FEDERAL RESERVE'S SECOND MONETARY POLICY REPORT FOR 2000

HEARING

BEFORE THE

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

ONE HUNDRED SIXTH CONGRESS

SECOND SESSION

ON

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

JULY 20, 2000

Printed for the use of the Committee on Banking, Housing, and Urban Affairs

U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON : 2000

For sale by the U.S. Government Printing Office
Superintendent of Documents, Congressional Sales Office, Washington, DC 20402

COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS

PHIL GRAMM, Texas, *Chairman*

RICHARD C. SHELBY, Alabama
CONNIE MACK, Florida
ROBERT F. BENNETT, Utah
ROD GRAMS, Minnesota
WAYNE ALLARD, Colorado
MICHAEL B. ENZI, Wyoming
CHUCK HAGEL, Nebraska
RICK SANTORUM, Pennsylvania
JIM BUNNING, Kentucky
MIKE CRAPO, Idaho

PAUL S. SARBANES, Maryland
CHRISTOPHER J. DODD, Connecticut
JOHN F. KERRY, Massachusetts
RICHARD H. BRYAN, Nevada
TIM JOHNSON, South Dakota
JACK REED, Rhode Island
CHARLES E. SCHUMER, New York
EVAN BAYH, Indiana
JOHN EDWARDS, North Carolina

WAYNE A. ABERNATHY, *Staff Director*
STEVEN B. HARRIS, *Democratic Staff Director and Chief Counsel*
JOHN E. SILVIA, *Chief Economist*
MARTIN J. GRUENBERG, *Democratic Senior Counsel*
GEORGE E. WHITTLE, *Editor*

C O N T E N T S

THURSDAY, JULY 20, 2000

	Page
Opening statement of Chairman Gramm	1
Opening statements, comments, or prepared statements of:	
Senator Sarbanes	2
Senator Shelby	3
Senator Mack	4
Senator Grams	4
Senator Bayh	5
Senator Bennett	6
Senator Reed	25
Senator Schumer	27
Senator Bunning	30

WITNESS

Alan Greenspan, Chairman, Board of Governors of the Federal Reserve System, Washington, DC	7
Prepared statement	30

ADDITIONAL MATERIAL SUPPLIED FOR THE RECORD

Monetary Policy Report to the Congress, July 20, 2000	34

FEDERAL RESERVE'S SECOND MONETARY POLICY REPORT FOR 2000

THURSDAY, JULY 20, 2000

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

The Committee met at 10 a.m., in room 216 of the Hart Senate Office Building, Senator Phil Gramm (Chairman of the Committee) presiding.

OPENING STATEMENT OF CHAIRMAN PHIL GRAMM

Chairman GRAMM. Let me call the Committee to order.

Today we begin our semiannual report from the Chairman of the Federal Reserve System, Alan Greenspan, on the state of the economy and monetary policy. As many of you know, we have worked out a bipartisan consensus as to how to proceed in the future as we move away from the Humphrey–Hawkins report toward a report that more meets the needs of the era that we are blessed to live in.

We were unable to pass permanent legislation to annualize this meeting, not because of a dispute about the nature of Chairman Greenspan's testimony, but basically because of a dispute about how many reports to Congress we want to continue. There tends to be, in some hearts, a love of reports and bureaucrats and dust. But, in any case, this is a free country, and if people feel they need more reports, I'm sure we have the people in those two great big buildings at the Federal Reserve who are ready and willing to give us all the reports we need.

We are very glad to have you here again, Chairman Greenspan. You have become a national phenomenon. We are told Wall Street is waiting for a big day today, and so are we. We are blessed with the strongest, most vibrant economy that I can remember in my study of American economic history.

There are many who would be quick to take credit, but I think if you had to narrow it down to who deserves more credit than anybody else on the planet, that person is sitting before us today, and his name is Alan Greenspan.

We are very proud to have you here, Chairman Greenspan, and we are eager to hear from you. We're eager to begin our new set of hearings based on the state of the economy and monetary policy, and we welcome you this morning.

With that, let me recognize our Ranking Democratic Member, Senator Sarbanes.

OPENING STATEMENT OF SENATOR PAUL S. SARBANES

Senator SARBANES. Thank you very much, Mr. Chairman. First of all, I'm pleased to join you in welcoming Chairman Greenspan before the Committee this morning to give the Federal Reserve's Monetary Policy Report to the Congress.

I join with you in the observation concerning the statutory requirement that the Fed submit its semiannual report on monetary policy to Congress, which expired, actually, earlier this year. As we know, the House has passed the bill reauthorizing those reports, as well as a number of other reports that have been sunsetted. I believe there's a general consensus that some reports were dropped that should have been kept. Our staffs are working together now, and I hope we can work out an understanding with respect to those reports.

As you note, there's no controversy over the Monetary Policy Report to the Congress. In fact, to its credit, the Federal Reserve has supported making the monetary policy reports, and we are pleased that they are here this morning.

I want to take just a moment or two to address this monetary policy question. When the Fed's Open Market Committee last met on June 28 and announced its decision not to raise rates, it issued the following statement, and I must say, as an aside, I think the increased transparency which the Fed has brought to its decision-making is all to the good. I welcome the fact that they announce the decisions and give some rationale for them, although I guess some of us feel they could give some additional rationale and sometimes that it shouldn't be quite as opaque as it is. But, nevertheless, at their last meeting they said:

> Recent data suggests that the expansion of aggregate demand may be moderating toward a pace closer to the rate of growth of the economy's potential to produce. Although core measures of prices are rising slightly faster than a year ago, continuing rapid advances in productivity have been containing costs and holding down underlying pressures.

I hope that kind of analysis will lead to the conclusion that we do not need to go back on the path of raising rates. I don't believe there has been a significant change in the economy since the last meeting of the Federal Open Market Committee that would justify a rate hike.

I think it's important to keep in mind that the Federal Reserve has already raised rates six times over the past year, including a half-point hike just 8 weeks ago. The Federal funds rate is now 2 percentage points higher than it was a year ago. The low core rate of underlying inflation means that rising nominal rates have translated directly into higher real interest rates. In fact, real interest rates now are at their highest level since 1989, just before the last recession.

Not surprisingly, interest-sensitive sectors of the economy now show declines. Just this morning, the Commerce Department released the June numbers on housing starts and housing permits. Housing starts in June are at their lowest point since May 1998. Over the last 4 months of this year, housing starts have fallen 15 percent. Housing permits in June are at their lowest point since December 1997.

Even with last month's rise in durable goods orders, they now stand at the same level they were at in the beginning of the year. Sales of domestic cars and light trucks have fallen for 4 consecutive months, with a total decline of 13 percent over that period.

Obviously, this slackening of demand has resulted in some weakening of employment opportunities. In fact, the private sector over the last 3 months has added just over 330,000 jobs, the poorest 3-months' performance in 4½ years. And the unemployment rate for blacks and Hispanics has started to rise again, after having, fortunately, come down in an impressive manner.

I should note, Mr. Chairman, that Chairman Greenspan, in my judgment, to his credit, has been sensitive to these concerns. In fact, he concluded his statement before the Banking Committee at this time last year with the following comment:

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

It is important to note, I believe, that the rate hikes have taken place in an economy that is showing virtually no evidence of inflation. The core rate stands at about the same pace as it's been over the 4 preceding years. The same thing is true for producer prices. And, of course, this is all coupled with a sustained strong level of improvement in productivity, up 3.7 percent over the last year. This has kept unit labor costs down—in fact, those costs have decelerated. They are actually pulling inflation down.

I believe there is strong evidence that the FOMC's increase in interest rates over this past year has slowed the economy, and I'm very much hopeful that at its next FOMC meeting, the Fed will not raise rates again. Hopefully, the current slowing in the economy is a move toward the soft landing that many economic observers have been talking about. We certainly don't want a hard landing, and I hope the Fed will not contribute to that possibility.

I join in welcoming Chairman Greenspan once again before the Committee. I look forward to hearing his testimony and the opportunity to put questions to him.

Thank you very much.

Chairman GRAMM. Thank you, Senator Sarbanes.

Senator Shelby.

OPENING COMMENTS OF SENATOR RICHARD C. SHELBY

Senator SHELBY. Chairman Greenspan, I want to join in welcoming you. We all have deep respect for you and appreciate your coming before this Committee again to talk with us about monetary policy, at least the current status of it.

We all like low interest rates, but I think what we want is sound monetary policy first. The Federal Reserve was created as a central bank to be independent, and it will be, should be, up to you and your colleagues to determine issues such as that. You see things about the economy that perhaps we don't see every day. That is something that is incumbent upon you.

I would love to see interest rates drop a couple of points, but at the same time, monetary policy, sound monetary policy, I believe, is more important than anything.

Thank you, Mr. Chairman.

Chairman GRAMM. Thank you, Senator Shelby.

Senator Mack.

OPENING COMMENTS OF SENATOR CONNIE MACK

Senator MACK. Thank you, Mr. Chairman. Welcome, Chairman Greenspan. This is the last time I will have the opportunity as a Member of the Senate to listen to your testimony. I want to personally commend and thank you for your stewardship at the Fed.

I think you have proven, I hope for the last time, that the most important contribution that the Fed can make to this country is a commitment to price stability. That is the underlying foundation for long-term growth, job creation, and improved quality of life for all Americans. Again, I commend you for your hard work and for your effort.

To continue on with what Senator Shelby said, everyone would like to see lower interest rates, but the commitment, the continued commitment to price stability is what I want to see the Fed pursuing. That is something that I believe you have done throughout your career at the Fed and, again, I commend you for that.

I would like to raise an additional issue. Yesterday, I believe the Domestic and International Monetary Policy Subcommittee of the House Banking Committee defeated legislation with respect to dollarization on a vote of 11 to 10. This is just the beginning of this debate. Obviously, I am disappointed in that, but I take this opportunity to raise the issue with respect to the relationship between the United States and Latin America.

In the past, almost all bonds issued by Latin American countries were denominated in dollars. Today, the percentage issued in euros is approaching 25 percent. The failure of the Congress to provide the President with fast-track authority for trading negotiations has sent a message, I believe, to the Latin American leaders that their economic future may be tied to Europe, not to the United States.

I believe yesterday's decision by the Banking Committee on the House side is regrettable, and I take this opportunity to try to remind my colleagues of the significance of Latin America to our future. Today, there is less trade that takes place with 500 million Latin Americans than with 30 million Canadians, and if we don't wake up and become more engaged in our relationships with Latin America, I think we're making a tragic mistake.

Mr. Chairman, I appreciate the opportunity to raise that issue.

Chairman GRAMM. Senator Grams.

OPENING COMMENTS OF SENATOR ROD GRAMS

Senator GRAMS. Thank you very much, Mr. Chairman. Welcome, Chairman Greenspan. It is nice to see you again. As always, we welcome the opportunity to hear your analysis of our current economic conditions and also your expectations for any of the near-term changes.

In previous visits with our Committee, we had some discussion of a "soft landing" for our economy. The timing of that landing

seemed to be an indeterminate time in the future, but the financial press is now suggesting that our economy may be on a glidepath and may even be ready to request landing clearance. I believe the possibility of a soft landing is now more of an immediate interest, and I look forward to your comments this morning and your current evaluation.

On one other matter, I'm sure that you recall during the passage of the Gramm–Leach–Bliley bill last fall that several of the Members of this Committee, myself included, expressed our belief that a bill of the magnitude of GLB would require extensive followup oversight hearings to assure that the congressional intent of the bill was being followed in its implementation.

As Chairman of the Securities Subcommittee, I have called two such oversight hearings. The first hearing concerned the so-called NARAB provisions impacting the insurance industry. The second hearing, held jointly with the Financial Institutions Subcommittee, on June 13, concerned the interim rules and proposed regulations for merchant banking activities. Governor Meyer testified on behalf of the Fed. After the hearing, eight Senators, Members of the Financial Institutions and Securities Subcommittees, joined on a followup letter to Governor Meyer. We have expressed our concerns that the regulations, in some instances, go beyond the intent of GLB. That letter was sent to Governor Meyer yesterday.

Chairman Greenspan, I am aware that the Fed is still in the comment period with respect to the merchant banking rules. I mention this letter this morning only to alert you to its existence and just to ask that the letter, which is a bipartisan letter, come to your attention as well. It would be premature, of course, to ask this morning for any reaction from you at this time.

But please know that the merchant banking rules have caused great consternation in some sectors of the financial industry and among several Members of this Committee. I mention that because we hope the Fed will consider making the appropriate changes in issuing the final regulations. Again, thank you very much for your attention to this matter.

Thank you, Mr. Chairman.

Chairman GRAMM. Thank you, Senator Grams.

Senator Bayh.

OPENING COMMENTS OF SENATOR EVAN BAYH

Senator BAYH. Thank you, Mr. Chairman. I find myself in the unusual position here today of being all alone on the right, which, Chairman Gramm, is not very often the case when you and I are together.

[Laughter.]

But I am pleased to be here today.

Chairman GRAMM. We should be together more.

[Laughter.]

Senator BAYH. That's right. We are together from time to time, and that's a good thing.

Chairman Greenspan, we are here today to hear from you, not to hear from each other. I would just like to comment; I could not help but to notice in the popular press yesterday, I see there's one candidate for the Presidency, not representing either of the two

major political parties, who has suggested that, if elected, he would like to "reeducate" you.

[Laughter.]

I hope today we can educate the American people about the difficult job you have.

We have seen 20 million new jobs created over the last several years, 2 million new businesses created. The unemployment rate is at about a 30-year low, and the incidence of homeownership is at an all-time high. It is my understanding of your purposes that you would like to contain inflationary pressure so that this expansion might continue and we might add to those numbers. Since there will be a great many Americans watching, I hope we can focus on the relationship between containing inflationary pressures and expanding this wonderful period of prosperity we have had.

I believe that to be your intention, and I hope that we can educate the American people, and perhaps a few of the candidates, to that fact. Thank you for joining us today. I look forward to hearing from you.

Chairman GRAMM. Senator Bennett.

OPENING COMMENTS OF SENATOR ROBERT F. BENNETT

Senator BENNETT. Maybe we need to educate that candidate in the way the law is structured. As President, he has no ability to fire the Chairman of the Federal Reserve System. But then, that candidate has trouble understanding a great number of things.

[Laughter.]

Chairman Greenspan, with the rest of the Committee, I welcome you and congratulate you on your performance. Your stewardship over the economy has been remarkable.

I signal in advance one issue that I hope you will deal with, if not in your opening statement, at least in the question and answer period. That is, the difference between nominal interest rates and real interest rates, real interest rates being calculated on the gap between inflation and interest rates, so that if interest rates are at, illustratively, 6 percent and inflation is at 6 percent, real interest rates are at zero. We have had that situation during your time at the Fed, where real interest rates were very close to zero. Now, while the nominal interest rate is not particularly high, with inflation well under control, the real interest rate is approaching some historic highs, and the impact of that on the real estate industry is beginning to concern me a little. I would appreciate it if you would address that.

I think, as the stock market has demonstrated, they are able to shrug off almost anything, but some of the folks in both the private housing real estate market and the commercial real estate market are beginning to complain a little, at least to me, about the impact of real interest rates, and the sense that there is a slowdown in the real estate sector. Coming from one of the fastest-growing States in the Union, where people need to be housed as they move in or as our birthrate continues, that scenario is of some concern to me. I would like to hear about that in your opening statement, and if not, I hope we can get into it in the question period.

Thank you, Mr. Chairman.

Chairman GRAMM. Thank you.

When the ancient Greeks journeyed to Delphi, they passed through two gates. One said, "Know thyself." The other said, "Moderation in all things." With those two warnings, let the oracle speak.

[Laughter.]

Chairman GREENSPAN. The oracle is temporarily speechless.

[Laughter.]

Chairman GRAMM. But never for long.

[Laughter.]

Chairman GREENSPAN. The big problem with oracularness is that words come from deep depths of thought which are indescribable, unprovable, and rarely correct.

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

Chairman GREENSPAN. Mr. Chairman and other Members of the Committee, I appreciate, as always, this opportunity to present the Federal Reserve's report on monetary policy.

The Federal Reserve has been confronting a complex set of challenges in judging the stance of policy that will best contribute to sustaining the strong and long-running expansion of our economy. The challenges will be no less in the coming months as we judge whether ongoing adjustments in supply and demand will be sufficient to prevent distortions that would undermine the economy's extraordinary performance.

For a while now, the growth of aggregate demand has exceeded the expansion of production potential. Technological innovations have boosted the growth rate of potential, but as I noted in my testimony last February, the effects of this process also have spurred aggregate demand. It has been clear to us that, with labor markets already quite tight, a continuing disparity between the growth of demand and potential supply would produce disruptive imbalances.

A key element in this disparity has been the very rapid growth of consumption resulting from the effects on spending of the remarkable rise in household wealth. However, the growth in household spending has slowed noticeably this spring from the unusually rapid pace observed late in 1999 and early this year. Some argue that this slowing is a pause following the surge in demand through the warmer-than-normal winter months and hence a reacceleration can be expected later this year. Certainly, we have seen slowdowns in spending during this near-decade-long expansion which have proven temporary, with aggregate demand growth subsequently rebounding to an unsustainable pace.

But other analysts point to a number of factors that may be exerting more persistent restraint on spending. One factor they cite is the flattening in equity prices, on net, this year. They attribute much of the slowing of consumer spending to this diminution of the wealth effect through the spring and early summer. This view looks to equity markets as a key influence on the trend in consumer spending over the rest of this year and next.

Another factor said by some to account for the spending slowdown is the quickly rising debt burden of households. Interest and amortization as a percent of disposable income have risen materi-

ally during the past 6 years, as consumer and especially mortgage debt has climbed and, more recently, as interest rates have moved higher.

In addition, the past year's rise in the price of oil has amounted to an annual $75 billion levy by foreign producers on domestic consumers of imported oil, the equivalent of a tax of roughly 1 percent of disposable income. This burden is another conceivable source of the slowed growth in real consumption outlays in recent months, though one that may prove to be largely transitory.

Mentioned less prominently have been the effects of the faster increase in the stock of consumer durable assets—both household durable goods and houses—in the last several years, a rate of increase that history tells us is usually followed by a pause. Stocks of household durable goods, including motor vehicles, are estimated to have increased at nearly a 6 percent annual rate over the past 3 years, a marked acceleration from the growth rate of the previous 10 years. The number of cars and light trucks owned or leased by households, for example, apparently has continued to rise in recent years despite having reached nearly 1¾ vehicles per household by the mid-1990's. Notwithstanding their recent slowing, the sales of new homes continue at extraordinarily high levels relative to new household formations. While we will not know for sure until the 2000 census is tabulated, the surge in new home sales is strong evidence that the growth of owner-occupied homes has accelerated during the past 5 years.

Those who focus on the high and rising stocks of durable assets point out that even without the rise in interest rates, an eventual leveling out or some tapering off of purchases of durable goods and construction of single-family housing would be expected. Reflecting both higher interest rates and higher stocks of housing, starts of new housing units have fallen off of late. If that slowing were to persist, some reduction in the rapid pace of accumulation of household appliances across our more than 100 million households would not come as a surprise, nor would a slowdown in vehicle demand so often historically associated with declines in housing demand.

Inventories of durable assets in households are just as formidable a factor in new production as inventories at manufacturing and trade establishments. The notion that consumer spending and housing construction may be slowing because the stock of consumer durables and houses may be running into upside resistance is a credible addition to the possible explanations of current consumer trends. This effect on spending would be reinforced by the waning effects of gains in wealth.

Because the softness in outlay growth is so recent, all of the aforementioned hypotheses, of course, must be provisional. It is certainly premature to make a definitive assessment of either the recent trends in household spending or what they mean. But it is clear that, for the time being at least, the increase in spending on consumer goods and houses has come down several notches, albeit from very high levels.

In one sense, the more important question for the longer-term economic outlook is the extent of any productivity slowdown that might accompany a more subdued pace of production and consumer spending, should it persist. The behavior of productivity under such

circumstances will be a revealing test of just how much of the rapid growth of productivity in recent years has represented structural change as distinct from cyclical aberrations and, hence, how truly different the developments of the past 5 years have been. At issue is how much of the current downshift in our overall economic growth rate can be accounted for by reduced growth in output per hour and how much by slowed increases in hours.

So far there is little evidence to undermine the notion that most of the productivity increase of recent years has been structural and that structural productivity may still be accelerating. New orders for capital equipment continue quite strong—so strong that the rise in unfilled orders has actually steepened in recent months. Capital-deepening investment in a very broad range of equipment embodying the newer productivity-enhancing technologies remains brisk.

To be sure, if current personal consumption outlays slow significantly further than the pattern now in train suggests, profit and sales expectations might be scaled back, possibly inducing some hesitancy in moving forward even with capital projects that appear quite profitable over the longer run. In addition, the direct negative effects of the sharp recent run up in energy prices on profits as well as on sales expectations may temporarily damp capital spending. Despite the marked decline over the past decades in the energy requirements per dollar of GDP, energy inputs are still a large element in the cost structure of many American businesses.

For the moment, the drop-off in overall economic growth to date appears about matched by reduced growth in hours, suggesting continued strength in growth in output per hour. The increase of production worker hours from March through June, for example, was at an annual rate of ½ percent compared with 3¼ percent the previous 3 months. Of course, we do not have comprehensive measures of output on a monthly basis, but available data suggest a roughly comparable deceleration.

A lower overall rate of economic growth that did not carry with it a significant deterioration in productivity growth obviously would be a desirable outcome. It could conceivably slow or even bring to a halt the deterioration in the balance of overall demand and potential supply in our economy.

As I testified before this Committee in February, domestic demand growth, influenced importantly by the wealth effect on consumer spending, has been running 1½ to 2 percentage points at an annual rate in excess of even the higher, productivity-driven growth in potential supply since late 1997. That gap has been filled both by a marked rise in imports as a percent of GDP and by a marked increase in domestic production resulting both from significant immigration and from the employment of previously unutilized labor resources.

