a reverse subsidy.

Most of it, however, has pretty cleanly gone back into the bank when the bank is available legally.

Senator GRAMS. Moving to another question, Chairman Greenspan, small community banks, as you know, are the cornerstone of many of our rural communities, and they are facing greater competition today than last year or the year before.

Do you have any recommendations which could be included in modernization legislation to help strengthen community banks and their ability to compete?

Chairman GREENSPAN. Well, the IBAA does support, or has supported, many of the issues, indeed some of the variations of financial modernization.

There is a lot in financial modernization which helps the smaller banks. I agree with you; I think that there are going to be, at the end of the day, two fundamentally different types of institutions which we call "banks" in this country. One is going to be the international, sophisticated institutions which deal everywhere, but on an impersonal basis. And there is going to be a large segment of community banks who sell a product the large banks do not have, which is personal relationships and the ability to be counselor and adviser on numbers of different transactions, and I think the big banks do not have a chance at that function.

I think we are going to see with all these major changes that are going on in the financial system, when it all shakes out, there is going to be a very large community banking system in this country. Frankly, I think the fact that it doesn't exist in other countries is one of the reasons we have a better banking system.

Senator GRAMS. Thank you, Mr. Chairman.

Chairman GRAMM. Thank you.

Senator Schumer.

Senator SCHUMER. Thank you, Mr. Chairman.

Chairman Greenspan, again, thank you for your erudite and thoughtful testimony. I guess my first question relates to one of the potential downsides that you mentioned in your opening remarks.

When I look at the world, I don't see much cause for optimism outside of the United States. In other words, it looks like Europe's growth is slowing down. There are still problems, as you point out, in Latin America. In Asia, China is slowing down, Japan is flat. Maybe Korea and, I guess, Singapore or Thailand are doing well, but their gross national product is probably not much more than, say, Indiana's or North Carolina's, or even—

Senator EDWARDS. I think we do a little better than that.

Senator SCHUMER. In any case, my question to you, sir, is: With all the prognostications around the world being for slow or even zero growth, low growth or even negative growth, how worried are you about that on our growth next year, and on the world economy in general?

Chairman GREENSPAN. Well, clearly, the share of trade, both on our export and import side, has been growing relative to our domestic economy since the end of World War II, really, and we are very closely interrelated—not as much as some of the European countries were, for example, prior to the joining of the European Union, where their exports were greater than their net national product—but we nonetheless are really quite dependent upon what is going on in the rest of the world and the slowing there does give us pause.

It's true that we have a very dynamic domestic economy at this stage, and it is impressive in every respect that one can envisage. But our industrial sector has slowed down considerably, and, obviously, international trade is almost all physical goods and therefore would impact on both the export and import side of our industrial sector. There is clearly a concern, and we are endeavoring to balance the international with the domestic, recognizing that we are evolving into a new type of international financial system in which we are, in a sense, learning as we are doing. And that is not the best way. There is no "Economics 101" which carries us through what is going on today. We're probably writing the textbooks, but we do not have them to read yet.

Senator SCHUMER. It seems to me that the international situation could be more of a drag on our economy in this coming year than it was in the previous years.

Chairman GREENSPAN. I would think so because, as you point out, Senator, the industrial countries, where we do most of our business, are slowing down. Europe is slowing down. I think Japan is still weakening. I do not think it is flat yet, but—

Senator SCHUMER. Let me ask you another question, which you didn't touch on, but which would affect the economy next year, and that is about Y2K. The Fed has mentioned that our financial institutions themselves are doing quite well in dealing with the problem. But a second and ancillary problem, a serious one, is that consumers, citizens, may be worried about what will happen and will take their money out of financial institutions toward the second half of this year because they are worried about this. From what I understand, the Federal Reserve has set aside a certain amount

of reserves for the end of 1999 to deal with that. As I understand, it is \$50 billion.

First, I am curious to know how you arrived at that number.

Second, what else can be done to increase the public's confidence in how we and our financial institutions are dealing with Y2K? Do other industrialized countries face this same problem? Are these countries making the same preparations?

Chairman GREENSPAN. Senator, what we did was to try to make a judgment, which is very difficult because we have no history, of what type of conversion of bank and other type of deposits into currency might be made for those who are fearful that their ability to draw currency over the yearend will be somehow inhibited. And we know we have enough currency to meet any conceivable demand.

Strangely, the concern that I have is I am worried that people are going to draw too much out, and walking around with a lot of \$100 bills is not the safest means of keeping your money.

Senator SCHUMER. Right.

Chairman GREENSPAN. I am a little concerned that they may worry about Y2K and somehow something is going to break down.

Senator SCHUMER. Right.

Chairman GREENSPAN. The one thing we are sure of is they will not lose any money, because our computer systems are not going to crash in that regard.

I am getting increasingly concerned that the major danger is they will draw out money and there are going to be an awful lot of people who are going to be interested in that.

[Laughter.]

Senator SCHUMER. I will not ask you to name names.

[Laughter.]

It would take too long, I guess.

But I do think it might be a good idea to let people know of the Federal Reserve's, I think very prudent policy of keeping aside a certain amount of reserves in case something happens. That would bolster people's confidence.

Chairman GREENSPAN. We are on a two-pronged policy. First, to do as much as we can—and we have done an awful lot and will continue to prevent anything of significance from happening where we have the capability, double-testing and checking where we can. Second, to have a whole series of potential actions we would take in the event that something does happen. We will be doing that obviously in an increasing manner through the rest of the year.

Things that I was concerned about 6 months ago, I must say, are going much better than I expected. People are getting serious. We are interrelating with all of our banks, and the testing systems are going well, so that the worst possibilities I think are behind us. And most of those are interfaced with the rest of the world where we don't really know how well they are managing.

Senator SCHUMER. Thank you, Chairman Greenspan.

Chairman GRAMM. I have to leave because of a prior commitment at noon today, but I want to thank all of the Members and Chairman Greenspan for participating in this very important hearing.

Senator Allard.

**OPENING STATEMENT OF SENATOR WAYNE ALLARD**

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

Welcome, Chairman Greenspan. I believe that every time you have shown up I have asked you about paying down the debt. You have always had a good answer, but I think I have asked you that question enough. I am going to move on to some other things relating to the tax reductions and the minimum wage. If we have time, I may also ask you a question or two about the proposed financial modernization legislation before this Committee.

I would like to ask you for your comments on what you think—strictly from an economic standpoint—is the best method of tax relief? Should we go with an across-the-board rate cut, such as the 10 percent that has been mentioned on the Republican side, for income tax, or do we do it with expanding credits and deductions?

I would also like to hear a few of your comments on what can be done to help keep our economy strong in that regard.

Chairman GREENSPAN. Senator, as you know, I have always been strongly supportive of cuts in the marginal tax rate and/or reduction or even elimination of the capital gains tax, which I have always thought to be a poor means of obtaining revenue.

In the current environment, the need to introduce tax cuts to get the economy going clearly is not particularly the first order of business. As a consequence, I have argued with respect to the surplus that *my ideal economic policy would be to leave it alone, pay down the debt, lower the long-term interests rates as a consequence, and that would, in my judgment, be most effective.*

If it turns out that it is politically inconceivable that these surpluses can be allowed to run, I have argued that then, unquestionably, tax cuts are the appropriate means, not spending increases, which are difficult to turn around if they create troubles. I am not saying that tax cuts are easy to turn around, but I would prefer that that was done because that would be better for the economy.

Specifically, I think that it is important to distinguish from an economic point of view the question of whether you are dealing with marginal tax rate cuts or other types of taxes which reduce the tax burden but not the marginal rates. In my judgment, the marginal rate cuts are far superior to any of the other forms, which clearly have advantages in many respects. In a general way, I have never seen a tax cut I opposed in the abstract; I mean, the lower, the better.

But there are differences if you are looking at how the economy is affected. As it stands now, the most effective means of controlling the economy is to allow the surplus to run. There undoubtedly will occur a point when that is no longer the case, and I think cuts in marginal tax rates would be the most appropriate. Whether it is across-the-board or not is less of an issue. It is administratively easier to do it that way, but there may be other reasons that you would want to change it, and I would be glad to comment in detail on any specific initiative.

Senator ALLARD. I think you have commented adequately on the tax reduction and I appreciate your insight on that.

I would like to move on to the minimum wage hike. I think in one of the recent hearings you stated that you think it is not advisable to increase the minimum wage, and I am wondering if there

have been any studies or analysis done on your part on the effects of doing that.

Perhaps you can share with us what the likely impact would be if we did raise the minimum wage.

Chairman GREENSPAN. There is a very significant debate, as you well know, Senator, on the impact of this. It was the general consensus of economists over the years that increases in the minimum wage, indeed the mere existence of the minimum wage, created a level of unemployment amongst teenagers or those starting at the bottom of the ladder which wouldn't have existed without the minimum wage. The controversy arose because of a study about differential minimum wage changes in New Jersey and Pennsylvania in which it was somehow suggested that there either was no impact or indeed it was precisely the opposite.

There has now been a good deal of revision on that view. There are economists who do believe that the minimum wage does not have a significant impact on employment. I'm not one of them. I seriously believe that it does. It's not visible in today's environment because everybody can get a job today, and there is over-demand in that regard. We will see the impacts when the demand for labor eases. And for precisely the same reasons that I think it has been very important for a number of people at the lower end of the income scale, the younger people who are just starting off, who do not have the skills to be able to join the workforce, to get on-the-job training, to be able to move up the ladder, so to speak, it is a minimum wage which in my judgment endeavors to prevent that from happening under certain conditions.

I have great difficulty seeing the logic of having that type of restriction on that part of our labor market.

Senator ALLARD. Mr. Chairman, I see that my time has run out. Thank you very much for your time.

Chairman GRAMM. Thank you.

Senator Bayh.

Senator BAYH. Thank you, Mr. Chairman.

Chairman Greenspan, I have not had the pleasure of posing questions to you before as Senator Allard has. I would like to follow up on a couple of the points that he made, and I hope that it's not too redundant.

It seems to me that we have a great opportunity in setting fiscal policy in this Congress, as we look at the first significant budget surpluses in a generation, to put our country on the right path for the long haul. I tend to find myself squarely in the more conservative camp of believing that we need to continue to make sure that the budget remains balanced. I think it is imperative we make the changes in the entitlement programs necessary, along with the first use of any budget surplus to make sure that they are on a long-term sustainable path. Then we have to set priorities among other options. You mentioned paying down the national debt. There is also the possibility of tax cuts or investments and other activities that might increase the productivity of individual workers.

My first question relates specifically to someone I was talking to last week who was frankly a little skeptical about the Government's, or I should say more specifically, the Congress' ability to actually pay down the national debt. That, while in theory this is

the best thing to do, this particular skeptic just felt that at the end of the day, the allure of tax cuts or spending would be more than the Congress could resist.

I would like for you to expand a little on the remarks you made to Senator Allard and help me explain to the people of Indiana and to the people of our country why paying down the national debt is in their long-term best interests: higher wages, more jobs, a better standard of living.

Chairman GREENSPAN. Senator, what evidence we have, not only in the United States but pretty much around the rest of the world, shows that long-term interest rates will fall as you bring the total debt down. This means that mortgage interest rates will be lower than they otherwise would be.

Mortgages, as you know, have become increasingly not only a vehicle to fund housing, but also have been used to a considerable extent as consumer debt and have been a major force in that. And it matters what those interest rates are.

If long-term interest rates are lower and the risk premiums are lower as a consequence of that, the cost of capital generally is lower. That, in turn, will mean that productive capital assets are far more readily to be produced, and they will bring standards of living up because labor productivity will rise as a consequence.

In fact, all of the arguments that one can make for tax cuts you can make for the reduction in debt. They are the same forces, but they occur under different circumstances. In other words, there are occasions when I would very strongly support reducing taxes even though you could have reduced the national debt because the economy needs that sort of tax cut to be of assistance.

I am firmly of the belief that you pay down the debt as much as you can largely because there will occur occasions when you are going to want to raise it, and if you raise it from much lower levels, the negative impact on the economy is clearly less. As a consequence of that, in the environment which we have today in which labor markets are exceptionally tight, in which demand is exceptionally strong, in which productivity is rising fairly dramatically, what we need is savings to support that type of system. The Government surplus which we have has been quite instrumental and quite effective in assisting in that process.

Senator BAYH. Thank you, Chairman Greenspan. That is a message we are going to need to continue to make if we are going to pursue the prudent and, I believe, conservative long-term course for our country, and I appreciate your helping us make that point today.

Just very briefly, one additional question. I had the pleasure some years ago of hearing you make a presentation to the National Governors' Association. At that time, the topic was the maximum rate of sustainable noninflationary growth. It doesn't seem to be quite as hot a topic today for reasons that you have outlined in your testimony.

My question to you is: Assuming that we are going to get into a debate about tax cuts in this Congress after we have dealt with the other items that we have mentioned and hopefully made some good progress toward paying down the national debt, I am interested in your comments in response to Senator Allard about the

benefits of reducing marginal rates and targeting tax cuts for other activities.

Let me put a finer point on it. I understand the economic benefits of reducing marginal rates, but at the time we were discussing economic growth a couple of years ago, you said the best thing we could do in the short run was to increase the productivity of individual workers, and you went on very eloquently about the need to improve education and training levels in the American economy.

I am interested in why targeting tax cuts toward training, education, and improving skills is not a better way to go to increase productivity than reducing marginal rates.

Chairman GREENSPAN. It depends on how you evaluate the various priorities with respect to where education is, how it is being financed, and capital assets.

Senator, there is no question that productivity comes from the interaction of capital on the one hand, and people on the other. We have seen a dramatic increase in education in this country mainly because the economy is pressing for people to have higher skills. On-the-job training has gone up dramatically. We have what we call corporate universities now who have effective liberal arts programs as well as technical programs related to the company itself. Community colleges have gone up remarkably. And one of the most fascinating things is the proportion of older people who have gone back to college full-time.

All of this has occurred in the private sector. It has occurred under the existing financial mechanisms. If you can find vehicles from the public sector which would help that, then I believe you have a strong argument to say it stands on the same level as cuts in taxes which affect investment. I would only wish to argue that as much as there is need for improved financing of educational institutions, let us not forget that pressures coming from the needs of the economy have done an awful lot of that already. Is there more to be done? I suspect so. Would I know how to do it? I would not, but experts probably can find ways of doing it. If the case is a strong one, I think that I would be unable to argue that tax cuts are superior to that particular project.

It is a cost/benefit analysis that you are working with.

Senator BAYH. Thank you, Mr. Chairman.

Senator ALLARD [presiding]. Thank you, Senator.

I now recognize the Senator from Kentucky, Senator Bunning.

Senator BUNNING. Thank you very much, Senator Allard. I have been on committees in the House for years that have had the good fortune of having Chairman Greenspan testify, and I would like to ask a couple of questions.

In December 1996, Chairman Greenspan, with the Dow Jones Industrial Average at 6437, you were worried about what you called, and I quote, "the irrational exuberance of the markets."

With the Dow closing at 9552 yesterday, do you still have those same fears?

Chairman GREENSPAN. If you go back to the text of that 1996 speech—

[Laughter.]

—which was a very turgid speech which put an awful lot of people to sleep through most of it, what I was trying to raise was the

fact that I was concerned in a discussion with respect to the various elements of how one should do monetary policy, whether we should begin to start to look at the issue of not only the price of goods and services, but also the price of assets as well. I raised the issues of what had been effectively a bubble in Japan up through the 1980's into early 1990 and other previous periods where it was very difficult to know whether you had a bubble or whether you had some real underlying force in the marketplace. The question I was asking, abstractly, is how will we know when markets are gripped by irrational exuberance? I didn't have an answer at that particular point.

I think I have an answer now; that it is very difficult to judge, except in retrospect. If the stock market, any stock market, be it here or abroad, falls by 30 or 40 percent in a matter of weeks or a very few months, I will grant that there was a bubble back there.

[Laughter.]

The issue of trying to identify a bubble in advance means you have to be confident enough to predict a decline of that order of magnitude, and I don't know anyone who knows how to do that.

We are, at this particular stage, caught in an issue where, with this broadly changing economy that I have discussed with respect to financial modernization and the issues of inflation, we are seeing different things that are going on. Clearly, nobody has questioned at all that the dramatic acceleration that we have seen in some technologies, and the marked increase in productivity and profitability of American businesses, has undoubtedly had a significant impact on underlying prices of all capital assets, including equities.

Whether or not it is gripped by irrational exuberance is an issue that you will not really know for sure except after the fact, but as I indicated in my prepared remarks, that I suspect that these markets are highly valued leaves me without terribly much doubt at this point.

Senator BUNNING. In other words, you still have those very same concerns.

Chairman GREENSPAN. I have concerns. I do not know that they are the same ones, but I have concerns.

Senator BUNNING. Let me ask you something about trade and trade deficits. During the Reagan Administration, we also had a rapidly growing economy, but many were fearful because of our large trade deficit. Now, once again, we have a healthy economy and a large trade deficit, but there doesn't seem to be much talk or concern about the trade deficit.

Do you think the present trade deficit is a cause of concern?

Chairman GREENSPAN. Well, Senator, I do try to address it in my prepared remarks, not very broadly, but there is a tricky problem here which we have not been able to solve. We do know that the trade deficit creates a very large so-called current account deficit, which is really the net borrowing from the rest of the world.

As a consequence of these increasing current account deficits, the level of the debt that we owe externally is rising. The debt service payments are rising as a consequence, and invariably what we are witnessing is a major increase in the dollar asset holdings by non-Americans, which is clearly the other side of the trade deficit.

As of now, the appetite to hold U.S. dollar-denominated assets seems quite extensive and there is no evidence that I am aware of which is suggestive of any individual's eschewing dollar asset holdings because, were that the case, the exchange rate for the dollar would get exceptionally weak. It has not. On the contrary, it has been behaving rather well, which is another way of saying that the absorption of the current account deficit by the willingness to hold increased claims on the United States has shown no abatement as of yet.

But the arithmetic of increasingly increasing the debt service charges, which means that goes into the current account deficit, can result in, as certain countries have discovered, a very serious debt problem, which can get out of hand and become cumulative. Because the interest goes up, that increases the current account deficit, which in turn increases the debt, you get into a spiral.

We are nowhere near that as yet, but we nonetheless do have the problem of projecting how far into the future this particular type of current account deficit can continue without impacting on the exchange rate and, as a consequence, on the whole structure of the American economy.

Senator BUNNING. Thank you for your answers.

Chairman GREENSPAN. Thank you, Senator.

Senator ALLARD. I recognize the Senator from North Carolina, Senator Edwards.

Senator EDWARDS. Good morning, Chairman Greenspan. I have heard some concerns expressed about the lack of definition of insurance in some of these pieces of modernization legislation.

I wonder if you could address that concern and tell us whether you think it is important for us to make an effort to define insurance for purposes of trying to distinguish between banking products and insurance products, particularly for regulatory purposes?

Chairman GREENSPAN. There are a number of issues that have emerged in the discussion of financial modernization which are important, but which we do not have any strong views on one way or the other. This is one of them. I think that the relevant parties in the insurance business, in the securities business, and elsewhere have made very commendable efforts to come together and resolve a number of these issues.

I am sure you are aware, Senator, in years past it was precisely such differences which made financial modernization exceptionally difficult to implement. I think we're all coming together, largely because there's a general recognition that the existing structure just does not any longer make sense, and that everyone has to give a little bit. I think that's happening. I believe, as a consequence, we will get Glass-Steagall and all of its negative accoutrements repealed and, hopefully, in the process, some agreements on the various elements of how insurance is handled in the bill contributes to that.

But we, ourselves, don't have any strong views on that which relate to the system as a whole that we think are crucial from the perspective of our obligations.

Senator EDWARDS. Let me change subjects. As you know, some of the proposals, including the President's, for Social Security reform involve, at least in part, paying down the public debt.

I wonder if you would comment briefly on the value or the sensibility of such proposals with respect to Social Security reform?

Chairman GREENSPAN. Well, let me take a step back. The ideal thing, from an economist's point of view, on Social Security, would be to leave the current services budget alone. That would create the maximum amount of increase in the Social Security trust fund and, as I argued before the Senate Budget Committee recently, the major shift toward a large increase in the ratio of retirees to workers as we move into the next century, really requires a substantial increase in net national savings.

The extent to which you get savings from the Government or from the private sector is important for lots of things about the structure of the economy, but savings are savings, and if they are used productively, they will create capital assets and finance the requirements for goods and services of retirees. So, the greater the number, the better.

What the President has chosen to do is apparently to recognize, which a number of your colleagues have so indicated, that leaving the current services budget in place is not politically feasible. It would either be spent or returned to the taxpayer. He has effectively argued for legislation that would lock 62 percent of the projected current services budget surplus into the Social Security trust fund. As I just said, I would prefer doing nothing, which would put 100 percent into the Social Security trust fund, but 62 percent is better than zero.

Senator EDWARDS. I have one last question. I was interested in your comments about Y2K and Americans' concerns about Y2K.

What advice would you give a senior citizen in the United States in December 1999 about what to do with their savings account?

Chairman GREENSPAN. I would say the *most sensible thing is to leave it where it is*. That's probably the safest thing. There is almost no conceivable way in which I can envisage that computers will break down and records of people's savings accounts will disappear. I mean, that's not what the problem is. It is easy to prevent that from happening, and everyone will do that. There are, fortunately, so many different checks and balances that if it gets knocked out in one place, it's available in 20 other places.

The real problem, basically, is the issue as to whether, in fact, a usual means of withdrawing currency will be blocked, whether by technology breaking down, whether something freezes up, whether or not the safe in the bank can be opened, or something like that.

That's a minor concern that I am aware of. While I do not deny that it is certainly preferable to have the currency available rather than the money temporarily locked up in your bank because the doors don't open, your money is perfectly safe; you just can't get it. It's an issue as to whether you're safer taking it out and waving it around, or whether you're better off just leaving it there.

Senator EDWARDS. Thank you, Chairman Greenspan. Thank you very much, Senator Allard.

Senator ALLARD. I thank the Senator from North Carolina.

Just so my colleagues know the instructions I have received from Chairman Gramm, he said that I could go ahead and ask a couple of questions, and then Senator Sarbanes has a couple of questions he would like to ask. I don't know whether the Senator from North

Carolina has any more questions or not. If not, my intent would be that we adjourn the Committee at that particular point in time.

Chairman Greenspan, I have a couple of questions I would like to ask you. Following up on my earlier comment, I would like to move on now to the Financial Modernization Act. I do think it's important that we look closely at the risks that we may build into the financial modernization effort.

There is some terminology that's used in the bill that I would be interested in knowing how you would look at as a regulator. They talk in the Financial Modernization Act about what is defined as "well-capitalized" and "well-managed."

How would you define these as a regulator, and how often would you look at these standards? Do you have any idea how you might handle those?

Chairman GREENSPAN. Senator, you are raising one of the most difficult problems that exists in this area. What's the appropriate level of capital in a bank?

In fact, it's interesting that at a recent meeting of major bankers, I asked that question of each individual bank: how do they determine how much capital they hold? Because all of them are way above the regulatory minimums, they couldn't argue that, well, we keep enough capital because that's what the Federal Reserve, the OCC, or the FDIC requires. All of the banks had capital well above the regulatory minimums.

What we observe is the increasing sophistication of evaluating risk and how, in a sense, do you preserve the franchise of the institution from a particular episode in which losses will essentially up-end the bank and eliminate its value. Each bank has a different way of doing it. It depends on the specific asset mix, the type of customers, and the type of economy they perceive.

When it gets to regulatory capital, this is a statutory issue which the Congress imposes or gives us the authority with which to set various standards. What we try to do is to replicate the same considerations that a responsible bank would be engaged in. It is not something where you can set a level of rules because in every case, the amount of bank capital you need is a function of the future, which is unknowable. You can guess at it, you can forecast it, you can project it in many different ways, but we don't know what's going to happen, and capital is future-oriented.

We try to improve the risk measurement measures, we try to do all of the various other things that are possible, but at the end of the day, we look to the issue of safety and soundness in the very broadest sense, and hope that our banks under our supervision and the banks under the Comptroller's supervision and the FDIC's supervision will recognize where their risks lie and set aside capital accordingly.

Senator ALLARD. I would also like to bring up an issue which is not new to this Committee, and it has to do with "too big to fail." Once again, with the Financial Modernization bill, we have set up a mechanism where we have a holding company with all these various operations underneath. It looks to me like in order to allow them to compete internationally, we have also allowed them to get bigger.

How do we deal with that issue so that we don't end up unfairly subsidizing the larger banks more than the smaller banks and financial institutions?

Chairman GREENSPAN. You have asked two of the most difficult questions in supervision, one right after the other.

It is very important that we, as supervisors, are careful about leading the markets to presume that we will prevent an institution from failing. That is easy; we will let it fail.

The question is, how and to what extent will we go to facilitate its liquidation? Wiping out the shareholders, which effectively is what failing will do, is easy to do. What is not easy to do is make judgments. Take an institution where the assets are significantly less than the liabilities, but the institution is very large and has secondary consequences if you liquidate it rapidly, how do you go about handling that?

One of the things we try to envisage—and we haven't confronted this issue yet—is that if we get one of these very large institutions which runs into very serious trouble, we would allow it to fail. I mean, the shareholders basically are out of the game.

