

Conference Proceedings

12th
ANNUAL
HYMAN P. MINSKY CONFERENCE
ON FINANCIAL MARKETS

*Recession and Recovery:
Economic Policy in Uncertain Times*

*April 25, 2002 Roosevelt Hotel, New York City
A conference of The Levy Economics Institute of Bard College*



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*The proceedings consist of edited transcripts of the speakers' remarks
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F o r e w o r d

For those of you not familiar with his work, Hyman P. Minsky's professional career spanned more than four decades. After receiving a Ph.D. in economics from Harvard University, he began his professional career at the University of California, Berkeley, then traveled to Washington University in St. Louis. After retiring from academia, he became a Distinguished Scholar at the Levy Economics Institute, where he remained until his death in 1996. Minsky studied and documented the conditions that produced a sequence of booms, government intervention to prevent debt contraction, and new booms entailing the progressive buildup of new debt that eventually left the economy financially fragile. This conference marks the 12th annual event at which we honor both Hy and his work by examining both the state of the financial sector and its relation to the real economy.

The theme of this year's conference is very Minskian in that it seeks to examine the causes of the U.S. recession that officially started in March 2001, while assessing the many cheerful yet cautionary forecasts of the good times having once again begun. Put another way, we hope first to determine whether shoppers, households, and businesses have turned into savers or have continued shopping, and second, when those who were savers prior to the recession once again turn into shoppers.

There are many signs indicating that the U.S. economy is growing and could stabilize during the current year. Already, the Federal Reserve has slashed short-term interest rates to their lowest level since the late 1950s; a fiscal stimulus of significant magnitude has worked its way into the economy; and there has been a positive change in inventory investment. Despite the tragic events of September 11, consumer behavior was not altered in any significant manner. Consumers responded enthusiastically to the generous incentives offered by the automobile industry, and low interest rates produced a surge in applications to refinance mortgages and to obtain home equity loans. And finally, both the University of Michigan's consumer sentiment survey and the Conference Board's consumer confidence survey noted significant increases in consumer confidence. With all this good news it is easy to understand why many forecasters and people on Wall Street have turned more optimistic.

The economy, however, may still confront several hurdles, one of which is a continuing trade deficit and growing international indebtedness (which confirms the U.S. economy's role as a global growth locomotive). Another is the uncertainty of a dynamic recovery of investment due to excessive corporate debt. Together these two factors—along with other hurdles, such as continuously rising levels of household debt—could weaken final demand and dampen growth of real U.S. GDP compared to previous periods of business-cycle recovery. These factors put in doubt the idea that the economy will regain serious growth momentum—until much later than more cheery forecasts would indicate.

The intent of this conference is to present varied views on the condition of the economy in the United States and other countries. I hope you find these proceedings enlightening, and I welcome your comments.

Dimitri B. Papadimitriou

President, Levy Economics Institute, and Jerome Levy Professor of Economics, Bard College

P r o g r a m

8:30–9:00 A.M.	REGISTRATION
9:00–9:15 A.M.	WELCOME AND INTRODUCTION Dimitri B. Papadimitriou, <i>President, Levy Institute</i>
9:15–10:00 A.M.	SPEAKER 1 Wynne Godley, <i>Distinguished Scholar, Levy Institute</i>
10:00–11:30 A.M.	SESSION 1. THE STATE OF THE U.S. ECONOMY: A VIEW FROM THE STREET MODERATOR: David Leonhardt, <i>Economics Writer, New York Times</i> Robert Barbera, <i>Executive Vice President and Chief Economist,</i> <i>Hoenig & Co., Inc.</i> Richard Berner, <i>Managing Director and Chief U.S. Economist,</i> <i>Morgan Stanley Dean Witter & Co.</i> Mickey D. Levy, <i>Chief Economist, Bank of America</i>
11:30 A.M. – 12:45 P.M.	LUNCHEON
12:45–1:30 P.M.	SPEAKER 2 Anthony M. Santomero, <i>President, Federal Reserve Bank of Philadelphia</i>
1:30–3:15 P.M.	SESSION 2. MACROECONOMIC ISSUES IN THE RECOVERY MODERATOR: Laurence H. Meyer, <i>Center for Strategic &</i> <i>International Studies</i> Lakshman Achuthan, <i>Managing Director,</i> <i>Economic Cycle Research Institute</i> James Glassman, <i>Senior Economist and Managing Director,</i> <i>J. P. Morgan & Co.</i> Chris Varvares, <i>President, Macroeconomic Advisers, LLC</i>
3:15–4:00 P.M.	SPEAKER 3 Gary H. Stern, <i>President, Federal Reserve Bank of Minneapolis</i>
4:00–4:10 P.M.	CLOSING REMARKS Dimitri B. Papadimitriou