I also pointed out in February that there are limits to how far net imports—or the broader measure, our current account deficit—can rise, or our pool of unemployed labor resources can fall. As a consequence, the excess of the growth of domestic demand over potential supply must be closed before the resulting strains and imbalances undermine the economic expansion that now has reached 112 months, a record for peace or war.

The current account deficit is a proxy for the increase in net claims against U.S. residents held by foreigners, mainly as debt, but increasingly as equities. So long as foreigners continue to seek to hold ever-increasing quantities of dollar investments in their portfolios, as they obviously have been, the exchange rate for the dollar will remain firm. Indeed, the same sharp rise in potential rates of return on new American investments that has been driving capital accumulation and accelerating productivity in the United States has also been inducing foreigners to expand their portfolios of American securities and direct investment. The latest data published by the Department of Commerce indicate that the annual pace of direct plus portfolio investment by foreigners in the U.S. economy during the first quarter was more than 2½ times its rate in 1995.

There has to be a limit as to how much of the world's savings our residents can borrow at close to prevailing interest and exchange rates. And a narrowing of disparities among global growth rates could induce a narrowing of rates of return here relative to those abroad that could adversely affect the propensity of foreigners to invest in the United States. But, obviously, so long as our rates of return appear to be unusually high, if not rising, balance of payments trends are less likely to pose a threat to our prosperity. In addition, our burgeoning budget surpluses have clearly contributed to a fending off, if only temporarily, of some of the pressures on our balance of payments. The stresses on the global savings pool resulting from the excess of domestic private investment demands over domestic private saving have been mitigated by the large Federal budget surpluses that have developed of late.

In addition, by substantially augmenting national saving, these budget surpluses have kept real interest rates at levels lower than would have been the case otherwise. This development has helped foster the investment boom that in recent years has contributed greatly to the strengthening of U.S. productivity and economic growth. The Congress and the Administration have wisely avoided steps that would materially reduce these budget surpluses. Continued fiscal discipline will contribute to maintaining robust expansion of the American economy in the future.

Just as there is a limit to our reliance on foreign saving, so is there a limit to the continuing drain on our unused labor resources. Despite the ever-tightening labor market, as yet, gains in compensation per hour are not significantly outstripping gains in productivity. But as I have argued previously, should labor markets continue to tighten, short of a repeal of the law of supply and demand, labor costs eventually would have to accelerate to levels threatening price stability and our continuing economic expansion.

The more modest pace of increase in domestic final spending in recent months suggests that aggregate demand may be moving closer into line with the rate of advance in the economy's potential, given our continued impressive productivity growth. Should these trends toward supply and demand balance persist, the ongoing need for ever-rising imports and for a further draining of our limited labor resources should ease or perhaps even end. Should this favorable outcome prevail, the immediate threat to our prosperity from growing imbalances in our economy would abate.

But as I indicated earlier, it is too soon to conclude that these concerns are behind us. We cannot yet be sure that the slower expansion of domestic final demand, at a pace more in line with potential supply, will persist. Even if the growth rates of demand and potential supply move into better balance, there is still uncertainty about whether the current level of labor resource utilization can be maintained without generating increased cost and price pressures.

As I have already noted, to date costs have been held in check by productivity gains. But at the same time, inflation has picked up—even the core measures that do not include energy prices directly. Higher rates of core inflation may mostly reflect the indirect effects of energy prices, but the Federal Reserve will need to be alert to the risks that high levels of resource utilization may put upward pressure on inflation.

Furthermore, energy prices may pose a challenge to containing inflation. Energy price changes represent a one-time shift in a set of important prices, but by themselves generally cannot drive an ongoing inflation process. The key to whether such a process could get underway is inflation expectations. To date, survey evidence, as well as readings from the Treasury's inflation-indexed securities, suggests that households and investors do not view the current energy price surge as affecting longer-term inflation. But any deterioration in such expectations would pose a risk to the economic outlook.

As the financing requirements for our ever-rising capital investment needs mounted in recent years—beyond forthcoming domestic saving—real long-term interest rates rose to address this gap. We at the Federal Reserve, responding to the same economic forces, have moved the overnight Federal funds rate up 1¾ percentage points over the past year. To have held to the Federal funds rate of June 1999 would have required a massive increase in liquidity that would presumably have underwritten an acceleration of prices and, hence, an eventual curbing of economic growth.

By our meeting this June, the appraisal of all the foregoing issues led the Federal Open Market Committee to conclude that, while some signs of slower growth were evident and justified standing pat at least for the time being, they were not sufficiently compelling to alter our view that the risks remained more on the side of higher inflation.

The last decade has been a remarkable period of expansion for our economy. Federal Reserve policy through this period has been required to react to a constantly evolving set of economic forces, often at variance with historical relationships, changing Federal funds rates when events appeared to threaten our prosperity, and refraining from action when that appeared warranted. Early in the expansion, for example, we kept rates unusually low for an extended period, when financial sector fragility held back the economy. Most recently we have needed to raise rates to relatively high levels in real terms in response to the side effects of accelerating growth and related demand-supply imbalances. Variations in the stance of policy—or keeping it the same—in response to evolving forces are made in the framework of an unchanging objective—to foster as best we can those financial conditions most likely to promote sustained economic expansion at the highest rate possible.

Maximum sustainable growth, as history so amply demonstrates, requires price stability. Irrespective of the complexities of economic change, our primary goal is to find those policies that best contribute to a noninflationary environment and hence to growth. The Federal Reserve, I trust, will always remain vigilant in pursuit of that goal.

Mr. Chairman, I request that my full statement be included in the record.

Thank you.

Chairman GRAMM. Chairman Greenspan, let me thank you. It has been my privilege to hear every report that you have given to the Senate since you have been Chairman. And I would have to say I believe this is the finest report that you have ever delivered.

I also think it's very instructive that it was a sobering report, and yet the reactions in the market are positive—the Dow is up 141 points—which says to me that what American investors want is not cheerleading, not instant gratification, but a steady hand on the wheel. As I always say to those who are critical of your policies and who wonder why I'm not more critical, I don't criticize success. When something's working, I believe you should stay with it.

I have a couple of questions I want to ask. We have started a vote, so it would be my intention to ask my questions, then to recognize Senator Sarbanes. When we get to the point that we have to go vote, it would be my objective to temporarily adjourn the hearing. That will give you a moment to relax and have a glass of water.

Senator SARBANES. Or something stronger.

[Laughter.]

Senator SHELBY. Coffee.

[Laughter.]

Chairman GRAMM. When we return from the vote, we will continue with the hearing.

First of all, Chairman Greenspan, as you are well aware, we have spent years battling the effort by American Government to use trade as a tool of foreign policy. Hardly anything is more denounced than export controls in terms of limiting the ability of our farmers to sell agricultural products or our manufacturers to sell manufactured products based upon our approval or disapproval of potential customers. Except for those pariah states where we have virtually a state of war in terms of our conflicts in foreign policy, we have moved away from using economic trade as a tool of foreign policy.

We now have a new proposal, as I'm sure you are aware, called the China Nonproliferation Act, which was introduced by Senator Thompson, that seeks for the first time to use access to our capital market and access to our banking system as an instrument of American foreign policy.

The objectives of the bill are goals that no one would disagree with, that we would like nations not to proliferate in terms of weapons sales.

But the tools that are being used represent, in my opinion, a very real threat to our prosperity and finally, in posing the question, a paradox, in the sense that we bargained harder in our relations with China, in the normal trade relation agreements and the Chi-

nese accession to the WTO—we bargained harder to open the access that our banking system and our investment system has to the Chinese market than in almost any other area.

Having looked at this proposal, I wanted to give you an opportunity to respond to it.

Chairman GREENSPAN. Mr. Chairman, I certainly agree with the comments you have made and I clearly understand the motives underlying Senator Thompson's bringing this amendment forward.

As you know, my own view is that our gradual increase in engagement commercially with China is undermining many of the types of structures which I think lead to the problems we have. I believe, contrary to engaging them in less commercial activities, it is very much to our advantage to significantly increase involving them in free trade, open-market economics, and basically the type of dynamics which raise standards of living, and ultimately create significant changes in societies.

In addition to questioning the value of this amendment, there's a very serious question as to whether it will produce, indeed, what is suggested it will produce. First, let me say that the remarkable evolution of the American financial system, especially in recent years, has undoubtedly been a major factor in the extraordinary economy we have experienced. It is the openness and the lack of political pressures within the system which has made it such an effective component of our economy and, indeed, has drawn foreigners generally to the American markets for financing as being the most efficient place in many cases where they can raise funds.

But it is a mistake to believe that the rest of the world is without similar resources. Indeed, there are huge dollar markets all over the world to lend dollars. And because of the arbitrage that exists on a very sophisticated level throughout the world, the interest rates and the availability of funds are not materially different abroad than here. We do have certain advantages, certain techniques which probably give us a competitive advantage, but they are relatively minor. Most importantly, to the extent that we block foreigners from investing, from raising funds in the United States, we probably undercut the viability of our own system.

But far more important is, I am not even sure how such a law would be effectively implemented, because there is a huge amount of transfer of funds around the world. For example, if we were to block China, or anybody else for that matter, from borrowing in the United States, they could readily borrow in London and be financed by American investors. If London were not financed by American investors, London could be financed, for example, by Paris investors, and we finance the Paris investors.

In other words, there are all sorts of mechanisms that are involved here, and the presumption that somehow we can block the capability of China or anybody else from borrowing at essentially identical terms abroad as here, in my judgment, is a mistake.

My most fundamental concern about this particular amendment is it doesn't have any capacity, of which I am aware, to work. But being put into effect, the only thing that strikes me as a reasonable expectation is it can harm us more than it would harm others. Therefore, I must say, Mr. Chairman, I join you in your concerns about that amendment and I trust it would not move forward, even

though I respect the motives of Senator Thompson and understand where he's coming from, but I trust that he will try to achieve his ends in a somewhat different manner and a more effective way.

Chairman GRAMM. I thank you, Chairman Greenspan. Let me ask one more question. Maybe I'm like the old cold war warrior that has not discovered that the cold war is over, but it makes me nervous that we are in the midst of the greatest spending spree in discretionary programs since Jimmy Carter was President. There is the real possibility that by the end of this year we will have exceeded the Carter Presidency, and you would have to go back to the Johnson Presidency to find a period where real spending in discretionary programs would exceed what is happening this year.

We are spending at a rate where, if it continues, discretionary spending growth will eat up probably $1 trillion of the surplus in a decade. We have Medicare proposals that are misleading in the sense that we hear dollar figures quoted, but the programs don't go into effect for 3 years, so that when you look at them fully implemented, you are looking at proposals that, realistically, would cost $350 billion over a 10-year period.

Now, quite aside from all of the benefits of spending this money or the benefits from adding to the services that people get through very popular programs, and justifiably so, such as Medicare, sitting where you're sitting, looking at the big picture, does this spending concern you?

Chairman GREENSPAN. Very much, Mr. Chairman, and the reason is not the nature of spending per se, but the rapid dissipation of the projected surpluses. Let us understand that what we are observing at this particular point is a very extraordinary and, as you point out, quite unprecedented economic prosperity that we're now experiencing.

It stems, to a large extent, from a remarkable change in technology that started at the end of World War II and finally became operationally effective on output-per-hour in the mid-1990's. It essentially drove the economy upward at a remarkable pace, but like all such rapidly changing vehicles, there is a degree of instability that occurs when you move at that pace, and, as a consequence, a free-market economy such as ours develops a series of buffers which prevent the economy from going off the rails.

I have mentioned two directly as a means by which we supply the excess of demand over production, or potential supply, but I think we are missing an understanding of the fact that the increasing surplus—not its level—but the fact that it has been continuously increasing has been a very major stabilizing force in keeping the savings-investment imbalances and their relationship to our current account deficit within limits that allow the economy to move forward at this very dramatic pace, with all the wonderful consequences that have derived from that.

I'm not saying that if we now turn the deficit down, even if it continues as a positive number, that that is going to necessarily derail the recovery, but it certainly removes some of the buttress and buffer in this rapid economic expansion.

What my concern is, is that in the endeavor to employ all of these deficits for various different projects, whether they are spending initiatives or tax cut initiatives, we are removing part of that

valuable buffer. From an economic point of view, I submit to you that it is increasing the risks in this economy. I am hopeful that, despite the fact that we have all of these various recommendations out there in various different stages of initiatives, at the end of the day, we will allow most of this still-rising surplus to act in the manner which it is acting. Only when we achieve balance, finally, and we are out of danger, if I may put it that way, can one more readily look at a rational approach to this particular problem.

But I do acknowledge the fact that some of the numbers you have cited and a number of the potential programs, both expenditure and tax cuts, in the pipeline do give me some concern.

Chairman GRAMM. You haven't changed your relative priorities. Your first objective would be to keep the money in the surplus; if you are not going to do that, you should cut taxes; but the last, least desirable thing would be to spend it.

Chairman GREENSPAN. I still hold to that view, Mr. Chairman.

Chairman GRAMM. Senator Bennett has voted. Let me recognize Senator Sarbanes. I think he wanted to make a comment.

Would you prefer to take a break, or would you rather go on?

Chairman GREENSPAN. Let's keep going, Mr. Chairman.

Chairman GRAMM. OK.

Senator SARBANES. Mr. Chairman, I'm going to leave to vote. The only comment I wanted to make was to commend Chairman Greenspan on his very well-balanced statement before the Committee.

I am reminded of the story of President Truman who said he wanted a one-armed economist. They asked him why he wanted a one-armed economist and he said, because I have these economists and when I ask them for advice, they say, "On the one hand, and then on the other hand."

[Laughter.]

Your statement certainly did that here today, and I just wanted to say that I was reminded of that Truman story.

But I will be back with my questions.

Chairman GRAMM. Chairman Greenspan, I will be glad to take a break if you would like.

Senator BENNETT. I would prefer the opportunity of questioning you unencumbered.

[Laughter.]

Chairman GREENSPAN. I knew I had gotten myself into trouble.

[Laughter.]

Senator BENNETT [presiding]. I timed it. It took me 12 minutes; 6 minutes to go over and 6 minutes to come back. If it takes them the same amount of time, I will have more time than I ever get at one of these hearings. I'm not going to pass up that opportunity.

Let's go back and talk about your discussion with Chairman Gramm with respect to what to do with the surpluses. At the risk of sounding heretical, I am one who believes that a little bit of debt, properly managed, is not necessarily a bad thing. I look at the national debt not in total terms, but in relative terms. The national debt is now falling as a percentage of GDP, and falling as a percentage of the economy as the economy grows more rapidly than the debt does. The debt may be going up in nominal terms. I believe it is, is it not?

Chairman GREENSPAN. It's true the public debt, which includes the issues to the Social Security trust fund, is still going up, but the debt to the public has been going down for quite a number of quarters.

Senator BENNETT. Yes, the debt held outside of the Government.

Chairman GREENSPAN. We are included outside of the Government in those calculations. But it's true either way, whether the Federal Reserve is included or not.

Senator BENNETT. So it is outside of the debt owed to Federal trust funds that the nominal debt is coming down?

Chairman GREENSPAN. Yes.

Senator BENNETT. And as a percentage of the economy, of course, it is coming down dramatically because the economy is going up.

Let's talk philosophically about whether it would be desirable to bring that to absolute zero. I don't know of very many businesses who bring their debt load to absolute zero. They always have some bonds outstanding to pay for capital improvements, acquisitions, or so forth by debt, and use debt, properly managed, as a tool for growth.

Does that same principle apply to the Federal Government, or should we have as our "holy grail" the reduction of the debt to zero?

Chairman GREENSPAN. First of all, I would say that the analogy is somewhat different in the sense that a private corporation endeavors to achieve a certain optimum degree of leverage which minimizes risk in the context of maximizing rate of return. It is very rarely the case that the optimum debt level in a business is zero.

We, of course, in the Federal Government, are not created in that context. I think you are correct, certainly in the sense that there are certain advantages to having a risk-free asset out there for people to invest in. There is no question that U.S. Treasury instruments have become, in a sense, the primary vehicle for investment for, not only U.S. investors, but a very substantial part of the rest of the world. It has become a particular security against which all others tend, in one form or another, to be measured. If that were the only consideration, there is no question that having a substantial amount of U.S. Treasury debt outstanding to fill the investment requirements of the rest of the world would in and of itself be of value.

But there is the extraordinary value of having a large surplus currently, and presumably in the intermediate future, which necessitates the level of the debt going down, with the possible exception of the Government investing in private securities, which raises other complications. We are confronted with the trade-off between the advantages of very large surpluses, which are acting as a buffer to keep this recovery in check, but of necessity implies that the level of the Treasury debt goes down. I think we have to balance those particular views. In my judgment, it is not a close call. I believe the advantages of having that surplus in there, hopefully rising, are extraordinarily greater than the loss that occurs to our economy and to the rest of the world of having a reduced supply of risk-free U.S. treasuries.

My judgment is, and I suspect this is already happening, that having a decreasing supply of U.S. treasuries, whose scarcity value is lowering their interest rates relative to other securities, has made them less attractive. There is evidence that a number of portfolio managers are shifting out of U.S. treasuries and into higher-yielding, but still high-grade, private securities. That process will doubtless continue, and as is now scheduled, we reduce our outstanding debt quite considerably.

It is a very interesting trade-off that we have. I must say to you, it's one of those better trade-offs in life to have. It's a "good" versus another "good." It's a question of which is the more valuable.

I would conclude that, while there are unquestionably losses and problems that emerge as a consequence of reducing the supply of U.S. treasuries to the public, the benefits of the surplus which creates that problem far exceed the costs.

Senator BENNETT. I tend to agree with you, at least for now.

Does there come a point at which you say, OK, we have gone far enough, and now we level out and the benefits of having some public debt are such that we can do other things with the surplus, or should we let it continue to run until we get to absolute zero?

Chairman GREENSPAN. No, I don't believe the issue really rests on the goal of eliminating the debt. I think the goal should be, from an economic point of view, to have high or rising surpluses, so long as they contribute to long-term economic growth.

I would presume at some point this extraordinarily accelerating path of technology and productivity growth is going to flatten out or slow down. That's not to say it's in any way going back to where we were, but the rate of change almost surely will slow down.

It's conceivable to me, at that particular point, that we have returned to the type of balances, for example, on the current account or savings-investment balance, that the need to have the surpluses is not still there. It is quite conceivable to me that the balance of this trade-off at some point down the road can shift in the other direction; that it is conceivable that the need to have surpluses—which, remember, essentially is the employment of resources for purposes other than what the American public may want—is no longer there.

They may want a very large tax cut, or they may want some major expenditure programs. It is conceivable to me at that point that all of the various balances may suggest that eliminating the surplus may not be a bad idea. It would stop the decline in the issuance of U.S. Treasury securities, and I could conceive of the fact that that might be the optimum position. I would certainly never conclude that in and of itself, without any qualifications, zero debt should be our irrevocable goal. I think it's very useful if we reach that. It has a lot of advantages. But I would scarcely argue that it is the primary economic goal of this Government.

Senator BENNETT. As is everything that you have outlined in your prepared statement, it is a matter of balancing and picking and choosing and trying to find your way through the maze. If there were shining goals that were clear and absolute that we should always reach for, your job would be a whole lot easier, and so would ours.

Chairman GREENSPAN. Indeed.

Senator BENNETT. Thank you for the seminar on that particular issue. It's one that I have been interested in, and I think we need, as politicians, to pay more attention to it, instead of simply grabbing for the headlines that say, "Let's reduce the debt to zero by a date certain," or "Let's return the money to the taxpayer of a certain amount by a date certain." Those simple headline-grabbing statements by politicians obscure the subtleties that you have explored here, and I thank you for that.

Let's return to the issue that I talked about in my opening statement and talk about the real estate market and what you see there. You referred to it in your prepared statement to a certain degree, but let's talk about it a little more.

I gather from your statement that you're not as concerned about it as some of the real estate people in my State are. Is that because you're dealing with national statistics and I'm dealing with a local situation? Are they being unduly parochial, or are there other aspects here that you deal with when you talk about the impact of interest rates on both commercial and residential real estate?

Chairman GREENSPAN. No, I think there's clear evidence of concern on their part. I think it's one of the problems that we have with the industry, in the sense that housing is a very crucial and very large part of our economy, but one which, by its nature, is sensitive to interest rates. We have had over the years—and I think, in my judgment, detrimentally—far too many big cycles in housing. It has created big problems for builders, for people in the real estate business, and for mortgage lenders. That has not been good. I think all of the goals that I perceive for housing should try to stabilize longer-term housing as best one can.

The difficulty is, of all of the major sectors of the economy, it is by far the most interest-sensitive, for obvious reasons. Long-term debt financed and small changes in interest rates for long-term debt have significant effects on the amounts of monthly payments that are involved in financing a home.

I think there is no way to avoid the fact that we have ups and downs. When we had low mortgage interest rates in recent years, we had an extraordinary expansion in both new and existing home sales. As I pointed out in my prepared remarks, the effect of that was to very dramatically increase the stock of single-family dwellings which are mainly owner-occupied, but not wholly. At some point, that rate of increase, being much faster than the rate of increase in household formations, obviously had to slow down. It would have slowed down whether interest rates were high or low. But clearly, with mortgage interest rates going up as much as they have in the last number of quarters, it was inevitable, in my judgment, for housing to quite significantly slow down.

Are the builders and the real estate people in your State being, in a sense, unduly concerned? No, I believe that their business, as best we can judge, is going down. That is, the starts numbers, especially the numbers, for example, that were published this morning, do indicate that we are coming off those extraordinary highs of recent years. But we are still at reasonably good levels.

There are indeed many builders who said, "We are delighted by the fact that the intensity of the market has come down," because they had been unable to meet the demand and, as a consequence,

have probably behaved in a manner relative to their markets which was not optimum for their long-term profitability.