We probably, depending on the nature of what type of economy we had, what type of financial system, will try to make judgments as to whether, in fact, we prevent that institution from liquidating in the normal way. As you know, whenever you get defaults, you create a whole huge set of cross-defaults on all other types of debt, and if you leave it alone, the whole thing will just implode very quickly because most everything becomes a demand note. It's that process which we would probably seek to manage.

But ultimately, unless we allow that to happen, we will create what economists call significant moral hazard in the economy and distort capital. As it stands now, even a bank which is one which regulators have full supervision over has debentures whose yield is still quite significantly above the U.S. Treasury rate of comparable maturity.

If the markets believed that we would never allow that institution to fail, then that spread would narrow to negligible differences. Fortunately, the markets understand that those institutions will fail. We will allow them to fail. What we will also try to do is manage the failure so that the spillover effects on other institutions are *de minimis*.

It's easier said than done; it's a very complex process. I hope that when confronted with it, we do it with minimum disruption.

Senator ALLARD. Thank you for your answer.

The Senator from Maryland, Senator Sarbanes.

Senator SARBANES. Thank you very much, Mr. Chairman. I am mindful of the fact that you have a conference that you need to get to. I have just two subjects I want to cover.

First of all, Chairman Greenspan, I thought the point you made on the unitary thrifts, that actually it's financial institutions rather than commercial institutions which have been acquired, was very enlightening.

On the commercial institutions, which is, of course, the loophole we want to try to close, you have previously testified—and I assume it is still your position—that we need to at least prohibit or significantly restrict the ability of the grandfathered unitary thrift

holding companies to transfer their legislatively-created grandfather rights to another commercial organization through mergers or acquisitions.

I take it that remains your position?

Chairman GREENSPAN. That is correct, Senator.

Senator SARBANES. Since these questions were asked about the surplus by others I hadn't intended on raising this subject, but I want to go into it just for a moment with you.

From a macroeconomic sense, with unemployment at 4.3 percent, isn't it counter to appropriate macroeconomic policy to use the surplus in a way that constitutes a stimulative fiscal policy that would be either through tax cuts or spending increases?

I mean, either would contribute to a total demand on the economy, when we have an economy that is now working pretty close to capacity or maybe at capacity—and some have even questioned that—so that holding the surplus and using it to pay down the debt is not only appropriate just in the sense of trying to reduce the burden of the debt and what that means into the future, but it's the appropriate macroeconomic policy at this point.

Chairman GREENSPAN. I agree, Senator. In fact, I hope I made that point earlier.

Senator SARBANES. We're concerned about national savings. It's a difficult problem for us because it's hard to get our consumers to save, as it is. But the most immediate and significant contribution we could make to national savings would be to, in a sense, hold on to the surplus for debt reduction.

National savings constitutes in the overall picture, does it not?

Chairman GREENSPAN. It does, Senator.

Senator SARBANES. I don't quite understand where this line is developing that we may not have the discipline to protect the surplus for these purposes. We have wrestled with this issue for a long time. We finally have moved the economy into surplus. These projections into the future about large surpluses are simply that; they are projections. One hopes that they prove out, but it's not quite clear to me why, without more experience and more of a run to see that that's going to be the case, we should immediately move to, in effect, change the dynamics on this surplus issue.

It seems to me we should continue running surpluses for awhile, devote them to bringing down the debt. It may develop that in a macroeconomic sense, at some point in the future, we may want to provide some stimulus to the economy to keep it at high levels. As you said, I obviously don't think we're at that point right now.

It seems to me that for this whole host of reasons, I agree with what I understand to be your position; that is, of all the alternatives, the one you rate first and foremost by a significant margin would be to use the surplus to pay down the debt.

Chairman GREENSPAN. That is correct, Senator.

Senator ALLARD. But how do you save that surplus? I guess the question is: How do you keep it from getting spent?

Chairman GREENSPAN. What happens is, you do nothing.

Senator ALLARD. While we're on the debt, just to follow up a little bit, where is the optimal level of the Federal debt? I mean, is it zero, or is it somewhere where it's a percentage of the GDP?

Chairman GREENSPAN. My view is; the lower, the better. There is unquestionably a certain level of debt which some people argue is useful for the financial system in that U.S. Treasury securities are a certain type of instrument which cannot be fully replicated in the private sector. I'm not sure that's right, but there's no question that there is no risk, by definition, in those securities, and that it does serve a useful purpose in finance. So you need some debt, but that's not very large, and one can even argue that if push came to shove, a lot of the private instruments could generally serve the same purpose.

There is a whole lot of literature in the academic fraternity that gets to this issue. It's never convinced me that zero is the wrong number.

Senator ALLARD. Thank you.

Senator SARBANES. Chairman Greenspan, the only point I want to make very strongly is that you have to relate this question to the general condition of the economy. That's why it's so important right now, because we have an economy that is functioning very well at high levels of employment.

In fact, I would assume that if the Congress were to embark on a major stimulative fiscal policy, the Fed would have to consider adjusting monetary policy in view of that.

You would have to take that into account; would you not?

Chairman GREENSPAN. Senator, what I have answered with respect to questions like that is that the specific actions that are taken do not directly impact monetary policy.

What does happen is events that occur either in fiscal policy in the economy or in the international economy, as it affects the economy, we respond to that. It is not as though one can say that if there was significant increase in fiscal stimulus, the central bank would automatically respond. The answer is no. However, should that stimulus create an environment which required us to respond, it would be the economy to which we were responding, not to the fiscal stimulus.

Senator SARBANES. Mr. Chairman, I'm very delighted to see that Chairman Greenspan's ability to address questions has not diminished in the least.

[Laughter.]

Senator ALLARD. With that, I think I want to thank Chairman Greenspan for spending time with the Committee. It's very much appreciated. You have been very gracious and generous with the Members of this Committee, and I want to thank you.

Chairman GREENSPAN. Thank you, Mr. Chairman.

Senator ALLARD. The hearing is adjourned.

[Whereupon, at 12:40 p.m., Tuesday, February 23, 1999, the hearing was adjourned.]

[Prepared statements, response to written questions, and additional material supplied for the record follow:]

### PREPARED STATEMENT OF SENATOR PHIL GRAMM

We are in a climate where everybody wants to take credit for the current level of economic activity in our economy. Politicians of all stripes want to take credit for the fact that we have prosperity in the American system that is broad-based and probably deeper than at any time in the modern history of the country.

Most politicians have about as much to do with the current level of prosperity as the rooster has in crowing over the sun coming up. My opinion is that basically the emergence and absorption of new technology, the productivity of American workers, the expansion in world trade, the end of the cold war, the fundamental strengths that were laid in previous Congresses and previous Administrations, really have much to do with our current level of prosperity and probably dominate it.

But if there is any person currently in a public policy position who is due at least partial credit for the current state of the American economy, that person is sitting in front of us today.

Chairman Greenspan, I want to thank you for the great job you have done. We have had many great men who have been Chairman of the Federal Reserve System, many great and effective leaders, but I think that while you still have much of your career in front of you, and I am grateful for that, I don't have any doubt about the fact that you will go down as the greatest Chairman in the history of the Federal Reserve System.

You have done an extraordinary job in balancing the needs of the economy, and we are very proud of the work that you have done. I wanted you to know how I feel about it.

Thank you.

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### PREPARED STATEMENT OF SENATOR TIM JOHNSON

Thank you, Mr. Chairman. And thank you, Chairman Greenspan, for doing double duty today. I appreciate your willingness to cover not only the positive economic figures today, but also to comment on the proposed financial services modernization legislation.

As one of the Democrats who voted for President Clinton's 1993 budget, it is particularly gratifying to me to see the end of the era of budget deficits, and to face the *current dilemma of what to do with our budget surplus*. Despite regular predictions of downturns, we are currently enjoying a historic expansion. In my short time on the Banking Committee, I have grown to appreciate your semiannual reports, and I hope we can continue these helpful reviews of employment and inflation figures, as well as the general state of the economy.

Regarding the second portion of your presentation, I share my colleagues thoughts about the importance of financial services modernization legislation. We must pave the way for our financial services industry to compete in a changing and challenging global marketplace without sacrificing the small institutions that necessarily have a narrower focus. Those institutions form the backbone of our small communities across the country, and they too must be well served by financial modernization. We must approach this undertaking in a context that preserves and even strengthens the safety and soundness of our financial services system.

I was very supportive of this Committee's previous efforts to modify financial services firewalls and enable U.S. firms to compete globally. Through tedious, yet ultimately productive effort, we crafted a bill that addressed the major concerns. I fear we may have strayed from those principles in the current draft under consideration, and I am hopeful that some specific concerns will be addressed before we move ahead with this process.

In the process of allowing financial firms to fully serve their customers, we must also address some concerns of our smaller banking institutions. Given the liquidity crisis confronting rural America, we must ensure smaller banks have access to the credit they need to continue supporting small businesses, farmers, and ranchers. We also must preserve a competitive balance by allowing all sides equal access to these new markets we are creating.

Mr. Chairman, I support our efforts to provide financial services modernization, and I am hopeful that we can again work in comity toward that goal. I again thank Chairman Greenspan for his thoughts today, and I look forward to Secretary Rubin and the other witnesses in the next few days.

Thank you.

## PREPARED STATEMENT OF SENATOR CHRISTOPHER J. DODD

It is always a pleasure to welcome Chairman Greenspan of the Federal Reserve Board here, and I appreciate his coming before the Committee today to deliver the biannual Humphrey-Hawkins address.

I can think of more difficult duties and responsibilities than reporting to Congress on a continued robust economy. Inflation and unemployment are down, while job creation and homeownership are up. The performance of this economy is by virtually all indicators strong, and Chairman Greenspan's steady leadership is no doubt part of the reason why.

It is equally apparent that the Clinton Administration also shares credit for the strength and consistency of this recovery. The deficit reduction legislation of 1993 and 1997 which came in the aftermath of President Bush's deficit reduction package of 1990 have achieved almost \$2 trillion in deficit reduction. The Administration's efforts to reduce taxes on capital gains and small businesses, extend the R&D tax credit, make homeownership more affordable, and invest in education achievement for our people have all made huge contributions to our current prosperity.

But this is not a time, obviously, for self-congratulation, or for leaders in the Congress, the Executive branch, or the Fed to sit on their laurels. There are challenges that loom on the horizon that must be addressed if we are going to continue to build the kind of economy that allows each and every American an opportunity to build an economically secure life.

There are several issues that immediately come to mind. First, what are the steps we can take to assist our trading partners in Asia and Latin America so that overseas markets for U.S. goods and services can get back on a growth path?

Second, what is the long-term outlook for energy prices which are so important to the continued growth of our economy—particularly to high-energy areas of the country like the Northeast?

Third, how do we address some of the difficulties posed by technological innovations such as new threats to privacy, the Y2K problem, and on-line trading?

I am hopeful that Chairman Greenspan will be able to address these and other issues during this morning's hearing. I look forward to hearing his views and those of my colleagues on the Committee.

We are also fortunate to have Chairman Greenspan here to discuss yet again the very important issue of financial modernization. Chairman Greenspan speaks with unique authority and insight into the issue that this Committee will address as we move to a markup of legislation to modernize our financial services system.

Certainly, one of the key issues we will need to address is the structure of these new financial services conglomerates. What steps should we be taking to ensure maximum safety and soundness protections? Obviously, Chairman Greenspan and Treasury Secretary Rubin have different views on this matter.

Chairman Greenspan believes that financial holding company affiliates and functional regulation are the best guarantors of safety and soundness. Secretary Rubin argues with equal vigor for a structure that allows for nonbank subsidiaries of banks, which he asserts will protect safety and soundness while at the same time ensure the continued substantial regulatory role for the Treasury Department. I am sure that both officials will forcefully and effectively state their position before the Committee today and tomorrow.

Another issue we need to address is the Community Reinvestment Act (CRA). Last year, by a vote of 16-2, this Committee stated very clearly its belief that, in this brave new world of financial services reform, we have to take care to ensure that financial institutions continue to meet their responsibilities under the CRA. That is why H.R. 10 contains exceedingly modest but nonetheless quite significant CRA provisions.

I know Chairman Gramm has his own strongly held views on this law. I feel with equal strength that the CRA, while not perfect, has been a real success story. By some official estimates, more than \$1 trillion has been leveraged under this law: credit for home mortgages, small businesses, and other purposes that have enabled creditworthy citizens to improve their economic status. This has not been done on a charitable basis; there is overwhelming evidence that lenders' CRA portfolios are profitable. Indeed, in previous statements, Chairman Greenspan has voiced concurrence with this viewpoint.

These are two of the critical issues Members of this Committee will be focused on in the days to come. I look forward to Chairman Greenspan's customarily illuminating testimony on financial modernization. I also look forward to working with Chairman Gramm and all of the Members of this Committee to fashion what I hope will be good legislation that gets the support of all, or at least most, of the Members which we can then bring to the floor for our colleagues' consideration.

### PREPARED STATEMENT OF SENATOR JACK REED

Mr. Chairman, thank you for calling today's hearing to discuss the Federal Reserve's Monetary Policy Report and financial services modernization legislation. I am anxious to hear Chairman Greenspan's thoughts on the economy and his impressions on the impact that the continuing crises in Asia, Russia, and Brazil will have on trade and the entire U.S. economy.

I generally find these hearings to be very informative and I appreciate the opportunity to question Chairman Greenspan on his views, as well as the Federal Reserve's handling of monetary policy. I am concerned, however, that unless Congress acts, the requirement that the Fed appear before Congress semiannually to present a monetary policy report will expire at the end of the year. In view of the importance of these hearings, I would like to work with Chairman Gramm to extend the Humphrey-Hawkins requirements.

With respect to financial services modernization, I would like to applaud Chairman Gramm's commitment to moving forward. I share his views on the importance of enacting a modernization bill to enhance the efficiency and competitiveness of our domestic financial services industry. However, given the tremendous difficulty of our task, I believe our efforts will be successful only if we act in a determined and bipartisan fashion.

To this point, I'm concerned that the bill we are discussing today has been crafted without Democratic input. Consequently, the bill has a number of flaws, which, in my opinion, will make it difficult to garner the bipartisan majority necessary for passage and enactment.

I am concerned about provisions in the bill that will weaken and undermine the Community Reinvestment Act, which has been responsible for billions of dollars in loans to low-income urban and rural communities.

In addition, I believe the bill sets up a regulatory framework that is confused, at best, and nonworkable, at worst. For example, the bill establishes the Federal Reserve as the umbrella regulator for bank holding companies, while creating a loophole that will allow other regulators to act as the umbrella regulator over certain types of bank holding companies. Furthermore, the regulatory structure undermines the source-of-strength doctrine, limiting the Fed's authority to require a holding company affiliate to recapitalize a failing bank. I am concerned that this regulatory structure might not withstand the stress of an economic downturn.

Finally, I have concerns about the operating subsidiary provisions which are effectively limited to community banks. I believe that all banks should have the flexibility to conduct activities through an operating subsidiary, and I intend to offer an amendment which will allow securities underwriting and merchant banking in an operating subsidiary. Indeed, I look forward to questioning Chairman Greenspan about this issue.

In closing, I would again like to thank the Chairman for holding this hearing, and I look forward to working with him to discuss the concerns I have outlined in my statement.

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### PREPARED STATEMENT OF ALAN GREENSPAN

CHAIRMAN, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

FEBRUARY 23, 1999

#### **Federal Reserve's First Monetary Policy Report for 1999**

Mr. Chairman and Members of the Committee, I appreciate the opportunity to present the Federal Reserve's semiannual report on monetary policy.

The U.S. economy over the past year again performed admirably. Despite the challenges presented by severe economic downturns in a number of foreign countries and episodic financial turmoil abroad and at home, our real GDP grew about 4 percent for a third straight year. In 1998, 2¾ million jobs were created on net, bringing the total increase in payrolls to more than 18 million during the current economic expansion, which late last year became the longest in U.S. peacetime history. Unemployment edged down further to a 4¼ percent rate, the lowest since 1970.

And despite taut labor markets, inflation also fell to its lowest rate in many decades by some broad measures, although a portion of this decline owed to decreases in oil, commodity, and other import prices that are unlikely to be repeated. Hourly labor compensation adjusted for inflation posted further impressive gains. Real compensation gains have been supported by very robust advances in labor productivity, which in turn have partly reflected heavy investment in plant and equipment, often embodying innovative technologies.

Can this favorable performance be sustained? In many respects, the fundamental underpinnings of the recent U.S. economic performance are strong. Flexible markets and the shift to surplus on the books of the Federal Government are facilitating the buildup in cutting-edge capital stock. That buildup in turn is spawning rapid advances in productivity that are helping to keep inflation well behaved. The new technologies and the optimism of consumers and investors are supporting asset prices and sustaining spending.

But, after 8 years of economic expansion, the economy appears stretched in a number of dimensions, implying considerable upside and downside risks to the economic outlook. The robust increase of production has been using up our Nation's spare labor resources, suggesting that recent strong growth in spending cannot continue without a pickup in inflation unless labor productivity growth increases significantly further. Equity prices are high enough to raise questions about whether shares are overvalued. The debt of the household and business sectors has mounted, as has the external debt of the country as a whole, reflecting the deepening current account deficit. We remain vulnerable to the rapidly changing conditions overseas, which, as we saw last summer, can be transmitted to U.S. markets quickly and traumatically. I will be commenting on many of these issues as I review the developments of the past year and the prospects going forward. In light of all these risks, monetary policy must be ready to move quickly in either direction should we perceive imbalances and distortions developing that could undermine the economic expansion.

### Recent Developments

A hallmark of our economic performance over the past year was the continuing sharp expansion of business investment spending. Competitive global markets and persisting technological advances both spurred the business drive to become more efficient and induced the price declines for many types of new equipment that made capital spending more attractive.

Business success in enhancing productivity and the expectation of still further, perhaps accelerated, advances buoyed public optimism about profit prospects, which contributed to another sizable boost in equity prices. Rising household wealth along with strong growth in real income, related to better pay, slower inflation, and expanding job opportunities, boosted consumption at the fastest clip in a decade and a half. The gains in income and wealth last year, along with a further decrease in mortgage rates, also prompted considerable activity in the housing sector.

The impressive performance of the private sector was reflected in a continued improvement in the Federal budget. Burgeoning receipts, along with continuing restraint on Federal spending, produced the first unified budget surplus in 30 years, allowing the Treasury to begin to pay down the Federal debt held by the public. This shift in the Federal Government's fiscal position has fostered an increase in overall national saving as a share of GDP to 17¼ percent from the 14½ percent low reached in 1993. This rise in national saving has helped to hold down real interest rates and to facilitate the financing of the boom in private investment spending.

Foreign savers have provided an additional source of funds for vigorous domestic investment. The counterpart of our high and rising current account deficit has been ever-faster increases in the net indebtedness of U.S. residents to foreigners. The rapid widening of the current account deficit has some disquieting aspects, especially when viewed in a longer-term context. Foreigners presumably will not want to raise indefinitely the share of their portfolios in claims on the United States. Should the sustainability of the buildup of our foreign indebtedness come into question, the exchange value of the dollar may well decline, imparting pressures on prices in the United States.

In the recent economic environment, however, the widening of the trade and current account deficits had some beneficial aspects. It provided a safety valve for strong U.S. domestic demand, thereby helping to restrain the pressures on U.S. resources. It also cushioned, to some extent, any economic weakness in our trading partners.

Moreover, decreasing import prices, which partly came from the appreciation of the dollar through mid-summer, contributed to low overall U.S. inflation, as did ample manufacturing capacity in the United States and lower prices for oil and other commodities stemming from the weak activity abroad. The marked drop in energy prices significantly contributed to the subdued, less than 1 percent, increase in the price index for total personal consumption expenditures during 1998. In addition, supported by rapid accumulation of more efficient capital, the growth of labor productivity picked up last year, allowing nominal labor compensation to post another sizable gain without putting added upward pressure on costs and prices. I

shall return to an analysis of the extraordinary performance of inflation later in my remarks.

The Federal Open Market Committee conducted monetary policy last year with the aim of sustaining the remarkable combination of economic expansion and low inflation. At its meetings from March to July, the inflation risks accompanying the continued strength of domestic demand and the tightening of labor markets necessitated that the FOMC place itself on heightened inflation alert. Although the FOMC kept the nominal Federal funds rate unchanged, it allowed the real funds rate to rise with continuing declines in inflation and, presumably, inflation expectations. In August, the FOMC returned to an unbiased policy predilection in response to the adverse implications for the U.S. outlook of worsening conditions in foreign economies and in global financial markets, including our own.

Shortly thereafter, a further deterioration in financial market conditions began to pose a more serious threat to economic stability. In the wake of the Russian crisis and subsequent difficulties in other emerging-market economies, investors perceived that the uncertainties in financial markets had broadened appreciably and as a consequence they became decidedly more risk averse. Safe-haven demands for U.S. Treasury securities intensified at the expense of private debt securities. As a result, quality spreads escalated dramatically, especially for lower-rated issuers. Many financial markets turned illiquid, with wider bid-asked spreads and heightened price volatility, and issuance was disrupted in some private securities markets. Even the liquidity in the market for seasoned issues of U.S. Treasury securities dried up, as investors shifted toward the more actively traded, recently issued securities and dealers pared inventories, fearing that heightened price volatility posed an unacceptable risk to their capital.

Responding to losses in foreign financial markets and to pressures from counterparties, highly-leveraged investors began to unwind their positions, which further weighed on market conditions. As credit became less available to business borrowers in capital markets, their demands were redirected to commercial banks, which reacted to the enlarged borrowing, and more uncertain business prospects, by tightening their standards and terms on such lending.

To cushion the domestic economy from the impact of the increasing weakness in foreign economies and the less accommodative conditions in U.S. financial markets, the FOMC, beginning in late September, undertook three policy easings. By mid-November, the FOMC had reduced the Federal funds rate from 5½ percent to 4¾ percent. These actions were taken to rebalance the risks to the outlook, and, in the event, the markets have recovered appreciably. Our economy has weathered the disturbances with remarkable resilience, though some yield and bid-asked spreads still reflect a hesitancy on the part of market participants to take on risk. The Federal Reserve must continue to evaluate, among other issues, whether the full extent of the policy easings undertaken last fall to address the seizing-up of financial markets remains appropriate as those disturbances abate.

To date, domestic demand and hence employment and output have remained vigorous. Real GDP is estimated to have risen at an annual rate exceeding 5½ percent in the fourth quarter of last year. Although some slowing from this torrid pace is most likely in the first quarter, labor markets remain exceptionally tight and the economy evidently retains a great deal of underlying momentum despite the global economic problems and the still-visible remnants of the earlier financial turmoil in the United States. At the same time, no evidence of any upturn in inflation has, as yet, surfaced.

Abroad, the situation is mixed. In some East Asian countries that, in recent years, experienced a loss of investor confidence, a severe currency depreciation, and a deep recession, early signs of stabilization and economic recovery have appeared. This is particularly the case for Korea and Thailand. Authorities in those countries, in the context of IMF stabilization programs, early on established appropriate macroeconomic policies and undertook significant structural reforms to buttress the banking system and repair the finances of the corporate sector. As investor confidence has returned, exchange rates have risen and interest rates have fallen. With persistence and follow-through on reforms, the future of those economies has promise.

The situations in some of the other emerging-market economies are not as encouraging. The Russian government's decision in mid-August to suspend payments on its domestic debt and devalue the ruble took markets by surprise. Investor flight exacerbated the collapse of prices in Russian financial markets and led to a sharp depreciation of the ruble. The earlier decline in output gathered momentum, and by late in the year inflation had moved up to a triple-digit annual rate. Russia's stabilization program with the IMF has been on hold since the financial crisis hit, and the economic outlook there remains troubling.

The Russian financial crisis immediately spilled over to some other countries, hitting Latin America especially hard. Countering downward pressure on the exchange values of the affected currencies, interest rates moved sharply higher, especially in Brazil. As a consequence of the high interest rates and growing economic uncertainty, Brazil's economic activity took a turn for the worse. Higher interest rates also had negative consequences for the fiscal outlook, as much of Brazil's substantial domestic debt effectively carries floating interest rates. With budget reform legislation encountering various setbacks, market confidence waned further and capital outflows from Brazil continued, drawing down foreign currency reserves. Ultimately, the decision was taken to allow the *real* to float, and it subsequently depreciated sharply.

Brazilian authorities must walk a very narrow, difficult path of restoring confidence and keeping inflation contained with monetary policy while dealing with serious fiscal imbalances. Although the situation in Brazil remains uncertain, there has been limited contagion to other countries thus far. Apparently, the slow onset of the crisis has enabled many parties with Brazilian exposures to hedge those positions or allow them to run off. With the net exposure smaller, and increasingly held by those who both recognized the heightened risk and were willing to bear it, some of the elements that might have contributed to further contagion may have been significantly reduced.

### The Economic Outlook

These recent domestic and international developments provide the backdrop for U.S. economic prospects. Our economy's performance should remain solid this year, though likely with a slower pace of economic expansion and a slightly higher rate of overall inflation than last year. The stocks of business equipment, housing, and household durable goods have been growing rapidly to quite high levels relative to business sales or household incomes during the past few years, and some slowing in the growth of spending on these items seems a reasonable prospect. Moreover, part of the rapid increase in spending, especially in the household sector, has resulted from the surge in wealth associated with a run-up in equity prices that is unlikely to be repeated. And the purchasing power of income and wealth has been enhanced by declines in oil and other import prices, which also are unlikely to recur this year. Assuming that aggregate demand decelerates, underlying inflation pressures, as captured by core price measures, in all likelihood will not intensify significantly in the year ahead, though the Federal Reserve will need to monitor developments carefully. We perceive stable prices as optimum for economic growth. Both inflation and deflation raise volatility and risks that thwart maximum economic growth.