Speakers

WYNNE GODLEY

Distinguished Scholar, Levy Institute

Strategic Prospects and Policies for the U.S. Economy



For some years, we have argued that the U.S. economic expansion had an unusual structure of demand that was unsustainable in the medium- or long-term and, therefore, would require a substantial change in policy. I will begin by reviewing our position in the light of recent history.

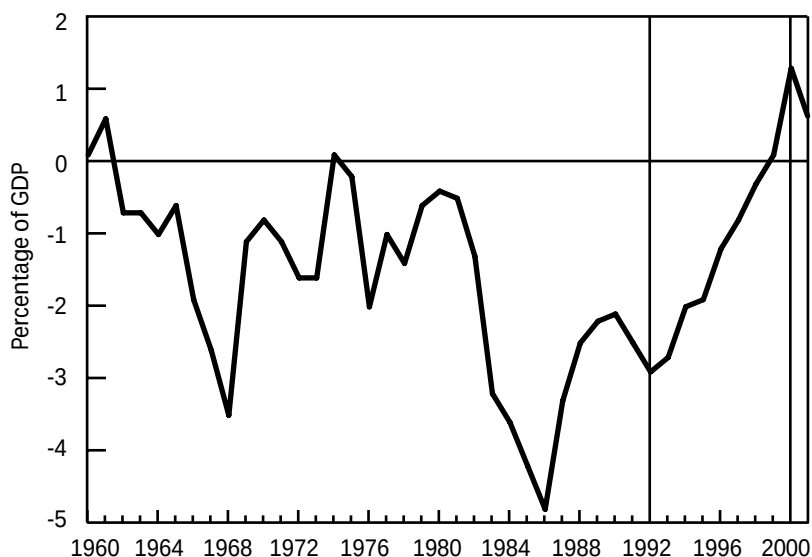
Chart 1 shows the most recent estimates by the Congressional Budget Office (CBO) of the federal budgets: not the usual surplus or deficit position, but the cyclically adjusted, so-called structural surplus. This has not been published for many years, and although we had to make do with rather half-baked estimates, I am pleased to have this information, because it confirms what I have been saying.

On the chart, vertical lines are drawn through the main period of expansion (1992 into 2000), during which time the structural balance moves from deficit into surplus, and shows a greater—more persistent and larger—tightening of the cyclically adjusted budget than had ever occurred before. Moreover, in 2000 a larger structural surplus was reached than has ever existed. (The only other point when there was a surplus at all was in 1961.)

As an old-fashioned Keynesian economist, it is remarkable to me that a period of record consistent expansion should also be a period in which not the ex post structural budget deficit, but the ex ante one, moves into surplus. There has been a real decline in demand, stemming from the fiscal surplus, through the whole of the period of expansion. If that was a disinflationary factor, the balance of payments was in exactly the same position. It is well known that through the same period, the balance of payments has gotten considerably weaker and acted as a force that caused an additional disinflationary effect through the period of expansion.