It is a problem, I think, that has always existed in housing. From the point of view of the Federal Reserve, we hope and endeavor to find ways in which the fluctuations in that cycle can be smoothed in some respect, but there is no way to prevent it from occurring so long as that market is as interest-sensitive as it is. The only way to avoid that would be going wholly to a cash market, and that is just not credible. In fact, it is not desirable.

I should think that one of the problems that we all face is how to narrow the fluctuations in the cycle. I do not think we can eliminate them. But I do believe it's the proper goal of people in the real estate business and in the financial business to try to find vehicles which smooth out that cycle.

Senator BENNETT. Thank you.

Senator Sarbanes.

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

Chairman Greenspan, the FDIC, in its national edition Regional Outlook for the second quarter for 2000, said the following:

> During 1999, the FDIC reported the first annual loss for the Bank Insurance Fund since 1991. This loss primarily resulted from an uptick in unanticipated and high-cost bank failures. Some of these failures were associated with high-risk activities, such as subprime lending, and some were related to operational weaknesses and fraud. The emergence of these problems in the midst of a strong economic environment raises concerns about how the condition of the banking industry might change if economic conditions deteriorate.

Do you share those concerns? What's your reaction to this report from the FDIC?

Chairman GREENSPAN. I believe that is a balanced appraisal. There is no question that if you look at the banking system overall, as of today, all of the various measures of current activity and relationships and risk indicate a fairly strong system. In other words, delinquency rates are very low, charge-off rates are exceptionally low, losses overall are very small to the banks. The number of bankruptcies have been rather few, but in the cases that they have arisen, there have been very large losses to the FDIC.

But I believe the issue I have discussed previously, and I know my colleagues in the other agencies have also commented upon, is the fact that when you have an extended period of expansion, which now, as I indicated in my prepared remarks, is 112 months, invariably you are going to find that there is a tendency to reach for types of loans which shouldn't be reached for, if I may put it that way, because there are lots of companies which look better than they should, if for no other reason than they have not confronted a recession for more than a decade. They look creditworthy as a consequence.

It has been everybody's experience that bad loans are made essentially at the top of the business cycle or after a very extended period of expansion, and I have no doubt that the long period of expansion that we have seen has induced a number of loans which, in retrospect, will appear to have been mistakenly made.

In that regard, there are basic concerns, and there should be. And in this context, it is, I must say, gratifying that there has been some tightening up within the banking system. Our senior loan officer survey, the last one, did indicate that there is a general rec-

ognition that lending standards had to be tightened and, indeed, that's occurring.

But I do find that the statement of the FDIC is reasonably balanced and, I think, one to which I would subscribe.

Senator SARBANES. Would you expect us to have serious banking problems if we had an economic downturn, on the basis that this kind of looseness had entered into the system?

Chairman GREENSPAN. I think individual banks will have trouble. I must say that the overall state of the banking system is in reasonably good shape, and I would say that it could resist fairly significant economic disruption without a major problem within the banking industry. But remember that loan losses are exceptionally low, that bankruptcies of banks are exceptionally low, and if we run into a recession, I have no doubt that some form of rise in bankruptcies and liquidations will occur, that some increase in the underlying quality of the measured risks at the time will also take place.

I believe the new technologies that have evolved in the banking industry, the extraordinary capacities that they now have to hedge risks, has put them in a position where they are extraordinarily resistant, in my judgment, to being upended by any type of economic problem that I can perceive.

Senator SARBANES. Let me ask a question on the Fed's figures on industrial production, because I want to go behind the general figure. Your figures indicate a growth of manufacturing output at about 7 percent for each of the last three quarters. At first glance, that would suggest that raising the interest rates and monetary policy has not had much effect yet on industrial production.

I understand, though, that these aggregate numbers disguise a dramatic slowdown in manufacturing outside of the information technology sector. That sector, which makes up only 10 percent of total manufacturing output, has been growing at, I guess, what one might call an incredible rate—31 percent, 60 percent, figures of that sort, year to year.

The growth in output for the other 90 percent of manufacturing, according to the figures I'm given, has dropped from a 4½ percent rate in the last quarter of 1999, down to a mere ½ percent rate for the quarter just ended. The pace of consumer goods production has also skidded from a near 3 percent rate last year to a 2⁄10 of a percent rate last quarter.

Would you agree that interest rate hikes are having a serious effect on manufacturing output outside of the information technology sector?

Chairman GREENSPAN. Yes, I would. I think it's the rise in real long-term corporate rates which has been quite a major factor in basically slowing some aspects of the nontechnology part of the economy.

But remember that another reason for that is there has been a shift of capital out of the so-called old economy into the new economy, so that, in a sense, you can't merely say that if the new technology part of the economy were gone or disappeared, somehow we would be left with an economy which was extremely sluggish and scarcely rising at all. Indeed, as my recollection serves me, outside

of the high-tech area, manufacturing production had zero change since the beginning of the year.

Part of that is an issue of merely observing resources going into those areas where the potential rates of return are higher. Indeed, you will always find that if you subtract at any time in history those areas of industrial production which are rising inordinately, the remainder, I can assure you, will be either negative or flat. That, in itself, doesn't tell you very much.

Are you asking me, is the process such that the combination of the differential rates of return plus the significant rise in real long-term corporate rates had an effect on what we now call the older economy? I would say definitely that is the case. It is the type of thing which we try to understand and evaluate as best we can.

Senator SARBANES. Mr. Chairman, I see my time has expired.

Senator SHELBY [presiding]. Chairman Greenspan, recently, the Securities Subcommittee on the Banking Committee conducted a hearing and they called it, "Adapting a 1930's Financial Reporting Model to the 21st Century."

At the hearing, accounting experts testified that current financial reporting models do not sufficiently capture significant sources of value, specifically intangible assets like knowledge and innovation, on which new business models rely. The lack of appropriate measurement can cause distortions in economic reporting, as well as risk to business leaders who make decisions based on insufficient and sometimes even misleading information.

It was stated at the hearing that "Government also tracks economic indices based on an industrial age economy." My question is, what indicators do you believe best track the economic health of the new economy, as well as prominent players in the economy like Schwab, America Online, Cisco, et cetera?

What is being done to ensure, Chairman Greenspan, that the economic data Government collects is reflective of today's economy, and how do you do it?

Chairman GREENSPAN. The issue arises most directly in our GDP accounts by what we capitalize and what we don't. In years past, the Department of Commerce used to write off all software outlays as expensed. To the extent that there was value-added created there, even other than intermediate product, it was mismeasured. As a consequence, an awareness on the part of the Department of Commerce that it was underestimating the GDP induced them a year or two ago to measure final output software and include it as a capitalized item.

Remember that in accounting terms, you should capitalize any outlay which increases the long-term value of the firm. As a consequence, you would presumably in today's environment take a number of the types of outlays which we write off and capitalize them. But because of our tax system, we are induced essentially to write them all off. In a sense, a large amount of outlay—for example, just in organizing a high-tech firm—is expensed. Yet the book value of the firm because of that is negligible; the market value is huge. What that is saying is the accounting is inappropriate and that if one were endeavoring to catch the true value of the firm and using the concept of what outlays enhance its value, you would capitalize them.

Now, if they were capitalized and appeared in the same sense that software appears, as capitalized expenditures, the GDP would increase immeasurably. I might add that the net domestic product, which is a more technically complex term which takes depreciation out of the system, would not go up nearly as much. But the gross domestic product would very much increase.

I must say there are a number of academics who argue that we are significantly underestimating the extent of measured GDP, although it gets to be an important argument of whether, in that case, you depreciate immediately, which is what happens when you write it off, or depreciate in 6 months, 1 year, 2 years, 3 years, or whether that really matters. But it is an issue.

Senator SHELBY. Is the Federal Reserve presently working with the FASB and the SEC to address these accounting problems or insufficiencies? Are you working with them at all?

Chairman GREENSPAN. The issues we are addressing with them relate more to technical questions of essentially banking accounting issues, specifically with respect to appropriate reserving or the like. The other issue is a different issue. We are not involved with the FASB or the American Institute of Certified Public Accountants on that issue. We have other issues with them. But we do believe the issue that you raised originally is a very important question, and I think that goes to the root of a much broader question of how one appropriately keeps accounts for value-added in this new economy, so to speak.

Senator SHELBY. Mr. Chairman, may I quickly ask one additional question?

Chairman GRAMM. Sure.

Senator SHELBY. Last month, Chairman Greenspan, in a speech before the New York Association for Business Economics, you spoke about what you call “multifactor productivity,” which you stated is “that portion of labor productivity that cannot be explained by other identifiable inputs in the production process.” I wonder if you could elaborate on that briefly for the Committee?

Chairman GREENSPAN. Obviously, we have direct measures of output per hour of input, and clearly, output per hour is the most crucial determinant of standards of living because it moves closely with real income per capita and all of the various relationships that are involved in it.

Economists endeavor to try to determine what causes that to happen, and if you are looking at output per labor hour of input, it is obvious that the amount of capital investment per worker is a critical determinant of that. In the broader sense, the aggregate GDP has essentially capital input and labor input.

But we have the capacity to so evaluate those inputs to determine what proportion of the output they both reflect, and what we find, over the years, over the generations, is that there is a significant what we call “multifactor productivity residual,” which cannot be explained by the amount of capital investment, on the one hand, or labor input on the other. We infer that it is a measure of technological advancement or managerial improvement. It could be anything which improves output without labor or capital input, which encompasses many things, but technology and managerial restructuring are the main issues which do that. That’s a very important

measure of whether technology is being applied and what rates of return are on the facilities.

Senator SHELBY. What's been the trend in the last year regarding this?

Chairman GREENSPAN. It's been going up, especially if we measure the gross domestic product as gross domestic income. Remember that gross domestic income is conceptually identical to gross domestic product, but they are measured differently and there is a statistical discrepancy. Gross domestic income has been rising far faster than gross domestic product, and as a consequence, shows a much larger unexplained residual, if I may put it that way, what we call "multifactor productivity," than would the product side, but both are showing an increase in that residual.

Senator SHELBY. Thank you, Mr. Chairman.

Chairman GRAMM. Thank you, Senator Shelby.

Let me announce that for some reason that has absolutely nothing to do with this hearing, someone has objected to committees meeting. As a result, we are going to be out of business at about 11:45 a.m.

Let me apologize to my colleagues. As you know, from time to time, this happens. What I am going to try to do is go quickly to our remaining Members. I would like to ask you to try to hold your statement to under 5 minutes. Chairman Greenspan, if you would speed up without lowering the quality, we would appreciate it.

Senator Bayh.

Senator BAYH. Thank you, Chairman Gramm.

Senator SARBANES. Just say "maybe" as an answer.

[Laughter.]

Senator BAYH. Chairman Greenspan, you said something in your testimony I found myself in complete agreement with. When you said, in praising Congress, that Congress has wisely avoided the steps that would materially reduce our surpluses, I couldn't agree more. Chairman Gramm mentioned something that I also agreed with when he said, "Americans don't want instant gratification, but a steady hand at the wheel," in praising you.

I'm having difficulty reconciling these statements with Congress' current attempts to set fiscal policy, not just for this year, but for the next 10 years, in a highly politicized environment which has led normally prudent, responsible people, in my opinion, to behave otherwise and to propose things that would materially reduce the surplus, apparently in pursuit of instant gratification, political or otherwise.

I would like to ask, very briefly, three questions designed to deal with the surplus and the timing of the kind of action that we are taking here and elicit your views on these things.

First, I understood your testimony to say that if the economy is in fact softening a little here, we may be about to get a test of whether the increases in the rate of productivity growth that we have experienced over the last several years have been aberrational or, in fact, are more enduring in character. My question is, if we are about to have such a test, wouldn't it be prudent to wait and see before we make major fiscal decisions?

Chairman GREENSPAN. Yes, Senator.

[Laughter.]

Senator BAYH. Thank you.

[Laughter.]

Chairman GRAMM. Good.

Senator BAYH. He is not only brilliant, but follows instructions. This is a wonderful thing.

[Laughter.]

Second, the estimates of the size of the surplus have varied by more than $1 trillion in just the last few months. Since tax cuts or spending increases tend to be more permanent in nature, while the size of the surplus seems to fluctuate dramatically, wouldn't that also argue for the prudent course of action being to wait a while longer to make such important decisions that will affect our country for the next decade?

Chairman GREENSPAN. I hate to repeat myself, Senator Bayh, but, again, yes.

[Laughter.]

Senator BAYH. This is wonderful. I have one last question. Chairman Gramm, maybe I can go three for three.

You mentioned that our goal here is to bring supply and demand into balance. My question to you, Chairman Greenspan, is that if the Congress, if the elected branches of Government decide to pursue a more stimulative fiscal policy, we would give the appearance of having the Federal Reserve pursuing a more cautious monetary policy while the elected branches of Government were pursuing a more stimulative policy. What impact would that have on the kind of decisions you would have to make, again, perhaps arguing to see if we didn't create an equilibrium before taking action?

Chairman GREENSPAN. Senator, it would depend, obviously, on what impacts changing fiscal policy had on the economy, because it's that to which we respond, not fiscal policy directly itself.

Senator BAYH. Thank you, Chairman Greenspan.

I would wrap up, Chairman Gramm, by saying that, Chairman Greenspan, I, too, favor tax cuts, but I think the question here is timing rather than the long-term desirability. I take it that's your position as well.

Thank you, Mr. Chairman.

Chairman GRAMM. Thank you.

Senator Mack.

Senator MACK. That was a rather remarkable set of exchanges.

I want to focus on the issue that I always seem to focus on, and that's the issue of price stability and inflation. Some people believe that the unemployment rate needs to go to 5 percent in order to prevent inflation. I suppose that is what is referred to as the so-called "NAIRU" theory. We are presently at 4 percent, which would mean we would have to, over time, see the unemployment rate rise back to 5 percent. I have gone back and looked since the 1940's, and every single time that we have had an unemployment rate go up by 1 percent, whether that was over a 1-year period, 2-year period, 3-year period, or 4-year period, we have had a recession. That theory concerns me.

My question is, in you view, can we achieve price stability with unemployment at 4 percent, or do we need to move the unemployment rate higher in order to achieve price stability?

Chairman GREENSPAN. In my judgment, the evidence indicating that we need to raise the unemployment rate to stabilize prices is unpersuasive. It's a major issue in the economics profession, under significant debate. My forecast is that the NAIRU, which served as a very useful statistical procedure to evaluate how the economy was behaving over a number of years, like so many types of temporary models which worked, is probably going to fail in the years ahead as a useful indicator, at least an anywhere near as useful indicator as it was through perhaps a 20-year period up until fairly recently.

Senator SARBANES. Are the question and answer sessions of the Chairman with the Congress made available to the other members of the Federal Open Market Committee?

Chairman GREENSPAN. They are in the public record.

Senator SARBANES. I would think it would be helpful if they were made available to the other members of the Federal Open Market Committee.

Senator MACK. Let me be more specific. I think at the beginning you started to address the question, and I gathered from your response to the earlier part of the question, you believe that you can maintain price stability with unemployment at 4 percent.

Chairman GREENSPAN. I don't know that for sure. Indeed, in my prepared remarks, I did indicate that is an open question. I suspect the answer is yes, but I must say that the evidence on either side of this question is not yet of sufficient persuasiveness to convince everybody.

Senator MACK. Thank you, Mr. Chairman.

Chairman GRAMM. Thank you.

Senator Reed.

OPENING COMMENTS OF SENATOR JACK REED

Senator REED. Thank you, Mr. Chairman.

Chairman Greenspan, from your colloquy with Chairman Gramm, someone could, I believe, deduce the impression that you have a hierarchy of policy: First, save the surplus; second, cut taxes; and third, increase spending. My sense is that both cutting taxes and increasing spending would have virtually the same effect on the economy. They would both stimulate the economy and dissipate the surplus. From your position, both would be objectionable. Is that correct?

Chairman GREENSPAN. Senator, in that context, you are quite correct. The reason why I would prefer, if necessary, dissipating the surplus through tax cuts is because I believe it is much more difficult to maintain a continuous expansionary imbalance in fiscal affairs if you reduce taxes because there is a downside limit to how far you can go, but the issue of producing long-term entitlement programs is virtually without limit. As a consequence, I think there is a bias in the system over the longer term which suggests to me that we are fiscally safe if we have to get rid of surpluses, to get rid of them on the tax side rather than on the expenditure side.

Senator REED. The experience in 1993 was that we made quite significant cuts in discretionary programs and also increased taxes, equally arduous votes. Some would argue that sometimes it's much harder to reverse tax cuts than it is to cut back programs.

Chairman GREENSPAN. Senator, I am talking in the context, not of the most recent period, but over the last half-century. I think, should that indeed turn out to be the new trend, then I would change my view.

Senator REED. I have an unrelated question, Chairman Greenspan. The trade deficit continues to explode. Do you sense that you have both the predictive tools to anticipate a meltdown, if you will, as a result of the trade deficit, and the policy levers, both in the Federal Reserve and within the Federal Government, to deal with the potentialities of that threat to our economy?

Chairman GREENSPAN. Senator, the trade deficit or the current account deficit, which is a somewhat broader definition of the same problem, is an issue to which we have addressed a very considerable amount of research resources to endeavor to evaluate, project, and understand. As I have indicated in the past, and indeed in my prepared remarks, we have more than financed in some sense the trade deficit by the extraordinary inclination on the part of foreigners to invest in the United States. If we were in trouble on this issue, our exchange rate would be falling, and indeed it is not.

But over the longer run, we have certain structural differences in our trade accounts which induce us to import at a faster pace, relative to our income, than our trading partners. If everybody is growing at their potential, we would be chronically increasing our deficits. That would mean that foreigners would be increasing indefinitely the size of their portfolio of claims against American residents. Clearly, there is a limit to how far that can go.

We have been endeavoring to fully understand the process, to see what various different types of measures could be addressed in the event of problems emerging, and we are looking to do more work on that.

However, for the moment, it's quite remarkable: the same forces that are engendering the huge increase in capital investment—that is, the high rates of return—are attracting very large investments from foreigners into the United States, and that's been keeping our system in balance.

Senator REED. Thank you, Mr. Chairman.

Chairman GRAMM. Thank you, Senator Reed.

I want the record to show that at this point, we ended the hearing and embarked on a short period for an informal briefing.

[Whereupon, at 11:45 a.m., the hearing was adjourned, and an informal Committee briefing convened, the transcript of which is as follows:]

INFORMAL COMMITTEE BRIEFING

Federal Reserve's Second Monetary Policy Report for 2000

Chairman GRAMM. We are going to end this briefing in 10 minutes. I want to recognize Senator Grams for 5 minutes, then I will recognize Senator Schumer, and then we will end the briefing.

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

Chairman Greenspan, I will be very brief. We have talked about heavy industry and the new economy, about electronics, a big part of the economy, and about agriculture. Where does agriculture fit in right now? What is the state of our ag economy? We are facing emergency bills to help farmers. Where is our agricultural economy compared to productivity of our competitors around the world?

Chairman GREENSPAN. First, let me state that productivity in agriculture has actually been rising at a pace faster than in the nonfarm area—that is, the extraordinary rise in yields has been nothing short of awesome over the last 50 years, after a remarkably stable period of flat yields for corn and wheat, even before we used to plant soybeans.

But that plus productivity in the livestock area of our economy has really in a sense outstripped what we are capable of doing in industry. What that has done is created a huge capacity to produce for which we must find demand. As you know better than anybody, Senator, the proportion of agriculture produced domestically which is consumed in the United States is a good deal less than half. For many of our crops it is substantially less than half, requiring that we find export markets to meet the demand for our output, which is the reason I believe it's crucial for us to keep opening up markets abroad, for agriculture especially, the issues in Europe and in Asia. I think the future of American agriculture depends vitally on our ability to continuously increase our export capabilities, because we produce far beyond the capability of the needs of the American people, even as our consumption per capita continues to rise.

I believe that, in one sense, we are confronted with a really quite remarkable industry. What we have been able to do in agriculture is something which we should be exceptionally proud of. But it does make it incumbent upon us to ensure that the new production we are turning out has markets into which it can be sold.

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

Chairman GRAMM. Thank you.

Senator Schumer.

OPENING COMMENTS OF SENATOR CHARLES E. SCHUMER

Senator SCHUMER. Thank you, Mr. Chairman.

I have two questions. My first relates to Congress. My good friend and colleague, Senator Gramm, talked about the contrast of discretionary spending versus tax cuts. I have a different perspective, because we are not increasing discretionary spending too much. Yet

in the last few weeks, in either the House or Senate, and in some cases both, we have voted for a $750 billion estate tax cut and a $750 billion, over a 20-year period, marriage tax reduction.

There is talk now of lowering the marginal rate to 14 percent from 15 percent. That's $300 billion over the first 10 years and $1 trillion over the next 20 years. There is talk of other tax reduction as well.

I'm worried we are entering a phase of Voodoo II tax cuts—not targeted tax cuts, not limited tax cuts, but cut after cut after cut that jeopardize the balanced budget life that both Democrats and Republicans in recent years have come to accept as a consensus.

Let's say this year we were to spend the entire projected surplus of $1.7 trillion on tax cuts. Would that throw a monkey wrench into the prosperity that we have been seeing, just as that amount of discretionary spending might do the same?

Chairman GREENSPAN. Senator, in response to that, and the related questions earlier, I indicated that my major concern is a dissipation of the surplus, irrespective of how, because it's been fairly clear to me and my colleagues that the dramatic rise in the surplus has been an extraordinarily important buffer to the potential volatility that would occur in an economy such as ours which is being driven sharply higher by remarkable changes in technology.

One of the major elements which has kept our expansion stable has been the growing surplus—not even the level of the surplus, but the fact that it is growing. I indicated earlier that were we able to continue that until we finally achieved some balance and stability in this expansion, it would be very much to our interest.

Senator SCHUMER. So there's a danger. Let's not label how much, but there is a danger that too many tax cuts could jeopardize the continued growth of expansion.