Most Governors and Reserve Bank Presidents foresee that economic growth this year will slow to a 2½ to 3 percent rate. Such growth would keep the unemployment rate about unchanged. The central tendency of the Governors' and Presidents' predictions of CPI inflation is 2 to 2½ percent. This level represents a pickup from last year, when energy prices were falling, but it is in the vicinity of core CPI inflation over the last couple of years.

This outlook involves several risks. The continuing downside risk posed by possible economic and financial instability around the world was highlighted earlier this year by the events in Brazil. Although financial contagion elsewhere has been limited to date, more significant knock-on effects in financial markets and in the economies of Brazil's important trading partners, including the United States, are still possible. Moreover, the economies of several of our key industrial trading partners have shown evidence of weakness, which if it deepens could further depress demands for our exports.

Another downside risk is that growth in capital spending, especially among manufacturers, could weaken appreciably if pressures on domestic profit margins mount and capacity utilization drops further. And it remains to be seen whether corporate earnings will disappoint investors, even if the slowing of economic growth is only moderate. Investors appear to have incorporated into current equity price levels both *robust profit expectations and low compensation for risk*. As the economy slows to a more sustainable pace as expected, profit forecasts could be pared back, which together with a greater sense of vulnerability in business prospects could damp appetites for equities. A downward correction to stock prices, and an associated increase in the cost of equity capital, could compound a slowdown in the growth of capital spending. In addition, a stock market decline would tend to restrain consumption spending through its effect on household net worth.

But on the upside, our economy has proved surprisingly robust in recent years. More rapid increases in capital spending, productivity, real wages, and asset prices

have combined to boost economic growth far more and far longer than many of us would have anticipated.

This "virtuous cycle" has been able to persist because the behavior of inflation also has been surprisingly favorable, remaining well contained at levels of utilization of labor that in the past would have produced accelerating prices. That it has not done so in recent years has been the result of a combination of special one-time factors holding down prices and more lasting changes in the processes determining inflation.

Among those temporary factors, the sizable declines in the prices of oil, in other internationally-traded commodities, and other imports contributed directly to holding down inflation last year, and also indirectly by reducing inflation expectations. But these prices are not likely to fall further, and they could begin to rise as some Asian economies revive and the effects of the net depreciation of the dollar since mid-summer are felt more strongly.

At the same time, however, recent experience does seem to suggest that the economy has become less inflation prone than in the past, so that the chances of an inflationary breakout arguably are, at least for now, less than they would have been under similar conditions in earlier cycles.

Several years ago I suggested that worker insecurity might be an important reason for unusually damped inflation. From the early 1990's through 1996, survey results indicated that workers were becoming much more concerned about being laid off. Workers' underlying fear of technology-driven job obsolescence, and hence willingness to stress job security over wage increases, appeared to have suppressed labor cost pressures despite a reduced unemployment rate. More recently, that effect seems to have diminished in part. So while job loss fears probably contributed to wage and price suppression through 1996, it does not appear that a further heightening of worker insecurity about employment prospects can explain the more recent improved behavior of inflation.

Instead, a variety of evidence, anecdotal and otherwise, suggests that the source of recent restrained inflation may be emanating more from employers than from employees. In the current economic setting, businesses sense that they have lost pricing power and generally have been unwilling to raise wages any faster than they can support at current price levels. Firms have evidently concluded that if they try to increase their prices, their competitors will not follow, and they will lose market share and profits.

Given the loss of pricing power, it is not surprising that individual employers resist pay increases. But why has pricing power of late been so delimited? Monetary policy certainly has played a role in constraining the rise in the general level of prices and damping inflation expectations over the 1980's and 1990's. But our current discretionary monetary policy has difficulty anchoring the price level over time in the same way that the gold standard did in the last century.

Enhanced opportunities for productive capital investment to hold down costs also may have helped to damp inflation. Through the 1970's and 1980's, firms apparently found it easier and more profitable to seek relief from rising nominal labor costs through price increases than through cost-reducing capital investments. Price relief evidently has not been available in recent years. But relief from cost pressures has. The newer technologies have made capital investment distinctly more profitable, enabling firms to substitute capital for labor far more productively than they would have a decade or two ago.

Starting in 1993, capital investment, particularly in high-technology equipment, rose sharply beyond normal cyclical experience, apparently the result of expected increases in rates of return on the new investment. Had the profit expectations not been realized, one would have anticipated outlays to fall back. Instead, their growth accelerated through the remainder of the decade.

More direct evidence confirms the improved underlying profitability. According to some rough estimates, labor and capital productivity has risen significantly during the past 5 years. It seems likely that the synergies of advances in laser, fiber optic, satellite, and computer technologies with older technologies have enlarged the pool of opportunities to achieve a rate of return above the cost of capital. Moreover, the newer technologies have facilitated a dramatic foreshortening of the lead times on the delivery of capital equipment over the past decade, presumably allowing businesses to react more expeditiously to an actual or expected rise in nominal compensation costs than, say, they could have in the 1980's. In addition, the surge in investment not only has restrained costs, it has also increased industrial capacity faster than factory output has risen. The resulting slack in product markets has put greater competitive pressure on businesses to hold down prices, despite taut labor markets.

The role of technology in damping inflation is manifest not only in its effects on U.S. productivity and costs, but also through international trade, where technological developments have progressively broken down barriers to cross-border trade. The enhanced competition in tradable goods has enabled excess capacity previously bottled up in one country to augment worldwide supply and exert restraint on prices in all countries' markets. The resulting price discipline also has constrained nominal wage gains in internationally-tradable goods industries. As workers have attempted to shift to other sectors, the gains in nominal wages and increases in prices in non-tradable goods industries have been held down as well.

The process of price containment has potentially become, to a certain extent, self-reinforcing. Lower inflation in recent years has altered expectations. Workers no longer believe that escalating gains in nominal wages are needed to reap respectable increases in real wages, and their remaining sense of job insecurity is reinforcing this. Since neither firms nor their competitors can count any longer on a general inflationary tendency to validate decisions to raise their own prices, each company feels compelled to concentrate on efforts to hold down costs. The availability of new technology to each company and its rivals affords both the opportunity and the competitive necessity of taking steps to boost productivity.

It is difficult to judge whether these significant shifts in the market environment in which firms function are sufficient to account for our benign overall price behavior during the past half decade. Undoubtedly, other factors have been at work as well, including those temporary factors I mentioned earlier and some more lasting I have not discussed, such as worldwide deregulation and privatization, and the freeing up of resources previously employed to produce military products that was brought about by the end of the cold war. There also may be other contributory forces lurking unseen in the wings that will only become clear in time. Over the longer run, of course, the actions of the central bank determine the degree of overall liquidity and hence rate of inflation. It is up to us to validate the favorable inflation developments of recent years.

Although the pace of productivity increase has picked up in recent years, the extraordinary strength of demand has meant that the substitution of capital for labor has not prevented us from rapidly depleting the pool of available workers. This worker depletion constitutes a critical upside risk to the inflation outlook because it presumably cannot continue for very much longer without putting increasing pressure on labor markets and on costs.

The number of people willing to work can be usefully defined as the unemployed component of the labor force plus those not actively seeking work, and thus not counted in the labor force, but who nonetheless say they would like a job if they could get one. This pool of potential workers aged 16 to 64 currently numbers about 10 million, or just 5¼ percent of that group's population—the lowest such percentage on record, which begins in 1970, and 2½ percentage points below its average over that period. The rapid increase in aggregate demand has generated growth of employment in excess of growth in population, causing the number of potential workers to fall since the mid-1990's at a rate of a bit under 1 million annually. We cannot judge with precision how much further this level can decline without sparking ever-greater upward pressures on wages and prices. But, should labor market conditions continue to tighten, there has to be some point at which the rise in nominal wages will start increasingly outpacing the gains in labor productivity, and prices inevitably will begin to accelerate.

### **Ranges for Money and Credit**

At its February meeting, the Committee elected to ratify the provisional ranges for all three aggregates that it had established last July. Specifically, the Committee again has set growth rate ranges over the four quarters of 1999 of 1 to 5 percent for M2, 2 to 6 percent for M3, and 3 to 7 percent for domestic nonfinancial debt. As in previous years, the Committee interpreted the ranges for the broader monetary aggregates as benchmarks for what money growth would be under conditions of price stability and sustainable economic growth, assuming historically typical velocity behavior.

Last year, these monetary aggregates far overshot the upper bounds of their annual ranges. While nominal GDP growth did exceed the rate likely consistent with sustained price stability, the rapid growth of M2 and M3 also reflected outsized declines in their velocities, that is, the ratio of nominal GDP to money. M2 velocity dropped by about 3 percent, while M3 velocity plunged by 5¼ percent.

Part of these velocity declines reflected some reduction in the opportunity cost of holding money; interest rates on Treasury securities, which represent an alternative return on nonmonetary assets, dropped more than did the average of interest rates on deposits and money market mutual funds in M2, drawing funds into the aggre-

gate. Even so, much of last year's aberrant behavior of broad money velocity cannot readily be explained by conventional determinants. Although growth of the broad aggregates was strong earlier in the year, it accelerated in the fourth quarter after credit markets became turbulent. Perhaps robust money growth late in the year partly reflected a reaction to this turmoil by the public, who began scrambling for safer and more liquid financial assets. Monetary expansion has moderated so far this year, evidently in lagged response to the calming of financial markets in the autumn. Layered on top of these influences, though, the public also may have been reapportioning their savings flows into money balances because the huge run-up in stock prices in recent years has resulted in an uncomfortable portion of their net worth in equity.

For the coming year, the broad monetary aggregates could again run high relative to these ranges. To be sure, the decline in the velocities of the broader aggregates this year should abate to some extent, as money demand behavior returns more to normal, and growth in nominal GDP should slow as well, as suggested by the Governors' and Presidents' central tendency. Both factors would restrain broad money expansion relative to last year. Still, the growth of M2 and M3 could well remain outside their price-stability ranges this year. Obviously, considerable uncertainty continues to surround the prospective behavior of monetary velocities and growth rates.

Domestic nonfinancial debt seems more likely than the monetary aggregates to grow within its range for this year. Indeed, domestic nonfinancial debt also could grow more slowly this year than last year's 6¼ percent pace, which was in the upper part of its 3 to 7 percent annual range. With the Federal budget surplus poised to widen further this year, Federal debt should contract even more quickly than last year. And debt in each of the major non-Federal sectors in all likelihood will decelerate as well from last year's relatively elevated rates, along with the projected slowing of nominal GDP growth.

#### **The FOMC's Disclosure Policy**

The FOMC at recent meetings has discussed not only the stance of policy, but also when and how it communicates its views of the evolving economic situation to the public. The FOMC's objective is to release as much information about monetary policy decisionmaking, and as promptly, as is consistent with maintaining an effective deliberative process and avoiding roiling markets unnecessarily. Since early 1994, each change in the target nominal Federal funds rate has been announced immediately with a brief rationale for the action. The FOMC resolved at its December meeting to take advantage of an available, but unused policy, originally stated in early 1994, of releasing, on an infrequent basis, a statement immediately after some FOMC meetings at which the stance of monetary policy has not been changed. The Federal Reserve will release such a statement when it wishes to communicate to the public a major shift in its views about the balance of risks or the likely direction of future policy. Such an announcement need not be made after every change in the tilt of the directive. Instead, this option would be reserved for situations in which the consensus of the Committee clearly had shifted significantly, though not by enough to change current policy, and in which the absence of an explanation risked misleading markets about the prospects for monetary policy.

#### **Year 2000 Issues**

Before closing, I would like to address an issue that has been receiving increasing attention—the century date change. While no one can say that the rollover to the year 2000 will be trouble free, I am impressed by the efforts to date to address the problem in the banking and financial system. For our part, the Federal Reserve System has now completed remediation and testing of 101 of its 103 mission-critical applications, with the remaining two to be replaced by the end of March. We opened a test facility in June at which more than 6,000 depository institutions to date have conducted tests of their Y2K compliant systems, and we are well along in our risk mitigation and contingency planning activities. As a precautionary measure, the Federal Reserve has acted to increase the currency in inventory by about one-third to approximately \$200 billion in late 1999 and has other contingency arrangements available if needed. While we do not expect currency demand to increase dramatically, the Federal Reserve believes it is important for the public to have confidence in the availability of cash in advance of the rollover. As a result of these kinds of activities, I can say with assurance that the Federal Reserve will be ready in both its operations and planning activities for the millennium rollover.

The banking industry is also working hard, and with evident success, to prepare for the event. By the end of the first quarter, every institution in the industry will have been subject to two rounds of on-site Y2K examinations. The Federal Reserve,

like the other regulators, has found that only a small minority of institutions has fallen behind in their preparations, and those institutions have been targeted for additional followup and, as necessary, formal enforcement actions. The overwhelming majority of the industry has made impressive progress in their remediation, testing, and contingency planning efforts.

### **Concluding Comment**

Americans can justifiably feel proud of their recent economic achievements. Competitive markets, with open trade both domestically and internationally, have kept our production efficient and on the expanding frontier of technological innovation. The determination of Americans to improve their skills and knowledge has allowed workers to be even more productive, elevating their real earnings. Macroeconomic policies have provided a favorable setting for the public to take greatest advantage of opportunities to improve its economic well-being. The restrained fiscal policy of the Administration and Congress has engendered the welcome advent of a unified budget surplus, freeing up funds for capital investment. A continuation of responsible fiscal and, we trust, monetary policies should afford Americans the opportunity to make considerable further economic progress over time.

### **Financial Services Modernization Legislation**

The Committee has asked that, in addition to my report on the economy, I present today the views of the Federal Reserve on the need for legislation to modernize the U.S. financial system. The Federal Reserve continues to support strongly the enactment of such legislation and I commend the Committee for taking up this vital matter so promptly.

### **Need for Financial Modernization**

U.S. financial institutions are today among the most innovative and efficient providers of financial services in the world. They compete, however, in a marketplace that is undergoing major and fundamental change driven by a revolution in technology, by dramatic innovations in the capital markets, and by the globalization of the financial markets and the financial services industry.

The technologically driven proliferation of new financial products that enable risk unbundling has created new financial instruments that increasingly combine the characteristics of banking, insurance, and securities products. These changes, which are occurring all over the world, have also dramatically altered the way financial services providers operate and the way they market and deliver their products.

In the United States, our financial institutions have been required to take elaborate steps to develop and deliver new financial products and services in a manner that is consistent with our outdated laws. The costs of these efforts are becoming increasingly burdensome and serve no useful public purpose. Unless soon repealed, the archaic statutory barriers to efficiency could undermine the competitiveness of our financial institutions, their ability to innovate and to provide the very best and broadest possible services to U.S. consumers, and, ultimately, the global dominance of American finance.

Without congressional action to update our laws, the market will force ad hoc administrative responses that lead to inefficiencies and inconsistencies, expansion of the Federal safety net, and potentially increased risk exposure to the Federal deposit insurance funds. Such developments will undermine the competitiveness and innovative edge of major segments of our financial services industry. We at the Federal Reserve believe it is important that the rules for our financial services industry be set by the Congress rather than, as too often has been the case, by banking regulators dealing with our outdated laws. Only Congress has the ability to fashion rules that are comprehensive and equitable to all participants and that guard the public interest.

For these reasons, we support removal of the legislative barriers that prohibit the straightforward integration of banking, insurance, and securities activities. There is virtual unanimity among all concerned—private and public alike—that these barriers should be removed.

In designing financial modernization legislation, we firmly believe that the Congress should focus on achieving two essential and indivisible objectives: removing outdated, competitively stifling restrictions on financial affiliations and, most importantly, adopting a framework for this modernization that promotes the safety and soundness of our banking and financial system and prevents the extension of the Federal subsidy.

### **Framework for Financial Modernization**

The first objective is achieved by amending the Glass-Steagall Act and the Bank Holding Company Act in order to permit financial affiliations and broader financial activities.

In our judgment, the objective of preserving safety and soundness and preventing the spread of the Federal subsidy is best achieved by allowing banks, securities firms, and insurance companies to combine in the financial service holding company structure. While we enthusiastically support the new powers granted to financial service holding companies, we just as strongly believe they should be financed by the marketplace, not by instruments backed by the sovereign credit of the United States. The requirement that the new powers, at least those conducted as principal, be conducted through holding company affiliates minimizes the expansion of the use of the subsidies arising from a safety net backed by the U.S. taxpayer.

The choice of requiring the new powers to be harbored in affiliates of holding companies, not in operating subsidiaries of their banks, will significantly fashion the underlying structure of twenty-first century finance. To inject the substantial new subsidies that would accrue to operating subsidiaries of banks into the currently mushrooming domestic and international financial system could distort capital markets and the efficient allocation of both financial and real resources that has been so central to America's current prosperity.

New affiliations, if allowed through bank subsidiaries, would accord banking organizations an unfair competitive advantage over comparable insurance and securities firms—both those operating independently and those that are bank holding company subsidiaries. By fostering a level playing field within the financial services industry, we contribute to full, open, and fair competition.

This choice of the holding company structure is also critical to the way in which the financial services industry will develop because it provides better protection for and promotes the safety, soundness, and the stability of our banking and financial system. At the same time, it accomplishes much needed financial modernization without damaging the national or State bank charters or limiting in any way the benefits of financial modernization. The other route toward full powered commercial bank operating subsidiaries and universal banking would, in our judgment, lead to greater risk for the deposit insurance funds and the taxpayer.

In addition, the holding company structure promotes effective supervision and the functional regulation of different activities. The United States is at a historic crossroads in financial services regulation. It is becoming increasingly evident that the dramatic advances in computer and telecommunications technologies of the past decade have so significantly altered the structure of domestic, indeed, global finance as to render our existing modes of supervision and regulation of financial institutions increasingly obsolescent.

The volume, sophistication, and rapidity of financial dealings should continue to lead to supervisory emphasis on oversight of risk management of financial institutions and a marked scaling back of outmoded loan file and balance sheet surveillance. For the same reasons, affiliation with banks need not—indeed, should not—create bank-like regulation of the affiliates of banks. A very constructive approach to supervision for the twenty-first century is captured in the so-called “Fed-light” provisions of various bills, which focus on and enhance the functional regulation of securities firms, insurance companies, insured depository institutions, and their affiliates. We at the Fed strongly support this approach.

### **Banking and Commerce**

A twenty-first century issue that has become a part of the financial modernization debate is whether we should move beyond affiliations among financial service providers and allow the full integration of banking and commerce. As new technology increasingly blurs the distinction among various financial products, it is already beginning to blur the distinctions between predominately commercial and banking firms. But how the underlying subsidies of deposit insurance, discount window access, and guaranteed final settlement through Fedwire are folded into a commercial firm, should the latter affiliate with a bank, is crucially important to the systemic stability of our financial system. It seems to us wise to move first toward the integration of banking, insurance, and securities, and employ the lessons we learn from that important step before we consider whether and under what conditions it would be desirable to move to the second stage of the full integration of commerce and banking.

Nothing is lost, in my judgment, by making this a two-stage process. Indeed, there is much to be gained. The Asian crisis highlighted some of the risks that can arise if relationships between banks and commercial firms are too close, and makes caution at this stage prudent in our judgment. In line with these considerations, the

Board continues to support elimination of the unitary thrift loophole, which currently allows any type of commercial firm to control a federally-insured depository institution.

#### **Preservation of Executive Branch Influence**

There is a final point I want to make since it appears to have driven Treasury's opposition to financial modernization legislation considered last year. That legislation would not have altered the Executive branch's supervisory authority for national banks or for Federal savings associations; nor would it have resulted in any reduction in the predominant and growing share of this Nation's banking assets controlled by national banks and Federal savings associations. Indeed, as of September 1998, nearly 58 percent of all banking assets were under the supervision of the Comptroller of the Currency, up from 55.2 percent at the end of 1996. Moreover, after controlling for mergers of like-chartered banks, the number of national banks has increased over the period 1996-98 and the number of State banks has declined.

Furthermore, the Congress, for sound public policy reasons, has purposefully apportioned responsibility for this Nation's financial institutions among the elected Executive branch and independent regulatory agencies. Action to alter this balance would be contrary to the deliberate steps that the Congress has taken to ensure a proper balance in the regulation of this Nation's dual banking system.

#### **Conclusion**

In virtually every other industry, Congress would not be asked to address issues such as these, which are associated with technological and market developments; the market would force the necessary institutional adjustments. Arguably, this difference reflects the painful experience that has taught us that developments in our banking system can have profound effects on the stability of our whole economy, rather than just the limited impact we perceive from the difficulties in most other industries.

Moreover, as in all major legislation, there are, and will be, numerous provisions only indirectly associated with the legislation's core objectives that often foster disagreements. These surrounding issues are doubtless important, but not so important that they should be allowed to defeat the consensus that has developed around these key goals. It would be a disservice to the public and the Nation if, in the fruitless search for a bill that pleases everyone in every detail, the benefits of this vital consensus are lost or further delayed.

The markets are demanding that we change outdated statutory limitations that stand in the way of more efficiently and effectively delivering financial services to the public. The Federal Reserve agrees and urges prompt enactment of financial modernization legislation that achieves the two central and indivisible objectives that I have outlined today.

**RESPONSE TO WRITTEN QUESTIONS OF SENATOR SARBANES  
FROM ALAN GREENSPAN**

**Closing the Unitary Thrift Loophole**

In testimony before the Senate Banking Committee on June 17, 1998, you urged closing the unitary thrift holding company loophole. You said:

In light of the dangers of mixing banking and commerce, the Board supports elimination of the unitary thrift loophole, which currently allows any type of commercial firm to control a federally-insured depository institution. Failure to close this loophole now would allow the conflicts inherent in banking and commerce combinations to further develop in our economy and complicate efforts to create a fair and level playing field for all financial services providers.

You added:

Accordingly, the Federal Reserve strongly supports the provisions of H.R. 10 that would prohibit new unitary thrift holding companies from having nonfinancial affiliations on a prospective basis.

At that hearing, you also recommended limiting transferability. You said:

The Board, therefore, strongly supports an amendment to H.R. 10 that would at least prohibit or significantly restrict the ability of grandfathered unitary thrift holding companies to transfer their legislatively-created grandfather rights to another commercial organization through mergers or acquisitions.

On February 23, 1999, you testified that:

The Board continues to support elimination of the unitary thrift loophole, which currently allows any type of commercial firm to control a federally-insured depository institution.

**Q.1.** Would you elaborate on the reasons supporting the Board's position favoring the elimination of the unitary thrift loophole and limiting transferability of existing thrifts to financial acquirers and the most serious potential problems if the loophole is not closed?

**A.1.** As discussed further below, the mixing of banking and commerce involves several risks and presents novel supervisory and policy issues. For these reasons, the Board believes that Congress should move cautiously in this area and first allow the full integration of financial activities before addressing the unique and complicated issues associated with mixing banking and commerce.

For these reasons, the Board supports the provisions contained in the bill recently passed by the Senate Banking Committee that would close, on a prospective basis, the unitary thrift loophole, which currently allows any type of commercial firm to control a federally-insured depository institution. Failure to take this action now, when only a small number of commercial firms have established affiliations with insured depository institutions, would allow the conflicts and dangers associated with the mixing of banking and commerce to spread further. In addition, failure to enact these provisions could lead to the piecemeal erosion of the walls separating banking and commerce and jeopardize the efforts to create a fair and level playing field for all financial service providers as we enter the 21st century.

The Board also supports the provisions in the Senate Banking Committee's bill that would allow existing unitary thrift holding companies to maintain the commercial affiliations that they have already legally established. The Board, however, would hope that

the provisions in the Banking Committee's bill that would allow existing unitary thrift holding companies to transfer their special, legislatively-created grandfather rights to other commercial firms through merger or acquisition would be reconsidered. These provisions would convey unique economic benefits on a small number of grandfathered entities, allow other commercial firms that have no claim to special, legislative treatment to acquire an insured depository institution, and permit significantly expanded combinations of banking and commerce in our society.

### **Keeping Banking and Commerce Separate**

On February 23, you testified:

It seems to us wise to move first toward the integration of banking, insurance, and securities, and employ the lessons we learn from that important step before we consider whether and under what conditions it would be desirable to move to the second stage of the full integration of commerce and banking. Nothing is lost, in my judgment, by making this a two-stage process. Indeed, there is much to be gained.

You also testified:

The Asian crisis highlighted some of the risks that can arise if relationships between banks and commercial firms are too close, and makes caution at this stage prudent in our judgment.

**Q.2.** Would you explain in greater detail the risks of mixing banking and commerce at this time, and the lessons we should draw from the Asian financial crisis in our consideration of whether to allow banks to affiliate with commercial companies?

**A.2.** The main risk of integrating banking and commerce at this time is that there is too much uncertainty over the consequences of such a move, given that an equally fundamental change in regulatory structure, the integration of banking, insurance, and securities businesses, is on the table as well. Since there is widespread agreement that the latter reform is urgently needed, it is prudent to proceed with it alone and wait a few years to judge its consequences for the structure of the financial industry. We can revisit the question of integrating banking and commerce a few years from now with a more informed view of its likely effects.