We conclude, then, that the entire driving underlying force (from the demand side) was coming from private expenditure relative to income, which went into deficit. This deficit, in turn, was financed by a growing inflow of net lending or credit, which built up the progressive indebtedness of the private sector. This was a situation that by its very nature could not be an abiding source of

Chart 1 The Standardized Budget Surplus as a Percentage of Potential GDP



Source: Congressional Budget Office

growth; something would have to change. Strengthening this position was that throughout the last five years, the CBO's projections showed that the budget was set to tighten further over each subsequent 10-year period. We have made various suggestions as to how this outcome might come about and what the nature of the response would then have to be.

Recall the general state of opinion 12 to 15 months ago. The widespread view was that the United States had a new economy: Thanks to labor flexibility and investment, the business cycle had been abolished and the good times were here to stay. A second opinion, related to the first, was that any attempt to use fiscal policy to manage demand, particularly in the short term, was bound to be counterproductive. In addition, any attempt to use it would have nothing other than a transitory effect and would only add to inflation if used in a positive way. Underlying those views was another, related view—that the way economies develop is determined by market forces and that these forces are basically self-writing organisms that are best left alone, with government doing well not to interfere.

Since that time, only slightly more than a year ago, there has been a seismic shift that hasn't seemed to enter enough into the public discussion. The first and most obvious shift is that there has been what might be called a growth recession. In the fourth quarter of 2001, GDP rose by just under 0.5 percent, which is approaching 3 percent below the growth of productive potential—in every relevant sense, a recession. There also was a rise in unemployment during that period, which, although not a record rise, was nevertheless among the largest increases in annual growth of unemployment during the postwar period.

But the second shift—and to me the more significant and striking—is the enormous change in the fiscal stance during the last year. In January 2001, the CBO projected surpluses for 2002 and

2003 of \$313 billion and \$359 billion. The latest figures, which came out in March, project deficits for the same two years of \$46 billion and \$40 billion. This means that over a 15-month period, the CBO has projected an expansionary change of just under \$360 billion for this year and \$400 billion for next year. Using CBO figures adapted a little bit (due to their change in economic assumptions), you can see that of this expansionary change, economic assumptions account for no more than about \$100 billion in each year. This implies that the fiscal stance, adjusted for the business cycle, has changed by \$260 billion for this year and \$300 billion for next year. By any standard, those are extremely large changes, amounting to between 2.5 and 3 percent of GDP for this year and next, respectively. These are ex ante figures that take multiplier effects into account.

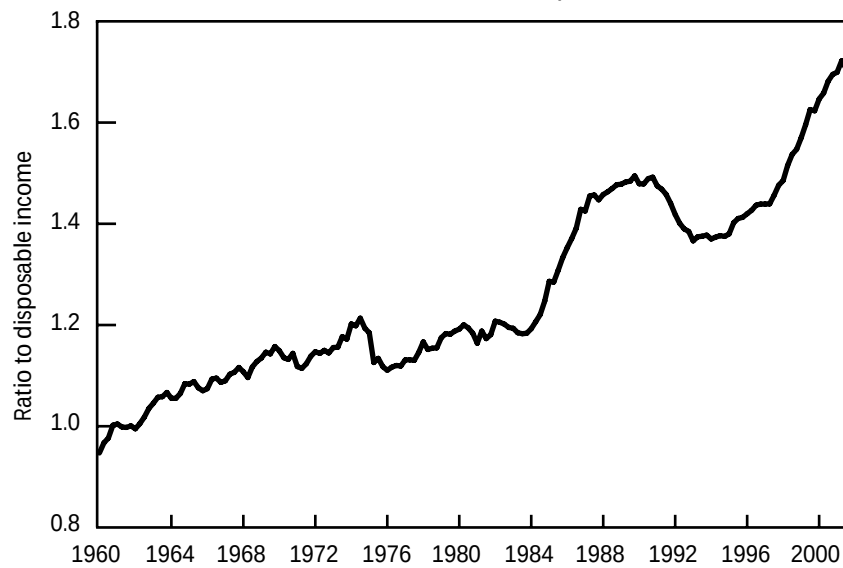
I don't want to give the impression that I think this was a wrong thing to do; on the contrary, I think it was the right thing to do. In the past, I have argued that there would have to be an expansionary change in fiscal policy, which is exactly what did happen. Moreover, it provided a stark contrast to what happened in Europe, where there also have been signs of recession, but the response to that situation, on the face of it, was somewhat perverse. We were nearly treated to the spectacle of Germany being reprimanded by the European Commission because it had a budget deficit at the time when unemployment was rising.