Chairman GREENSPAN. I would say that anything, whether it is tax cuts or expenditure increases, which significantly slows the rise in surpluses or eventually eliminates them, would put the economy at greater risk than I would like to see it exposed to.

Senator SCHUMER. I agree with you on both sides of the ledger. My second question deals with energy prices. We have seen an increase in the price of oil. We have also seen that natural gas is higher than it has been, I think, on record. I believe it was $4.43 for a million cubic—I guess it's feet they measure it in, not yards. Electricity prices are going up. We face some electricity shortages in different parts of the country. Do you worry that the general shortages we face in the face of increasing demand could create problems for our economy on the inflation front?

I have not witnessed all three major sources of energy used in this country—oil, gas, and electricity—being in such short supply, or at least demand pushing things up on all three fronts as much as it has in a pretty long time, 20 years. Do you worry about this? What should we be doing about it?

Chairman GREENSPAN. I do worry about it, Senator, and I worry about it largely despite the fact that the proportion of energy per dollar of GDP has come down very dramatically over the years, and our reliance on energy and supply of energy is, accordingly, significantly less. But it is still substantial and still capable of having fairly dramatic negative effects on the economy.

The major problem that we confront in all these areas is the fact that our ability to control our supply has been undercut. Clearly, in the oil markets, American crude production, despite remarkable technological advances, still trends downward. The Alaska North Slope peaked a number of years ago and has been coming down. We have offset it in part in drilling in the Gulf. But we are ever decreasing the amount of crude that we can produce domestically, and that means we are increasingly reliant on others.

We have also run into a problem where the propensity to build new electric power facilities is being disincentivized. I'm not aware of all of the various ramifications of the problems that are involved in building a new electric utility plant, but my impression is that whatever they may be, they have succeeded in slowing down the rate of expansion materially.

As a consequence of that, I'm not worried as much on the issue of inflation because you can contain that. I'm worried about the instability that creates within the economy and the difficulties that might emerge as a consequence of that. While I don't want to say I'm not concerned about the inflationary implications, obviously I am, I don't want to leave the impression that's the only thing that is involved. It is an issue that we need to address.

Senator SCHUMER. I want to make one more point. I believe the sleeper in all of this is the price of natural gas, which had always stayed low, even when oil went up. Now it is at record highs, for reasons I'm not clear on. Does that concern you, too?

Chairman GREENSPAN. What happened was that there's a cyclical storage in natural gas where we build up at certain times and we bring levels of inventories down, and in the last year or so, we have slipped below the normal trend, and we are now looking at marginally lower levels of shut-in storage for natural gas than we typically need at this time of the year. As a consequence of that, pressures are beginning to build, and we are getting the types of price expansions which you would expect.

Unlike crude oil, our ability to find new gas is there. It's the fact that we are not drilling in the way that we had been. Eventually, that is likely to improve, but it takes a long while to get wells in place and to bring up the level of inventories of natural gas to a level which will bring prices off the huge spike which we have perceived recently.

Senator SCHUMER. Thank you, Mr. Chairman.

Chairman GRAMM. Chairman Greenspan, thank you for a great hearing. Take care of yourself. We will see you next year.

Chairman GREENSPAN. Thank you, Mr. Chairman.

[Whereupon, at 12 noon, Thursday, July 20, 2000, the briefing was concluded.]

[Prepared statements and additional material supplied for the record follow:]

PREPARED STATEMENT OF SENATOR JIM BUNNING

Mr. Chairman, I would like to thank Alan Greenspan, Chairman of the Federal Reserve System, for testifying today.

I am very interested in hearing Chairman Greenspan's semiannual comments on monetary policy. As the Chairman knows, productivity has continued to grow, quarter after quarter. Much of this can be attributed to the information revolution. I believe these continuing productivity increases have effectively mitigated the potential inflationary impact of our tight labor markets. I also believe the increase in information technology has led to not just a temporary spike in productivity, but instead reflects a fundamental structural change.

The latest CPI figures do not indicate any disturbing signs of inflationary pressures growing. If you remove the spike caused by the surge in energy prices, the CPI is very stable. Additionally, it appears that the higher interest rates imposed in the last year or so have started slowing parts of the economy, such as the housing market.

I hope Chairman Greenspan has come to the same conclusion I have—that there is no need to raise interest rates again. Chairman Greenspan has achieved his goal, although it is one I do not share. The economy has slowed.

I still fear that the further raising of rates by the Fed could slow the economy so much that we fall into a recession. I will repeat what I said to you the last time you came up here, Chairman Greenspan. I do not believe you want a recession on your watch, and I know I don't want one on mine. Please do not raise rates again, Chairman Greenspan. Our economy does not need a monetary policy designed to eliminate inflation that does not exist.

Thank you very much, Mr. Chairman.

PREPARED STATEMENT OF ALAN GREENSPAN

CHAIRMAN, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

JULY 20, 2000

Introduction

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

The Federal Reserve has been confronting a complex set of challenges in judging the stance of policy that will best contribute to sustaining the extremely strong and long-running expansion of our economy. The challenges will be no less in the coming months as we judge whether ongoing adjustments in supply and demand will be sufficient to prevent distortions that would undermine the economy's extraordinary performance.

For some time now, the growth of aggregate demand has exceeded the expansion of production potential. Technological innovations have boosted the growth rate of potential, but as I noted in my testimony last February, the effects of this process also have spurred aggregate demand. It has been clear to us that, with labor markets already quite tight, a continuing disparity between the growth of demand and potential supply would produce disruptive imbalances.

A key element in this disparity has been the very rapid growth of consumption resulting from the effects on spending of the remarkable rise in household wealth. However, the growth in household spending has slowed noticeably this spring from the unusually rapid pace observed late in 1999 and early this year. Some argue that this slowing is a pause following the surge in demand through the warmer-than-normal winter months and hence a reacceleration can be expected later this year. Certainly, we have seen slowdowns in spending during this near-decade-long expansion that have proven only temporary, with aggregate demand growth subsequently rebounding to an unsustainable pace.

But other analysts point to a number of factors that may be exerting more persistent restraint on spending. One they cite is the flattening in equity prices, on net, this year. They attribute much of the slowing of consumer spending to this diminution of the wealth effect through the spring and early summer. This view looks to equity markets as a key influence on the trend in consumer spending over the rest of this year and next.

Another factor said by some to account for the spending slowdown is the rising debt burden of households. Interest and amortization as a percent of disposable income have risen materially during the past 6 years, as consumer and particularly mortgage debt has climbed and, more recently, as interest rates have moved higher.

In addition, the past year's rise in the price of oil has amounted to an annual $75 billion levy by foreign producers on domestic consumers of imported oil, the equivalent of a tax of roughly 1 percent of disposable income. This burden is another likely source of the slowed growth in real consumption outlays in recent months, though one that may prove to be largely transitory.

Mentioned much less prominently have been the effects of the faster increase in the stock of consumer durable assets—both household durable goods and houses—in the last several years, a rate of increase that history tells us is usually followed by a pause. Stocks of household durable goods, including motor vehicles, are estimated to have increased at nearly a 6 percent annual rate over the past 3 years, a marked acceleration from the growth rate of the previous 10 years. The number of cars and light trucks owned or leased by households, for example, apparently has continued to rise in recent years despite having reached nearly 1¾ vehicles per household by the mid-1990's. Notwithstanding their recent slowing, sales of new homes continue at extraordinarily high levels relative to new household formations. While we will not know for sure until the 2000 census is tabulated, the surge in new home sales is strong evidence that the growth of owner-occupied homes has accelerated during the past 5 years.

Those who focus on the high and rising stocks of durable assets point out that even without the rise in interest rates, an eventual leveling out or some tapering off of purchases of durable goods and construction of single-family housing would be expected. Reflecting both the higher interest rates and higher stocks of housing, starts of new housing units have fallen off of late. If that slowing were to persist, some reduction in the rapid pace of accumulation of household appliances across our more than 100 million households would not come as a surprise, nor would a slowdown in vehicle demand which so often is historically associated with declines in housing demand.

Inventories of durable assets in households are just as formidable a factor in new production as inventories at manufacturing and trade establishments. The notion that consumer spending and housing construction may be slowing because the stock of consumer durables and houses may be running into upside resistance is a credible addition to the possible explanations of current consumer trends. This effect on spending would be reinforced by the waning effects of gains in wealth.

Because the softness in outlay growth is so very recent, all of the aforementioned hypotheses, of course, must be provisional. It is certainly premature to make a definitive assessment of either the recent trends in household spending or what they mean. But it is clear that, for the time being at least, the increase in spending on consumer goods and houses has come down several notches, albeit from very high levels.

In one sense, the more important question for the longer-term economic outlook is the extent of any productivity slowdown that might accompany a more subdued pace of production and consumer spending, should it persist. The behavior of productivity under such circumstances will be a revealing test of just how much of the rapid growth of productivity in recent years has represented structural change as distinct from cyclical aberrations and, hence, how truly different the developments of the past 5 years have been. At issue is how much of the current downshift in our overall economic growth rate can be accounted for by reduced growth in output per hour and how much by slowed increases in hours.

So far there is little evidence to undermine the notion that most of the productivity increase of recent years has been structural and that structural productivity may still be accelerating. New orders for capital equipment continue quite strong—so strong that the rise in unfilled orders has actually steepened in recent months. Capital-deepening investment in a broad range of equipment embodying the newer productivity-enhancing technologies remains brisk.

To be sure, if current personal consumption outlays slow significantly further than the pattern now in train suggests, both profit and sales expectations may be scaled back, possibly inducing some hesitancy in moving forward even with capital projects that appear quite profitable over the longer run. In addition, the direct negative effects of the sharp recent run up in energy prices on profits as well as on sales expectations may temporarily damp capital spending. Despite the marked decline over the past decades in the energy requirements per dollar of GDP, energy inputs are still a significant element in the cost structure of many American businesses.

For the moment, the drop-off in overall economic growth to date appears about matched by reduced growth in hours, suggesting continued strength in growth in output per hour. The increase of production worker hours from March through June, for example, was at an annual rate of ½ percent compared with 3¼ percent the previous 3 months. Of course, we do not have comprehensive measures of output on a monthly basis, but available data suggest a roughly comparable deceleration.

A lower overall rate of economic growth that did not carry with it a significant deterioration in productivity growth obviously would be a very desirable outcome. It could conceivably slow or even bring to a halt the deterioration in the balance of overall demand and potential supply in our economy.

As I testified before this Committee in February, domestic demand growth, influenced importantly by the wealth effect on consumer spending, has been running 1½ to 2 percentage points at an annual rate in excess of even the higher, productivity-driven growth in potential supply since late 1997. That gap has been filled both by a marked rise in imports as a percent of GDP and by a marked increase in domestic production resulting both from significant immigration and from the employment of previously unutilized labor resources.

I also pointed out in February that there are limits to how far net imports—or the much broader measure, our current account deficit—can rise, or our pool of unemployed labor resources can fall. As a consequence, the excess of the growth of domestic demand over potential supply must be closed before the resulting strains and imbalances undermine the economic expansion that now has reached 112 months, a record for peace or war.

The current account deficit is a proxy for the increase in net claims against U.S. residents held by foreigners, mainly as debt, but increasingly as equities. So long as foreigners continue to seek to hold ever-increasing quantities of dollar investments in their portfolios, as they obviously have been, the exchange rate for the dollar will remain firm. Indeed, the same sharp rise in potential rates of return on new American investments that has been driving capital accumulation and accelerating productivity in the United States has also been inducing foreigners to expand their portfolios of American securities and direct investment. The latest data published by the U.S. Department of Commerce indicate that the annual pace of direct plus portfolio investment by foreigners in the U.S. economy during the first quarter was more than 2½ times its rate in 1995.

There has to be a limit as to how much of the world's savings our residents can borrow at close to prevailing interest and exchange rates. And a narrowing of disparities among global growth rates could induce a narrowing of rates of return here relative to those abroad that could adversely affect the propensity of foreigners to invest in the United States. But, obviously, so long as our rates of return appear to be unusually high, if not rising, balance of payments trends are less likely to pose a threat to our prosperity. In addition, our burgeoning budget surpluses have clearly contributed to a fending off, if only temporarily, of some of the pressures on our balance of payments. The stresses on the global savings pool resulting from the excess of domestic private investment demands over domestic private saving have been mitigated by the large Federal budget surpluses that have developed of late.

In addition, by substantially augmenting national saving, these budget surpluses have kept real interest rates at levels lower than they would have been otherwise. This development has helped foster the investment boom that in recent years has contributed greatly to the strengthening of U.S. productivity and economic growth. The Congress and the Administration have very wisely avoided steps that would materially reduce these budget surpluses. Continued fiscal discipline will contribute to maintaining robust expansion of the American economy in the future.

Just as there is a limit to our reliance on foreign saving, so too is there a limit to the continuing drain on our unused labor resources. Despite the ever-tightening labor market, as yet, gains in compensation per hour are not significantly outstripping gains in productivity. But as I have argued previously, should labor markets continue to tighten, short of a repeal of the law of supply and demand, labor costs eventually would have to accelerate to levels threatening price stability and our continuing economic expansion.

The more modest pace of increase in domestic final spending in recent months suggests that aggregate demand may be moving closer into line with the rate of advance in the economy's potential, given our continued impressive productivity growth. Should these trends toward supply and demand balance persist, the ongoing need for ever-rising imports and for a further draining of our limited labor resources should ease or perhaps even end. Should this favorable outcome prevail, the immediate threat to our prosperity from growing imbalances in our economy would abate.

But as I indicated earlier, it is much too soon to conclude that these concerns are behind us. We cannot yet be sure that the slower expansion of domestic final demand, at a pace more in line with potential supply, will persist. Even if the growth rates of demand and potential supply move into better balance, there is still uncertainty about whether the current level of labor resource utilization can be maintained without generating increased cost and price pressures.

As I have already noted, to date costs have been held in check by productivity gains. But at the same time, inflation has picked up—even the core measures that

do not include energy prices directly. Higher rates of core inflation may mostly reflect the indirect effects of energy prices, but the Federal Reserve will need to be alert to the risks that high levels of resource utilization may put upward pressure on inflation.

Moreover, energy prices may pose a challenge to containing inflation. Energy price changes represent a one-time shift in a set of crucial prices, but by themselves generally cannot drive an ongoing inflation process. The key to whether such a process could get underway is inflation expectations. To date, survey evidence, as well as readings from the Treasury's inflation-indexed securities, suggests that households and investors do *not* view the current energy price surge as affecting longer-term inflation. But any deterioration in such expectations would pose a risk to the economic outlook.

As the financing requirements for our constantly rising capital investment needs mounted in recent years—beyond forthcoming domestic saving—real long-term interest rates rose to address this gap. We at the Federal Reserve, responding to the same economic forces, have moved the overnight Federal funds rate up 1¾ percentage points over the past year. To have held to the Federal funds rate of June 1999 would have required a massive increase in liquidity that would presumably have underwritten an acceleration of prices and, hence, an eventual curbing of economic growth.

By our meeting this June, the appraisal of all the foregoing issues led the Federal Open Market Committee to conclude that, while some signs of slower growth were evident and justified standing pat at least for the time being, they were not sufficiently compelling to alter our view that the risks remained more on the side of higher inflation.

As indicated in their forecasts, FOMC members and nonvoting presidents expect that the long period of continuous economic expansion will be extended over the next 1½ years, but with growth at a somewhat slower pace than that over the past several years. For the current year, the central tendency of Board members' and Reserve Bank presidents' forecasts is for real GDP to increase 4 to 4½ percent, suggesting a noticeable deceleration over the second half of 2000 from its likely pace over the first half. The unemployment rate is projected to remain close to 4 percent. This outlook is a little stronger than that anticipated last February, no doubt owing primarily to the unexpectedly strong jump in output in the first quarter. Mainly reflecting higher prices of energy products than had been foreseen, the central tendency for inflation this year in prices for personal consumption expenditures also has been revised up somewhat, to the vicinity of 2½ to 2¾ percent.

Given the much firmer financial conditions which have developed over the past 18 months, the Committee expects economic growth to moderate somewhat next year. Real output is anticipated to expand 3¼ to 3¾ percent, somewhat less rapidly than in recent years. The unemployment rate is likely to remain close to its recent very low levels. Energy prices could ease somewhat, helping to trim PCE inflation next year to around 2 to 2½ percent, somewhat above the average of recent years.

Conclusion

The last decade has been a remarkable period of expansion for our economy. Federal Reserve policy through this period has been required to react to a constantly evolving set of economic forces, very often at variance with historical relationships, changing Federal funds rates when events appeared to threaten our prosperity, and refraining from action when that appeared warranted. Early in the expansion, for example, we kept the rates unusually low for an extended period, when financial sector fragility held back the economy. Most recently we have needed to raise rates to relatively high levels in real terms in response to the side effects of accelerating growth and related demand-supply imbalances. Variations in the stance of policy—or keeping it the same—in response to evolving forces are made in the framework of an unchanging objective—to foster as best we can those financial conditions that are most likely to promote sustained economic expansion at the highest rate possible. Maximum sustainable growth, as history amply demonstrates, requires price stability. Irrespective of the complexities of economic change, our primary goal is to find those policies that best contribute to a noninflationary environment and hence to growth. The Federal Reserve, I trust, will always remain vigilant in pursuit of that goal.

For use at 10:00 a.m., EDT
Thursday
July 20, 2000

Board of Governors of the Federal Reserve System

Monetary Policy Report to the Congress

July 20, 2000

Letter of Transmittal

BOARD OF GOVERNORS OF THE
FEDERAL RESERVE SYSTEM
Washington, D.C., July 20, 2000

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

The Board of Governors is pleased to forward its Monetary Policy Report to the Congress.

Sincerely,

Alan Greenspan, Chairman

Table of Contents

	Page
Monetary Policy and the Economic Outlook	1
Economic and Financial Developments in 2000	4

Monetary Policy Report to the Congress

Report forwarded to the Congress on July 20, 2000

MONETARY POLICY AND THE ECONOMIC OUTLOOK

The impressive performance of the U.S. economy persisted in the first half of 2000 with economic activity expanding at a rapid pace. Overall rates of inflation were noticeably higher, largely as a result of steep increases in energy prices. The remarkable wave of new technologies and the associated surge in capital investment have continued to boost potential supply and to help contain price pressures at high levels of labor resource use. At the same time, rising productivity growth—working through its effects on wealth and consumption, as well as on investment spending—has been one of the important factors contributing to rapid increases in aggregate demand that have exceeded even the stepped-up increases in potential supply. Under such circumstances, and with the pool of available labor already at an unusually low level, the continued expansion of aggregate demand in excess of the growth in potential supply increasingly threatened to set off greater price pressures. Because price stability is essential to achieving maximum sustainable economic growth, heading off these pressures has been critical to extending the extraordinary performance of the U.S. economy.

To promote balance between aggregate demand and potential supply and to contain inflation pressures, the Federal Open Market Committee (FOMC) took additional firming actions this year, raising the benchmark federal funds rate 1 percentage point between February and May. The tighter stance of monetary policy, along with the ongoing strength of credit demands, has led to less accommodative financial conditions: On balance, since the beginning of the year, real interest rates have increased, equity prices have changed little after a sizable run-up in 1999, and lenders have become more cautious about extending credit, especially to marginal borrowers. Still, households and businesses have continued to borrow at a rapid pace, and the growth of M2 remained relatively robust, despite the rise in market interest rates. The favorable outlook for the U.S. economy has contributed to a further strengthening of the dollar, despite tighter monetary policy and rising interest rates in most other industrial countries.

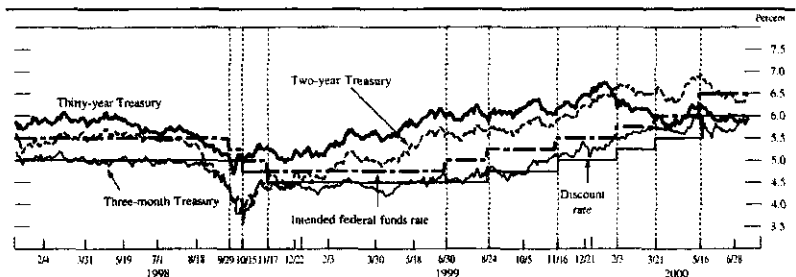
Perhaps partly reflecting firmer financial conditions, the incoming economic data since May have suggested some moderation in the growth of aggregate demand. Nonetheless, labor markets remained tight at the time of the FOMC meeting in June, and it was unclear whether the slowdown represented a decisive shift to more sustainable growth or just a pause. The Committee left the stance of policy unchanged but saw the balance of risks to the economic outlook as still weighted toward rising inflation.

Monetary Policy, Financial Markets, and the Economy over the First Half of 2000

When the FOMC convened for its first two meetings of the year, in February and March, economic conditions in the United States were pointing toward an increasingly taut labor market as a consequence of a persistent imbalance between the growth rates of aggregate demand and potential aggregate supply. Reflecting the underlying strength in spending and expectations of tighter monetary policy, market interest rates were rising, especially after the century date change passed without incident. But, at the same time, equity prices were still posting appreciable gains on net. Knowing that the two safety valves that had been keeping underlying inflation from picking up until then—the economy's ability to draw on the pool of available workers and to expand its trade deficit on reasonable terms—could not be counted on indefinitely, the FOMC voted for a further tightening in monetary policy at both its February and its March meetings, raising the target for the overnight federal funds rate 25 basis points on each occasion. In related actions, the Board of Governors also approved quarter-point increases in the discount rate in both February and March.