One of the lessons of the Asian financial crisis is that a large amount of connected lending by banks—lending to commercial companies in which the bank's owners, directors, managers, or their families have a financial interest—increases the vulnerability of the financial system. It does so in at least three ways. First, connected lending is more likely to become nonperforming because no credit evaluation of the borrower's creditworthiness is ever made. Second, connected lending leads to the misallocation of resources because commercial firms get access to capital not on the merits of their investment opportunities, but on the strength of their connections with bank insiders. Third, connected lending allows some firms to borrow excessively, leading to high leverage.

All three factors—poor bank asset quality, misallocation of resources, and high leverage—make the financial system more vulnerable. All three are currently affecting the Asian crisis countries, to differing degrees, at least in part due to the large amount of connected lending that went on in those countries prior to the crisis. Consequently, tightening restrictions on connected lending is part

of the structural reform packages adopted by the three hardest-hit countries: Korea, Indonesia, and Thailand.

Another reason why the financial systems in the Asian crisis countries were vulnerable to a crisis was that financial liberalization had been poorly managed. Learning from this experience, the IMF and others are urging developing countries to place strong emphasis on the need to get the sequencing of financial reforms right. The lesson for us should be the same: financial liberalization should proceed at a reasoned pace, and reforms that raise the most vexing questions—like integrating banking and commerce—should wait until more pressing reforms have been satisfactorily dealt with.

### **Merchant Banking**

H.R. 10, as reported out of the Senate Banking Committee last year, authorized merchant banking as one of the new powers permitted. However, H.R. 10 specifically provided that ownership interests in companies pursuant to the merchant banking authority could be held “only for such period of time as will permit the sale or disposition thereof on a reasonable basis,” and that during the period such ownership interests are held “the bank holding company does not actively participate in the day-to-day management or operation of such company or entity.”

The Staff Discussion Draft of legislation circulated by the Banking Committee on February 16, 1999, also authorized merchant banking activities and contained the same restrictions as were contained in H.R. 10. However, the Committee Print circulated by the Committee on March 1 and approved by an 11–9 vote of the Committee on March 4 did not contain the restrictions on the period of time and the participation in day-to-day management of merchant banking holdings that were in the Staff Discussion Draft.

**Q.3.** It appears that eliminating these restrictions would permit a bank holding company to own an unlimited number of commercial companies of any size for any period of time and manage them on a day-to-day basis. Is this correct? What implications does this have for breaking down the separation of banking and commerce?

**A.3.** Merchant banking, in its simplest terms, involves making temporary investments in the equity or debt securities of a company for the purpose of achieving a profit on the eventual sale or disposition of the investment. These investments may involve the acquisition of a controlling interest in, or even 100 percent of the equity of, a company. Merchant banking is a volatile activity and, unless constrained, could lead to a significant breach in the walls separating banking and commerce. The Board has supported efforts to permit banking organizations, within the proper framework, to engage in these activities in order to facilitate the integration of banks and securities firms, which are major participants in this field. The Board believes merchant banking activities should be permitted through the holding company structure, which provides a more effective shield against the dangers of mixing banking and commerce. In addition, the holding company structure best protects insured depository institutions and the Federal safety net from the volatility of merchant banking activities, prevents the spread of the Federal safety net—and its related subsidy—to companies engaged in these newly authorized activities, and ensures a fair and level

competitive playing field for all entities engaged in merchant banking activities.

The bill passed by the Senate Banking Committee in 1998 placed certain limits on the merchant banking activities of the bank holding companies to mitigate the potential that these activities would allow the blending of banking and commerce. These restrictions would allow a bank holding company to hold a merchant banking investment only for the period of time necessary to permit the sale or disposition of the investment on a reasonable basis, and would prohibit a bank holding company from actively participating in the day-to-day management or operations of a company in which the bank holding company had invested (except insofar as necessary to achieve the holding company's bona fide investment objectives).

The bill passed earlier this month by the Senate Banking Committee, however, did not contain similar restrictions on the merchant banking activities of the banking organizations. We presume that this change was made to permit the banking agencies added flexibility in defining the time periods and permissible management relationships for various types of merchant banking investments. We believe that language to carry out this intent should be included in the legislation.

### **Home Loan Banks**

As was the case last year, proposals have emerged in the context of financial modernization legislation that would significantly expand the reach and operations of the Federal Home Loan Bank system. These measures would expand the use of the substantial Federal subsidy that the Home Loan Banks enjoy due to their status as Government-sponsored enterprises. As you may well know, last year these subsidies enabled the Home Loan Banks to become the largest single issuer of debt in the world, larger than even the U.S. Treasury.

**Q.4.** Do you feel the system's current activities and those contemplated under the proposed changes—generating dividends through interest rate arbitrage, moving into what amounts to direct mortgage lending, and offering nonhousing-related products such as the standby letters of credit—are an appropriate use of Government subsidies?

What is your view of the impact that a further expansion of this Government subsidy would have on private capital markets?

**A.4.** The U.S. financial system is very dynamic, and generally provides whatever credit is demanded at a market interest rate. This is particularly true for markets where loans are typically collateralized by safe, well-understood assets, such as in most of the home mortgage market. Government sponsorship allows Federal Home Loan Banks (FHLB's) to borrow funds at interest rates that are lower than those charged to comparably situated private sector borrowers because purchasers of FHLB debt believe that the Government would not allow the FHLB's to fail. This Government subsidy, like all Government subsidies, benefits some groups and disadvantages others. This subsidy, which was intended to promote homeownership, has been expanded far beyond its original beneficiaries, and such activities as the arbitrage discussed in the question—as well as expanding the FHLB subsidy more generally—distort the

structure of our financial system and potentially foster a suboptimal allocation of resources in our economy. While it may be reasonable to make limited changes to expand access by small banks to address temporary funding difficulties, given the size and rapid growth of the Federal Home Loan Banks, as well as the Federal Home Loan Bank system's unclear social purpose, a thorough congressional review of the system—with very careful consideration of possible distortions—is appropriate before authorizing a further expansion of FHLB subsidies.

**RESPONSE TO WRITTEN QUESTIONS OF SENATOR CRAPO  
FROM ALAN GREENSPAN**

**Financial Services Modernization**

**Q.1.** Who do you think the biggest winners are if financial services modernization legislation is enacted? Who loses the most if it is not enacted in the 106th Congress?

**Q.2.** American consumers spend an estimated \$300 billion annually on financial services. What does passage of financial services modernization legislation mean for them?

**A.1. and A.2.** The biggest winners clearly would be the American consumers, who would be able to benefit both directly and indirectly from the increased competition that would come from breaking down the restrictions on interindustry activity that exists in current law. Benefits of location, convenience, price, and delivery mechanisms would be expected to be among the most significant.

**Q.3.** One of the major issues of debate in this legislation is the degree to which banks will have to conduct activities in an affiliate versus an operating subsidiary. You and Treasury Secretary Rubin have been at odds on this issue. Can you explain the importance of our decision on how to handle this as it relates to moving our financial services industry into the 21st century?

**A.3.** One of the principal issues raised by financial modernization is the appropriate corporate structure for permitting banking organizations to engage in new financial activities. The issue comes down to whether these new activities, which the Congress has forbidden for banks, should be conducted through a separately and market-capitalized nonbank subsidiary of a bank holding company or through a direct subsidiary of and funded by an insured bank. This question of structure is not a small matter and will fundamentally affect the development of the financial services industry in the 21st century.

The op-sub structure would inappropriately expand the Federal safety net—and its related subsidy—to new nonbanking financial activities, create an unlevel competitive playing field for financial services, pose serious risks to insured banks and the deposit insurance funds, and conflict with the principles of functional regulation. While the Federal Reserve supports the broad expansion of powers for banking organizations, it believes those powers should be financed in the competitive marketplace, not by securities supported, and subsidized, by the sovereign credit of the United States.

Banks are given access to the Federal safety net, which refers to FDIC deposit insurance, and access to the Federal Reserve's discount window and riskless payment system. This access permits

banks to raise funds at a lower cost than their nonbank competitors and is, in effect, an economic subsidy to banks.

The Treasury structure allows banks to channel these lower-cost funds to an op-sub engaged in activities that the bank cannot conduct directly, thereby giving them a significant funding advantage over independent financial service firms. This would weaken our nonbank financial structure and reduce the flexibility of our economy to withstand systemic risk.

The op-sub structure also provides less protection for Federal deposit insurance funds and the American taxpayer than the holding company structure. An op-sub could lose much more than its capital, harming its insured parent bank. Similar losses in an affiliate of the holding company would not affect Federal deposit insurance funds.

The Federal Reserve, the SEC, and the securities and insurance industries all agree that the holding company framework provides the best mechanism for maintaining the functional regulation of securities and insurance activities, protecting investors and policyholders, reducing the need for duplicative and potentially conflicting regulation by both a bank supervisor and a functional supervisor, and promoting the uniform regulation of activities by function.

**Q.4.** Another hot topic of debate in this modernization bill is the integration of banking and commerce. You stated that the "Asian crisis last year highlighted some of the risks that can arise if relationships between banks and commercial firms are too close..." Could you further explain your thoughts on this issue?

**A.4.** One of the lessons of the Asian financial crisis is that a large amount of connected lending by banks—lending to commercial companies in which the bank's owners, directors, managers, or their families have a financial interest—increases the vulnerability of the financial system. It does so in at least three ways. First, connected lending is more likely to become nonperforming because no credit evaluation of the borrower's creditworthiness is ever made. Second, connected lending leads to the misallocation of resources because commercial firms get access to capital not on the merits of their investment opportunities, but on the strength of their connections with bank insiders. Third, connected lending allows some firms to borrow excessively, leading to high leverage.

All three factors—poor bank asset quality, misallocation of resources, and high leverage—make the financial system more vulnerable. All three are currently affecting the Asian crisis countries, to differing degrees, at least in part due to the large amount of connected lending that went on in those countries prior to the crisis. Consequently, tightening restrictions on connected lending is part of the structural reform packages adopted by the three hardest-hit countries: Korea, Indonesia, and Thailand.

### **The United States and Global Economy**

**Q.5.** You have commented that the level of economic prosperity the United States is currently enjoying is probably not sustainable on a continuous basis—that it is as "impressive" as any you have ever seen. Assuming this is right, and this growth is not sustainable, at what point do the financial crises facing Southeast Asia, Russia, and, recently, Brazil, have a greater impact on the U.S. economy?

**A.5.** The financial crises and downturn in economic activity in key emerging-market regions have already had a negative effect on the U.S. economy inasmuch as they have contributed to a significant decline in U.S. real net exports of goods and services over the past year. This negative effect from abroad has been partly offset by the net stimulative effects on the U.S. economy of depressed oil and commodity prices that have resulted from the slowdown abroad, and the lower U.S. interest rates that have resulted from increased demand for dollar-denominated assets. The drag on activity from abroad seems likely to continue for some time, albeit at a lessening pace as economic recovery in Asia and Latin America takes hold. This negative influence on U.S. aggregate demand could very well show through much more visibly over the year ahead if growth in U.S. domestic demand begins to slow.

**Q.6.** The U.S. economy grew by an estimated 3.7 percent last year and the unemployment rate was a low 4.3 percent—these numbers despite the world economic problems. Unfortunately, the U.S. trade deficit also grew to an astonishing \$168.6 billion, a level more than 50 percent above the 1997 level. At a recent meeting of the Group of Seven industrialized countries, several of the G-7 representatives floated the idea of more closely linking the values of the yen, euro, and the dollar.

Would such a policy endanger our ability to dictate U.S. domestic monetary policy by making that policy subordinate to international considerations?

**A.6.** In short, yes. To the extent that monetary policy is devoted to stabilizing exchange rates, it will be constrained from pursuing domestic price stability when the goals of price stability and exchange rate stability are inconsistent. In that case, the credibility of exchange rate policies depends on the perceived willingness of monetary authorities to achieve exchange rate stability at the expense of domestic price stability. For large and relatively closed economies, like that of the United States, in which exchange rate changes are relatively less important, it is more appropriate for monetary policy to target price stability than exchange rates.

### **Social Security and Investment**

**Q.7.** You have rightfully been a harsh critic of President Clinton's proposal to invest a portion of the Social Security trust fund in the capital markets. As you are aware, this Committee has jurisdiction over the stock and bond markets.

While I recognize that an entire hearing could be held on this subject alone, could you briefly expand on the comments you have made that allowing the Government to invest in equity markets may, as you said, "put at risk the efficiency of our capital markets and thus, our economy"?

Do you believe that the Government is capable of investing in our capital markets without succumbing to political pressures that would force investments to be made that result in a lower rate of return?

**A.7.** I am leery of the prospect of putting a substantial amount of corporate equity shares in the hands of a governmental entity of this sort. Even if the arrangements initially appeared to provide ef-

fective insulation from political interference with the allocation of investments, one could still reasonably be concerned that the laws controlling the system might be changed at some later date. Given the fact that the effectiveness of the governmental equity investments in promoting greater national saving and enhanced capital formation is open to question, it is not clear to me that this is a risk worth taking.

### **The Budget Surplus**

**Q.8.** There has been a great deal of talk about what should be done with the first unified budget surplus this country has seen in three decades. The discussion has centered around paying down the national debt, giving tax cuts to hard-working Americans, and saving Social Security.

What advice would you give to the Congress as we tackle this important question?

What use of the budget surplus do you believe is in the best interest of the American people and the overall U.S. economy?

What, if anything, is the downside or danger to using the surplus to increase Federal Government spending rather than to pay down the debt, save Social Security, or provide tax cuts?

**Q.9.** In your written testimony you discuss the increase in real household income and the rise in the national savings rate and the importance of these two things to the overall economic prosperity this country is experiencing.

In light of this, would it be wise to provide Americans with further tax cuts so these trends continue? If so, of what nature?

**A.8. and A.9.** Increasing domestic capital formation, to promote higher levels of potential national output in the coming decades, is the key to lightening the burden on active workers of the sharply rising number of retirees whose consumption of goods and services will have to be supported. The prospect of large Federal surpluses, which tend to increase national saving, is most welcome in this regard. Under the circumstances, the best outcome of the current budget debate would be to let the surpluses run and pay down Government debt. If all of the prospective surpluses cannot be preserved for this purpose, my general inclination would be to have tax cuts rather than additional expenditure programs; I think that experience suggests that expenditure programs pose a greater risk to the longer-term ability of the Government to maintain a sound fiscal position. Of course, the specifics of tax and expenditure options would have to be considered very carefully; I would certainly advocate that any tax cuts be tailored to achieve maximum gains in economic productiveness, my preferences being broad reductions in marginal tax rates and reductions in taxation of capital income.

For use at 10:00 a.m., E.S.T.  
Tuesday  
February 23, 1999

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 23, 1999

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## Letter of Transmittal

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BOARD OF GOVERNORS OF THE  
FEDERAL RESERVE SYSTEM  
Washington, D.C., February 23, 1999

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

The Board of Governors is pleased to submit its Monetary Policy Report to the Congress, pursuant to the Full Employment and Balanced Growth Act of 1978.

Sincerely,

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

Alan Greenspan, Chairman

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## Monetary Policy Report to the Congress

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*Report submitted to the Congress on February 23, 1999, pursuant to the Full Employment and Balanced Growth Act of 1978*

### MONETARY POLICY AND THE ECONOMIC OUTLOOK

In 1998, the U.S. economy again performed impressively. Output expanded rapidly, the unemployment rate fell to the lowest level since 1970, and inflation remained subdued. Transitory factors, most recently falling prices for imports and commodities, especially oil, have helped to produce the favorable outcomes of recent years, but technological advances and increased efficiency, likely reflecting in part heightened global competition and changes in business practices, suggest that some of the improvement will be more lasting.

Sound fiscal and monetary policies have contributed importantly to the good economic results: Budgetary restraint at the federal level has bolstered national saving and permitted the Federal Reserve to maintain lower interest rates than would otherwise have been possible. This policy mix and sustained progress toward price stability have fostered clearer price signals, more efficient resource use, robust business investment, and sizable advances in the productivity of labor and in the real wages of workers. The more rapid expansion of productive potential has, in turn, helped to keep inflation low even as aggregate demand has been surging and as labor markets have tightened.

This past year, economic troubles abroad posed a significant threat to the performance of the economy. Foreign economic growth slowed markedly, on average, as conditions in many countries deteriorated. The recession in Japan deepened, and several emerging market economies in Asia, which had started to weaken in the wake of the financial crises of 1997, contracted sharply. A worsening economic situation in Russia last summer led to a devaluation of the ruble and a moratorium by that country on a substantial portion of its debt payments. As the year progressed, conditions in Latin America also weakened. Although some of the troubled foreign economies are showing signs of improvement, others either are not yet in recovery or are still contracting.

The Russian crisis in mid-August precipitated a period of unusual volatility in world financial markets. The losses incurred in Russia and in other emerging market economies heightened investors' and lenders' concerns about other potential problems and led them to become substantially more cautious about taking on risk. The resulting effects on U.S. financial markets included a substantial widening of risk spreads on debt instruments, a jump in measures of market uncertainty and volatility, a drop in equity prices, and a reduction in the liquidity of many markets. To cushion the U.S. economy from the effects of these financial strains, and potentially to help reduce the strains as well, the Federal Reserve eased monetary policy on three occasions in the fall. Global financial market stresses lessened somewhat after mid-autumn, reflecting, in part, these policy steps as well as interest rate cuts in other industrial countries and international efforts to provide support to troubled emerging market economies. Although some U.S. financial flows were disrupted for a time, most firms and households remained able to obtain sufficient credit, and the turbulence did not appear to constrain spending to a significant degree. More recently, some markets were unsettled by the devaluation and subsequent floating of the Brazilian *real* in mid-January, and the problems in Brazil continue to pose risks to global markets. Thus far, however, market reaction outside Brazil to that country's difficulties has been relatively muted.

The foreign exchange value of the dollar rose substantially against the currencies of the major foreign industrial countries over the first eight months of 1998, but subsequently it fell sharply, ending the year down a little on net. The appreciation of the dollar in the first half of the year carried it to an eight-year high against the Japanese yen. In June, this strength against the yen prompted the first U.S. foreign exchange intervention operation in nearly three years, an action that appeared to slow the dollar's rise against the yen over the following days and weeks. Later in the summer, concerns about the possible impact on the U.S. economy of increasing difficulties in Latin America began to weigh on the dollar's exchange value against major foreign currencies. After peaking in mid-August, it fell sharply over the course of several weeks, reversing by mid-October

the appreciation that had occurred earlier in the year. The depreciation during this period was particularly sharp against the yen. The reasons for this decline against the yen are not clear, but repayment of yen-denominated loans by international investors and decisions by Japanese investors to repatriate their assets in light of increased volatility in global markets seem to have contributed. The exchange value of the dollar fluctuated moderately against the major currencies over the rest of the year, and after declining somewhat early in 1999, it has rebounded strongly in recent weeks, as incoming data have suggested continued strength of economic activity in the United States. Since the end of 1998, the dollar has appreciated about 7 percent against the yen, partly reflecting further monetary easing in Japan. At the turn of the year, the launch of the third stage of European Economic and Monetary Union fixed the eleven participating countries' conversion rates and created a new common currency, the euro. The dollar has appreciated more than 5 percent against the euro, in part because of signs that growth has slowed recently in some euro-area economies.

With the U.S. economy expanding rapidly, the economies of many U.S. trading partners struggling, and the foreign exchange value of the dollar having risen over 1997 and the first part of 1998, the U.S. trade deficit widened considerably last year. Some domestic industries were especially affected by reductions in foreign demand or by increased competition from imports. For example, a wide range of commodity producers, notably those in agriculture, oil, and metals, experienced sharp price declines. Parts of the manufacturing sector also suffered adverse consequences from the shocks from abroad. Overall, real net exports deteriorated sharply, as exports stagnated and imports continued to surge. The deterioration was particularly marked in the first half of the year; the second half brought a further, more modest, net widening of the external deficit.

Meanwhile, domestic spending continued to advance rapidly. Household expenditures were bolstered by gains in real income and a further rise in wealth, while a low cost of capital and optimism about future profitability spurred businesses to invest heavily in new capital equipment. Although securities markets were disrupted in late summer and early fall, credit generally remained available from alternative sources. Once the strains on securities markets had eased, businesses and households generally had ready access to credit and other sources of finance on relatively favorable terms, although spreads in some markets remained quite elevated, especially for

lower-rated borrowers. All told, household and business outlays rose even more rapidly than in 1997, and that acceleration kept the growth of real GDP strong even as net exports were slumping.

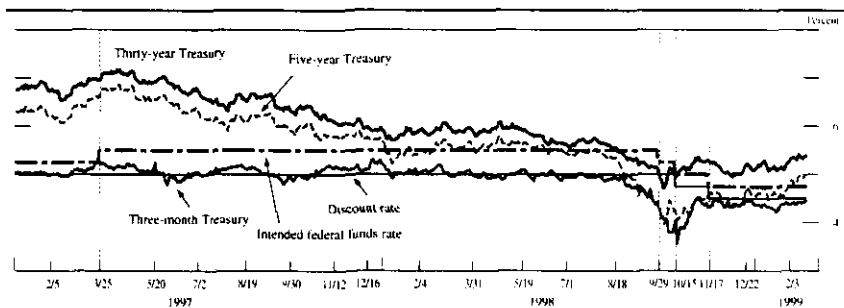
Deteriorating economic conditions abroad, coupled with the strength of the dollar over the first eight months of the year, helped to hold down inflation in the United States by trimming the prices of oil and other imports. These declines reduced both the prices paid by consumers and the costs of production in many lines of business, and the competition from abroad kept businesses from raising prices as much as they might have otherwise. As the result of a reduced rate of price inflation, workers enjoyed a larger rise in real purchasing power even as increases in nominal hourly compensation picked up only slightly on average. Because of increased gains in productivity, corporations in the aggregate were able to absorb the larger real pay increases without suffering a serious diminution of profitability.

*Monetary Policy, Financial Markets,  
and the Economy over 1998 and Early 1999*

Monetary policy in 1998 needed to balance two major risks to the economic expansion. On the one hand, with the domestic economy displaying considerable momentum and labor markets tight, the Federal Open Market Committee (FOMC) was concerned about the possible emergence of imbalances that would lead to higher inflation and thereby, eventually, put the sustainability of the expansion at risk. On the other hand, troubles in many foreign economies and resulting financial turmoil both abroad and at home seemed, at times, to raise the risk of an excessive weakening of aggregate demand.

Over the first seven months of the year, neither of these potential tendencies was sufficiently dominant to prompt a policy action by the FOMC. Although the incoming data gave no evidence of a sustained slowing of output growth, the Committee members believed that the pace of expansion likely would moderate as businesses began to slow the rapid rates at which they had been adding to their stocks of inventories and other investment goods, and as households trimmed the large advances in their spending on consumer durables and homes. Relatively firm real interest rates, buoyed by a high real federal funds rate resulting from the decline in the level of expected inflation, were thought likely to help restrain the growth of spending by businesses and households. Another check on growth was expected to come from the effects on imports and

## Selected interest rates



NOTE: The data are daily. Vertical lines indicate the days on which the Federal Reserve announced a monetary policy action. The dates on the horizontal axis are those on which either the FOMC held a scheduled meeting or a policy action was announced. Last observations are for February 19, 1999.

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exports of the economic difficulties in emerging market economies in Asia and elsewhere. Indeed, production in the manufacturing sector slowed substantially in the first half of the year, and capacity utilization dropped noticeably. Moreover, inflation remained subdued, and a pickup was not expected in the near-to-intermediate term because of declining oil prices, and because of economic weakness abroad and the appreciation of the dollar, which were expected to trim the prices of imported goods and to increase price competition for many U.S. producers. Nonetheless, with labor markets already quite tight and aggregate demand growing rapidly—a combination that often has signaled the impending buildup of inflationary pressures—the Committee, at its meetings from March through July, judged conditions to be such that, if a policy action were to be taken in the period immediately ahead, it more likely would be a tightening than an easing; its directives to the Account Manager of the Domestic Trading Desk at the Federal Reserve Bank of New York noted that asymmetry.

By the time of the August FOMC meeting, however, the situation was changing. Although tight labor markets and rapid output growth continued to pose a risk of higher inflation, the damping influence of foreign economic developments on the U.S. economy seemed likely to increase. The contraction in the emerging market economies in Asia appeared to be deeper than had been anticipated, and the economic situation in Japan had deteriorated. Financial markets in some foreign economies also had experienced greater turmoil, and, the day before the Committee met, Russia was forced to devalue the ruble. These

difficulties had been weighing on U.S. asset markets: Stock prices had fallen sharply in late July and into August as investors became concerned about the outlook for profits, and risk spreads in debt markets had widened, albeit from very low levels. Taking account of these circumstances, the Committee again left monetary policy unchanged at the August meeting, but it shifted to a symmetric directive, reflecting its perception that the risks to the economic outlook, at prevailing short-term rates, had become roughly balanced.