As an old-fashioned Keynesian economist, it is remarkable to me that a period of record consistent expansion should also be a period in which not the ex post structural budget deficit, but the ex ante one, moves into surplus.

Turning to take a quick look at recent developments, the private sector deficit—the gap between private disposable income and total private expenditure—has been getting larger by an unprecedented amount. This development is an implication of the tighter budget position and the deterioration in the balance of payments. As a consequence, private expenditure rose relative to private income. Nothing like this has happened before. The net flow of credit into the private sector from the financial sector shows a clear inverse relationship, which is essential if the private sector goes into deficit, which it did in 1997. The borrowing rose at an increasing pace and remained at a very high level. The fact that borrowing rose so much faster than income meant that the level of debt relative to income was rising all the time. Chart 2 shows the level of private, nonfinancial sector debt relative to disposable income shooting up to unprecedented levels.

Disaggregating private expenditure into corporate personal sectors, we can see that the two sectors are different, and that matters. Chart 3 shows the corporate sector situation, with the red line indicating the corporate sector financial balance (measured as internally generated funds gross of capital consumption, less fixed investment and investment in inventories). As you would expect, this balance normally is in deficit because the corporate sector is always borrowing. Moreover, during the expansion, although the balance was falling, it was not falling in any remarkable way. At the same time, debt was rising, but again, not in any remarkable way. However, a high proportion of the reversion of the total private sector deficit was, in fact, due to the corporate sector decline in investment

Chart 2 Private Debt Stock Relative to Disposable Income



Source: NIPA, Flow of Funds, and authors' calculations

(both fixed investment and inventories). They almost got back to balance—there is nearly a balance between internally generated funds and investment as of the fourth quarter of 2001. The unusual aspect I want to draw particular attention to is that the flow of credit to the corporate sector continues at a high level right through. So looking at the level of corporate indebtedness relative to the flow of undistributed profit gross of capital consumption, we see an extraordinarily high figure—a level of indebtedness relative to income in the corporate sector. Of course, the ratio is affected by weak corporate profits, but any way of scaling them results in a record level. That is, the corporate sector is, in this sense, more heavily indebted than in any previous period.

I now turn to the more exceptional behavior in the personal sector. The measures shown in Chart 4 are not derived using the more conventional concept of personal saving, because the concept of income used is after the deduction of capital consumption, and the concept of expenditure is before allowing for personal investment. What is interesting is the extent to which the personal sector has to borrow, so I prefer to use income *gross* of capital consumption and expenditure *inclusive* of personal sector investment. This version of saving shows the balance between personal sector income gross of capital consumption—what people are actually receiving—and what they are actually spending, which includes expenditures mainly on housing. Even through the period of slowdown, this deficit has continued. (The blip I consider of no relevance to what I am saying because it was entirely induced by the tax rebate, which was concentrated in the third quarter and caused a huge jump in the inflow of income. Neither that nor the flow of credit continued to rise.) The flow of borrowing is adding about 10 percent to personal sector income. I attribute much of this to the huge decline in interest rates and equity withdrawal from housing. The two major sources of stimulus through this recent period, then, are the fiscal expansion and the cut in interest rates. Completing the story is the level of debt relative to the flow of income.