The FOMC considered larger policy moves at its first two meetings of 2000 but concluded that significant uncertainty about the outlook for the expansion of aggregate demand in relation to that of aggregate supply, including the timing and strength of the economy's response to earlier monetary policy tight-

Selected interest rates



NOTE. The data are daily. Vertical lines indicate the days on which the Federal Reserve announced a change in the intended funds rate. 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 July 17, 2000.

enings, warranted a more limited policy action. Still, noting that there had been few signs that the rise in interest rates over recent quarters had begun to bring demand in line with potential supply, the Committee decided in both instances that the balance of risks going forward was weighted mainly in the direction of rising inflation pressures. In particular, it was becoming increasingly clear that the Committee would need to move more aggressively at a later meeting if imbalances continued to build and inflation and inflation expectations, which had remained relatively subdued until then, began to pick up.[1]

Some readings between the March and May meetings of the FOMC on labor costs and prices suggested a possible increase of inflation pressures. Moreover, aggregate demand had continued to grow at a fast clip, and markets for labor and other resources were showing signs of further tightening. Financial market conditions had firmed in response to these developments; the substantial rise in private borrowing rates between March and May had been influenced by the buildup in expectations of more policy tightening as market participants recognized the need for higher short-term interest rates. Given all these circumstances, the FOMC decided in May to raise the target for the overnight federal funds rate 50 basis points, to 6½ percent. The Committee saw little risk in the more forceful action given the strong momentum of the economic expansion and widespread market expectations of such an action. Even after taking into account its latest action, however, the FOMC saw the strength in spending and pressures in labor markets as indicating that the balance of risks remained tilted toward rising inflation.

By the June FOMC meeting, the incoming data were suggesting that the expansion of aggregate demand might be moderating toward a more sustainable pace: Consumers had increased their outlays for goods modestly during the spring; home purchases and starts appeared to have softened; and readings on the labor market suggested that the pace of hiring might be cooling off. Moreover, much of the effects on demand of previous policy firmings, including the 50 basis point tightening in May, had not yet been fully realized. Financial market participants interpreted signs of economic slowing as suggesting that the Federal Reserve probably would be able to hold inflation in check without much additional policy firming. However, whether aggregate demand had moved decisively onto a more moderate expansion track was not yet clear, and labor resource utilization remained unusually elevated. Thus, although the FOMC decided to defer any policy action in June, it indicated that the balance of risks was still on the side of rising inflation in the foreseeable future.[2]

1. At its March and May meetings, the FOMC took a number of actions that were aimed at adjusting the implementation of monetary policy to actual and prospective reductions in the stock of Treasury debt securities. These actions are described in the discussion of U.S. financial markets.

2. At its June meeting, the FOMC did not establish ranges for growth of money and debt in 2000 and 2001. The legal requirement to establish and to announce such ranges had expired, and owing to uncertainties about the behavior of the velocities of debt and money, these ranges for many years have not provided useful benchmarks for the conduct of monetary policy. Nevertheless, the FOMC believes that the behavior of money and credit will continue to have value for gauging economic and financial conditions, and this report discusses recent developments in money and credit in some detail.

Economic Projections for 2000 and 2001

The members of the Board of Governors and the Federal Reserve Bank presidents expect the current economic expansion to continue through next year, but at a more moderate pace than the average over recent quarters. For 2000 as a whole, the central tendency of their forecasts for the rate of increase in real gross domestic product (GDP) is 4 percent to 4½ percent, measured as the change between the fourth quarter of 1999 and the fourth quarter of 2000. Over the four quarters of 2001, the central tendency forecasts of real GDP are in the 3¼ percent to 3¾ percent range. With this pace of expansion, the civilian unemployment rate should remain near its recent level of 4 percent. Even with the moderation in the pace of economic activity, the Committee members and nonvoting Bank presidents expect that inflation may be higher in 2001 than in 1999, and the Committee will need to be alert to the possibility that financial conditions may need to be adjusted further to balance aggregate demand and potential supply and to keep inflation low.

Considerable uncertainties attend estimates of potential supply—both the rate of growth and the level of the economy's ability to produce on a sustained non-inflationary basis. Business investment in new equipment and software has been exceptionally high, and given the rapid pace of technological change, firms will continue to exploit opportunities to implement more-efficient processes and to speed the flow of information across markets. In such an environment, a further pickup in productivity growth is a distinct possibility. However, a portion of the very rapid rise in measured productivity in recent quarters may be a result of the cyclical characteristics of this expansion rather than an indication of structural rates of increase consistent with holding the level of resource utilization unchanged. Current levels of labor resource utilization are already unusually high. To date, this has not led to escalating unit labor costs, but whether such a favorable performance in the labor market can be sustained is one of the important uncertainties in the outlook.

On the demand side, the adjustments in financial markets that have accompanied expected and actual tighter monetary conditions may be beginning to moderate the rise in domestic demand. As that process evolves, the substantial impetus that household spending has received in recent years from rapid gains in equity wealth should subside. The higher cost of business borrowing and more-restrictive credit supply conditions probably will not exert substantial restraint on investment decisions, particularly as long as the costs and potential productivity payoffs of new equipment and software remain attractive. The slowing in domestic spending will not be fully reflected in a more moderate expansion of domestic production. Some of the slowing will be absorbed in smaller increases in imports of goods and services, and given continued recovery in economic activity abroad, domestic firms are expected to continue seeing a boost to demand and to production from rising exports.

Regarding inflation, FOMC participants believe that the rise in consumer prices will be noticeably larger this year than in 1999 and that inflation will then drop back somewhat in 2001. The central tendency of their forecasts for the increase in the chain-type index for personal consumption expenditures is 2½ percent to 2¾ percent over the four quarters of 2000 and 2 percent to 2½ percent during 2001. Shaping the contour of this inflation forecast is the expectation that the direct and indirect effects of the boost to domestic inflation this year from the rise in the price of world crude oil will be partly reversed next year if, as futures markets suggest, crude oil prices retrace this year's run-up by next year. Nonetheless, these forecasts show consumer price inflation in 2001 to have moved above the rates that prevailed over the 1997–98 period. Such a trend, were it not to show signs of quickly stabilizing or reversing, would

1. Economic projections for 2000 and 2001
Percent

Indicator	Federal Reserve governors and Reserve Bank presidents: Range	Federal Reserve governors and Reserve Bank presidents: Central tendency	Administration
	2000		
Change, fourth quarter to fourth quarter[1]			
Nominal GDP	6–7¼	6½–6¾	6.0
Real GDP[2]	3¾–5	4–4½	3.9
PCE prices	2–3½	2½–2¾	3.2[3]
Average level, fourth quarter			
Civilian unemployment rate	4–4¼	About 4	4.1
	2001		
Change, fourth quarter to fourth quarter[1]			
Nominal GDP	5–6¼	5½–6	5.3
Real GDP[2]	2½–4	3¼–3¾	3.2
PCE prices	1¾–3	2–2½	2.5[3]
Average level, fourth quarter			
Civilian unemployment rate	4–4½	4–4¼	4.2

1. Change from average for fourth quarter of previous year to average for fourth quarter of year indicated.
2. Chain-weighted.
3. Projection for the consumer price index.

pose a considerable risk to the continuation of the extraordinary economic performance of recent years.

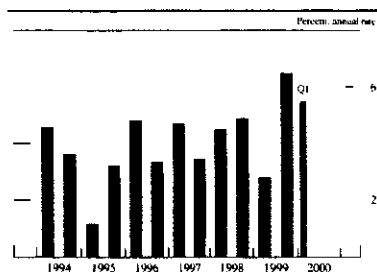
The economic forecasts of the FOMC are similar to those recently released by the Administration in its Mid-Session Review of the Budget. Compared with the forecasts available in February, the Administration raised its projections for the increase in real GDP in 2000 and 2001 to rates that lie at the low end of the current range of central tendencies of Federal Reserve policymakers. The Administration also expects that the unemployment rate will remain close to 4 percent. Like the FOMC, the Administration sees consumer price inflation rising this year and falling back in 2001. After accounting for the differences in the construction of the alternative measures of consumer prices, the Administration's projections of increases in the consumer price index (CPI) of 3.2 percent in 2000 and 2.5 percent in 2001 are broadly consistent with the Committee's expectations for the chain-type price index for personal consumption expenditures.

ECONOMIC AND FINANCIAL DEVELOPMENTS IN 2000

The expansion of U.S. economic activity maintained considerable momentum through the early months of 2000 despite the firming in credit markets that has occurred over the past year. Only recently has the pace of real activity shown signs of having moderated from the extremely rapid rate of increase that prevailed during the second half of 1999 and the first quarter of 2000. Real GDP increased at an annual rate of 5½ percent in the first quarter of 2000. Private domestic final sales, which had accelerated in the second half of 1999, were particularly robust, rising at an annual rate of almost 10 percent in the first quarter. Underlying that surge in domestic spending were many of the same factors that had contributed to the considerable strength of outlays in the second half of 1999. The ongoing influence of substantial increases in real income and wealth continued to fuel consumer spending, and business investment, which continues to be undergirded by the desire to take advantage of new, cost-saving technologies, was further buoyed by an acceleration in sales and profits late last year. Export demand posted a solid gain during the first quarter while imports rose even more rapidly to meet booming domestic demand. The available data, on balance, point to another solid increase in real GDP in the second quarter, although they suggest that private household and business fixed investment spending likely slowed noticeably from the extraordinary first-quarter pace. Through June, the expansion remained brisk enough to keep labor utilization near the very high levels reached at the end of 1999 and to raise the factory utilization rate to close to its long-run average by early spring.

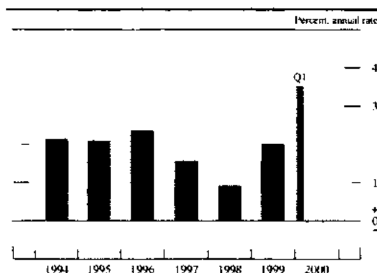
Inflation rates over the first half of 2000 were elevated by an additional increase in the price of imported crude oil, which led to sharp hikes in retail energy prices early in the year and again around midyear. Apart from energy, consumer price inflation so far this year has been somewhat higher than during 1999, and some of that acceleration may be attributable to the indirect effects of higher energy costs on the prices of core goods and services. Sustained strong gains in worker productivity have kept increases in unit labor costs minimal despite the persistence of a historically low rate of unemployment.

Change in real GDP

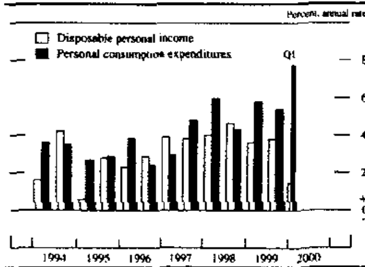


NOTE. In this chart and in subsequent charts that show the components of real GDP, changes are measured to the final quarter of the period indicated, from the final quarter of the previous period.

Change in PCE chain-type price index



Change in real income and consumption



The Household Sector

Consumer Spending

Consumer spending was exceptionally vigorous during the first quarter of 2000. Real personal consumption expenditures rose at an annual rate of 7¾ percent, the sharpest increase since early 1983. At that time, the economy was rebounding from a deep recession during which households had deferred discretionary purchases. In contrast, the first-quarter surge in consumption came on the heels of two years of very robust spending during which real outlays increased at an annual rate of more than 5 percent, and the personal saving rate dropped sharply.

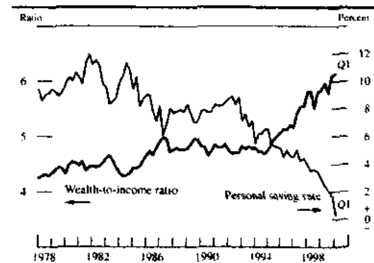
Outlays for durable goods, which rose at a very fast pace in 1998 and 1999, accelerated during the first quarter to an annual rate of more than 24 percent. Most notably, spending on motor vehicles, which had climbed to a new high in 1999, jumped even further in the first quarter of 2000 as unit sales of light motor vehicles soared to a record rate of 18.1 million units. In addition, households' spending on computing equipment and software rebounded after the turn of the year; some consumers apparently had postponed their purchases of these goods in late 1999 before the century date change. Outlays for nondurable goods posted a solid increase of 5¾ percent in the first quarter, marked by a sharp upturn in spending on clothing and shoes. Spending for consumer services also picked up in the first quarter, rising at an annual rate of 5½ percent. Spending was quite brisk for a number of non-energy consumer services, ranging from recreation and telephone use to brokerage fees. Also contributing to the acceleration was a rebound in outlays for energy services, which had declined in late 1999, when weather was unseasonably warm.

In recent months, the rise in consumer spending has moderated considerably from the phenomenal pace of the first quarter, with much of the slowdown in outlays for goods. At an annual rate of 17¼ million units in the second quarter, light motor vehicles sold at a rate well below their first-quarter pace. Nonetheless, that level of sales is still historically high, and with prices remaining damped and automakers continuing to use incentives, consumers' assessments of the motor vehicle market continue to be positive. The information on retail sales for the April-to-June period indicate that consumer expenditures for other goods rose markedly slower in the second quarter than in the first quarter, at a pace well below the average rate of increase during the preceding two years. In contrast, personal consumption expenditures for consumer services continued to rise relatively briskly in April and May.

Real disposable personal income increased at an annual rate of about 3 percent between December and May—slightly below the 1999 pace of 3¾ percent. However, the impetus to spending from the rapid rise in household net worth was still considerable, labor markets remained tight, and confidence was still high. As a result, households continued to allow their spending to outpace their flow of current income, and the personal saving rate, as measured in the national income and product accounts, dropped further, averaging less than 1 percent during the first five months of the year.

After having boosted the ratio of household net worth to disposable income to a record high in the first quarter, stock prices have fallen back, suggesting less impetus to consumer spending going forward. In addition, smaller employment gains and the pickup in

Wealth and saving



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

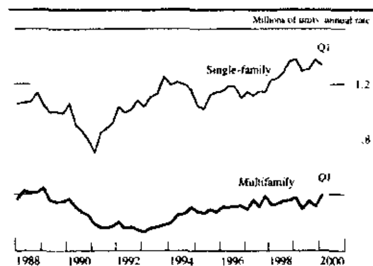
energy prices have moderated the rise in real income of late. Although these developments left some imprint on consumer attitudes in June, households remained relatively upbeat about their prospective financial situation, according to the results of the University of Michigan Survey Research Center (SRC) survey. However, they became a bit less positive about the outlook for business conditions and saw a somewhat greater likelihood of a rise in unemployment over the coming year.

Residential Investment

Housing activity stayed at a high level during the first half of this year. Homebuilders began the year with a considerable backlog of projects that had developed as the exceptionally strong demand of the previous year strained capacity. As a result, they maintained starts of new single-family homes at an annual rate of 1.33 million units, on average, through April—matching 1999's robust pace. Households' demand for single-family homes was supported early in the year by ongoing gains in jobs and income and the earlier run-up in wealth; those forces apparently were sufficient to offset the effects that higher mortgage interest rates had on the affordability of new homes. Sales of new homes were particularly robust, setting a new record by March; but sales of existing units slipped below their 1999 high. As a result of the continued strength in sales, the home-ownership rate reached a new high in the first quarter.

By the spring, higher mortgage interest rates were leaving a clearer mark on the attitudes of both consumers and builders. The Michigan SRC survey reported that households' assessments of homebuying conditions dropped between April and June to the lowest level in more than nine years. Survey respondents noted that, besides higher financing costs, higher prices of homes were becoming a factor in their less positive assessment of market conditions. Purchases of existing homes were little changed, on balance, in April and May from the first-quarter average; however, because these sales are recorded at the time of closing, they tend to be a lagging indicator of demand. Sales of new homes—a more current indicator—fell back in April and May, and homebuilders reported that sales dropped further in June. Perhaps a sign that softer demand has begun to affect construction, starts of new single-family homes slipped to a rate of 1¼ million units in May. That level of new homebuilding, although noticeably slower than the robust pace that characterized the fall and winter period, is only a bit below the elevated level that prevailed throughout much of 1998, when single-family starts reached their highest level in twenty years. Starts of multifamily housing units, which also had stepped up sharply in the first quarter of the year, to an annual rate of 390,000 units, settled back to a 340,000 unit rate in April and May.

Private housing starts



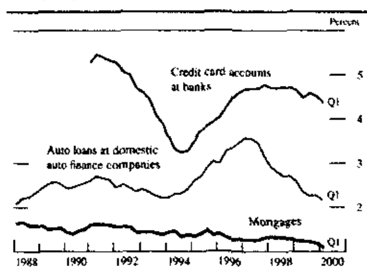
Household Finance

Fueled by robust spending, especially early in the year, the expansion of household debt remained brisk during the first half of 2000, although below the very strong 1999 growth rate. Apparently, a favorable outlook for income and employment, along with rising wealth, made households feel confident enough to continue to spend and take on debt. Despite rising mortgage and consumer loan rates, household debt increased at an annual rate of nearly 8 percent in the first quarter, and preliminary data point to a similar increase in the second quarter.

Mortgage debt expanded at an annual rate of 7 percent in the first quarter, boosted by the high level of housing activity. Household debt not secured by real estate—including credit card balances and auto loans—posted an impressive 10 percent gain in the first quarter to help finance a large expansion in outlays for consumer durables, especially motor vehicles. The moderation in the growth of household debt this year has been driven primarily by its mortgage component: Preliminary data for the second quarter suggest that, although consumer credit likely decelerated from the first quarter, it still grew faster than in 1999.

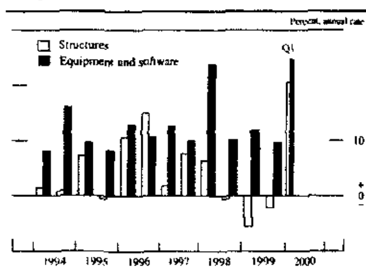
Debt in margin accounts, which is largely a household liability and is not included in reported measures of credit market debt, has declined, on net, in recent

Delinquency rates on household loans



NOTE. 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



months, following a surge from late in the third quarter of 1999 through the end of March 2000. *There has been no evidence that recent downdrafts in* share prices this year caused serious repayment problems at the aggregate level that might pose broader systemic concerns.

The combination of rapid debt growth and rising interest rates has pushed the household debt-service burden to levels not reached since the late 1980s. Nonetheless, with household income and net worth both having grown rapidly, and employment prospects favorable, very few signs of worsening credit problems in the household sector have emerged, and commercial banks have reported in recent Federal Reserve surveys that they remain favorably disposed to make consumer installment and mortgage loans. Indeed, financial indicators of the household sector have remained mostly positive: The rate of personal bankruptcy filings fell in the first quarter to its lowest level since 1996; delinquency rates on home mortgages and auto loans remained low; and the delinquency rate on credit cards edged down further, although it remained in the higher range that has prevailed since the mid-1990s. However, delinquency rates may be held down, to some extent, by the surge in new loan originations in recent quarters because newly originated loans are less likely to be delinquent than seasoned ones.

The Business Sector

Fixed Investment

The boom in capital spending extended into the first half of 2000 with few indications that businesses' desire to take advantage of more-efficient technologies is diminishing. Real business fixed investment surged at an annual rate of almost 24 percent in the first quarter of the year, rebounding sharply from its lull at the end of 1999, when firms apparently postponed some projects because of the century date change. In recent months, the trends in new orders and shipments of nondefense capital goods suggest that demand has remained solid.

Sustained high rates of investment spending have been a key feature shaping the current economic expansion. Business spending on new equipment and software has been propelled importantly by ongoing advances in computer and information technologies that can be applied to a widening range of business processes. The ability of firms to take advantage of these emerging developments has been supported by the strength of domestic demand and by generally favorable conditions in credit and equity markets. In addition, because these high-technology goods can be produced increasingly efficiently, their prices have continued to decline steeply, providing additional incentive for rapid investment. The result has been a significant rise in the stock of capital in use by businesses and an acceleration in the flow of services from that capital as more-advanced vintages of equipment replace older ones. The payoff from the prolonged period during which firms have upgraded their plant and equipment has increasingly shown through in the economy's improved productivity performance.

Real outlays for business equipment and software shot up at an annual rate of nearly 25 percent in the first quarter of this year. That jump followed a modest increase in the final quarter of 1999 and put spending for business equipment and software back on the double-digit uptrend that has prevailed

throughout the current economic recovery. Concerns about potential problems with the century date change had the most noticeable effect on the patterns of spending for computers and peripherals and for communications equipment in the fourth and first quarters; expenditures for software were also affected, although less so. For these categories of goods overall, the impressive resurgence in business purchases early this year left little doubt that the underlying strength in demand for high-tech capital goods had been only temporarily interrupted by the century date change. Indeed, nominal shipments of office and computing equipment and of communication devices registered sizable increases over the April–May period.

In the first quarter, business spending on computers and peripheral equipment was up almost 40 percent from a year earlier—a pace in line with the trend of the current expansion. Outlays for communications equipment, however, accelerated; the first-quarter surge brought the year-over-year increase in spending to 35 percent, twice the pace that prevailed a year earlier. Expanding Internet usage has been driving the need for new network architectures. In addition, cable companies have been investing heavily in preparation for their planned entry into the markets for residential and commercial telephony and broadband Internet services.

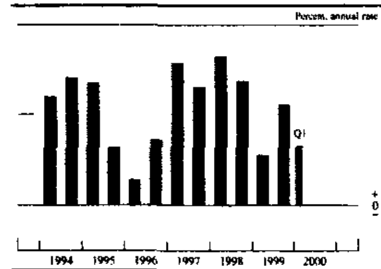
Demand for business equipment outside of the high-tech area was also strong at the beginning of the year. In the first quarter, outlays for industrial equipment rose at a brisk pace for a third consecutive quarter as the recovery of the manufacturing sector from the effects of the Asian crisis gained momentum. In addition, investment in farm and construction machinery, which had fallen steadily during most of 1999, turned up, and shipments of civilian aircraft to domestic customers increased. More recent data show a further rise in the backlog of unfilled orders placed with domestic firms for equipment and machinery (other than high-tech items and transportation equipment), suggesting that demand for these items has been well maintained. However, business purchases of motor vehicles are likely to drop back in the second quarter from the very high level recorded at the beginning of the year. In particular, demand for heavy trucks appears to have been adversely affected by higher costs of fuel and shortages of drivers.