Over subsequent weeks, conditions in financial markets and the economic outlook in many foreign countries deteriorated further, increasing the dangers to the U.S. expansion. With investors around the world apparently reevaluating the risks associated with various credits and seemingly becoming less willing or able to bear such risks, asset demands shifted toward safer and more liquid instruments. These shifts caused a sharp fall in yields on Treasury securities. Spreads of yields on private debt securities over those on comparable Treasury instruments widened considerably further, and issuance slowed sharply. Measures of market volatility increased, and liquidity in many financial markets was curtailed. Equity prices continued to slide lower, with most broad indexes falling back by early September to near their levels at the start of the year. Reflecting the weaker and more uncertain economic outlook, some banks boosted interest rate spreads and fees on new loans to businesses and tightened their underwriting standards.

Against this backdrop, at its September meeting the FOMC looked beyond incoming data suggesting

that the economy was continuing to expand at a robust pace, and it lowered the intended level of the federal funds rate  $\frac{1}{4}$  percentage point. The Committee noted that the rate cut would cushion the effects on prospective U.S. economic growth of increasing weakness in foreign economies and of less accommodative conditions in domestic financial markets. The directive adopted at the meeting suggested a bias toward further easing over the intermeeting period. In the days following the policy move, disturbances in financial markets worsened. Movements in the prices of securities were exacerbated by a deterioration in market liquidity, as some securities dealers cut back on their market-making activities, and by the expected unwinding of positions by hedge funds and other leveraged investors. In early October, Treasury yields briefly tumbled to their lowest levels in many years, reflecting efforts by investors to exchange other instruments for riskless and liquid Treasury securities.

Although some measures of market turbulence had begun to ease a bit by mid-October, financial markets remained extremely volatile and risk spreads were very wide. On October 15, consistent with the directive from the September meeting, the intended federal funds rate was trimmed another  $\frac{1}{4}$  percentage point, to 5 percent. This policy move, which occurred between FOMC meetings, came at the initiative of Chairman Greenspan and followed a conference call with Committee members. At the same time, the Board of Governors approved a  $\frac{1}{4}$  percentage point reduction in the discount rate. These actions were taken to buffer the domestic economy from the impact of the less accommodative conditions in domestic financial markets, in part by contributing to some stabilization of the global financial situation.

Following the October policy move, strains in domestic financial markets diminished considerably. As safe-haven demands for Treasury securities ebbed, Treasury yields generally trended higher, and measures of financial market volatility and illiquidity eased. Nonetheless, risk spreads remained very wide, and liquidity in many markets continued to be limited. Moreover, although pressures on some emerging market economies had receded a bit, partly reflecting concerted international efforts to provide assistance to Brazil, the foreign economic outlook remained uncertain. With downside risks still substantial, and in light of the cumulative effect since August of the tightening in many sectors of the credit markets and the weakening of economic activity abroad, the FOMC reduced the intended federal funds rate a further  $\frac{1}{4}$  percentage point at its November meeting,

bringing the total reduction during the autumn to  $\frac{3}{4}$  percentage point. The Board of Governors also approved a second  $\frac{1}{4}$  percentage point cut in the discount rate. The Committee believed that, with this policy action, financial conditions could reasonably be expected to be consistent with fostering sustained economic expansion while keeping inflationary pressures subdued. The action provided some insurance against an unexpectedly severe weakening of the expansion, and the Committee therefore established a symmetrical directive. By the time of the December meeting, the situation in financial markets had changed little, on balance, and the Committee decided that no further change in rates was desirable and that the directive should remain symmetrical.

Some measures of financial volatility eased further in the new year, although risk spreads on corporate bonds remained at quite high levels. Yields on Treasury securities were about flat, on balance, in January, as the effect of stronger-than-expected economic growth appeared to be about offset by data suggesting that inflation remained quiescent and perhaps also by the effects of some safe-haven flows prompted by the deteriorating situation in Brazil. Over the same period, stock prices surged higher, led by computer and other technology shares, and most stock price indexes posted new highs. By the time of the February 2-3 meeting, financial markets were easily accommodating robust demands for credit, and economic activity seemed to have more momentum than many had anticipated. However, the foreign sector continued to pose a threat to U.S. growth going forward, inflation showed no signs of picking up despite the rapid pace of growth and the very tight labor market, and some slowing of economic growth remained a likely prospect. In these circumstances, the FOMC concluded that it was prudent to wait for further information, and it left policy unchanged.

#### *Economic Projections for 1999*

By and large, the members of the Board of Governors and the Federal Reserve Bank presidents, all of whom participate in the deliberations of the FOMC, expect the economy to expand moderately, on average, in 1999. The central tendency of the FOMC participants' forecasts of real GDP growth from the fourth quarter of 1998 to the fourth quarter of 1999 is  $2\frac{1}{2}$  percent to 3 percent. The anticipated expansion is expected to create enough new jobs to keep the civilian unemployment rate near its recent average, in a range of  $4\frac{1}{4}$  percent to  $4\frac{1}{2}$  percent. With tightness of the labor market expected to persist

## 1. Economic projections for 1999

Indicator	Federal Reserve governors and Reserve Bank presidents		Administration
	Range	Central tendency	
<i>Change, fourth quarter to fourth quarter<sup>1</sup></i>			
Nominal GDP	3½-5	4-4½	4.0
Real GDP <sup>2</sup>	2-3½	2½-3	2.0
Consumer price index <sup>3</sup>	1½-2½	2-2½	2.3
<i>Average level, fourth quarter</i>			
Civilian unemployment rate	4½-4¾	4½-4¾	4.9

1. Change from average for fourth quarter of 1998 to average for fourth quarter of 1999.

2. Chain-weighted.

3. All urban consumers.

and oil and import prices unlikely to be as weak in 1999 as they were in 1998. Inflation is expected to move up somewhat from the rate of this past year but to remain low by the standards of the past three decades: The central tendency of the FOMC participants' CPI inflation forecasts for 1999 is 2 percent to 2½ percent. The Federal Reserve officials' inflation forecasts are closely aligned with that of the Administration, and their forecasts of real GDP and unemployment depict a somewhat stronger real economy than the Administration is projecting.

Present circumstances suggest that domestic demand could continue to rise briskly for a while longer. Consumer spending continues to be driven by strong gains in employment, increases in real incomes, and rising levels of wealth. Those same factors, together with low mortgage interest rates, are keeping housing activity robust. Businesses are still investing heavily in new capital, especially computers and other high-tech equipment. Households and businesses appear willing to take on more debt in support of spending; although spreads on corporate debt remain elevated, rate levels are perceived to be attractive for most borrowers, and restraint on access to finance is not much in evidence.

As the year progresses, however, gains in domestic spending should begin to moderate. Spending increases for housing, consumer durables, and business equipment have been exceptionally large for a while now, substantially raising the rate of growth in the amounts of these goods owned by businesses and households; some moderation in outlays seems likely, lest these holdings become disproportionate to underlying trends in income and output. The outlook for spending continues to be obscured to some degree by uncertainties about the course of equity prices: a failure of these prices to match the outsized gains

posted in recent years would contribute to some moderation in spending growth, especially by households. Government spending, which accounts for about one-sixth of domestic demand, seems likely to expand at a moderate pace overall. Along with the numerous other uncertainties that attend the outlook, an additional uncertainty is present this year because of the approach of the year 2000 and the associated Y2K problem.

Growth abroad is expected to remain sluggish, on balance, in 1999, limiting the prospects for exports. At the same time, growth of the U.S. economy probably will continue to generate fairly brisk increases in imports. In total, real net exports of goods and services seem likely to fall further in the coming year, although several factors—the decline in the dollar from its peak of last summer, the expected slowing of income growth in the United States, and the possibility of a slight pickup in economic growth abroad—provide a basis for thinking that this year's drop in net exports might not be as large as that of 1998.

The future course of inflation will depend in part on what happens to the prices of oil and other imports, and restraint from those sources seems unlikely to be as great as it was in 1998. The drop in the price of oil this past year left it toward the lower end of its range of the past couple of decades and has thereby reduced the incentives for exploration, drilling, and production. Futures markets have been showing a gradual rise in the price of oil going forward. Prices of nonoil imports changed little in the fourth quarter of last year after having fallen sharply in previous quarters. Indicators of the pressures on domestic resources provided mixed signals over the past year. In manufacturing, capacity utilization declined considerably, to a level below its long run average, reflecting slower production growth and sizable additions to the stock of capital. However, labor markets remained very tight, and with the economy apparently carrying substantial momentum into this year, data on costs and prices will need to be monitored carefully for signs that a rising inflation pattern might start to take hold. In that regard, the FOMC will continue to rely not only on the CPI but also on a variety of other price measures to gauge the economy's inflation performance in the period ahead.

*Money and Debt Ranges for 1999*

At its most recent meeting, the FOMC reaffirmed the 1999 monetary growth ranges that were chosen on a

## 2. Ranges for growth of monetary and debt aggregates

Percent			
Aggregate	1997	1998	1999
M2	1-5	1-5	1-5
M3	2-6	2-6	2-6
Debt	3-7	3-7	3-7

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

provisional basis last July: 1 percent to 5 percent for M2, and 2 percent to 6 percent for M3. As has been the case for some time, the FOMC intends these money growth ranges to be benchmarks for growth under conditions of price stability, sustainable real economic growth, and historical velocity relationships rather than ranges that encompass the expected growth of money over the coming year or that serve as guides to policy.

Given continued uncertainty about movements in the velocities of M2 and M3 (the ratios of nominal GDP to the aggregates), the Committee would have little confidence that money growth within any particular range selected for the year would be associated with the economic performance it expected or desired. Nonetheless, the Committee believes that, despite the apparent large shift in velocity behavior in the early 1990s, money growth has some value as an economic indicator. Indeed, some FOMC members have expressed the concern that the unusually rapid growth in the money and debt aggregates in 1998 might have reflected monetary conditions that were too accommodative and would ultimately lead to an increase in inflation pressures. The Committee will continue to monitor the monetary aggregates as well as a wide variety of other economic and financial data to inform its policy deliberations.

Last year, M2 increased 8½ percent, and with nominal GDP rising 5 percent, M2 velocity decreased 3 percent. This drop in velocity was considerably larger than would have been expected on the basis of historical relationships and the modest decline in the opportunity cost of M2 (measured as the difference between the interest rate on Treasury bills and the weighted average rate available on M2 assets). The fall in velocity in part reflected an increased demand for the safe and liquid assets in M2 as investors responded to the heightened volatility in financial markets in the second half of the year. Other factors that may have contributed include lower long-term interest rates and a very flat yield curve, which might have suggested to households that they would be giving up very little in earnings by parking savings in short-term assets in M2. In addition, M2 may have been boosted by a desire on the part of some inves-

tors to redirect savings flows away from equities after several years of oversized gains in stock market wealth. With equity wealth still elevated and the yield curve likely to remain flat, M2 velocity could continue to fall this year. However, the pace of decline should slow as some households respond to the easing of concerns about financial market volatility by reversing a portion of the shift toward M2 assets that occurred last fall. Indeed, this effect may already be visible, as M2 growth, while still robust, has slowed considerably early this year. If velocity does fall, given the Committee's expectations for nominal income growth, M2 could again exceed its price-stability benchmark range.

M3 expanded 11 percent last year, and its velocity fell 5¼ percent, the largest drop in many years. The rapid growth in this aggregate owed in large part to a substantial rise in institutional money funds. These funds have been expanding rapidly in recent years as *nonfinancial firms increasingly employ them* to provide cash management services. Investments in these funds provide businesses with greater liquidity than direct holdings of money market instruments, and by substituting for such direct holdings, they boost M3. M3 was also buoyed last year by a large advance in the managed liabilities banks used to fund rapid growth in bank credit. In part, the growth in bank credit reflected demand by borrowers shifting from the securities markets, and with these markets again receptive to new issues, bank credit growth this year is expected to slow to a pace more in line with broader debt aggregates. However, institutional money funds are likely to continue their robust gains, contributing to a further diminution in M3 velocity and, possibly, to growth of this aggregate above its price-stability range.

Domestic nonfinancial debt grew 6¼ percent in 1998, somewhat above the middle of the 3 percent to 7 percent growth range the Committee established last February. This robust growth reflected large rises in the debt of businesses and households owing to substantial advances in spending as well as debt-financed mergers and acquisitions. However, the increase in private-sector debt was partly offset by the first annual decline in federal debt in almost thirty years. As with the monetary aggregates, the Committee left the range for debt growth unchanged for 1999. After an aberrant period in the 1980s during which debt growth greatly exceeded growth of nominal GDP, debt growth over the past decade has returned to its historical pattern of about matching growth of nominal GDP, and the Committee members expect debt to fall within its range this year.

### ECONOMIC AND FINANCIAL DEVELOPMENTS IN 1998 AND EARLY 1999

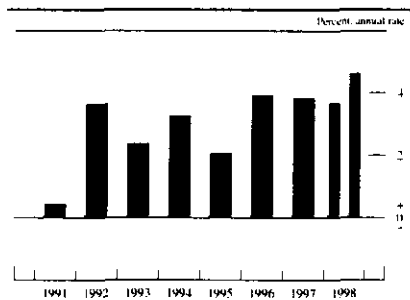
The U.S. economy continued to display great vigor in 1998, despite a sharp slowing of growth in foreign economies and an unsettled world financial environment. According to the Commerce Department's advance estimate, real GDP increased a little more than 4 percent over the four quarters of the year. The economic difficulties facing many of our trading partners and the strength of the dollar through much of the year led to sluggishness in real exports of goods and services. However, the drag on the economy from that source was more than offset by exceptional strength in the real expenditures of households and businesses, which were powered by strong real income growth, large gains in the value of household wealth, ready access to finance during most of the year, and widespread optimism regarding the future of the economy. Although turmoil in financial markets seemed to threaten the economy for a time in late summer and early autumn, that threat later receded, in part because of the steps taken by the Federal Reserve to prevent the tightening of credit markets from impairing the expansion of activity. The final quarter of the year brought brisk expansion of employment and income, and the limited indicators of activity in early 1999 have been strong, on balance.

The increase in the general price level this past year was smaller than that in the previous year, which had itself been among the smallest in decades. The chain-type price index for GDP rose slightly less than 1 percent. The further slowing of price increases was in large part a reflection of sluggish conditions in the world economy, which brought declines in the prices of a wide range of imported goods, including oil and other primary commodities. In the domestic economy, nominal hourly compensation of workers picked up only slightly despite the tightness of the labor market, and much of the compensation increase was offset by gains in labor productivity. As a result, unit labor costs, the most important item in total business costs, rose only modestly.

#### The Household Sector

Personal consumption expenditures increased more than 5 percent in real terms in 1998, the biggest gain in a decade and a half. Support for the large rise in spending came from a combination of circumstances that, on the whole, were exceptionally favorable to households. Strong gains in employment and real

Change in real GDP

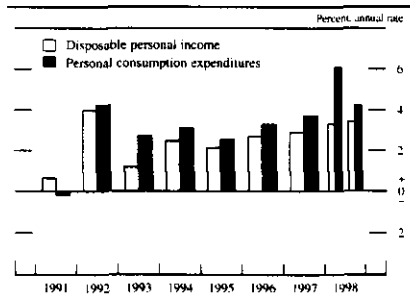


NOTE: In this chart and in subsequent charts that show the components of real GDP, changes are measured to the final quarter of the period indicated, from the final quarter of the preceding period. Last data point is from the advance GDP report for 1998:Q4.

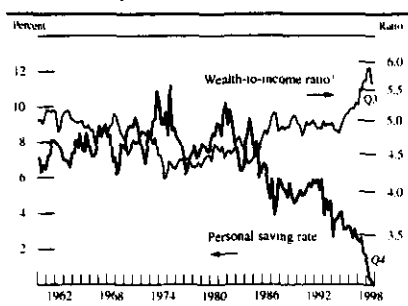
hourly pay gave another appreciable boost to the growth of real labor income. At the same time, the wealth of households recorded another year of substantial increase, bolstered in large part by the continued rise in equity prices. Although not all balance sheet data for the end of 1998 are available, household net worth at that point appears to have been up about 10 percent from the level at the end of 1997. The cumulative gain in household wealth since 1994 has amounted to nearly 50 percent.

The rise in net worth probably accounts for much of the decline in the personal saving rate over the past few years, to an annual average of 1/2 percent in 1998. Households tend to raise their saving from current income when they feel that wealth must be increased to meet longer-run objectives, but they are willing to reduce their saving from current income when they feel that wealth already is at satisfactory levels. The

Change in real income and consumption



## Wealth and savings



1. The ratio of net worth of households to disposable personal income.

low level of the saving rate in 1998 is not so remarkable when gauged against a wealth-to-income ratio that has been running in a range well above its longer-run historical average.

All of the major categories of personal consumption expenditures—durables, nondurables, and services—recorded gains in 1998 that were the largest of the 1990s. Spending on durable goods rose more than 12 percent over the year. Within that category, expenditures on home computers once again stood out, rising roughly 70 percent in real terms, a gain that reflected both increased nominal outlays and a further substantial decline in computer prices. Consumer outlays on motor vehicles also rose sharply, despite some temporary limitations on supply from a midyear auto strike. Spending on most other types of durable goods registered increases that were well above the averages of the past decade or so. Because goods such as these are not consumed all at once—but, rather, add to stocks of durable goods that will be yielding services to consumers for a number of years—they embody a form of economic saving that is not captured in the normal measure of the saving rate in the national income accounts.

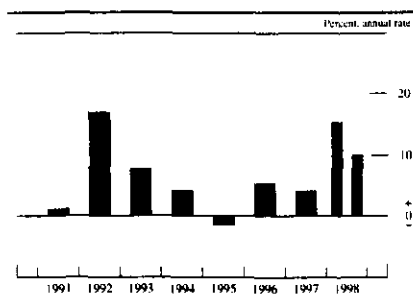
The increases in income and net worth that led households to boost consumption expenditures also led them to invest heavily in additions to the stock of housing. Declines in mortgage interest rates weighed in as well, helping to maintain the affordability of housing even as house prices moved up somewhat faster than overall inflation. These developments brought the objective of owning a home within the reach of a greater number of households, and the home-ownership rate, which has been trending up this decade, rose to another new high in 1998.

In the single-family sector, sales of new and existing homes surged, the former rising more than 10 percent from the previous year's total and the latter more than 13 percent. Construction of single-family houses strengthened markedly. The number of these units started during the year was the largest since the late 1970s, and it exceeded the previous year's total by about 12 percent. In the fourth quarter, unusually mild weather permitted builders to maintain activity later into the season than they normally would have and gave an added kick to housing starts. Starts increased further in January of this year, despite harsher weather in some regions.

In contrast to the strength in the single-family sector, the number of multifamily units started in 1998 was up only a little from the total for 1997. After bottoming out at a very low level early in the 1990s, construction of these units had been trending back up fairly briskly until this past year. But with vacancy rates on multifamily rental units running a touch higher this past year, builders and their creditors may have become concerned about adding too many new units to the stock. Financing appeared generally to be in ample supply for projects that looked promising; during the period of financial turmoil, the flow of credit was supported by substantial purchases of multifamily mortgages and mortgage-backed securities by Freddie Mac and Fannie Mae.

Total outlays for residential investment increased about 12½ percent in real terms during 1998, according to the Commerce Department's initial tally. The large increase reflected not only the construction work undertaken on new residential units during the year but also sizable advances in real outlays for home improvements and in the volume of sales activity being carried on by real estate brokers, which generated substantial gains in commissions.

## Change in real residential investment



The robust growth in household expenditures in 1998 was accompanied by an expansion of household debt that likely exceeded 8½ percent, a somewhat larger rise than in other recent years. Nonmortgage debt increased about 6 percent, about 2 percentage points above the previous year's pace but down considerably from the double-digit increases posted in 1994 and 1995. Home mortgage debt is estimated to have jumped more than 9 percent, its largest annual advance since 1990, boosted in part by the robust housing market. In addition, with mortgage rates reaching their lowest levels in many years, many households refinanced existing mortgages, and some households likely took the opportunity presented by refinancing to increase the size of their mortgages, using the extra funds raised to finance current expenditures or to pay down other debts.

The growth in household debt reflected both supply and demand influences. With wealth rising faster than income over the year and with consumer confidence remaining at historically high levels, households were willing to boost their indebtedness to finance increased spending. In addition, lenders generally remained accommodative toward all but the most marginal households, even after the turmoil in many financial markets in the fall. After a more general tightening of loan conditions in response to a rise in losses on such loans between mid-1995 and mid-1997, a smaller and declining fraction of banks tightened consumer lending standards and terms last year, according to Federal Reserve surveys. However, the availability of high loan-to-value and subprime home equity loans likely was reduced in the fall

because of difficulties in the market for securities backed by such loans.

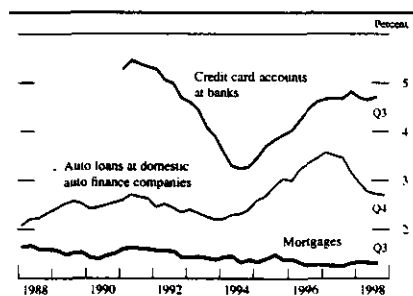
Despite the rapid increase in debt, measures of household financial stress were relatively stable last year, although some remained at high levels. The delinquency rate on home mortgages has stayed quite low in recent years, while the delinquency rate on auto loans at domestic auto finance companies has trended lower. The delinquency rate on credit card loans at banks fluctuated in a fairly narrow range in 1997 and 1998, but it remained elevated after having posted a substantial rise over the previous two years. Personal bankruptcy filings have followed a broadly similar pattern: Annual growth has run at about 3 percent over the past year and a half, down from annual increases of roughly 25 percent between mid-1995 and early 1997. The stability of these measures over the past couple of years likely owes in part to the earlier tightening of standards and terms on consumer loans. In addition, lower interest rates and longer loan maturities, which resulted from the shift toward mortgage finance, have helped to mitigate the effects of increased borrowing on household debt-service burdens.

### The Business Sector

Business fixed investment increased about 12½ percent during 1998, with a 17½ percent rise in equipment spending more than accounting for the overall advance. The strength of the economy and optimism about its longer-run prospects provided underpinnings for increased investment. Outlays were also bolstered by the efficiencies obtainable with new technologies, by the favorable prices at which many types of capital equipment could be purchased, and, except during the period of financial market turmoil, by the ready availability and low cost of finance, either through borrowing or through the issuance of equity shares.

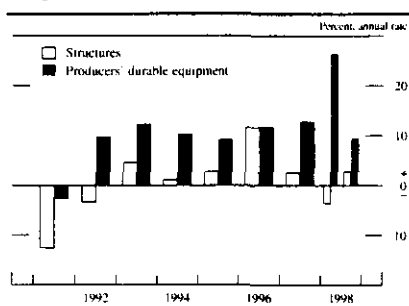
Real expenditures on office and computing equipment, after having risen at an average rate of roughly 30 percent in real terms from 1991 through 1997, shifted into even higher gear in 1998, climbing about 65 percent. The outsized increase likely owed in part to the efforts of some businesses to put new computer systems in place before the end of the millennium, in hopes of circumventing potential difficulties arising from the Y2K problem. But, beyond that, investment in computers is being driven by the same factors that have been at work throughout the expansion—namely, the introduction of machines that offer greater computing power at increasingly attractive

Delinquency rates on household loans



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

Change in real business fixed investment



prices and that provide businesses new and more efficient ways of organizing their operations. Price declines this past year were especially large, as the cost reductions associated with technical change were augmented by heightened international competition in the markets for semiconductors and other computer components and by price cutting to work down the stocks of some assembled products.

Investment in communications equipment—another high-tech category that is an increasingly important part of total equipment outlays—rose about 18½ percent in 1998. After having traced out an erratic pattern of ups and downs through the latter part of the 1980s and the early 1990s, real outlays on this type of equipment began to record sustained large annual increases in 1994, and the advance last year was one of the largest. Spending on other types of equipment displayed varying degrees of strength across different sectors but recorded a sizable gain overall. Investment in transportation equipment was strong across the board, spurred by the need to move greater volumes of goods or to carry more passengers in an expanding economy. Spending on industrial machinery advanced about 4½ percent after larger gains in most previous years of the expansion, a pattern that mirrored a slowing of output growth in the industrial sector.

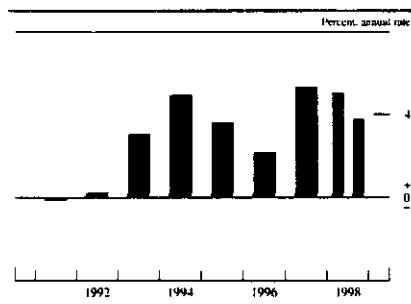
Business investment in nonresidential structures, which accounts for slightly more than 20 percent of total business fixed investment, was down slightly in 1998, according to the advance estimate. Sharply divergent trends were evident within the sector, ranging from considerable strength in the construction of office buildings to marked weakness in the construction of industrial buildings. The waxing and waning of industry-specific construction cycles appears to be the main explanation for the diverse outcomes of this

past year. Although some of the more speculative construction plans may have been shelved because of a tightening of the terms and standards on loans, partly in reaction to the financial turmoil, most builders appear to have been able to eventually obtain financing. Despite the sluggishness of spending on structures this past year, the level of investment remained high enough to generate continued moderate growth in the real stock of structures.