I now review a simulation that relates to the future. The simulation includes three financial balances: general government (which includes state and local governments), expressed as a proportion of GDP; the current balance of payments (again, as a proportion of GDP); and the private sector balance, which, by definition, is the sum of the other two. In constructing the projection, I have taken the CBO's most recent projection for the general federal budget and translated it into general government. I also adopt the CBO's assumptions about economic growth of approximately 3 percent per annum for the next 10 years, which is a fast enough rate to keep unemployment roughly the same.

This simulation shows the budget stance moving into deficit in 2002 and 2003. Under existing policies, the CBO projects that the budget moves back into surplus through 2007. I conclude that, given this scenario, the balance of payments deficit will worsen. It has been difficult for me to construct this result as a forecast, and I would not like to justify the result. The recent figures for the trade balance have been unexpected: both exports and imports have been lower than what I would have thought they would be. Nonetheless, I do not think it controversial to find—given a 3 percent per annum growth rate for the U.S. economy, and sluggish growth elsewhere—that there would be a deterioration in the balance if the dollar remained strong.

I have one reason for questioning whether this shouldn't be an even bigger deterioration. In my opinion, the real, binding constraint on the growth of the balance of payments deficit is the negative net asset position of the United States. In the July bulletin of the Bureau of Economic Affairs, the economy recorded a \$2.2 trillion negative net asset position, which should be generating a net outflow of income. That is, if the United States is going to be a debtor nation, it will at some point meet a constraint from the net outflow of income. However, the net outflow remains obstinately at zero.

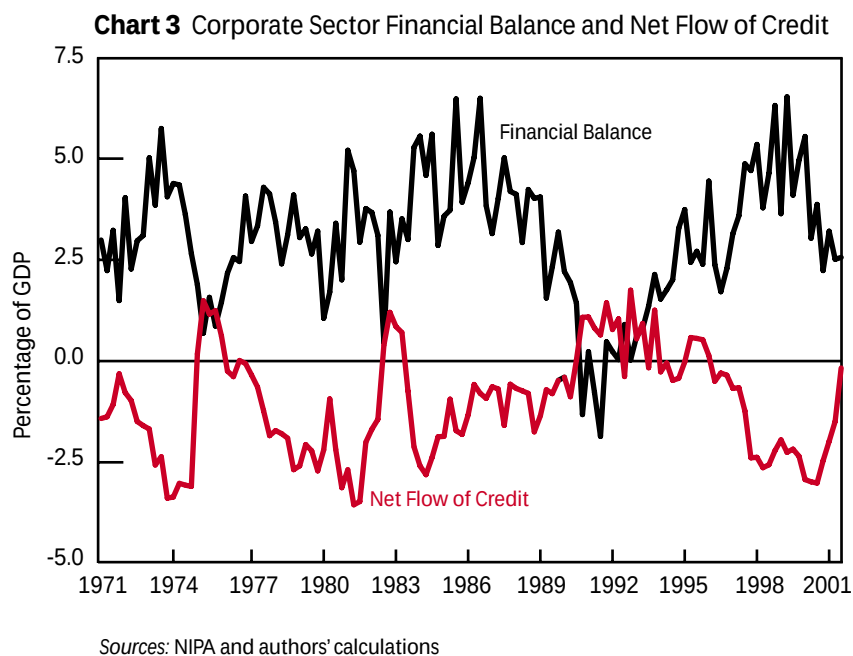
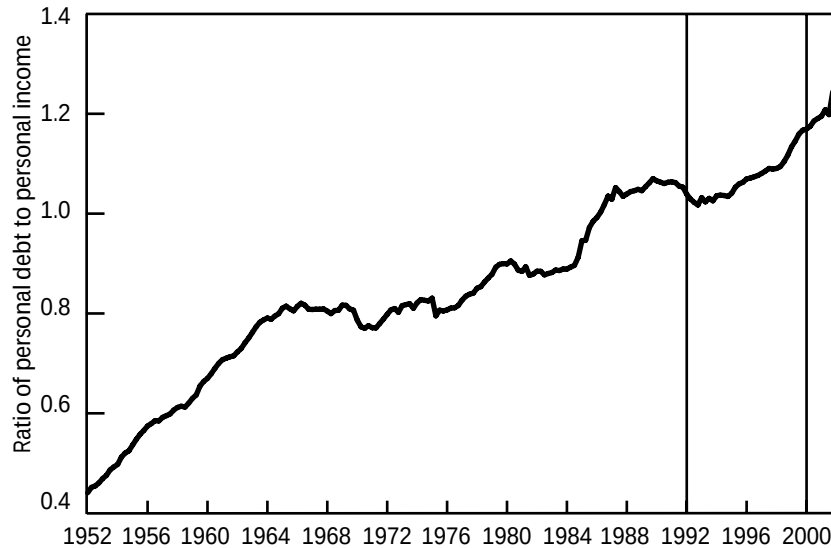