Real investment in private nonresidential structures jumped at an annual rate of more than 20 percent in the first quarter of the year after having declined in 1999. Both last year's weakness and this year's sudden and widespread revival are difficult to explain fully. Nonetheless, the higher levels of spending on office buildings, other commercial facilities, and industrial buildings recorded early this year would seem to accord well with the overall strength in aggregate demand. However, the fundamentals in this sector of the economy are mixed. Available information suggests that property values for offices, retail space, and warehouses have been rising more slowly than they were several years ago. However, office vacancy rates have come down, which suggests that, at least at an aggregate level, the office sector is not overbuilt. The vacancy rate for industrial buildings has also fallen, but in only a few industries, such as semiconductors and other electronic components, are capacity pressures sufficiently intense to induce significant expansion of production facilities.

Inventory Investment

The ratio of inventories to sales in many nonfarm industries moved lower early this year. Those firms that had accumulated some additional stocks toward the end of 1999 as a precaution against disruptions related to the century date change seemed to have little difficulty working off those inventories after the smooth transition to the new year. Moreover, the first-quarter surge in final demand may have, to some extent, exceeded businesses' expectations. In current-cost terms, non-auto manufacturing and trade establishments built inventories in April and May at a somewhat faster rate than in the first quarter but still roughly in line with the rise in their sales. As a result, the ratio of inventories to sales, at current cost, for these businesses was roughly unchanged from the first quarter. Overall, the ongoing downtrend in the ratios of inventories to sales during the past several years suggests that businesses increasingly are taking

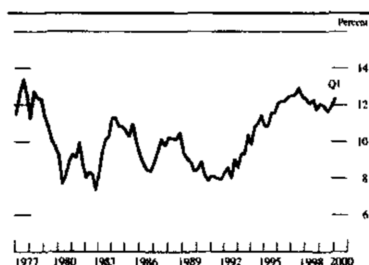
Change in real nonfarm business inventories



advantage of new technologies and software to implement better inventory management.

The swing in inventory investment in the motor vehicle industry has been more pronounced recently. Dealer stocks of new cars and light trucks were drawn down during the first quarter as sales climbed to record levels. Accordingly, auto and truck makers kept assemblies at a high level through June in order to maintain ready supplies of popular models. Even though demand appears to have softened and inventories of a few models have backed up, scheduled assemblies for the third quarter are above the elevated level of the first half.

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



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

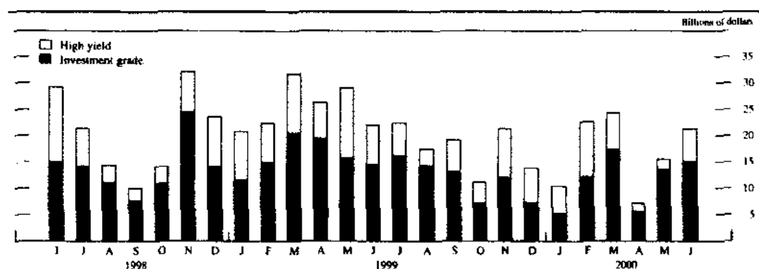
Business Finance

The economic profits of nonfinancial U.S. corporations posted another solid increase in the first quarter. The profits that nonfinancial corporations earned on their domestic operations were 10 percent above the level of a year earlier; the rise lifted the share of profits in this sector's nominal output close to its 1997 peak. Nonetheless, with investment expanding rapidly, businesses' external financing requirements, measured as the difference between capital expenditures and internally generated funds, stayed at a high level in the first half of this year. Businesses' credit demands were also supported by cash-financed merger and acquisition activity. Total debt of nonfinancial businesses increased at a 10½ percent clip in the first quarter, close to the brisk pace of 1999, and available information suggests that borrowing remained strong into the second quarter.

On balance, businesses have altered the composition of their funding this year to rely more on shorter-term sources of credit and less on the bond market, although the funding mix has fluctuated widely in response to changing market conditions. After the passing of year-end, corporate borrowers returned to the bond market in volume in February and March, but subsequent volatility in the capital market in April and May prompted a pullback. In addition, corporate bond investors have been less receptive to smaller, less liquid offerings, as has been true for some time.

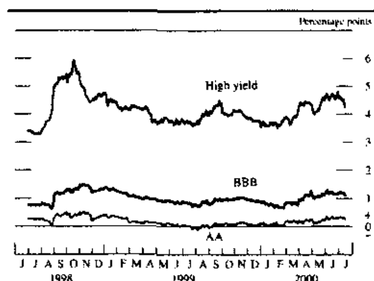
In the investment-grade market, bond issuers have responded to investors' concerns about the interest rate and credit outlook by shortening the maturities of their offerings and by issuing more floating-rate securities. In the below-investment-grade market, many of the borrowers who did tap the bond market in

Gross corporate bond issuance



NOTE. Excludes unrated issues and issues sold abroad.

Spreads of corporate bond yields
over the ten-year swap rate

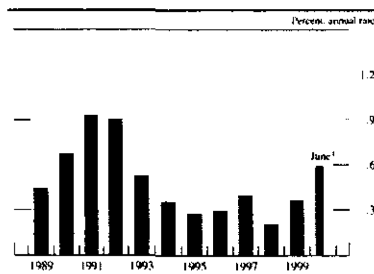


NOTE. The data are daily. The spreads compare the yields on the Merrill Lynch AA, BBB, and 175 indexes with the ten-year swap rate from Bloomberg. Last observations are for July 17, 2000.

February and March did so by issuing convertible bonds and other equity-related debt instruments. Subsequently, amid increased equity market volatility and growing investor uncertainty about the outlook for prospective borrowers, credit spreads in the corporate bond market widened, and issuance in the below-investment-grade market dropped sharply in April and May. Conditions in the corporate bond market calmed in late May and June, and issuance recovered to close to its first-quarter pace.

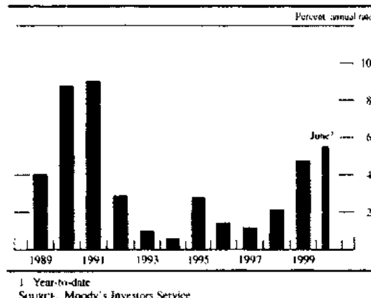
As the bond market became less hospitable in the spring, many businesses evidently turned to banks and to the commercial paper market for financing. Partly as a result, commercial and industrial loans at banks have expanded briskly, even as a larger percentage of banks have reported in Federal Reserve surveys that they have been tightening standards and terms on such loans.

Ratio of liabilities of failed nonfinancial firms
to liabilities of all nonfinancial firms



1. Year-to-date.
SOURCE. Dun & Bradstreet.

Default rates on outstanding junk bonds



1. Year-to-date.
SOURCE. Moody's Investors Service.

Underscoring lenders' concerns about the creditworthiness of borrowers, the ratio of liabilities of failed businesses to total liabilities has increased further so far this year, and the default rate on outstanding junk bonds has risen further from the relatively elevated level reached in 1999. Through midyear, Moody's Investors Service has downgraded, on net, more debt in the nonfinancial business sector than it has upgraded, although it has placed more debt on watch for future upgrades than downgrades.

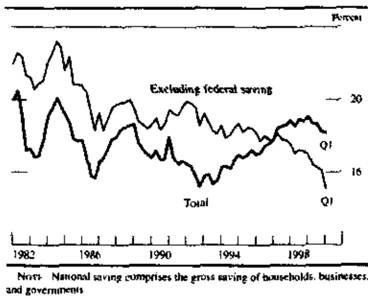
Commercial mortgage borrowing has also expanded at a robust pace over the first half of 2000, as investment in office and other commercial building strengthened. Extending last year's trend, borrowers have tapped banks and life insurance companies as the financing sources of choice. Banks, in particular, have reported stronger demand for commercial real estate loans this year even as they have tightened standards a bit for approving such loans. In the market for commercial mortgage-backed securities, yields have edged higher since the beginning of the year.

The Government Sector

Federal Government

The incoming information regarding the federal budget suggests that the surplus in the current fiscal year will surpass last year's by a considerable amount. Over the first eight months of fiscal year 2000—the

National saving as a share of nominal GNP

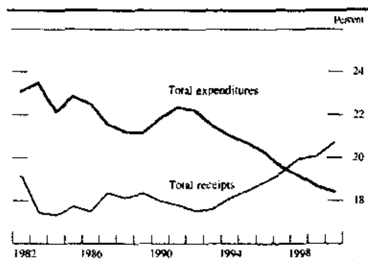


NOTE. National saving comprises the gross saving of households, businesses, and governments.

period from October to May—the unified budget recorded a surplus of about $120 billion, compared with $41 billion during the comparable period of fiscal 1999. The Office of Management and Budget and the Congressional Budget Office are now forecasting that, when the fiscal year closes, the unified surplus will be around $225 billion to $230 billion, $100 billion higher than in the preceding year. That outcome would likely place the surplus at more than 2¼ percent of GDP, which would exceed the most recent high of 1.9 percent, which occurred in 1951.

The swing in the federal budget from deficit to surplus has been an important factor in maintaining national saving. The rise in federal saving as a percentage of gross national product from −3.5 percent in 1992 to 3.1 percent in the first quarter of this year has been sufficient to offset the drop in personal

Federal receipts and expenditures as a share of nominal GDP



NOTE. Data on receipts and expenditures are from the unified budget. Values for 2000 are current services estimates from the Mid-Session Review of the Budget by the Office of Management and Budget.

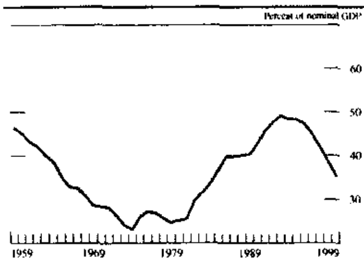
saving that occurred over the same period. As a result, gross saving by households, businesses, and governments has stayed above 18 percent of GNP since 1997, compared with 16½ percent over the preceding seven years. The deeper pool of national saving, along with the continued willingness of foreign investors to finance our current account deficit, remains an important factor in containing increases in the cost of capital and sustaining the rapid expansion of domestic investment. With longer-run projections showing a rising federal government surplus over the next decade, this source of national saving could continue to expand.

The recent good news on the federal budget has been primarily on the receipts side of the ledger. Nonwithheld tax receipts were very robust this spring. Both final payments on personal income tax liabilities for 1999 and final corporate tax payments for 1999 were up substantially. So far this year, the withheld tax and social insurance contributions on this year's earnings of individuals have also been strong. As a result, federal receipts during the first eight months of the fiscal year were almost 12 percent higher than they were during the year-earlier period.

While receipts have accelerated, federal expenditures have been rising only a little faster than during fiscal 1999 and continue to decline as a share of nominal GDP. Nominal outlays for the first eight months of the current fiscal year were 5¼ percent above the year-earlier period. Increases in discretionary spending have picked up a bit so far this year. In particular, defense spending has been running higher in the wake of the increase in budget authority enacted last year. The Congress has also boosted agricultural subsidies in response to the weakness in farm income. While nondiscretionary spending continues to be held down by declines in net interest payments, categories such as Medicaid and other health programs have been rising more rapidly of late.

As measured by the national income and product accounts, real federal expenditures for consumption and gross investment dropped sharply early this year after having surged in the fourth quarter of 1999. These wide quarter-to-quarter swings in federal spending appear to have occurred because the Department of Defense speeded up its payments to vendors before the century date change; actual deliveries of defense goods and services were likely smoother. On average, real defense spending in the fourth and first quarters was up moderately from the average level in fiscal 1999. Real nondefense outlays continued to rise slowly.

Federal government debt held by the public



NOTE. The data are annual and extend through 2000. Federal debt held by private investors is gross federal debt less debt held by federal government accounts and the Federal Reserve System. The value for 2000 is an estimate based on the Administration's June 26 Mid-Session Review of the Budget.

With current budget surpluses coming in above expectations and large surpluses projected to continue for the foreseeable future, the federal government has taken additional steps aimed at preserving a high level of liquidity in the market for its securities. Expanding on efforts to concentrate its declining debt issuance in fewer highly liquid securities, the Treasury announced in February its intention to issue only two new five- and ten-year notes and only one new thirty-year bond each year. The auctions of five- and ten-year notes will remain quarterly, alternating between new issues and smaller reopenings, and the bond auctions will be semiannual, also alternating between new and smaller reopened offerings. The Treasury also announced that it was reducing the frequency of its one-year bill auctions from monthly to quarterly and cutting the size of the monthly two-year note auctions. In addition, the Treasury eliminated the April auction of the thirty-year inflation-indexed bond and indicated that the size of the ten-year inflation-indexed note offerings would be modestly reduced. Meanwhile, anticipation of even larger surpluses in the wake of the surprising strength of incoming tax receipts so far in 2000 led the Treasury to announce, in May, that it was again cutting the size of the monthly two-year note auctions. The Treasury also noted that it is considering additional changes in its auction schedule, including the possible elimination of the one-year bill auctions and a reduction in the frequency of its two-year note auctions.

Early in the year, the Treasury unveiled the details of its previously announced reverse-auction, or debt buyback, program, whereby it intends to retire seasoned, less liquid, debt securities with surplus cash, enabling it to issue more "on-the-run" securities. The Treasury noted that it would buy back as much as $30 billion this year. The first operation took place in March, and in May the Treasury announced a schedule of two operations per month through the end of July of this year. Through midyear, the Treasury has conducted eight buyback operations, redeeming a total of $15 billion. Because an important goal of the buyback program is to help forestall further increases in the average maturity of the Treasury's publicly held debt, the entire amount redeemed so far has corresponded to securities with remaining maturities at the long end of the yield curve (at least fifteen years).

State and Local Governments

In the state and local sector, real consumption and investment expenditures registered another strong quarter at the beginning of this year. In part, the unseasonably good weather appears to have accommodated more construction spending than usually occurs over the winter. However, some of the recent rise is an extension of the step-up in spending that emerged last year, when real outlays rose 5 percent after having averaged around 3 percent for the preceding three years. Higher federal grants for highway construction have contributed to the pickup in spending. In addition, many of these jurisdictions have experienced solid improvements in their fiscal conditions, which may be allowing them to undertake new spending initiatives.

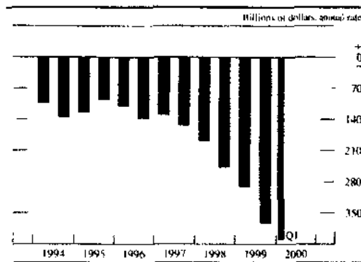
The improving fiscal outlook for state and local governments has affected both the issuance and the quality of state and local debt. Borrowing by states and municipalities expanded sluggishly in the first half of this year. In addition to the favorable budgetary picture, rising interest rates have reduced the demand for new capital financing and substantially limited refunding issuance. Credit upgrades have outnumbered downgrades by a substantial margin in the state and local sector.

The External Sector

Trade and Current Account

The deficits in U.S. external balances have continued to get even larger this year. The current account deficit reached an annual rate of $409 billion in the first quarter of 2000, or 4¼ percent of GDP, com-

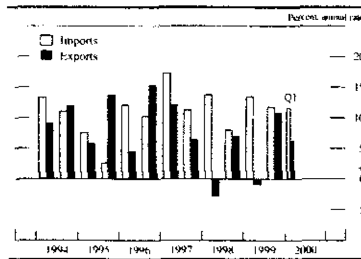
U.S. current account



pared with $372 billion and 4 percent in the second half of 1999. Net payments of investment income were a bit less in the first quarter than in the second half of last year owing to a sizable increase in income receipts from direct investment abroad. Most of the expansion in the current account deficit occurred in trade in goods and services. In the first quarter, the deficit in trade in goods and services widened to an annual rate of $345 billion, a considerable expansion from the deficit of $298 billion recorded in the second half of 1999. Trade data for April suggest that the deficit may have increased further in the second quarter.

U.S. exports of real goods and services rose at an annual rate of 6¼ percent in the first quarter, following a strong increase in exports in the second half of last year. The pickup in economic activity abroad that began in 1999 continued to support export demand and partly offset negative effects on price competitiveness of U.S. products from the dollar's past appreciation. By market destination, U.S. exports to Canada, Mexico, and Europe increased the most. By product group, export expansion was concentrated in capital equipment, industrial supplies, and consumer goods. Preliminary data for April suggest that growth of real exports remained strong.

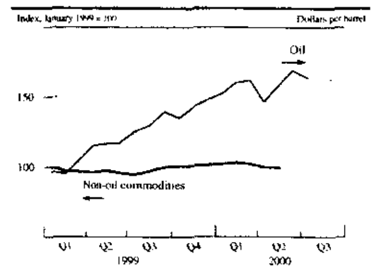
Change in real imports and exports of goods and services



The quantity of imported goods and services continued to expand rapidly in the first quarter. The increase in imports, at an annual rate of 11¾ percent, was the same in the first quarter as in the second half of 1999 and reflected both the continuing strength of U.S. domestic demand and the effects of past dollar appreciation on price competitiveness. Imports of consumer goods, automotive products, semiconductors, telecommunications equipment, and other machinery were particularly robust. Data for April suggest that the second quarter got off to a strong start. The price of non-oil goods imports rose at an annual rate of 1¾ percent in the first quarter, the second consecutive quarter of sizable price increases following four years of price declines; non-oil import prices in the second quarter posted only moderate increases.

A number of developments affecting world oil demand and supply led to a further step-up in the spot price of West Texas intermediate (WTI) crude this year, along with considerable volatility. In the wake of the plunge of world oil prices during 1998, the Organization of Petroleum Exporting Countries (OPEC) agreed in early 1999 to production restraints that, by late in the year, restored prices to their 1997 level of about $20 per barrel. Subsequently, continued recovery of world demand, combined with some

Prices for oil and other commodities



NOTE. The oil price is the spot price of West Texas intermediate crude oil. The price for non-oil commodities is a weighted average of thirty-nine non-fuel primary-commodity prices from the International Monetary Fund. The data are monthly. The last observation for non-oil commodities is May; for oil, July average through July 12, 2000.

supply disruptions, caused the WTI spot price to spike above $34 per barrel during March of this year, the highest level since the Gulf War more than nine years earlier. Oil prices dropped back temporarily in April, but in May and June the price of crude oil moved back up again, as demand was boosted further by strong global economic activity and by rebuilding of oil stocks. In late June, despite an announcement by OPEC that it would boost production, the WTI spot price reached a new high of almost $35 per barrel, but by early July the price had settled back to about $30 per barrel.

Financial Account

Capital flows in the first quarter of 2000 continued to reflect the relatively strong performance of the U.S. economy and transactions associated with global corporate mergers. Foreign private purchases of U.S. securities remained brisk—well above the record pace set last year. In addition, the mix of U.S. securities purchased by foreigners in the first quarter showed a continuation of last year's trend toward smaller holdings of U.S. Treasury securities and larger holdings of U.S. agency and corporate securities. Private-sector foreigners sold more than $9 billion in Treasury securities in the first quarter while purchasing more than $26 billion in agency bonds. Despite a mixed performance of U.S. stock prices, foreign portfolio purchases of U.S. equities exceeded $60 billion in the first quarter, more than half of the record annual total set last year. U.S. purchases of foreign securities remained strong in the first quarter of 2000.

Foreign direct investment flows into the United States were robust in the first quarter of this year as well. As in the past two years, direct investment inflows have been elevated by the extraordinary level of cross-border merger and acquisition activity. Portfolio flows have also been affected by this activity. For example, in recent years, many of the largest acquisitions have been financed by swaps of equity in the foreign acquiring firm for equity in the U.S. firm being acquired. The Bureau of Economic Analysis estimates that U.S. residents acquired $123 billion of foreign equities in this way last year. Separate data on market transactions indicate that U.S. residents made net purchases of Japanese equities but sold European equities. The latter sales likely reflect a rebalancing of portfolios after stock swaps. U.S. direct investment in foreign economies has also remained strong, exceeding $30 billion in the first quarter of 2000. Again, a significant portion of this investment was associated with cross-border merger activity.

Capital inflows from foreign official sources in the first quarter of this year were sizable—$20 billion, compared with $43 billion for all of 1999. As was the case last year, the increase in foreign official reserves in the United States in the first quarter was concentrated in a relatively few countries. Partial data for the second quarter of 2000 show a small official outflow.

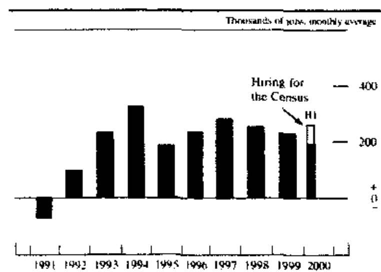
The Labor Market

Employment and Labor Supply

The labor market in early 2000 continued to be characterized by substantial job creation, a historically low level of unemployment, and sizable advances in productivity that have held labor costs in check. The rise in overall nonfarm payroll employment, which totaled more than 1½ million over the first half of the year, was swelled by the federal government's hiring of intermittent workers to conduct the decennial census. Apart from that temporary boost, which accounted for about one-fourth of the net gain in jobs between December and June, nonfarm payroll employment increased an average of 190,000 per month, somewhat below the robust pace of the preceding four years.

Monthly changes in private payrolls were uneven at times during the first half the year, but, on balance, the pace of hiring, while still solid, appears to have moderated between the first and second quarters. In some industries, such as construction, the pattern appears to have been exaggerated by unseasonably high levels of activity during the winter that acceler-

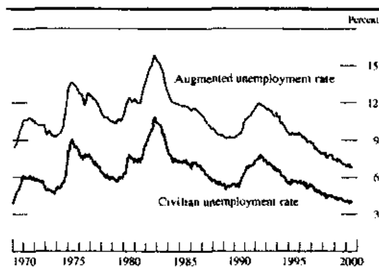
Net change in total nonfarm payroll employment



ated hiring that typically would have occurred in the spring. After a robust first quarter, construction employment declined between April and June; on average, hiring in this industry over the first half of the year was only a bit slower than the rapid pace that prevailed from 1996 to 1999. However, employment gains in the services industry, particularly in business and health services, were smaller in the second quarter than in the first while job cutbacks occurred in finance, insurance, and real estate after four and one-half years of steady expansion. Nonetheless, strong domestic demand for consumer durables and business equipment, along with support for exports from the pickup in economic activity abroad, led to a leveling off in manufacturing employment over the first half of 2000 after almost two years of decline. And, with consumer spending brisk, employment at retail establishments, although fluctuating widely from month to month, remained generally on a solid uptrend over the first half.