Business inventories increased about 4½ percent in real terms this past year after having risen more than 5 percent during 1997. Stocks grew at a 7 percent annual rate in the first quarter, appreciably faster than final sales, but inventory growth over the remainder of the year was considerably slower than in the first quarter. At year-end, stocks in most nonfarm industries were at levels that did not seem likely to cause firms to restrain production going forward. Inventories of vehicles may even have been a little on the lean side, as a result of both a strike that held down assemblies through the middle part of 1998 and exceptionally strong demand, which prevented the rebuilding of stocks later in the year. By contrast, inventories at year-end appear to have been excessive in a few nonfarm industries that have been hurt by the sluggish world economy. Stocks of farm commodities also appeared to be excessive, having been boosted further this past year by large harvests and sluggish export demand.

The economic profits of U.S. corporations—that is, book profits adjusted so that inventories and fixed capital are valued at their current replacement cost—rose further, on net, over the first three quarters of 1998 but at a much slower pace than in most other years of the current expansion. Companies' earnings from operations in the rest of the world fell back a bit, as did the profits of private financial corporations

Change in nonfarm business inventories



Before-tax profits as a share of GDP



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

from domestic operations. The profits of nonfinancial corporations from domestic operations increased at an annual rate of about 1¼ percent. Although the volume of output of the nonfinancial companies continued to rise rapidly, profits per unit of output were squeezed a bit by companies' difficulties in raising prices in step with costs in a competitive market environment.

With profits expanding more slowly and investment spending still on the upswing, businesses' external funding needs increased substantially last year. Aggregate borrowing by the nonfinancial business sector is estimated to have expanded 9½ percent from the end of 1997 to the end of 1998, the largest increase in ten years. The rise reflected growth in all major types of business debt. Business borrowing was also boosted by substantial merger and acquisi-

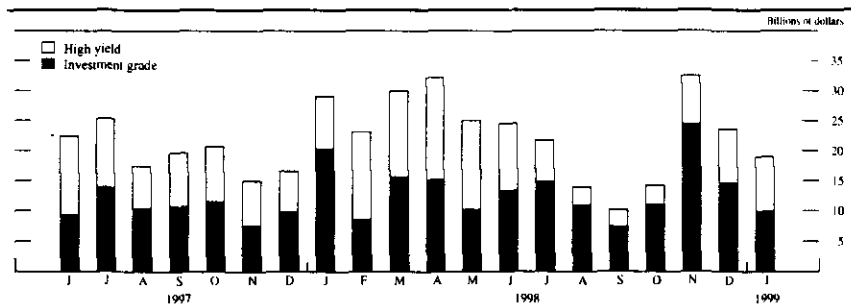
tion activity. Indeed, mergers and acquisitions, share repurchases, and foreign purchases of U.S. firms last year overwhelmed the high level of both initial and seasoned public equity issues, and net equity retirements likely exceeded \$250 billion.

The disruptions in the financial markets in late summer and early fall appear to have had little effect on total business borrowing but caused a substantial temporary shift in the sources of credit. With investors favoring high credit quality and liquidity, yields on lower-rated corporate bonds rose despite declining Treasury rates; the spread of yields on junk bonds over those on comparable Treasury securities roughly doubled between mid-summer and mid-autumn before falling back somewhat as conditions in financial markets eased. The spread of rates on lower-tier commercial paper over those on higher-quality paper rose substantially during the fall but had retraced the rise by the early part of this year.

Reflecting these adverse market conditions, nonfinancial corporate bond issuance fell sharply in August and remained low through mid-October, with issuance of junk bonds virtually halted for a time. Commercial paper issuance rose sharply in August and September, as some firms apparently decided to delay bond issues, turning temporarily to the commercial paper market instead. Bond issuance picked up again in late October, however, and issuance in November was robust. Reflecting this rebound, commercial paper outstanding fell back in the fourth quarter. More recently, bond issuance has remained healthy, while borrowing in the commercial paper market has picked up.

During the period when financial markets were strained, some borrowers substituted bank loans—in some cases under credit lines priced before the mar-

Gross corporate bond issuance

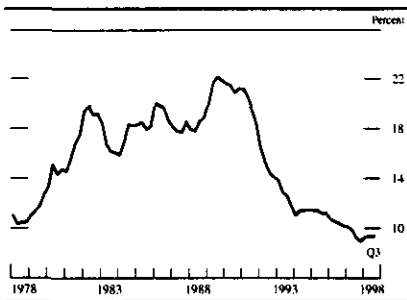


NOTE: Excludes unrated issues and issues sold abroad.

kets became volatile—for other sources of credit, and business loans at banks expanded very rapidly for a time before tailing off late in the year. Federal Reserve surveys indicate that banks responded to the turmoil in financial markets by tightening standards and terms on new loans and credit lines, especially loans to larger customers and those to finance commercial real estate ventures. The tightening reflected the less favorable or more uncertain economic outlook as well as a reduced tolerance for risk on the part of some banks. Bank lending standards and terms appear to have tightened only a little further since the fall, however, and business loans at banks have expanded a bit since the end of December.

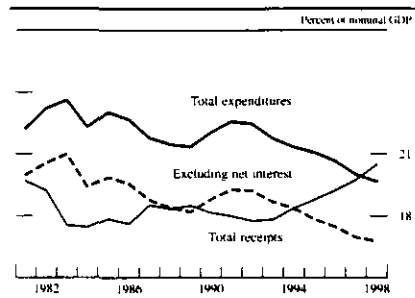
Despite the rapid growth in debt and the relatively small gain in profits last year, the financial condition of nonfinancial businesses remained strong. Interest rates for many businesses fell, on balance, over the course of the year, and bond yields for investment-grade firms reached their lowest level in many years. Reflecting these low borrowing costs, the aggregate debt-service burden for nonfinancial corporations, measured as the ratio of net interest payments to cash flow, remained about 9½ percent, near its low of 9 percent in 1997 and less than half the peak level reached in 1989. The delinquency rate for banks' commercial and industrial loans also remained near the trough reached in late 1997, while that for commercial real estate loans fell a bit further from the already very low level posted in 1997. Although Moody's Investors Service downgraded more nonfinancial firms than it upgraded over the second half of the year, the downgraded firms were smaller on average, and so the debt of those upgraded about equaled the debt of those downgraded. Through

Net interest payments of nonfinancial corporations relative to cash flow



NOTE: The data are quarterly.

Federal receipts and expenditures



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

October, business failures remained at the low end of the range seen over the past decade.

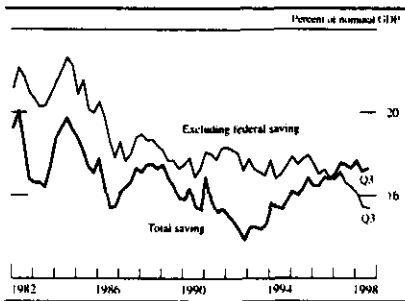
### The Government Sector

The federal government recorded a surplus in the unified budget this past fiscal year for the first time in nearly three decades. The surplus, amounting to \$69 billion, was equal to about ¼ percent of GDP, a huge turnaround from the deficits of the early 1990s, which in some years were more than 4½ percent of GDP. The swing from deficit to surplus over the past few years is partly the result of fiscal policies aimed at lowering the deficit and partly the result of the strength of the economy and the stock market. Excluding net interest payments—a charge stemming from past deficits—the government recorded a surplus of more than \$300 billion in fiscal 1998.

The improvement in the government's saving position has permitted national saving—the combined gross saving of households, businesses, and governments—to move up about 3 percentage points from its low of a few years ago, even though personal saving has fallen sharply. In turn, that increase in national saving has helped facilitate the boom in investment spending—in contrast to the experience of the 1980s and early 1990s, when persistent large budget deficits tended to reduce national saving, boost interest rates higher than they otherwise would have been, and thereby crowd out private capital formation.

Federal receipts in the unified budget in fiscal year 1998 were up 9 percent from the previous fiscal year, with much of the gain coming from personal income

## National saving



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

taxes, which rose more than 12 percent for a second consecutive year. These receipts have been rising faster than personal income in recent years, for several reasons: Tax rates at the high end of the income scale were raised by legislation that was passed in 1993 to help reduce the deficit; more taxpayers have moved into higher tax brackets as income has increased; and large increases in asset values have raised tax receipts from capital gains. Social insurance tax receipts, the second most important source of federal revenue, increased 6 percent in fiscal 1998, just a touch faster than the increase in fiscal 1997 and roughly in step with the growth of wages and salaries. Receipts from the taxes on corporate profits, which account for just over 10 percent of federal revenues, rose less rapidly than in other recent years, restrained by the slower growth of corporate profits. In the first three months of fiscal 1999, net receipts from corporate taxes dipped below year-earlier levels, but gains in individual income taxes and payroll taxes kept total federal receipts on a rising trajectory.

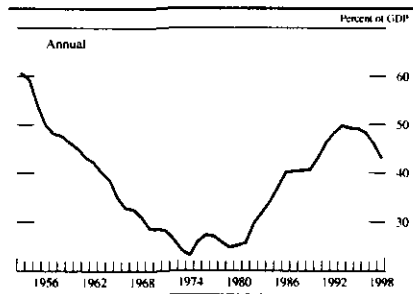
Unified outlays increased 3¼ percent in fiscal 1998 after having risen 2½ percent in the preceding fiscal year. Net interest payments and nominal expenditures for defense fell slightly in the latest fiscal year, and outlays for income security and Medicare rose only a little. Social security expenditures increased moderately but somewhat less than in other recent years. By contrast, the growth of Medicaid payments picked up to about 6 percent after having increased less than 4 percent in each of the preceding two years; however, even the 1998 rise was not large compared with those of many earlier years when both medical costs and Medicaid caseloads were increasing rapidly and rates of federal reimbursement to the states were being raised. Federal spending in fiscal 1999 will be

boosted to some degree by new budget authority for a variety of functions, including defense, embassy security, disaster relief, preparation for Y2K, and aid to agriculture; this authority was created in emergency legislation that provided an exception to statutory spending restrictions.

Real federal outlays for consumption and investment, the part of federal spending that is counted in GDP, increased 1 percent, on net, from the final quarter of calendar year 1997 to the final quarter of 1998. A reduction in real defense outlays over that period was more than offset by a jump in the non-defense category.

With the budget balance shifting from deficit to surplus, the stock of publicly held federal debt declined last year for the first time since 1969 and fell further as a share of GDP. From the end of 1997 to the end of 1998, U.S. government debt fell 1½ percent, as the government reduced the outstanding stock of both bills and coupon securities. Despite the reduction in its debt, the federal government continued substantial gross borrowing to fund the retirement of maturing securities. However, with the need for funds trimmed substantially, the Treasury changed its auction schedules, discontinuing the three-year note auctions and moving to quarterly, rather than monthly, auctions of five-year notes. By reducing the number of coupon security issues, the Treasury is able to boost the size of each, thereby contributing to their liquidity. The decrease in the total volume of coupon securities is intended to boost the size of bill offerings over time, helping liquidity in that market and also allowing, as the Treasury prefers, for balanced issuance across the yield curve. The Treasury also announced in October that all future bill and coupon security auctions would employ the single-price format that had already been adopted for the

## Federal government debt held by the public



two-year and five-year note auctions and for auctions of inflation-indexed securities. The Treasury judged that the single-price format had reduced servicing costs and resulted in broader market participation.

The Treasury continued to auction inflation-indexed securities in substantial volume last year in an effort to build up this part of the Treasury market. In April, the Treasury issued its first thirty-year indexed bond, and in September it announced a regular schedule of ten- and thirty-year indexed security auctions. The Treasury also began offering inflation-indexed savings bonds in September.

State and local governments recorded further increases in their budgetary surpluses in 1998, both in absolute terms and as a share of GDP. Revenue from the taxes on individuals' incomes has been growing very rapidly, keeping total receipts on a solid upward course. At the same time, the growth of transfer payments, which had threatened to overwhelm state and local budgets earlier in the decade, has slowed substantially in recent years. Growth of other types of spending has been trending up moderately, on balance. The 1998 rise in real expenditures for consumption and investment amounted to about 2¼ percent, according to the initial estimate; annual gains have been in the range of 2 percent to 2¼ percent in each of the past seven years.

Despite rising surpluses, state and local government debt increased an estimated 7 percent in 1998, a pickup of about 2 percentage points from growth in 1997. Somewhat more than half of the long-term borrowing by state and local governments last year reflected new borrowing to fund current and anticipated capital spending on utilities, transportation, education, and other capital projects. The combination of budget surpluses and relatively heavy borrowing likely reflected a number of factors. First, some of these governments may have spent the newly raised funds on capital projects while at the same time building up surpluses in "rainy day funds" for later use. Second, because state and local governments under some circumstances are allowed to hold funds raised in the markets for as long as five years before spending them, some of the money raised last year may not have been spent. Finally, there was a substantial volume of "advance refunding" last year. In an advance refunding, the borrower issues new bonds before existing higher-rate bonds can be called, in anticipation of calling the old bonds on the date that option becomes available. While this sort of refinancing temporarily boosts total debt, it allows the state or local government to lock in the lower rate even if municipal bond yields subsequently rise over the period before the call date. The high level of advance-

refunding activity last year was the result of lower borrowing costs. Although yields on tax-exempt municipal securities did not decline nearly as much as those on comparable Treasury securities, they nonetheless reached their lowest levels in many years. In addition, rating agencies upgraded about five times as many state and local government issues last year as they downgraded, trimming borrowing costs further for the upgraded entities.

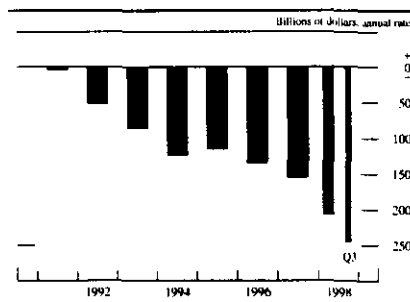
### The External Sector

#### Trade and the Current Account

U.S. external balances deteriorated further in 1998, largely because of the disparity between the rapid growth of the U.S. economy and the sluggish growth of the economies of many of our trading partners. The nominal trade deficit for goods and services was \$169 billion, considerably larger than the \$110 billion deficit in 1997. For the first three quarters of the year, the current account deficit averaged \$220 billion at an annual rate, substantially larger than the 1997 deficit of \$155 billion. The large current account deficits of recent years have been funded with increased net foreign saving in the United States. As a result, U.S. gross domestic investment has exceeded the level that could have been financed by gross national saving alone, but at the cost of a rise in net U.S. external indebtedness.

The increase in the current account deficit last year was due to a decline in net exports of goods and services as well as a further weakening of net investment income from abroad. Until 1997, net investment income had helped to offset persistent trade deficits. But as the U.S. net external debt has risen in recent

U.S. current account



years, net investment income has become increasingly negative, moving from a \$14 billion surplus in 1996 to a \$5 billion deficit in 1997 and a deficit averaging \$15 billion at an annual rate over the first three quarters of 1998. Net income from portfolio investment became increasingly negative during that period as the net portfolio liability position of the United States grew larger. In addition, net income from direct investment slowed last year because slower foreign economic growth lowered U.S. earnings on investment abroad, the appreciation of the dollar reduced the value of U.S. earnings, and buoyant U.S. growth boosted foreigners' earnings on direct investment in the United States.

The rise in the trade deficit reflected an increase of about 10 percent in real imports of goods and services during 1998, according to the advance estimates from the Commerce Department. The expansion was fueled by robust growth of U.S. domestic demand and by continued declines in import prices, which stemmed in part from the strength of the dollar through mid-August and in part from the effects of recessions abroad. Of the major trade categories, increases in imports were sharpest for finished goods, especially capital equipment and automotive products. The quantity of imported oil rose appreciably as demand increased in response to the strength of U.S. economic activity and lower oil prices, while domestic production declined slightly. The price of imported oil fell about \$6.50 per barrel over the four quarters of the year. World oil prices fell in response to reduced demand associated with the economic slowdown in many foreign nations and with unusually warm weather in the Northern Hemisphere as well as to an increase in supply from Iraq.

Real exports of goods and services grew about 1 percent, on net, in 1998 after posting a 10 percent

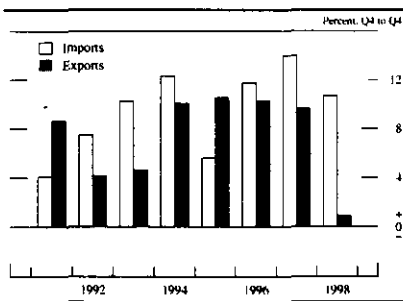
rise in 1997. Declines during the first three quarters (especially in machinery exports) were offset by a rebound in the fourth quarter, which was led by increases in exports of automotive products. The price competitiveness of U.S. products decreased, reflecting the appreciation of the dollar through mid-August. In addition, economic activity abroad weakened sharply; total average foreign growth (weighted by shares of U.S. exports) plunged from 4 percent in 1997 to an estimated ½ percent in 1998. Moderate expansion of exports to Europe, Canada, and Mexico was about offset by a decline in exports associated with deep recessions in Japan and the emerging Asian economies (particularly in the first half of the year) and in South America (in the second half of the year).

#### Capital Flows

The financial difficulties in a number of emerging market economies had several noticeable effects on U.S. international capital flows in 1998. Financial turmoil put strains on official reserves in many emerging market economies. Foreign official assets in the United States fell \$43 billion in the first three quarters of the year. This decline, which began in the fourth quarter of 1997, has been largest for developing countries, as many of them drew down their foreign exchange reserves in response to exchange rate pressures. OPEC nations' foreign official reserves also shrank in the first three quarters of 1998, as oil revenues dropped. Preliminary data indicate that foreign official assets in the United States, especially those of industrial countries, rebounded in the fourth quarter.

Private capital flows also were affected by the global turmoil. On a global basis, capital flows to emerging market economies fell substantially in the first half of 1998 and then dropped precipitously in late summer and early fall in the wake of the Russian crisis. During the first half of the year, U.S. residents acquired more than \$40 billion of foreign securities. Net purchases virtually stopped in July, and in the August–October period U.S. residents, on net, sold about \$40 billion worth of foreign securities. Preliminary data indicate a resumption of net U.S. purchases in the final two months of 1998. Foreign net purchases of U.S. securities, which were substantial in the first half of the year, fell off markedly in the July–October period, but preliminary data suggest a significant recovery in November and December. Thus, there is some evidence that the contraction in gross capital flows seen in late summer and early fall waned somewhat in the fourth quarter.

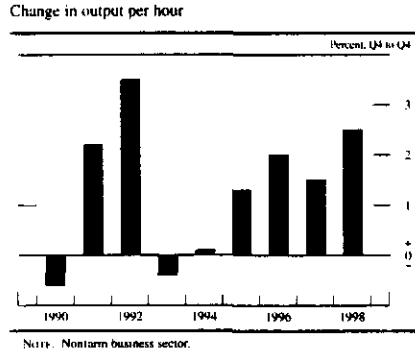
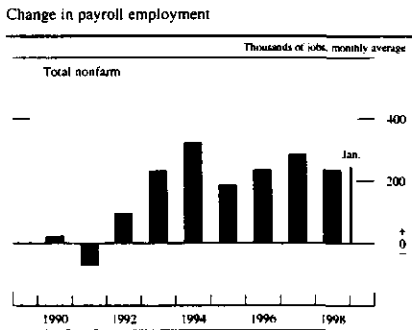
Change in real imports and exports of goods and services



Balance of payments data available through the first three quarters of 1998 show that total private foreign purchases of U.S. securities amounted to \$194 billion, somewhat below the level in the first three quarters of 1997. Private foreign purchases of U.S. Treasury securities were only \$22 billion in the first three quarters, compared with \$147 billion for all of 1997. Private foreigners' purchases of other U.S. securities shifted away from equities and toward bonds, relative to 1997. U.S. purchases of foreign securities slowed markedly from their 1997 pace, totaling only \$27 billion for the first three quarters of 1998 compared with \$89 billion for all of the preceding year. The contraction in private portfolio capital flows, though large, was overshadowed by huge direct investment capital flows, which resulted in part from a number of very large cross-border mergers. The \$72 billion in foreign direct investment into the United States in the first three quarters, together with several large mergers that occurred in the fourth quarter, are certain to bring the total for last year well above the record-high \$93 billion posted in 1997. Merger activity also buoyed U.S. direct investment abroad: The pace of such investment in the first three quarters suggests that the annual total will be near the record-high \$122 billion recorded in 1997.

### The Labor Market

The rapid growth of output in 1998 was associated with both increased hiring and continued healthy growth in labor productivity. The number of jobs on nonfarm payrolls rose about 2¼ percent from the end of 1997 to the end of 1998, a net increase of 2.8 mil-



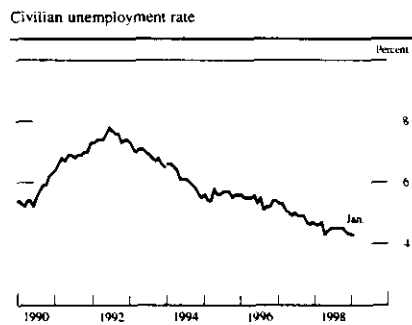
lion. Manufacturers reduced employment over the year, but in other parts of the economy the demand for labor continued to rise rapidly. The construction industry boosted employment about 6 percent over the year, and both the services industries and the finance, insurance, and real estate sector posted increases of more than 3½ percent. Stores selling building materials and home furnishings expanded employment rapidly, as did firms involved in computer services, communications, and managerial services. In the first month of 1999, nonfarm payrolls increased an additional 245,000.

Output per hour in the nonfarm business sector rose 2½ percent in 1998 after having increased about 1¼ percent, on average, over the two previous years. By comparison, the average rate of rise during the 1980s and the first half of the 1990s was just over 1 percent per year. Because productivity often picks up to a pace above its long-run trend when economic growth accelerates, the results of the past three years might well be overstating the rate of efficiency gain that can be maintained in coming years. However, reasons for thinking that the trend might have picked up to some degree are becoming more compelling in view of the incoming data. The 1998 gain in output per hour was particularly impressive in this regard, in part because it came at a time when many businesses were diverting resources to correct the Y2K problem, a move that likely imposed a bit of drag on growth of output per hour. Higher rates of capital formation are raising the growth of capital per worker, and workers are likely becoming more skilled in employing the new technologies. Businesses not only are increasing their capital inputs but also are continuing to implement changes to their organizational structures and

operating procedures that might enhance efficiency and bolster profit margins.

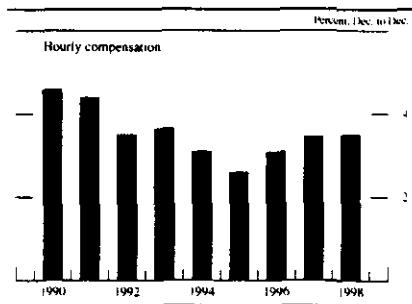
The rising demand for labor continued to strain supply in 1998. The civilian labor force rose just a touch more than 1 percent from the fourth quarter of 1997 to the fourth quarter of 1998, and with the number of persons holding jobs rising somewhat faster than the labor force, the civilian unemployment rate fell still further. The unemployment rate was 4.3 percent at the end of 1998; the average for the full year—4.5 percent—was the lowest of any year in almost three decades. In January of this year, the size of the labor force rose rapidly, but so did employment, and the unemployment rate remained at 4.3 percent. The percentage of the working age population that is outside the labor force and is interested in obtaining work but not actively seeking it edged down further this past year and has been in the lowest range since the collection of these data began in 1970. With the supply of labor as tight as it is, businesses are reaching further into the pool of individuals who do not have a history of strong attachment to the labor force; persons who are attempting to move from welfare to work are among the beneficiaries.

Workers have realized large increases in real wages and real hourly compensation over the past couple of years. The increases have come partly through faster gains in nominal pay than in the mid-1990s but also through reductions in the rate of price increase, which have been enhancing the real purchasing power of nominal earnings, perhaps to a greater degree than workers might have anticipated. According to the Labor Department's employment cost index, the



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 those of earlier periods.

Change in employment cost index



NOTE: Private industry, excluding farm and household workers.

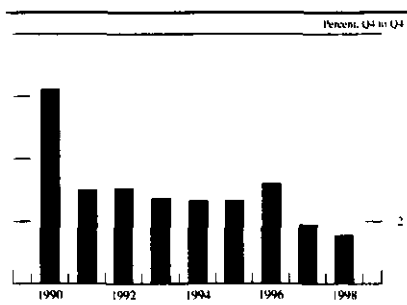
hourly compensation of workers in private nonfarm industries rose 3½ percent in nominal terms during 1998, a touch more than in 1997 and ½ percentage point more than in 1996. Taking the consumer price index as the measure of price change, this increase in nominal hourly compensation translated into a 2 percent increase in real hourly pay, one of the largest on record in a series that goes back to the start of the 1980s: the gain was bigger still if the chain-type price index for personal consumption expenditures is used as the measure of consumer prices. Moreover, the employment cost index does not capture some of the forms of compensation that employers have been using to attract and retain workers—for example, stock options and signing bonuses.

Because of the rapid growth in labor productivity, unit labor costs have been rising much less rapidly than hourly compensation in recent years. The increase in unit labor costs in the nonfarm business sector was only 1½ percent in 1998. Businesses were unable to raise prices sufficiently to recoup even this small increase in costs, however. Labor gained a greater share of the income generated from production, and the profit share, though still high, fell back a little from its 1997 peak.