Chart 4 Personal Debt Relative to Personal Disposable Income



Sources: NIPA, Flow of Funds, and authors' calculations

Some light is cast on this phenomenon by examining Chart 5, which shows the flow of income paid that arises from direct investment, separately from the flow of income arising from the rest of investment (which we call financial investment). These two flows behave in astonishingly different ways. The net income from financial investment behaves in an orderly way, going negative and currently exceeding \$100 billion per annum, with a negative net asset position of about \$2 trillion on purely financial investment. Expressing the flows on the assets as a proportion of the assets, and the outflows as a proportion of the liabilities, they track interest rates in a reasonably coherent way.

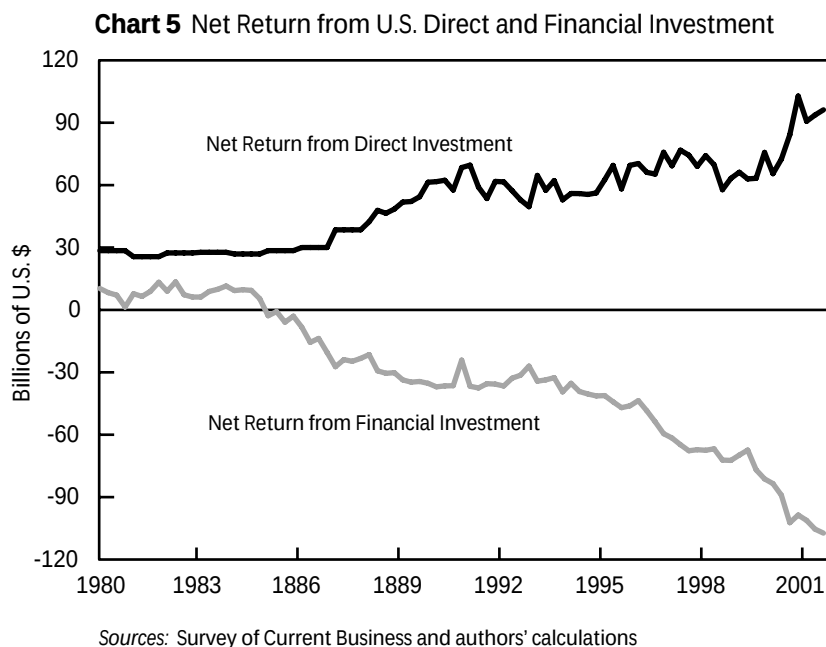
The part of it that I do not understand is the increasingly positive flow of income from direct investment, despite the fact that the United States has a negative asset position even in direct investment revalued to market prices. In other words, the return to foreigners owning direct investments in the United States is enormously lower than the return to United States residents owning property abroad. Part of the reason that the deficit did not rise more was the large drop in interest rates. Another possible reason is that it is a bit questionable whether the quasi inflow of funds arising from direct investment should be counted, because these are not transactions across the exchanges. Rather, they are measured in a different way: they are, in fact, profits (retained abroad), whether redistributed or not. They are not, generally speaking, financing the balance of payments. So there is at least a case for excluding them from the calculation. If they were included, the balance of payments would be much worse. Looking to the future, there is at least the possibility that this outflow will come to exceed this inflow. I leave that now as a puzzle.