The supply of labor increased slowly in recent years relative to the demand for workers. The labor force participation rate was unchanged, on average, at 67.1 percent from 1997 to 1999; that level was just 0.6 percentage point higher than at the beginning of the expansion in 1990. The stability of the participation rate over the 1997–99 period was somewhat surprising because the incentives to enter the workforce seemed powerful: Hiring was strong, real wages were rising more rapidly than earlier in the expansion, and individuals perceived that jobs were plentiful. However, the robust demand for new workers instead led to a substantial decline in unemployment, and the civilian jobless rate fell from 5¼ percent at

Measures of labor utilization



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

the beginning of 1997 to just over 4 percent at the end of 1999.

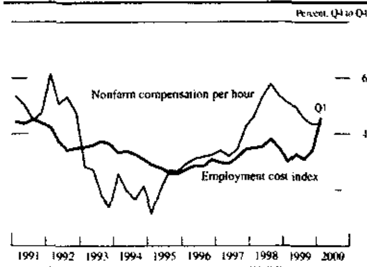
This year, the labor force participation rate ratcheted up sharply over the first four months of the year before dropping back in recent months as employment slowed. The spike in participation early this year may have been a response to ready availability of job opportunities, but Census hiring may also have temporarily attracted some individuals into the workforce. On net, growth of labor demand and supply have been more balanced so far this year, and the unemployment rate has held near its thirty-year low of 4 percent. At midyear, very few signs of a significant easing in labor market pressures have surfaced. Employers responding to various private surveys of business conditions report that they have been unable to hire as many workers as they would like because skilled workers are in short supply and competition from other firms is keen. Those concerns about hiring have persisted even as new claims for unemployment insurance have drifted up from very low levels in the past several months, suggesting that some employers may be making workforce adjustments in response to slower economic activity.

Labor Costs and Productivity

Reports by businesses that workers are in short supply and that they are under pressure to increase compensation to be competitive in hiring and retaining employees became more intense early this year. However, the available statistical indicators are providing somewhat mixed and inconsistent signals of whether a broad acceleration in wage and benefit costs is emerging. Hourly compensation, as measured by the employment cost index (ECI) for private nonfarm businesses, increased sharply during the first quarter to a level more than 4½ percent above a year earlier. Before that jump, year-over-year changes in the ECI compensation series had remained close to 3½ percent for three years. However, an alternative measure of compensation per hour, calculated as part of the productivity and cost series, which has shown higher rates of increase than the ECI in recent years, slowed in the first quarter of this year. For the nonfarm business sector, compensation per hour in the first quarter was 4¼ percent higher than a year earlier; in the first quarter of 1999, the four-quarter change was 5¼ percent.[3]

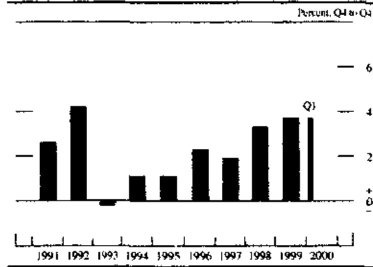
3. The figures for compensation per hour in the nonfinancial corporate sector are similar: an increase of about 4 percent for the year ending in the first quarter of this year compared with almost 5½ percent for the year ending in the first quarter of 1999.

Measures of the change in hourly compensation



NOTE. The ECI is for private industry excluding farm and household workers. Nonfarm compensation per hour is for the nonfarm business sector.

Change in output per hour for the nonfarm business sector



NOTE. The value for 2000:Q1 is the percent change from a year earlier.

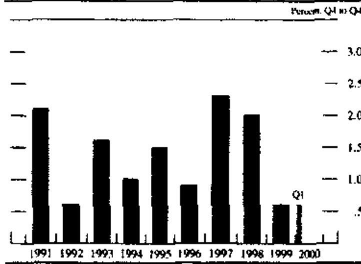
Part of the acceleration in the ECI in the first quarter was the result of a sharp step-up in the wage and salary component of compensation change. While higher rates of straight-time pay were widespread across industry and occupational groups, the most striking increase occurred in the finance, insurance, and real estate industry where the year-over-year change in wages and salaries jumped from about 4 percent for the period ending in December 1999 to almost 8½ percent for the period ending in March of this year. The sudden spike in wages in that sector could be related to commissions that are tied directly to activity levels in the industry and, thus, would not represent a lasting influence on wage inflation. For other industries, wages and salaries accelerated moderately, which might appear plausible in light of reports that employers are experiencing shortages of some types of skilled workers. However, the uptrend in wage inflation that surfaced in the first-quarter ECI has not been so readily apparent in the monthly data on average hourly earnings of production or nonsupervisory workers, which are available through June. Although average hourly earnings increased at an annual rate of 4 percent between December and June, the June level of hourly wages stood 3¾ percent higher than a year earlier, the same as the increase between June 1998 and June 1999.

While employers in many industries appear to have kept wage increases moderate, they may be facing greater pressures from rising costs of employee benefits. The ECI measure of benefit costs rose close to 3½ percent during 1999, a percentage point faster than during 1998; these costs accelerated sharply further in the first quarter of this year to a level 5½ percent above a year earlier. Much of last year's pickup in benefit costs was associated with faster rates of increase in employer contributions to health insurance, and the first-quarter ECI figures indicated another step-up in this component of costs. Private survey information and available measures of prices in the health care industry suggest that the upturn in the employer costs of health care benefits is associated with both higher costs of health care and employers' willingness to offer attractive benefit packages in order to compete for workers in a tight labor market. Indeed, employers have been reporting that they are enhancing compensation packages with a variety of benefits in order to hire and retain employees. Some of these offerings are included in the ECI; for instance, the ECI report for the first quarter noted a pickup in supplemental forms of pay, such as overtime and nonproduction bonuses, and in paid leave. However, other benefits cited by employers, including stock options, hiring and retention bonuses, and discounts on store purchases, are not measured in the ECI.[4] The productivity and costs measure of hourly compensation may capture more of the non-wage costs that employers incur, but even for that series, the best estimates of employer compensation costs are available only after business reports for unemployment insurance and tax records are tabulated and folded into the annual revisions of the national income and product accounts.

Because businesses have realized sizable gains in worker productivity, compensation increases have

4. Beginning with publication of the ECI for June 2000, the Bureau of Labor Statistics plans to expand the definition of nonproduction bonuses in the ECI to include hiring and retention bonuses. These payments are already included in the wage and salary measure underlying the data on compensation per hour calculated for the productivity and cost series.

Change in unit labor costs for the nonfarm business sector



NOTE. The value for 2000:Q1 is the percent change from a year earlier.

not generated significant pressure on overall costs of production. Output per hour in the nonfarm business sector posted another solid advance in the first quarter, rising to a level 3¼ percent above a year earlier and offsetting much of the rise in hourly compensation over the period. For nonfinancial corporations, the subset of the nonfarm business sector that excludes types of businesses for which output is measured less directly, the 4 percent year-over-year increase in productivity held unit labor costs unchanged.

With the further robust increases in labor productivity recently, the average rise in output per hour in the nonfarm business sector since early 1997 has stepped up further to 3 percent from the 2 percent pace of the 1995–97 period. What has been particularly impressive is that the acceleration of productivity in the past several years has exceeded the pickup in output growth over the period and, thus, does not appear to be simply a cyclical response to more rapidly rising demand. Rather, businesses are likely realizing substantial and lasting payoffs from their investment in equipment and processes that embody the technological advances of the past several years.

Prices

Rates of increase in the broader measures of prices moved up further in early 2000. After having accelerated from 1 percent during 1998 to 1½ percent last year, the chain-type price index for GDP—prices of goods and services that are *produced* domestically—increased at an annual rate of 3 percent in the first quarter of this year. The upswing in inflation for

2. Alternative measures of price change

Percent, annual rate

Price measure	1997:Q4 to 1998:Q4	1998:Q4 to 1999:Q4	1999:Q4 to 2000:Q1
Chain-type			
Gross domestic product	1.0	1.6	3.0
Gross domestic purchases	.7	1.9	3.5
Personal consumption expenditures	.9	2.0	3.5
Excluding food and energy	1.3	1.5	2.2
Fixed-weight			
Consumer price index	1.5	2.6	4.0
Excluding food and energy	2.4	2.1	2.3

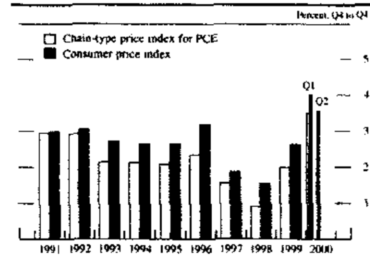
NOTE. A fixed-weight index uses quantity weights from the base year to aggregate prices from each distinct item category. A chain-type index is the geometric average of two fixed-weight indexes and allows the weights to change each year. Changes are based on quarterly averages.

goods and services *purchased* by consumers, businesses, and governments has been somewhat greater: The chain-type price index for gross domestic purchases rose at an annual rate of 3½ percent in the first quarter after having increased about 2 percent during 1999 and just ¾ percent during 1998.

The pass-through of the steep rise in the cost of imported crude oil that began in early 1999 and continued into the first half of this year has been the principal factor in the acceleration of the prices of goods and services purchased. The effect of higher energy costs on domestic prices has been most apparent in indexes of prices paid by consumers. After having risen 12 percent during 1999, the chain-type price index for energy items in the price index for personal consumer expenditures (PCE) jumped at an annual rate of 35 percent in the first quarter of 2000; the first-quarter rise in the energy component of the CPI was similar.

Swings in energy prices continued to have a noticeable effect on overall measures of consumer prices

Change in consumer prices



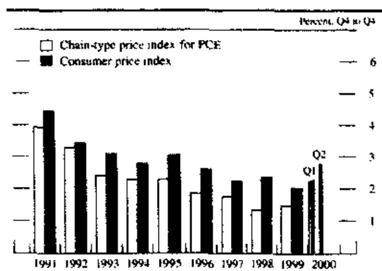
NOTE. Consumer price index for all urban consumers. Values for 2000:Q1 and Q2 are percent changes from the previous quarter at an annual rate.

in the second quarter. After world oil prices dropped back temporarily in the spring, the domestic price of motor fuel dropped in April and May, and consumer prices for energy, as measured by the CPI, retraced some of the first-quarter increase. As a result, the overall CPI was little changed over the two months. However, with prices of crude oil having climbed again, the bounceback in prices of motor fuel led to a sharp increase in the CPI for energy in June. In addition, with strong demand pressing against available supplies, consumer prices of natural gas continued to rise rapidly in the second quarter. In contrast to the steep rise in energy prices, the CPI for food has risen slightly less than other non-energy prices so far this year.

Higher petroleum costs also fed through into higher producer costs for a number of intermediate materials. Rising prices for inputs such as chemicals and paints contributed importantly to the acceleration in the producer price index for intermediate materials excluding food and energy from about 1¾ percent during 1999 to an annual rate of 3½ percent over the first half of this year. Upward pressure on input prices was also apparent for construction materials, although these have eased more recently. Prices of imported industrial supplies also picked up early this year owing to higher costs of petroleum inputs.

Core consumer price inflation has also been running a little higher so far this year. The chain-type price index for personal consumption expenditures other than food and energy increased at an annual rate of 2¼ percent in the first quarter compared with an increase of 1½ percent during 1999. Based on the monthly estimates of PCE prices in April and May, core PCE price inflation looks to have been just a little below its first-quarter rate. After having risen just over 2 percent between the fourth quarter of 1998 and the fourth quarter of 1999, the CPI excluding food and energy increased at an annual rate of 2¼ percent in the first quarter of 2000 and at a 2¾ percent rate in the second quarter. In part, the rise in core inflation likely reflects the indirect effects of higher energy costs on the prices of a variety of goods and services, although these effects are difficult to quantify with precision. Moreover, prices of non-oil imported goods, which had been declining from late 1995 through the middle of last year, continued to trend up early this year.

Change in consumer prices excluding food and energy



NOTE. Consumer price index for all urban consumers. Values for 2000:Q1 and Q2 are percent changes from the previous quarter at an annual rate.

The pickup in core inflation, as measured by the CPI, has occurred for both consumer goods and services. Although price increases for nondurable goods excluding food and energy moderated, prices of consumer durables, which had fallen between 1996 and 1999, were little changed, on balance, over the first half of this year. The CPI continued to register steep declines for household electronic goods and computers, but prices of other types of consumer durables have increased, on net, so far this year. The rate of increase in the prices of non-energy consumer services has also been somewhat faster; the CPI for these items increased at an annual rate of 3½ percent during the first two quarters of this year compared with a rise of 2¾ percent in 1999. Larger increases in the CPI measures of rent and of medical services have contributed importantly to this acceleration. Another factor has been a steeper rise in airfares, which have been boosted in part to cover the higher cost of fuel.

In addition to slightly higher core consumer price inflation, the national income and product accounts measure of prices for private fixed investment goods shows that the downtrend in prices for business fixed investment items has been interrupted. Most notably, declines in the prices of computing equipment became much smaller in the final quarter of last year and the first quarter of this year. A series of disruptions to the supply of component inputs to computing equipment has combined with exceptionally strong demand to cut the rate of price decline for computers, as measured by the chain-type price index, to an annual rate of 12 percent late last year and early this year—half the pace of the preceding three and one-half years. At the same time, prices of other types of equipment and software continued to be little changed, and the chain-type index for nonresidential structures investment remained on a moderate uptrend. In contrast, the further upward pressure on construction costs at the beginning of the year continued to push the price index for residential

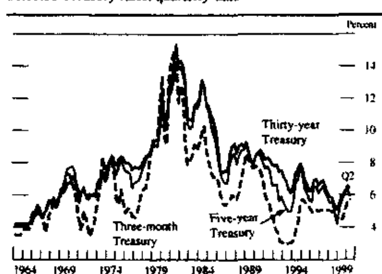
construction higher; after having accelerated from 3 percent to 3½ percent between 1998 and 1999, this index increased at an annual rate of 4¼ percent in the first quarter of 2000.

Although actual inflation moved a bit higher over the first half of 2000, inflation expectations have been little changed. Households responding to the Michigan SRC survey in June were sensitive to the adverse effect of higher energy prices on their real income but seemed to believe that the inflationary shock would be short-lived. The median of their expected change in CPI inflation over the coming twelve months was 2.9 percent. Moreover, they remained optimistic that inflation would remain at about that rate over the longer run, reporting a 2.8 percent median of expected inflation during the next five to ten years. In both instances, their expectations are essentially the same as at the end of 1999, although the year-ahead expectations are above the lower levels that had prevailed in 1997 and early 1998.

U.S. Financial Markets

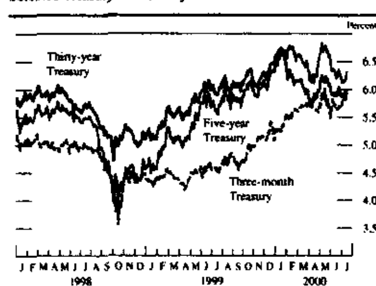
Conditions in markets for private credit firmed on balance since the end of 1999. Against a backdrop of continued economic vitality in the United States and a tighter monetary policy stance, private borrowing rates are higher, on net, particularly those charged to riskier borrowers. In addition, banks have tightened terms and standards on most types of loans. Higher real interest rates—as measured based on inflation expectations derived from surveys and from yields on the Treasury's inflation-indexed securities—account for the bulk of the increase in interest rates this year, with short-term real rates having increased the most. Rising market interest rates and heightened uncertainties about corporate prospects, especially with regard to the high-tech sector, have occasionally dampened flows in the corporate bond market and have weighed on the equity market, which has, at times, experienced considerable volatility. Through mid-July, the broad-based Wilshire 5000 equity index was up approximately 3 percent for the year.

Selected Treasury rates, quarterly data



NOTE. The twenty-year Treasury bond rate is shown until the first issuance of the thirty-year Treasury bond in February 1977. Last observations are for 2000:Q2.

Selected Treasury rates, daily data

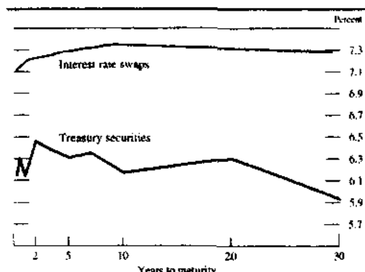


NOTE. Last observations are for July 17, 2000.

Interest Rates

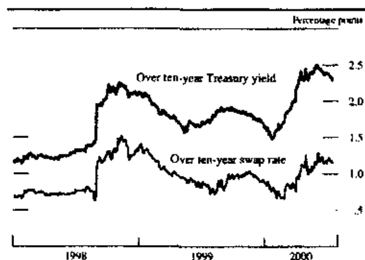
As the year began, with worries related to the century date change out of the way, participants in the fixed-income market turned their attention to the signs of continued strength in domestic labor and product markets, and they quickly priced in the possibility of a more aggressive tightening of monetary policy. Both private and Treasury yields rose considerably. In the latter part of January, however, Treasury yields plummeted, especially those on longer-dated securities, as the announced details of the Treasury's debt buyback program and upwardly revised forecasts of federal budget surpluses led investors to focus increasingly on the prospects for a diminishing supply of Treasury securities. A rise in both nominal and inflation-indexed Treasury yields in response to strong economic data and tighter monetary policy in April and May was partly offset by supply factors and by occasional safe haven flows from the volatile equity market. Since late May, market interest rates have declined as market participants have interpreted the incoming economic data as evidence that mone-

Selected yield curves, July 17, 2000



SOURCE. Swap rates are from the International Swaps and Derivatives Association, as reported by Reuters.

Spread of BBB corporate yields



NOTE. Last observations are for July 17, 2000. The data are daily.

tary policy might not have to be tightened as much as had been previously expected. On balance, while Treasury bill rates and yields on shorter-dated notes have risen 15 to 80 basis points since the beginning of the year, intermediate- and long-term Treasury yields have declined 5 to 55 basis points. In the corporate debt market, by contrast, bond yields have risen 10 to 70 basis points so far this year.

Forecasts of steep declines in the supply of longer-dated Treasuries have combined with tighter monetary policy conditions to produce an inverted Treasury yield curve, starting with the two-year maturity. In contrast, yield curves elsewhere in the U.S. fixed-income market generally have not inverted. In the interest rate swap market, for instance, the yield curve has remained flat to upward sloping for maturities as long as ten years, and the same has been true for yield curves for the most actively traded corporate bonds.[5] Nonetheless, private yield curves are flatter than usual, suggesting that, although supply considerations have played a potentially important role in the inversion of the Treasury yield curve this year, investors' forecasts of future economic conditions have also been a contributing factor. In particular, private yield curves are consistent with forecasts of a moderation in economic growth and expectations that the economy will be on a sustainable, non-inflationary track, with little further monetary policy tightening.

The disconnect between longer-term Treasury and private yields as a consequence of supply factors in the Treasury market is distorting readings from yield spreads. For instance, taken at face value, the spread of BBB corporate yields over the yield on the ten-year Treasury note would suggest that conditions in the corporate bond market so far in 2000 are worse than those during the financial market turmoil of 1998. In contrast, the spread of the BBB yield over the ten-year swap rate paints a very different picture, with spreads up this year but below their peaks in 1998. Although the swap market is still not as liquid as the Treasury securities market, and swap rates are occasionally subject to supply-driven distortions, such distortions have been less pronounced and more short-lived than those affecting the Treasury securities market of late, making swap rates a better benchmark for judging the behavior of other corporate yields.

Aware that distortions to Treasury yields are likely to become more pronounced as more federal debt is paid down, market participants have had to look for alternatives to the pricing and hedging roles traditionally played by Treasuries in U.S. financial markets. In addition to interest rate swaps, which have featured prominently in the list of alternatives to Treasuries, debt securities issued by the three government-sponsored housing agencies—Fannie Mae, Freddie Mac, and the Federal Home Loan Banks—have been used in both pricing and hedging. The three housing agencies have continued to issue a substantial volume of debt this year in an attempt to capture benchmark status, and the introduction in March of futures and

5. A typical interest rate swap is an agreement between two parties to exchange fixed and variable interest rate payments on a notional principal amount over a predetermined period ranging from one to thirty years. The notional amount itself is never exchanged. Typically, the variable interest rate is the London Interbank Offered Rate (LIBOR), and the fixed interest rate—called the swap rate—is determined in the swap market. The overall credit quality of market participants is high, typically A or above; those entities with credit ratings of BBB or lower are generally either rejected or required to adopt credit-enhancing mechanisms, typically by posting collateral.

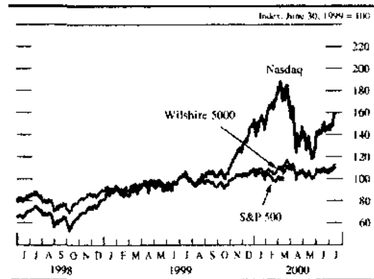
options contracts based on five- and ten-year notes issued by Fannie Mae and Freddie Mac may help enhance the liquidity of the agency securities market. Nonetheless, the market for agency debt has been affected by some uncertainty this year regarding the agencies' special relationship with the government. Both the Treasury and the Federal Reserve have suggested that it would be appropriate for the Congress to consider whether the special standing of these institutions continues to promote the public interest, and pending legislation would, among other things, restructure the oversight of these agencies and reexamine their lines of credit with the U.S. Treasury.