### Prices

The broader measures of aggregate price change showed inflation continuing to slow in 1998. The consumer price index moved up 1½ percent over the four quarters of the year after having increased nearly 2 percent in 1997. A steep decline in energy prices in the CPI more than offset a small acceleration in the

## Change in consumer prices



NOTE: Consumer price index for all urban consumers.

prices of other goods and services. Only part of the deceleration in the total CPI was attributable to technical changes in data collection and aggregation.<sup>1</sup>

Measures of aggregate price change from the national income and product accounts, which draw heavily on data from the CPI but also use data from other sources, showed a somewhat more pronounced deceleration of prices in 1998. The chain-type price index for personal consumption expenditures, the measure of consumer prices in the national accounts, rose  $\frac{3}{4}$  percent after increasing  $1\frac{1}{2}$  percent 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 only  $\frac{1}{2}$  percent in 1998 after moving up  $1\frac{1}{4}$  percent over the previous year. The rise in the chain-type price index for gross domestic product of slightly less than 1 percent was down from an increase of  $1\frac{3}{4}$  percent in 1997.

Developments in the external sector helped to bring about the favorable inflation outcome of 1998. Consumers benefited directly from lower prices of finished goods purchased from abroad. Lower prices for imports probably also held down the prices charged by domestic producers, not only because businesses were concerned about losing market share to foreign competitors but also because declines in

1. Since the end of 1994, the Bureau of Labor Statistics has taken a number of steps to make the consumer price index a more accurate price measure. The agency also introduced new weights into the CPI at the start of 1998. In total, these changes probably reduced the 1998 rise in the CPI by slightly less than  $\frac{1}{2}$  percentage point, relative to the increase that would have been reported using the methodologies and weights in existence at the end of 1994. Without the changes that took effect in 1998, the deceleration in the CPI last year probably would have been about half as large as was reported.

## 3. Alternative measures of price change

Percent		
Price measure	1997	1998
<i>Fixed-weight</i>		
Consumer price index .....	1.9	1.5
Excluding food and energy .....	2.2	2.4
<i>Chain-type</i>		
Gross domestic product .....	1.7	.9
Gross domestic purchases .....	1.3	.5
Personal consumption expenditures .....	1.5	.8
Excluding food and energy .....	1.6	1.2

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.

commodity prices in sluggish world markets helped reduce domestic production costs to some degree.

In manufacturing, one of the sectors most heavily affected by the softness in demand from abroad, the rate of plant capacity utilization fell noticeably over the year—even as the unemployment rate continued to decline. The divergence of these two key measures of resource use—the capacity utilization rate and the unemployment rate—is unusual: They typically have exhibited similar patterns of change over the course of the business cycle. Because the unemployment rate applies to the entire economy, it presumably should be a better indicator of the degree of pressure on resources in general. At present, however, slack in the goods-producing sector—a reflection of the sizable additions to capacity in this country and excess capacity abroad—seemingly has enforced a discipline of competitive price and cost control that has affected the economy more generally.

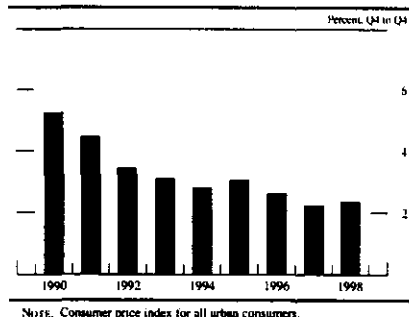
Prices this past year tended to be weakest in the sectors most closely linked to the external economy. The price of oil fell almost 40 percent from December 1997 to December 1998. This drop triggered steep declines in the prices of petroleum products purchased directly by households. The retail price of motor fuel fell about 15 percent over the four quarters of the year, and the price of home heating fuel also plunged. With the prices of natural gas and electricity also falling, the CPI for energy was down about 9 percent over the year after having slipped 1 percent in 1997.

Large declines in the prices of internationally traded commodities other than oil pulled down the prices of many domestically produced primary inputs. The producer price index for crude materials other than energy, which reflects the prices charged by domestic producers of these goods, fell more than 10 percent over the year. However, because these non-oil commodities account for a small share of total production costs, the effect of their decline on inflation was much less visible further down the

chain of production. Intermediate materials prices excluding food and energy fell about 1½ percent over the four quarters of the year, and the prices of finished goods excluding food and energy rose about 1½ percent. The latter index was boosted, in part, by an unusually large hike in tobacco prices that followed the settlement last fall of states' litigation against the tobacco companies. In the food sector as well, the effects of declining commodity prices became less visible further down the production chain; the PPI for finished foods was about unchanged, on net, over the year, and price increases at the retail level, though small, were somewhat larger than those of the preceding year.

Consumer prices excluding those of food and energy—the core CPI—continued to rise in 1998, but not very rapidly. As measured by the CPI, these prices increased nearly 2½ percent from the final quarter of 1997 to the final quarter of 1998, a shade more than in 1997. The chain-type price index for personal consumption expenditures excluding food and energy—the core PCE price index—decelerated a bit further, rising at roughly half the pace of the core CPI. Methodological differences between the two measures are numerous; some of the technical problems that have plagued the CPI are less pronounced in the PCE price measure, but the latter also depends partly on imputations of prices for which observations are not available. Both measures, however, seemed to suggest that the underlying trend of consumer price inflation remained low. A similar message came from surveys of consumers, which showed expectations of future price increases easing a bit further in 1998—although, as in other recent years, the expected increases remained somewhat higher than actual price increases.

Change in consumer prices excluding food and energy



### U.S. Financial Markets

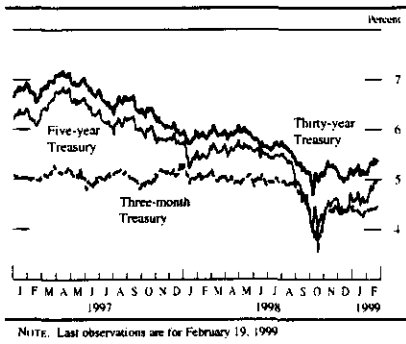
U.S. interest rates fluctuated in fairly narrow ranges over the first half of 1998, and most equity price indexes posted substantial gains. However, after the devaluation of the Russian ruble in August and subsequent difficulties in other emerging market economies, investors appeared to reassess the risks and uncertainties facing the U.S. economy and concluded that more cautious postures were in order. That sentiment was reinforced by the prospect of an unwinding of positions by some highly leveraged investors. The resulting shift toward safe, liquid investments led to a substantial widening of risk spreads on debt instruments and to volatile changes in the prices of many assets. Financial market volatility and many risk spreads returned to more normal levels later in the year and early this year, as lower interest rates and robust economic data seemed to reassure market participants that the economy would remain sound, even in the face of additional adverse shocks from abroad. However, lenders remained more cautious than they had been in the first part of last year, especially in the case of riskier credits.

### Interest Rates

Over the first half of 1998, short-term Treasury rates moved in a narrow range, anchored by unchanged monetary policy, while yields on intermediate- and long-term Treasury securities varied in response to the market's shifting assessment of the likely impact of foreign economic difficulties on the U.S. economy. In late 1997 and into 1998, spreading financial crises in Asia were associated with declines in U.S. interest rates, as investors anticipated that weakness abroad would constrain U.S. economic growth and cushion the impact of tight U.S. labor markets on inflation. However, interest rates moved back up later in the first quarter of 1998, as the U.S. economy continued to expand at a healthy pace, fueled by hefty gains in domestic demand. After a couple of months of small changes, Treasury rates fell in May and June, when concerns about foreign economies, particularly in Asia, once again led some observers to expect weaker growth in the United States and may also have boosted the demand for safe Treasury securities relative to other instruments.

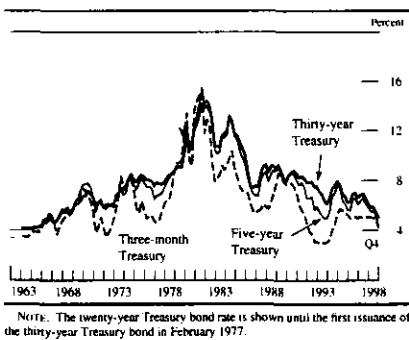
Treasury rates changed little, on net, in the early summer, but they slipped lower in August, reflecting increased concern about the Japanese economy and financial problems in Russia. The default by Russia on some government debt obligations and the devalu-

Selected Treasury rates, daily data

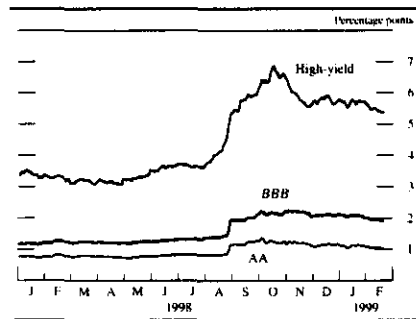


ation of the ruble in mid-August not only resulted in sizable losses for some investors but also undermined confidence in other emerging market economies. The currencies of many of these economies came under substantial pressure, and the market value of the international debt obligations of some countries declined sharply. U.S. investors shared in the resulting losses, and U.S. economic growth and the profits of U.S. companies were perceived to be vulnerable. In these circumstances, many investors, both here and abroad, appeared to reassess the riskiness of various counterparties and investments and to become less willing to bear risk. The resulting shift of demand toward safety and liquidity led to declines of 40 to 75 basis points in Treasury coupon yields between mid-August and mid-September. In contrast, yields on higher-quality private securities fell much less, and those on issues of lower-rated firms

Selected Treasury rates, quarterly data



Spreads of corporate bond yields over Treasury security yields



increased sharply. As a result, spreads of private rates over Treasury rates rose substantially, reaching levels not seen for many years, and issuance of corporate securities dropped sharply.

The desire of investors to limit risk-taking as markets became troubled in the late summer showed up clearly in mutual fund flows. High-yield bond funds, which had posted net inflows of more than \$1 billion each month from May to July, saw a \$3.4 billion outflow in August and inflows of less than \$400 million in September and October before rebounding sharply in November. By contrast, inflows to government bond funds jumped from less than \$1 billion in July to more than \$2 billion a month in August and September. Equity mutual funds posted net outflows totaling nearly \$12 billion in August, the first monthly outflow since 1990, and inflows over the rest of the year were well below those earlier in the year.

In part, the foreign difficulties were transmitted to U.S. markets by losses incurred by leveraged investors—including banks, brokerage houses, and hedge funds—as the prospects for distress sales of riskier assets by such investors weighed on market sentiment, depressing prices. Many of these entities did reduce the scale of their operations and trim their risk exposures, responding to pressures from more cautious counterparties. As a result, liquidity in many markets declined sharply, with bid-asked spreads widening and large transactions becoming more difficult to complete. Even in the market for Treasury securities, investors showed an increased preference for the liquidity offered by the most recent issues at each maturity, and the yields on these more actively

traded "on-the-run" securities fell noticeably relative to those available on "off-the-run" issues, the ones that had been outstanding longer.

Conditions in U.S. financial markets deteriorated further following revelations in mid-September of the magnitude of the positions and the extent of the losses of a major hedge fund, Long-Term Capital Management. LTCM indicated that it sought high rates of return primarily by identifying small discrepancies in the prices of different instruments relative to historical norms and then taking highly leveraged positions in those instruments in the expectation that market prices would revert to such norms over time. In pursuing its strategy, LTCM took very large positions, some of which were in relatively small and illiquid markets.

LTCM was quite successful between 1995 and 1997, but the shocks hitting world financial markets last August generated substantial losses for the firm. Losses mounted in September, and before new investors could be found, the firm encountered difficulties meeting liquidity demands arising from its collateral agreements with its creditors and counterparties. With world financial markets already suffering from heightened risk aversion and illiquidity, officials of the Federal Reserve Bank of New York judged that the precipitous unwinding of LTCM's portfolio that would follow the firm's default would significantly add to market problems, would distort market prices, and could impose large losses, not just on LTCM's creditors and counterparties, but also on other market participants not directly involved with LTCM.

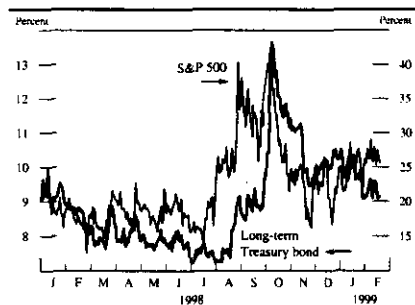
In an effort to avoid these difficulties, the Federal Reserve Bank of New York contacted the major creditors and counterparties of LTCM to see if an alternative to forcing LTCM into bankruptcy could be found. At the same time, Reserve Bank officials informed some of their colleagues at the Federal Reserve Board, the Treasury, and other financial regulators of their activities. Subsequent discussions among LTCM's creditors and counterparties led to an agreement by the private-sector parties to provide an additional \$3½ billion of capital to LTCM in return for a 90 percent equity stake in the firm.

Because of the potential for firms such as LTCM to have a large influence on U.S. financial markets, Treasury Secretary Robert Rubin asked the President's Working Group on Financial Markets to study the economic and regulatory implications of the operations of firms like LTCM and their relationships with their creditors. In addition, the extraordinary degree of leverage with which LTCM was able to operate has led the federal agencies responsible for the prudential oversight of the fund's creditors and

counterparties to undertake reviews of the practices those firms employed in managing their risks. These reviews have suggested significant weaknesses in the risk-management practices of many firms in their dealings with LTCM and—albeit to a lesser degree—in their dealings with other highly leveraged entities. Few counterparties seem to have had a complete understanding of LTCM's risk profile, and their credit decisions were heavily influenced by the firm's reputation and strong past performance. Moreover, LTCM's counterparties did not impose sufficiently tight limits on their exposures to LTCM, in part because they relied on collateral agreements requiring frequent marking to market to limit the risk of their exposures. While these agreements generally provided for collateral with a value sufficient to cover current credit exposures, they did not deal adequately with the potential for future increases in exposures from changes in market values. This shortcoming was especially important in dealings with a firm like LTCM, which had such large positions in illiquid markets that its liquidation would likely have moved prices sharply against its creditors. In such cases, creditors need to take further steps to limit their potential future exposures, which might include requiring additional collateral or simply scaling back their activity with such firms.

The private-sector agreement to recapitalize LTCM allowed its positions to be reduced in an orderly manner over time, rather than in an abrupt fire sale. Nonetheless, the actual and anticipated unwinding of LTCM's portfolio, as well as actual and anticipated sales by other similarly placed leveraged investors, likely contributed materially to the tremendous volatility of financial markets in early October. Market

Implied volatilities



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

expectations of asset price volatility going forward, as reflected in options prices, rose sharply, as bid-asked spreads and the premium for on-the-run securities widened. Long-term Treasury yields briefly dipped to their lowest levels in more than thirty years, in part because of large demand shifts resulting from concerns about the safety and liquidity of private and emerging market securities. Spreads of rates on corporate bonds over those on comparable Treasury securities rose considerably, and issuance of corporate bonds, especially by lower-rated firms, remained very low.

By mid-October, however, market conditions had stopped deteriorating, and they began to improve somewhat in the days and weeks following the cut in the federal funds rate on October 15, between Federal Open Market Committee meetings. Internationally coordinated efforts to help Brazil cope with its financial difficulties, culminating in the announcement of an IMF-led support package in mid-November, contributed to the easing of market strains. In the Treasury market, bid-asked spreads narrowed a bit and the premium for on-the-run issues declined. With the earlier flight to quality and liquidity unwinding, Treasury rates backed up considerably. Corporate bond spreads reversed a part of their earlier rise, and investment-grade bond issuance rebounded sharply. In the high-yield bond market, investors appeared to be more hesitant, especially for all but the best-known issuers, and the volume of junk bond issuance picked up less. In the commercial paper market, yields on higher-quality paper declined; yields on lower-quality paper remained elevated, however, and some lower-tier firms reportedly drew on their bank lines for funding, giving a further boost to bank business lending, which had begun to pick up during the summer.

Market conditions improved a bit further immediately after the Federal Reserve's November rate cut, but some measures of market stress rose again in late November and in December. In part, this deterioration reflected widespread warnings of lower-than-expected corporate profits, a weakening economic outlook for Europe, and renewed concerns about the situation in Brazil. In addition, with risk a greater-than-usual concern, some market participants were likely less willing to hold lower-rated securities over year-end, when they would have to be reported in annual financial statements. As a result, liquidity in some markets appeared to be curtailed, and price movements were exaggerated. These effects were particularly noticeable in the commercial paper market: The spread between rates on top-tier and lower-tier thirty-day paper jumped almost 40 basis points

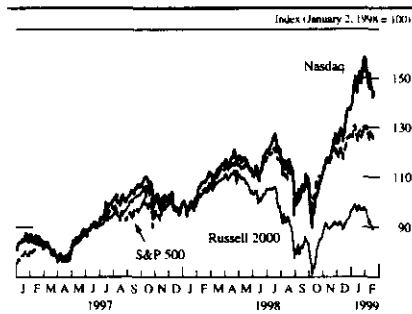
on December 2, when that maturity crossed year-end, and then reversed the rise late in the month.

By shortly after year-end, some measures of market stress had eased considerably from their levels in the fall, although markets remained somewhat illiquid relative to historical norms, and risk spreads on corporate bonds stayed quite elevated. Nonetheless, with Treasury yields very low, corporate bond rates were apparently perceived as advantageous, and—following a lull around year-end—many corporate borrowers brought new issues to market. The devaluation and subsequent floating of the Brazilian *real* in mid-January had a relatively small effect on U.S. financial markets. More recently, intermediate- and long-term Treasury rates have increased, as incoming data have continued to show the economy expanding briskly, and investors have come to believe that no further easing of Federal Reserve policy is likely.

#### Equity Prices

Most equity indexes rose strongly, on balance, in 1998, with the Nasdaq Composite Index up nearly 40 percent, the S&P 500 Composite Index rising more than 25 percent, and the Dow Jones Industrial Average and the NYSE Composite Index advancing more than 15 percent. Small capitalization stocks underperformed those of larger firms, with the Russell 2000 Index off 3 percent over the year. The variation in stock prices over the course of the year was extremely wide. Prices increased substantially over the first few months of 1998, as concerns eased that Asian economic problems could lead to a slowdown in the United States and to a consequent decline

Major stock price indexes



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

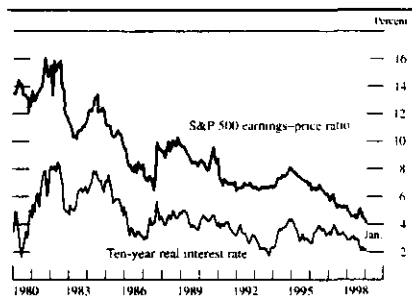
in profits. The major indexes declined, on balance, over the following couple of months before rising sharply, in some cases to new records, in late June and early July, on increasing confidence about the outlook for earnings. The main exception was the Russell 2000; small capitalization stocks fell more substantially in the spring, and their rise in July was relatively muted.

Rising concerns about the outlook for Japan and other Asian economies, as well as the deepening financial problems in Russia, caused stock prices to retrace their July gains by early August. After Russia devalued the ruble and defaulted on some debts in mid-August, prices fell further, reflecting the general turbulence in global financial markets. By the end of the month, most equity indexes had fallen back to roughly their levels at the start of the year. Commercial bank and investment bank stocks fell particularly sharply, as investors became concerned about the effect on these institutions' profits of emerging market difficulties and of substantial declines in the values of some assets. Equity prices rose for a time in September but then fell back by early October before rebounding as market dislocations eased and interest rates on many private obligations fell. By December, most major indexes were back near their July highs, although the Russell 2000 remained below its earlier peak.

In late December, and into the new year, stock prices continued to advance, with several indexes reaching new highs in January. The devaluation of the Brazilian *real* caused some firms' shares to drop as investors reevaluated prospective earnings from Latin American operations, but all the major stock indexes posted gains in January; the Nasdaq advanced nearly 15 percent over the month, driven by large advances in the stock prices of high-technology firms, especially those related to the Internet. More recently, however, stock prices fell back, as interest rates rose and some investors apparently concluded that prices had risen too far, given the outlook for earnings.

The increase in equity prices last year and early this year, coupled with the slowing of earnings growth, left many valuation measures beyond their historical ranges. After ticking higher in the late summer and early autumn, the ratio of consensus estimates of earnings over the coming twelve months to prices in the S&P 500 later fell back, dropping to a new low in January. In part, the decline in this measure over the past year likely reflected lower real long-term bond yields. For example, as measured by the difference between the ten-year nominal Treasury yield and inflation expectations reported in the

Equity valuation and long-term real interest rate



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

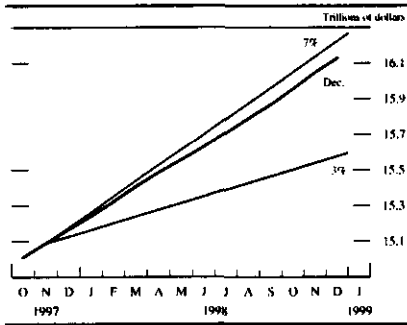
Philadelphia Federal Reserve Bank's survey of professional forecasters, real yields fell appreciably between late 1997 and early 1999. (The yield on ten-year inflation-indexed Treasury securities actually rose somewhat last year. However, the increase may have reflected the securities' lack of liquidity and the substantial rise in the premium investors were willing to pay for liquidity.) Since mid-1998, the real interest rate has declined somewhat more than the forward earnings yield on stocks, and the spread between the two consequently increased a bit, perhaps reflecting the greater sense of risk in financial markets. Nonetheless, the spread has remained quite small relative to historical norms: Investors may be anticipating rapid long-term earnings growth—consistent with the expectations of securities analysts—and they may still be satisfied with a lower risk premium for holding stocks than they have demanded historically.

### Debt and the Monetary Aggregates

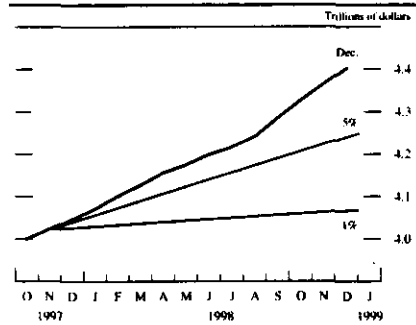
#### Debt and Depository Intermediation

From the fourth quarter of 1997 to the fourth quarter of 1998, the total debt of the U.S. household, government, and nonfinancial business sectors increased about 6¼ percent, in the top half of its 3 percent to 7 percent range and considerably faster than nominal GDP. Buoyed by strong spending on durable goods, housing, and business investment, as well as by merger and acquisition activity that substituted debt for equity, nontotal debt expanded about 9 percent

Domestic nonfinancial debt: Annual range and actual level



M2: Annual range and actual level



last year, more than 2 percentage points faster than in 1997. By contrast, federal debt declined 1¼ percent, following a rise of ¾ percent the previous year.

Credit market instruments on the books of depository institutions rose at a somewhat slower pace than did the debt aggregate, posting a 5¾ percent rise in 1998, about half a percentage point less than in 1997. Growth in depository credit picked up in the second half of the year, as the turbulence in financial markets apparently led many firms to substitute bank loans for funds raised in the markets. Banks also added considerably to their holdings of securities in the third and fourth quarters, in part reflecting the attractive spreads available on non-Treasury debt instruments.

Financial firms also appeared to turn to banks for funding when the financial markets were volatile, and U.S. banks substantially expanded their lending to financial firms through repurchase agreements and loans to purchase and carry securities. As a result, growth of total bank credit, adjusted to remove the effects of mark-to-market accounting rules, accelerated to 10½ percent on a fourth-quarter to fourth-quarter basis, the largest annual increase in more than a decade.

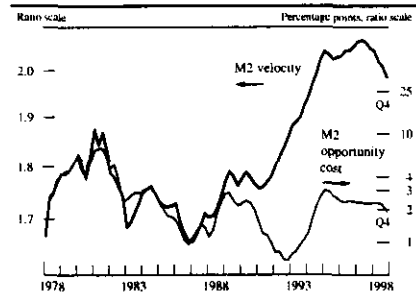
The Monetary Aggregates

The broad monetary aggregates expanded very rapidly last year. From the fourth quarter of 1997 to the fourth quarter of 1998, M2 increased 8½ percent, placing it well above the upper bound of its 1 percent to 5 percent range. However, as the FOMC noted last February, this range was intended as a benchmark for money growth under conditions of stable prices, real economic growth near trend, and historical velocity

range was the result of faster growth in nominal spending than would likely be consistent with sustained price stability. In addition, the velocity of M2 (defined as the ratio of nominal GDP to M2) fell 3 percent. Some of the decline resulted from the decrease in short-term market interest rates last year—as usual, rates on deposits fell more slowly than market rates, reducing the opportunity cost of holding M2 (defined as the difference between the rate on Treasury bills and the average return on M2 assets).

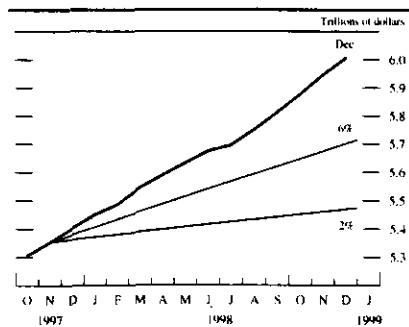
However, the bulk of the decline cannot be explained on the basis of the historical relationship between the velocity of M2 and this measure of its opportunity cost. Three factors not captured in that relationship likely contributed to the drop in velocity. First, households seem to have allocated an increased

M2 velocity and the opportunity cost of holding M2



Note: The data are quarterly. M2 opportunity cost is the two-quarter moving average of the three-month Treasury bill rate less the weighted-average rate paid on M2 components.