The implementation of monetary policy, too, has had to adapt to the anticipated paydowns of marketable federal debt. Recognizing that there may be limitations on its ability to rely as much as previously on transactions in Treasury securities to meet the reserve needs of depositories and to expand the supply of currency, the FOMC decided at its March 2000 meeting to facilitate until its first meeting in 2001 the Trading Desk's ability to continue to accept a broader range of collateral in its repurchase transactions. The initial approvals to help expand the collateral pool were granted in August 1999 as part of the Federal Reserve's efforts to better manage possible disruptions to financial markets related to the century date change.

At the March 2000 meeting, the Committee also initiated a study to consider alternative asset classes and selection criteria that could be appropriate for the System Open Market Account (SOMA) should the size of the Treasury securities market continue to decline. For the period before the completion and review of such a study, the Committee discussed, at its May meeting, some changes in the management of the System's portfolio of Treasury securities in an environment of decreasing Treasury debt. The changes aim to prevent the System from coming to hold high and rising proportions of new Treasury debt issues. They will also help the SOMA to limit any further lengthening of the average maturity of its portfolio while continuing to meet long-run reserve needs to the greatest extent possible through outright purchases of Treasury securities.[6] The SOMA will cap the rollover of its existing holdings at Treasury auctions and will engage in secondary market purchases according to a schedule that effectively will result in a greater percentage of holdings of shorter-term security issues than of longer-dated ones. The schedule ranges from 35 percent of an individual issue for Treasury bills to 15 percent for longer-term bonds. These changes were announced to the public on July 5, replacing a procedure in which all maturing holdings were rolled over and in which coupon purchases were spread evenly across the yield curve.

6. The FOMC prefers a portfolio with a short average maturity because the higher turnover rate of such a portfolio gives it greater flexibility to redeem securities in times of financial market stress, which may require substantial decreases in the securities portfolio over a relatively short period, such as during an acute banking crisis that involves heavy lending through the discount window.

Major stock price indexes



NOTE. The data are daily. Last observations are for July 17, 2000.

Equity Prices

Major equity indexes have posted small gains so far this year amid considerable volatility. Fluctuations in technology stocks have been particularly pronounced: After having reached a record high in March—24 percent above its 1999 year-end value—the Nasdaq composite index, which is heavily weighted toward technology shares, swung widely and by mid-July was up 5 percent for the year. Given its surge in the second half of 1999, the mid-July level of the Nasdaq was about 60 percent above its mid-1999 reading. The broader S&P 500 and Wilshire 5000 indexes have risen close to 3 percent since the beginning of the year and are up about 10 percent and 13 percent, respectively, from mid-1999.

Corporate earnings reports have, for the most part, exceeded expectations, and projections of future earnings continue to be revised higher. However, the increase in interest rates since the beginning of the year likely has restrained the rise in equity prices. In addition, growing unease about the lofty valuations reached by technology shares and rising default rates in the corporate sector may have given some investors a better appreciation of the risks of holding

stocks in general. Reflecting the uncertainty about the future course of the equity market, expected and actual volatilities of stock returns rose substantially in the spring. At that time, volatility implied by options on the Nasdaq 100 index surpassed even the elevated levels reached during the financial market turmoil of 1998.

Higher volatility and greater investor caution had a marked effect on public equity offerings. The pace of initial public offerings has fallen off considerably in recent months from its brisk first-quarter rate, with some offerings being canceled or postponed and others being priced well short of earlier expectations. On the other hand, households' enthusiasm for equity mutual funds, especially those funds that invest in the technology and international sectors, remains relatively high, although it appears to have faded some after the run-up in stock market volatility in the spring. Following a first-quarter surge, net inflows to stock funds moderated substantially in the second quarter but still were above last year's average pace.

Debt and the Monetary Aggregates

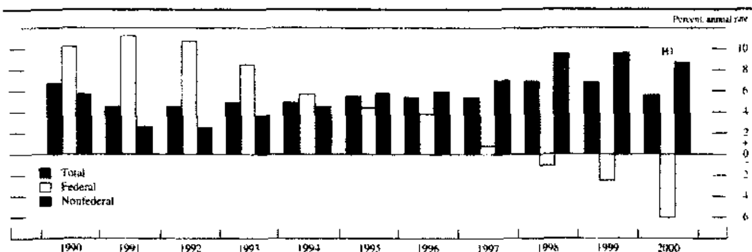
Debt and Depository Intermediation

The total debt of the U.S. household, government, and nonfinancial business sectors is estimated to have increased at close to a 5½ percent annual rate in the first half of 2000. Outside the federal government sector, debt expanded at an annual rate of roughly 9½ percent, buoyed by strength in household and business borrowing. Continued declines in federal debt have helped to ease the pressure on available savings and have facilitated the rapid expansion of nonfederal debt outstanding: The federal government paid down $218 billion of debt over the first half of 2000, compared with paydowns of $56 billion and $101 billion in the first six months of calendar years 1998 and 1999 respectively.

Depository institutions have continued to play an important role in meeting the strong demands for credit by businesses and households. Adjusted for mark-to-market accounting rules, credit extended by commercial banks rose 11½ percent in the first half of 2000. This advance was paced by a brisk expansion of loans, which grew at an annual rate of nearly 13 percent over this period. Bank credit increased in part because some businesses sought bank loans as an alternative to a less receptive corporate bond market. In addition, the underlying strength of household spending helped boost the demand for consumer and mortgage loans. Banks' holdings of consumer and mortgage loans were also supported by a slower pace of securitizations this year. In the housing sector, for instance, the rising interest rate environment has kept the demand for adjustable-rate mortgages relatively elevated, and banks tend to hold these securities on their books rather than securitize them.

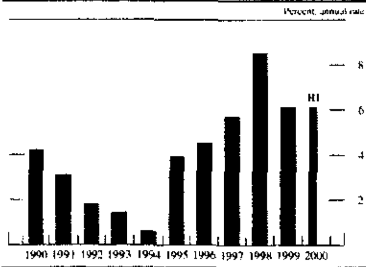
Banks have tightened terms and standards on loans further this year, especially in the business sector, where some lenders have expressed concerns about a more uncertain corporate outlook. Bank regulators have noted that depository institutions need to take particular care in evaluating lending risks to account for possible changes in the overall macroeconomic environment and in conditions in securities markets.

Growth of domestic nonfinancial debt



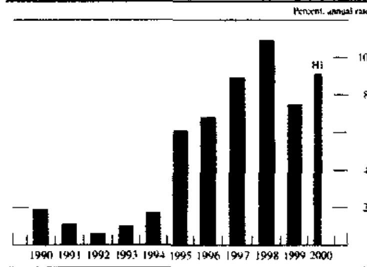
NOTE. Total debt consists of the outstanding credit market debt of the U.S. government, state and local governments, households and nonprofit organizations, nonfinancial businesses, and farms. Annual growth rates are computed from average for fourth quarter of preceding year to average for fourth quarter of year indicated. Growth in the first half of 2000 is computed from average for fourth quarter of 1999 to average for the second quarter of 2000 and expressed at an annual rate. The growth rate for 2000:H1 is currently based on partially estimated data.

M2 growth rate



NOTE. M2 consists of currency, travelers checks, demand deposits, other checkable deposits, savings deposits (including money market deposit accounts), small-denomination time deposits, and balances in retail money market funds. See footnote under the domestic nonfinancial debt chart for details on the computation of growth rates.

M3 growth rate

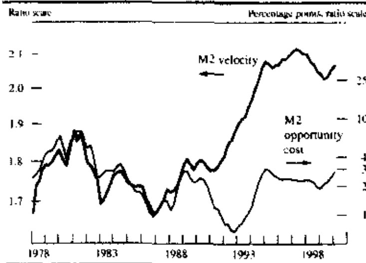


NOTE. M3 consists of M2 plus large-denomination time deposits, balances on institutional money market funds, RP liabilities (overnight and term), and eurodollars (overnight and term). See footnote under the domestic nonfinancial debt chart for details on the computation of growth rates.

The Monetary Aggregates

Growth of the monetary aggregates over the first half of 2000 has been buffeted by several special factors. The unwinding of the buildups in liquidity that occurred in late 1999 before the century date change depressed growth in the aggregates early this year. Subsequently, M2 rebounded sharply in anticipation of outsized tax payments in the spring and then ran off as those payments cleared. On net, despite the cumulative firming of monetary policy since June 1999, M2 expanded at a relatively robust, 6 percent, annual rate during the first half of 2000—the same pace as in 1999—supported by the rapid expansion of nominal spending and income.

M2 velocity and the opportunity cost of holding M2



NOTE. The data are quarterly and are through 2000:Q1. The velocity of M2 is the ratio of nominal gross domestic product to the stock of M2. The opportunity cost of M2 is a two-quarter moving average of the difference between the three-month Treasury bill rate and the weighted average return on assets included in M2.

M2 velocity—the ratio of nominal income to M2—has increased over the first half of this year, consistent with its historical relationship with the interest forgone ("opportunity cost") from holding M2. As usual, rates offered on many of the components of M2 have not tracked the upward movement in market interest rates, and the opportunity cost of holding M2 has risen. In response, investors have reallocated some of their funds within M2 toward those components whose rates adjust more quickly—such as small time deposits—and have restrained flows into M2 in favor of longer-term mutual funds and direct holdings of market instruments.

M3 expanded at an annual rate of 9 percent in the first half of 2000, up from 7½ percent for all of 1999. The robust expansion of bank credit underlies much of the acceleration in M3 this year. Depository institutions have issued large time deposits and other managed liabilities in volume to help fund the expansion of their loan and securities portfolios. In contrast, flows to institutional money funds slowed from the rapid pace of late 1999 after the heightened preference for liquid assets ahead of the century date change ebbed.

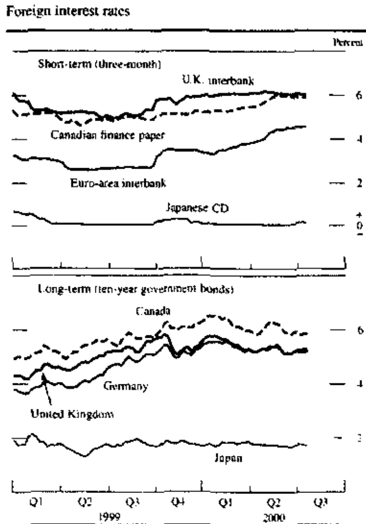
As has been the case since 1994, depository institutions have continued to implement new retail sweep programs over the first half of 2000 in order to avoid having to hold non-interest-bearing reserve balances with the Federal Reserve System. As a result, required reserve balances are still declining gradually, adding to concerns that, under current procedures, low balances might adversely affect the imple-

mentation of monetary policy by eventually leading to increased volatility in the federal funds market. The pending legislation that would allow the Federal Reserve to pay interest on balances held at Reserve Banks would likely lead to a partial unwinding over time of the ongoing trend in retail sweep programs.

International Developments

In the first half of 2000, economic activity in foreign economies continued the strong overall performance that was registered last year. With a few exceptions, most emerging-market countries continued to show signs of solid recoveries from earlier recessions, supported by favorable financial market conditions. Average real GDP in the foreign industrial countries accelerated noticeably in the first half of this year after a mild slowdown in late 1999. The pickup reflected in large part better performance of Japanese domestic demand (although its sustainability has been questioned) and further robust increases in Europe and Canada. In many countries, economic slack diminished, heightening concern about inflation risks.

Foreign interest rates



NOTE. The data are weekly. Last observations are for the week ending July 12, 2000.

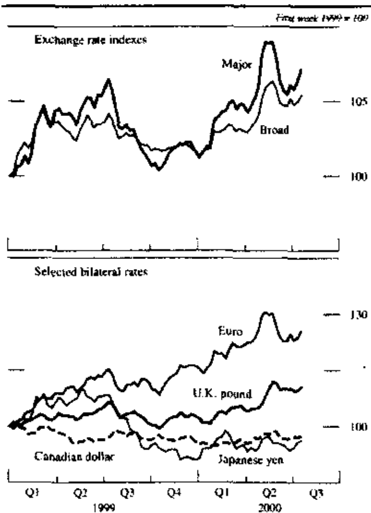
Higher oil prices bumped up broad measures of inflation almost everywhere, but measures of core inflation edged up only modestly, if at all.

Monetary conditions generally were tightened in foreign industrial countries, as authorities removed stimulus by raising official rates. Yield curves in several key industrial countries tended to flatten, as interest rates on foreign long-term government securities declined on balance after January, reversing an upward trend seen since the second quarter of 1999. Yields on Japanese government long-term bonds edged upward slightly, but at midyear still were only about 1¾ percent.

Concerns in financial markets at the end of last year about potential disruptions during the century date change dissipated quickly, and global markets in the early months of this year returned to the comparatively placid conditions seen during most of 1999. Starting in mid-March, however, global financial markets were jolted by several episodes of increased volatility set off typically by sudden downdrafts in U.S. Nasdaq prices. At that time, measures of market risk for some emerging-market countries widened, but they later retraced most of these increases. The performances of broad stock market indexes in the industrial countries were mixed, but they generally tended to reflect their respective cyclical positions. Stocks in Canada, France, and Italy, for example, continued to make good gains, German stocks did less well, and U.K. stocks slipped. Japanese shares also were down substantially, even though the domestic economy showed some signs of firmer activity. In general, price volatility of foreign high-tech stocks or stock indexes weighted toward technology-intensive sectors was quite high and exceeded that of corresponding broader indexes.

The dollar continued to strengthen during most of the first half of the year. It appeared to be supported mainly by continuing positive news on the performance of the U.S. economy, higher U.S. short-term interest rates, and for much of the first half, expectations of further tightening of monetary policy. Early in the year, the attraction of high rates of return on U.S. equities may have been an additional supporting factor, but the dollar maintained its upward trend even after U.S. stock prices leveled off near the end of the first quarter and then declined for a while. In June, the dollar eased back a bit against the currencies of some industrial countries amid signs that U.S. growth was slowing. Nevertheless, for the year so far, the dollar is up on balance about 5¼ percent against the major currencies; against a broader index of trading-partner currencies, the dollar has appreciated about 3¾ percent on balance.

Nominal U.S. dollar exchange rates



NOTE. The data are weekly. Indexes in the upper panel 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 week ending July 12, 2000.

The dollar has experienced a *particularly* large swing against the euro. The euro started this year already down more than 13 percent from its value against the dollar at the time when the new European currency was introduced in January 1999, and it continued to depreciate during most of the first half of 2000, reaching a record low in May. During this period, the euro seemed to be especially sensitive to news and public commentary by officials about the strength of the expansion in the euro area, the pace of economic reform, and the appropriate macroeconomic policy mix. Despite a modest recovery in recent weeks, the euro still is down against the dollar almost 7 percent on balance for the year so far and about 3¾ percent on a trade-weighted basis.

The euro's persistent weakness posed a challenge for authorities at the European Central Bank as they sought to implement a policy stance consistent with their official inflation objective (2 percent or less for harmonized consumer prices) without threatening the euro area's economic expansion. Supported in part by euro depreciation, economic growth in the euro area in the first half of 2000 was somewhat stronger than the brisk 3 percent pace recorded last year. Investment was robust, and indexes of both business and consumer sentiment registered record highs. The average unemployment rate in the area continued to move down to nearly 9 percent, almost a full percentage point lower than a year earlier. At the end of the *first half, the euro-area broad measure of inflation*, partly affected by higher oil prices, was above 2 percent, while core inflation had edged up to 1¼ percent. Variations in the pace of economic expansion and the intensity of inflation pressures across the region added to the complexity of the situation confronting ECB policymakers even though Germany and Italy, two countries that had lagged the euro-area average expansion of activity in recent years, showed signs that they were beginning to move ahead more rapidly. After having raised its refinancing rate 50 basis points in November 1999, the ECB followed with three 25-point increases in the first quarter and another 50-point increase in June. The ECB pointed to price pressures and rapid expansion of monetary *aggregates as important considerations behind the* moves.

Compared with its fluctuations against the euro, the dollar's value was more stable against the Japanese yen during the first half of 2000. In late 1999, private domestic demand in Japan slumped badly, even though the Bank of Japan continued to hold its key policy rate at essentially zero. Several times during the first half of this year, the yen experienced strong upward pressure, often associated with market perceptions that activity was reviving and with speculation that the Bank of Japan soon might abandon its zero-interest-rate policy. This upward pressure was resisted vigorously by Japanese authorities on several occasions with sales of yen in foreign exchange markets. The Bank of Japan continued to hold overnight interest rates near zero through the first half of 2000.

The Japanese economy, in fact, did show signs of stronger performance in the first half. GDP rose at an annual rate of 10 percent in the first quarter, with particular strength in private consumption and investment. Industrial production, which had made solid gains last year, continued to expand at a healthy pace, and surveys indicated that business confidence had picked up. Demand from the household sector was less robust, however, as consumer confidence was held back by historically high unemployment. A large and growing outstanding stock of public debt (estimated at more than 110 percent of GDP) cast increasing doubt about the extent to which authorities might be willing to use additional fiscal stimulus to boost demand. Even though some additional government

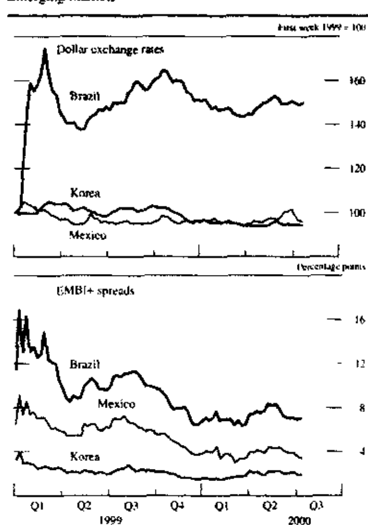
expenditure for coming quarters was approved in late 1999, government spending did not supply stimulus in the first quarter. With core consumer prices moving down at an annual rate that reached almost 1 percent at midyear, deflation also remained a concern.

Economic activity in Canada so far this year slowed a bit from its very strong performance in the second half of 1999, but it still was quite robust, generating strong gains in employment and reducing the remaining slack in the economy. The expansion was supported by both domestic demand and spillovers from the U.S. economy. Higher energy prices pushed headline inflation to near the top of the Bank of Canada's 1 percent to 3 percent target range; core inflation remained just below 1½ percent. The Canadian dollar weakened somewhat against the U.S. dollar in the first half of the year even though the Bank of Canada raised policy interest rates 100 basis points, matching increases in U.S. rates. In the United Kingdom, the Bank of England continued a round of tightening that started in mid-1999 by raising official rates 25 basis points twice in the first quarter. After March, indications that the economy was slowing and that inflationary pressures might be ebbing under the effect of the tighter monetary stance and strength of sterling—especially against the euro—allowed the Bank to hold rates constant. In recent months, sterling has depreciated on balance as official interest rates have been raised in other major industrial countries.

In developing countries, the strong recovery of economic activity last year in both developing Asia and Latin America generally continued into the first half of 2000. However, after a fairly placid period that extended into the first few months of this year, financial market conditions in some developing countries became more unsettled in the April–May period. In some countries, exchange rates and equity prices weakened and risk spreads widened, as increased political uncertainty interacted with heightened financial market volatility and rising interest rates in the industrial countries. In general, financial markets now appear to be identifying and distinguishing those emerging-market countries with problems more effectively than they did several years ago.

In emerging Asia, the strong bounceback of activity last year from the crisis-related declines of 1998 continued into the first half of this year. Korea, which recorded the strongest recovery in the region last year with real GDP rising at double-digit rates in every quarter, has seen some moderation so far in 2000. However, with inventories still being rebuilt, unemployment declining rapidly, and inflation showing no signs of accelerating, macroeconomic conditions

Emerging markets



NOTE. The data are weekly. EMBI+ (J.P. Morgan emerging market bond index) spreads are stripped Brady-bond yield spreads over U.S. Treasuries. Last observations are for the week ending July 12, 2000.

remained generally favorable, and the won came under upward pressure periodically in the first half of this year. Nonetheless, the acute financial difficulties of Hyundai, Korea's largest industrial conglomerate, highlighted the lingering effect on the corporate and financial sectors of the earlier crisis and the need for further restructuring. Economic activity in other Asian developing countries that experienced difficulties in 1997 and 1998 (Thailand, Indonesia, Malaysia, Singapore, and the Philippines) also continued to firm this year, but at varying rates. Nonetheless, financial market conditions have deteriorated in recent months for some countries in the region. In Indonesia and the Philippines, declines in equity prices and weakness in exchange rates appear to have stemmed from heightened market concerns over political instability and prospects for economic reform. Output in China increased at near double-digit annual rates in the second half of last year and remained strong in the first half of this year, boosted mainly by surging exports. In Hong Kong, real GDP rose at an annual rate of more than 20 percent in the

first quarter of this year after a strong second half in 1999. Higher consumer confidence appears to have boosted private consumption, and trade flows through Hong Kong, especially to and from China, have increased.

The general recovery seen last year in Latin America from effects of the emerging-market financial crisis extended into the first part of this year. In Brazil, inflation was remarkably well contained, and interest rates were lowered, but unemployment has remained high. An improved financial situation allowed the Brazilian government to repay most of the funds obtained under its December 1998 international support package. However, Brazilian financial markets showed continued volatility this year, especially at times of heightened market concerns over the status of fiscal reforms, and risk premiums widened in the first half of 2000 on balance. In Mexico, activity has been strong so far this year. In the first quarter, real GDP surged at an annual rate of 11 percent, boosted by strong exports to the United States, soaring private investment, and increased consumer spending. Mexican equity prices and the peso encountered some downward pressure in the approach of the July 2 national election, but once the election was perceived to be fair and the transition of power was under way, both recovered substantially. In Argentina, the pace of recovery appears to have slackened in the early part of this year, as the government's fiscal position and, in particular, its ability to meet the targets of its International Monetary Fund program remained a focus of market concern. Heightened political uncertainty in Venezuela, Peru, Colombia, and Ecuador sparked financial market pressures in recent months in those countries, too. In January, authorities in Ecuador announced a program of "dollarization," in which the domestic currency would be entirely replaced by U.S. dollars. The program, now in the process of implementation, appears to have helped stabilize financial conditions there.