M3: Annual range and actual level



share of savings flows to monetary assets rather than equities following several years of outsized gains in stock market wealth. Second, some evidence suggests that in the 1990s the demand for M2 assets has become more sensitive to longer-term interest rates and to the slope of the yield curve, and so the decline in long-term Treasury yields last year, and the consequent flattening of the yield curve, may have increased the relative attractiveness of M2 assets. Finally, a critical source of the especially rapid M2 expansion in the fourth quarter likely was an increased demand for safe, liquid assets as investors responded to the heightened volatility in financial markets. With some of these safe-haven flows likely

being reversed, growth in the broad monetary aggregates, while still brisk, has slowed appreciably early this year.

M3 expanded even faster than M2 in 1998, posting an 11 percent rise on a fourth-quarter to fourth-quarter basis. Last year's growth was the fastest since 1981 and left the aggregate well above the top end of its 2 percent to 6 percent growth range. As with M2, however, the FOMC established the M3 range as a benchmark for growth under conditions of stable prices, sustainable output growth, and the historical behavior of velocity. The rapid growth of M3 in part simply reflected the rise in M2. In addition, the non-M2 components of M3 increased 18½ percent over the year, following an even larger advance in 1997. The substantial rise in these components last year was partly the result of the funding of the robust growth in bank credit with managed liabilities, many of which are in M3. However, M3 growth was boosted to an even greater extent by flows into institution-only money funds, which have been expanding rapidly in recent years as they have increased their share of the corporate cash management business. Because investments in these funds substitute for business holdings of short-term assets that are not in M3, their rise has generated an increase in M3 growth. In addition, institution-only funds pay rates that tend to lag movements in market rates, and so their relative attractiveness was temporarily enhanced—and their growth rate boosted—by declines in short-term market interest rates late last year.

#### 4. Growth of money and debt

Percent

Period	M1	M2	M3	Domestic nonfinancial debt
<i>Annual</i> <sup>1</sup>				
1988 ...	4.2	5.6	6.4	9.1
1989 ...	6	5.2	4.1	7.5
1990 ...	4.2	4.2	1.9	6.7
1991 ...	8.0	3.1	1.2	4.5
1992 ...	14.3	1.8	6	4.5
1993 ...	10.6	7.3	1.0	4.9
1994 ...	2.5	.6	1.7	4.9
1995 ...	-1.6	3.9	6.1	5.4
1996 ...	-4.5	4.6	6.8	5.3
1997 ...	-1.2	5.8	8.8	5.0
1998 ...	1.8	8.5	11.0	6.3
<i>Quarterly (annual rate)</i> <sup>2</sup>				
1998:1 ...	3.2	7.6	10.3	6.2
2 ...	1.0	7.5	10.1	6.1
3 ...	-2.0	6.9	8.6	6.0
4 ...	5.0	11.0	13.2	6.4

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 out-

standing 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.

M1 increased 1¼ percent over the four quarters of 1998, its first annual increase since 1994. Currency expanded at an 8¼ percent pace, its largest rise since 1994. The increase apparently reflected continued strong foreign shipments, though at a slower pace than in 1997, and a sharp acceleration in domestic demand. Deposits in M1 declined further in 1998, reflecting the continued introduction of retail "sweep" programs. Growth of M1 deposits has been depressed for a number of years by these programs, which shift—or "sweep"—balances from household transactions accounts, which are subject to reserve requirements, into savings accounts, which are not. Because the funds are shifted back to transactions accounts when needed, depositors' access to their funds is not affected by these programs. However, banks benefit from the reduction in holdings of required reserves, which do not pay interest. Over 1998, sweep programs for demand deposit accounts became more popular, contributing to a 4¼ percent decline in such balances. By contrast, new sweep programs for other checkable deposits, which had driven double-digit declines in such deposits over the previous three years, were less important in 1998, and, with nominal spending strong and interest rates lower, other checkable deposits were about unchanged over the year.

As a result of the introduction of retail sweep accounts, the average level of required reserve balances (balances that must be held at Reserve Banks to meet reserve requirements) has trended lower over the past few years. The decline has been associated with an increase in banks' required clearing balances, which are balances that banks agree in advance to hold at their Federal Reserve Bank in order to facilitate the clearing of their payments. Unlike required reserve balances, banks earn credits on their required clearing balances that can be applied to the use of Federal Reserve priced services. Despite the increase in required clearing balances, required operating balances, which are the sum of required reserve balances and required clearing balances, have declined over the past few years and in late 1998 reached their lowest level in several decades.

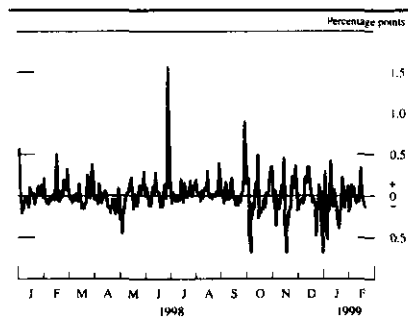
The decline in required operating balances has generated concerns about a possible increase in the volatility of the federal funds rate. Because a bank's required level of operating balances must be met only on average over a two-week maintenance period, banks are free to allocate their reserve holdings across the days of a maintenance period in order to minimize their reserve costs. However, banks must also manage their reserves in order to avoid overdrafts, which the Federal Reserve discourages through

administrative measures and financial penalties. Thus, as required operating balances decline toward the minimum level needed to clear banks' transactions, banks are less and less able to respond to fluctuations in the federal funds rate by lending funds when the rate is high and borrowing when the rate is low. As a result, when required operating balances are low, the federal funds rate is likely to rise further than it otherwise would when demands for reserves are unexpectedly strong or supplies weak; conversely, the federal funds rate is likely to fall more in the event of weaker-than-expected demand or stronger-than-expected supply. One way to ease this difficulty would be to pay interest on required reserve balances, which would reduce banks' incentives to expend resources on sweeps and other efforts to minimize these balances.

Despite the low level of required operating balances, the federal funds rate did not become noticeably more volatile over the spring and summer of 1998. In part, this result reflected more frequent overnight open market operations by the Federal Reserve to better match the daily demand for and supply of reserves. Also, banks likely improved the management of their accounts at the Federal Reserve Banks. Moreover, large banks apparently increased their willingness to borrow at the discount window. The Federal Reserve's decision to return to lagged reserve accounting at the end of July also likely contributed to reduced volatility in the federal funds market by enhancing somewhat the ability of both banks and the Federal Reserve to forecast reserve demand.

In the latter part of 1998 and into 1999, however, the federal funds rate was more volatile. The increase may have owed partly to further reductions in

Effective federal funds rate less target rate



NOTE: Data are daily. Last observation is for February 19, 1999.

required operating balances resulting from new sweep programs, but other factors were probably more important, at least for a time. Market participants were scrutinizing borrowing banks more closely, and in some cases lenders pared or more tightly administered their counterparty credit limits, or shifted more of their placements from term to overnight maturities. The heightened attention to credit quality also made banks less willing to borrow at the discount window, because they were concerned that other market participants might detect their borrowing and interpret it as a sign of financial weakness. As a result, many banks that were net takers of funds in short-term markets attempted to lock in their funding earlier in the morning. On net, these forces boosted the demand for reserves and put upward pressure on the federal funds rate early in the day. To buffer the effect of these changes on volatility in the federal funds market, the Federal Reserve increased the supply of reserves and, at times, responded to the level of the federal funds rate early in the day when deciding on the need for market operations. Because demand had shifted to earlier in the day, however, the federal funds rate often fell appreciably below its target level by the end of the day.

At its November meeting, the FOMC amended the Authorization for Domestic Open Market Operations to extend the permitted maturity of System repurchase agreements from fifteen to sixty days. Over the remainder of 1998, the Domestic Trading Desk made use of this new authority on three occasions, arranging System repurchase agreements with maturities of thirty to forty-five days to meet anticipated seasonal reserve demands over year-end. While the Desk had in the past purchased inflation-indexed securities when rolling over holdings of maturing nominal securities, it undertook its first outright open market purchase devoted solely to inflation-indexed Treasury securities in 1998, thereby accorded those securities the same status in open market operations as other Treasury securities.

### *International Developments*

In 1998, developments in international financial markets continued to be dominated by the unfolding crises in emerging markets that had begun in Thailand in 1997. Financial market turbulence spread to other emerging markets around the globe, spilling over from Korea, Indonesia, Malaysia, Singapore, the Philippines, and Hong Kong in late 1997 and in the first part of 1998 to Russia in the summer, and to Latin America, particularly Brazil, shortly thereafter.

The Asian crisis contributed to a deepening recession in Japan last year, and as the year progressed, growth in several other major foreign industrial economies slowed as well.

At the beginning of 1998, many Asian currencies were declining or were under pressure. The Indonesian rupiah dropped sharply in January, amid widespread rioting and talk of a coup, and fell again in May and June, as the deepening recession prompted more social unrest and ultimately the ouster of President Suharto. Some of the rupiah's losses were reversed in the second half of the year, following the relatively orderly transition of power to President Habibie. Tighter Indonesian monetary policy, which pushed short-term interest rates as high as 70 percent by July, contributed to the rupiah's recovery. On balance, between December 1997 and December 1998, the rupiah depreciated more than 35 percent against the dollar.

In contrast, the Thai baht and Korean won, which had declined sharply in 1997, gained more than 20 percent against the dollar over the course of 1998. Policy reforms and stable political environments helped boost these currencies. Between these extremes, the currencies of the Philippines, Malaysia, Singapore, and Taiwan fluctuated in a narrower range and ended the period little changed against the dollar. In September, Malaysia imposed capital and exchange controls, fixing the ringgit's exchange rate against the dollar. The Hong Kong dollar came under pressure at times during the year, but its peg to the U.S. dollar remained intact, although at the cost of interest rates that were at times considerably elevated. Short-term interest rates in Asian economies other than Indonesia declined in 1998, and as some stability returned to Indonesian markets near the end of the year, short-term rates in that nation began to retreat from their highs.

As the year progressed, the financial storm moved from Asia to Russia. At first the Russian central bank was able to defend the ruble's peg to the dollar with interest rate increases and sporadic intervention. By midyear, however, the government's failure to reach a new assistance agreement with the International Monetary Fund, reported shortfalls in tax revenues, and the disruption of rail travel by striking coal miners protesting late wage payments brought to the fore the deep structural and political problems faced by Russia. In addition, declining oil prices were lowering government revenues and worsening the current account. As a result of these difficulties, the ruble came under renewed pressure, forcing Russian interest rates sharply higher, and Russian equity prices fell abruptly. A disbursement of \$4.8 billion

from the IMF in July was quickly spent to keep the currency near its level of 6.2 rubles per dollar, but the lack of progress on fiscal reform put the next IMF tranche in doubt.

On August 17, Russia announced a devaluation of the ruble and a moratorium on servicing official short-term debt. Subsequently, the ruble depreciated more than 70 percent against the dollar, the government imposed conditions on most of its foreign and domestic debt that implied substantial losses for creditors, and many Russian financial institutions became insolvent. The events in Russia precipitated a global increase in financial market turbulence, including a pullback of credit to highly leveraged investors and a widening of credit spreads in emerging market economies and in many industrial countries, which did not abate until after central banks in a number of industrial countries eased policy in the fall.

Latin American financial markets were only moderately disrupted by the Asian and Russian problems during the first half of 1998. The reaction to the Russian default, however, was swift and strong, and the prices of Latin American assets fell precipitously. The spreads between yields on Latin American Brady bonds and comparable U.S. Treasuries widened considerably (with increases ranging from 900 basis points in Argentina to 1500 basis points in Brazil) and peaked in early September before retracing part of the rise. Latin American equity prices plunged, ending the year down 25 percent or more. Several currencies came under pressure, despite sharp increases in short-term interest rates. The Mexican peso, which was also weakened by the effects of falling oil prices, depreciated 18 percent against the dollar over the year. The Colombian peso and the Ecuadorian sucre were devalued, but Argentina's currency board arrangement survived.

Brazil's central bank defended the *real's* crawling peg until mid-January 1999 but is estimated to have used more than half of the \$75 billion in foreign exchange reserves it had amassed as of last April. Anticipation of the IMF-led financial assistance package for Brazil helped spur a partial recovery in Latin American asset markets in late September and October. The details of the \$41.5 billion loan package were announced in November, but after the package was approved by the IMF in early December, Brazil's Congress rejected a part of the government's fiscal austerity plan, sparking renewed financial turmoil. In mid-December, \$9.3 billion of the loan package was disbursed, but as the year ended, the continuing pressure from investors seeking to take funds out of Brazil put the long-run viability of the crawling exchange rate peg in doubt. The *real* came under

pressure again in early January after the state of Minas Gerais threatened not to pay its debt to the federal government. On January 13, the *real* was devalued 8 percent, and two days later it was allowed to float. Since the end of 1998, the *real* has depreciated nearly 38 percent against the dollar, and capital flight from Brazil has likely persisted. The collapse of the *real* exerted some downward pressure on the currencies of other Latin American countries. Thus far, however, contagion has been more limited than it was after the Russian devaluation; unlike Russia, Brazil has continued to meet debt service obligations, and investors apparently had an opportunity to adjust positions in advance of the devaluation and have drawn a distinction between Brazil's problems and those of other economies.

The fallout from the financial crises that hit several Asian emerging market economies in late 1997 triggered a further decline in output in the region in early 1998. In the countries most heavily affected—Thailand, Korea, Malaysia, and Indonesia—output dropped at double-digit annual rates in the first half of the year, as credit disruptions, widespread failures in the financial and corporate sectors, and a resulting high degree of economic uncertainty depressed activity severely. Output in Hong Kong also dropped in early 1998, as interest rates rose sharply amid pressure on its currency peg. Later in the year, with financial conditions in most of the Asian crisis countries stabilizing somewhat, output started to bottom out.

The Asian crisis had a relatively moderate effect on China, although it may have encouraged authorities in that country to move ahead more quickly with various financial sector reforms. Financial tensions mounted early this year as foreign investors have reacted with concern to the failure of the Guangdong International Trust and Investment Corporation. Chinese growth remained fairly strong throughout 1998, despite a dramatic slowdown in the growth of exports.

Inflation in the Asian developing economies rose only moderately on average in 1998, as the inflationary effects of currency depreciations in the region were largely offset by the deflationary influence of very weak domestic activity. The current account balances of the Asian crisis countries swung into substantial surplus last year, reflecting a sharp drop in imports resulting from the falloff in domestic demand as well as improvement in the countries' competitive positions associated with the substantial depreciations of their currencies in late 1997 and early 1998.

In Russia, economic activity declined last year as interest rates were pushed up in an attempt to fend off

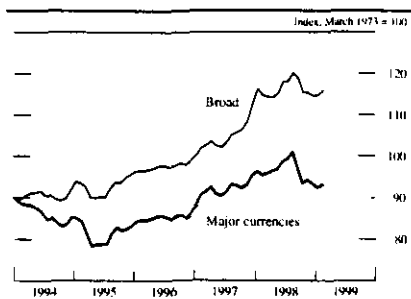
pressure on the ruble. After the August debt moratorium and ruble devaluation, output dropped sharply, ending the year down about 10 percent from its year-earlier level. The ruble collapse triggered a surge in inflation to a triple-digit annual rate during the latter part of the year.

In Latin America, the pace of economic activity slowed only moderately in the first half of 1998, as the spillover from the Asian financial turbulence was limited. The Russian financial crisis in August, in contrast, had a strong impact on real activity in Latin America, particularly Brazil and Argentina, where interest rates moved sharply higher in response to exchange rate pressures. Output in both countries is estimated to have declined in the second half of the year at annual rates of about 5 percent. Activity in Mexico and Venezuela was also depressed by lower oil export revenues. Inflation rates in Latin American countries were little changed in 1998 and ranged from 1 percent in Argentina and 3 percent in Brazil to 31 percent in Venezuela.

The dollar's value, measured on a trade-weighted basis against the currencies of a broad group of important U.S. trading partners, rose almost 7 percent during the first eight months of 1998, but it then fell, by December reaching a level about 2 percent above its year-earlier level. (When adjusted for changes in U.S. and foreign consumer price levels, the real value of the dollar in December 1998 was about 1 percent below its level in December 1997.) Before the Russian default, the dollar was supported by the robust pace of U.S. economic activity, which at times generated expectations that monetary policy would be tightened and which contrasted with weakening economic activity abroad, especially in Japan. Occasionally, however, the positive influence of the strong economy was countered by worries about growing U.S. external deficits. From August through October, in the aftermath of the Russian financial meltdown, concerns that increased difficulties in Latin America might affect the U.S. economy disproportionately, as well as expectations of lower U.S. interest rates, weighed on the value of the dollar, and it fell sharply. The broad index of the dollar's exchange value eased a bit further during the fourth quarter of the year. So far in 1999, the dollar has gained nearly 3 percent in terms of the broad index.

Against the currencies of the major foreign industrial countries, the dollar declined 2 percent in nominal terms over 1998, on balance, reversing some of its 10 percent appreciation the preceding year. Among these currencies, the dollar's value fluctuated most widely against the Japanese yen. The dollar rose against the yen during the first half of the year as a

Nominal dollar exchange rate indexes

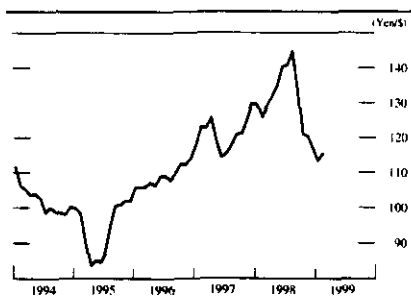


NOTE: The data are monthly indexes are trade-weighted averages of the exchange value of the dollar against major currencies and against the currencies of a broad group of important U.S. trading partners. Last observations are for the first three weeks of February 1999.

result of concerns about the effects of the Asian crisis on the already-weak Japanese economy and further signs of deepening recession and persistent banking system problems in that country. It reached a level of almost 147 yen per dollar in mid-June, prompting coordinated intervention by U.S. and Japanese authorities in foreign exchange markets that helped to contain further downward pressure on the yen. The dollar resumed its appreciation against the yen, albeit at a slower pace, in July and early August.

The turning point in the dollar-yen rate came after the Russian collapse, amid the global flight from risk that caused liquidity to dry up in the markets for many assets. During the first week of October, the dollar dropped nearly 14 percent against the yen in extremely illiquid trading conditions. Although fun-

U.S. exchange rate with Japan



NOTE: The data are monthly. Last observation is for the first three weeks of February 1999.

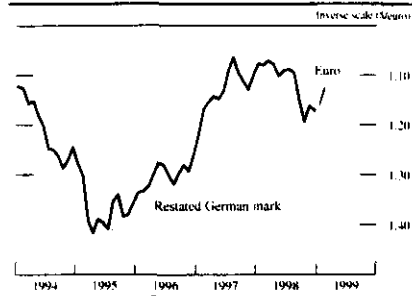
damental factors in Japan, such as progress on bank reform, fiscal stimulus, and the widening trade surplus may have helped boost the yen against the dollar, market commentary at the time focused on reports that some international investors were buying large amounts of yen. These large purchases reportedly were needed to unwind positions in which investors had used yen loans to finance a variety of speculative investments. On balance, the dollar depreciated almost 10 percent against the yen in 1998, reversing most of its net gain during 1997. It depreciated further against the yen in early 1999, hitting a two-year low on January 11, but it then rebounded somewhat amid reports of intervention purchases of dollars by the Bank of Japan. More recently, the Bank of Japan has eased monetary policy further, and the dollar has strengthened against the yen. So far this year, the dollar has gained about 7 percent against the yen.

Japanese economic activity contracted in 1998, as the country remained in its most protracted recession of the postwar era. Business and residential investment plunged, and private consumption stagnated, more than offsetting positive contributions from government spending and net exports. Core consumer prices declined slightly, while wholesale prices fell almost 4½ percent. In April, the Japanese government announced a large fiscal stimulus package. During the final two months of the year, the government announced another set of fiscal measures slated for implementation during 1999, which included permanent personal and corporate income tax cuts, various incentives for investment, and further increases in public expenditures.

Against the German mark, the dollar depreciated about 6 percent, on net, during 1998. Late in the year the dollar moved up against the mark, as evidence of a European growth slowdown raised expectations of easier monetary conditions in Europe. In the event, monetary policy was eased sooner than market participants had expected, with a coordinated European interest rate cut coming in early December.

A major event at the turn of the year was the birth of the euro, which marked the beginning of Stage Three of European Economic and Monetary Union (EMU). On December 31, the rates locking the euro with the eleven legacy currencies were determined; based on these rates, the value of the euro at the moment of its creation was \$1.16675. Trading in the euro opened on January 4, with the first trades reflecting a significant premium for the euro over its initial value. As the first week of trading progressed, however, the initial euphoria wore off, and so far this year the dollar has strengthened more than 5 percent against the euro, partly reflecting better-than-

U.S. dollar exchange rate against the restated German mark and the euro

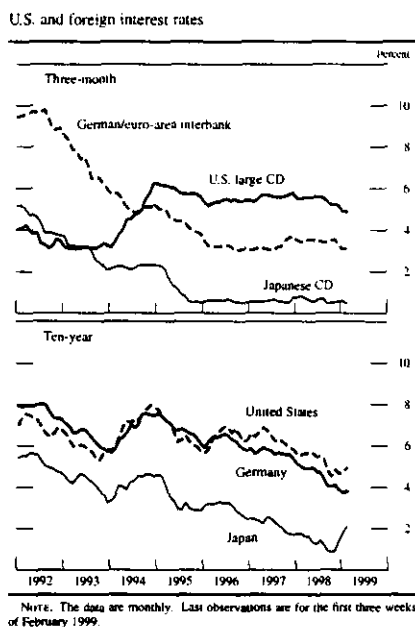


NOTE: The data are monthly. Restated German mark is the dollar/mark exchange rate rescaled by the official conversion factor between the mark and the euro, 1.95583, through December 1998. Euro exchange rate as of January 1999. Last observation is for the first three weeks of February 1999.

expected economic data in the United States, contrasted with weaker-than-expected data in the euro area.

In the eleven European countries whose currencies are now fixed against the euro, output growth slowed moderately over the course of 1998, as net exports weakened and business sentiment worsened. Unemployment rates came down slightly, but the average of these rates remained in the double-digit range. Consumer price inflation continued to slow, helped by lower oil prices. In December, the harmonized CPI for the eleven countries stood ¼ percent above its year-earlier level, meeting the European Central Bank's primary objective of inflation below 2 percent.

Between December 1997 and December 1998, the average value of the dollar changed little against the British pound but rose 8 percent against the Canadian dollar. Weakness in primary commodity prices, including oil, likely depressed the value of the Canadian dollar. The Bank of Canada raised official rates in January 1998 and again in August, in response to currency market pressures. The Bank of England raised official rates in June 1998 to counter inflation pressures. Tighter monetary conditions in both countries, as well as a decline in net exports associated with global difficulties, contributed to a slowing of output growth in the second half of the year. The deceleration was sharper in the United Kingdom than in Canada. U.K. inflation eased slightly to near its target rate, while Canadian inflation remained near the bottom of its target range. In response to weaker economic activity as well as to the expected effects of the global financial turmoil, both the Bank of Canada



and the Bank of England have lowered official interest rates since September.

The general trend toward easier monetary conditions was reflected in declines in short-term interest rates in almost all the G-10 countries during the year. Interest rates in the euro area converged to relatively low German levels in anticipation of the launch of the third stage of EMU. Yields on ten-year government bonds in the major foreign industrial countries declined significantly over the course of the year, as economic activity slowed, inflation continued to moderate, and investors sought safer assets. Between

December 1997 and December 1998, ten-year interest rates fell 180 basis points in the United Kingdom and 150 basis points in Germany. The ten-year rate fell only 30 basis points in Japan, on balance, declining about 90 basis points over the first ten months of the year but backing up in November and December. Market participants attributed the increase to concerns that the demand for bonds would be insufficient to meet the surge in debt issuance associated with the latest fiscal stimulus package.

Share prices on European stock exchanges posted another round of strong advances last year, with price indexes rising 8 percent in the United Kingdom, about 15 percent in Germany, nearly 29 percent in France, and 41 percent in Italy. In contrast, Japanese equity prices fell more than 9 percent in 1998, and Canadian share prices decreased 4 percent. After a considerable run-up earlier in the year, share prices around the globe fell sharply in August and September, but they rebounded in subsequent months as the Federal Reserve and central banks in many other industrial countries eased monetary policy.

On November 17, the FOMC voted unanimously to reauthorize Federal Reserve participation in the North American Framework Agreement (NAFA), established in 1994, and in the associated bilateral reciprocal currency swap arrangements with the Bank of Canada and the Bank of Mexico. On December 7, the Secretary of the Treasury authorized renewal of the Treasury's participation in the NAFA and of the associated Exchange Stabilization Agreement with Mexico. Other bilateral swap arrangements with the Federal Reserve—those with the Bank for International Settlements, the Bank of Japan, and many European central banks—were allowed to lapse in light of their disuse over the past fifteen years and in the presence of other well-established arrangements for international monetary cooperation. The swap arrangement between the Treasury's Exchange Stabilization Fund and the German Bundesbank was also allowed to lapse.