We are left with the position of having a budgetary position that will (according to the CBO) get tighter again before going back into surplus, and a balance of payments that in my strong opinion would then go into deficit. It is therefore an implication of the CBO's projection that the pri-

vate sector resumes this descent into deficit. In other words, the whole of this picture requires that the motor of expansion once again becomes an increase in private expenditure relative to income.

I do not believe that the growth of debt and the growth of the flow of lending can once again become the motor for the expansion of the United States economy, as the indebtedness both in the corporate sector and the household sector are already causes for concern. I have been criticized for this position by those who point to the household sector's favorable balance sheet and ask, "What is all the fuss about debt? When wealth is five times debt, what does the level matter?" My answer to that is covered more extensively in my paper, but I will summarize just one point. My position has never been to say that the household sector is, even now, in a very dangerous position. What I do maintain is that after a certain point, the flow of credit cannot be counted upon as being an abiding source of growth. That is not what can sustain the economy permanently. Therefore the CBO's story is not coherent because it depends on the continuation of an inherently unsustainable process that may not have much further to go.

We have constructed three scenarios that focus on what I believe to be the major strategic problems of the U.S. economy. According to the first scenario, the fiscal stance is assumed to be the same as in the CBO estimates, except that the private sector will borrow at an ever-decreasing rate. That is, rather than having the private sector balance resume its downward path, we have put in one that has a more natural path, which reverts to close to zero. Given these assumptions, solving for the model yields two serious consequences. One is that the budget returns to a deficit, and the second is that output ceases to rise to anywhere near a 3 percent rate. Although we are not in the short-term forecasting business, we work out that the average growth rate of the U.S. economy would have to come down to about 1.25 percent per annum for five years, which cumulatively is around 7 percent below the growth of productive potential. Therefore, unemployment



risks to about 8 percent, which would be a grim future with serious consequences for the rest of the world. This is all conditional on the CBO's budget balance projections and the office's assumptions about growth.

In the second scenario, we superimpose a fiscal relaxation to the first scenario to raise the growth of GDP to the same rate assumed by the CBO—that is, to about 3 percent per annum—implying no significant change in unemployment. Chart 6 illustrates a possible outcome for the three financial balances under this assumption.

The main points to be made about this scenario are, first, that the relaxation in the fiscal stance (compared with what is now projected by the CBO) would have to be extremely large. At a minimum, all of the relaxation that is supposed to occur during 2002 and 2003 (\$250 to \$300 billion in each year)—at present assumed to be recouped in the following years—would have to be reinstated. But if, as we have assumed, the private sector's financial deficit were to continue to decline, a far larger and growing relaxation would become necessary. By our reckoning, there would have to be a fiscal stimulus that reached about \$600 billion per annum (at 1996 prices) by 2007. The general government deficit might have to rise to 6 percent of GDP and the federal deficit to perhaps 5 percent.

In scenario 2 we ignore the difficulty of matching, on a year-by-year basis, the relative decline in private spending with the postulated fiscal expansion. In practice, it is most unlikely that the two divergent processes could be so nicely matched throughout the period. In particular, should a break

in the stock market cause a sudden collapse in private demand, it might be impossible to intervene effectively by changing fiscal policy. And with interest rates so low, it might also be difficult to check a major downturn with easier monetary policy.

The second important feature of scenario 2 is that the balance of payments resumes its deterioration in exactly the same way as it did in the base run. In the absence of new corrective measures, the external deficit would surely overtake the previous

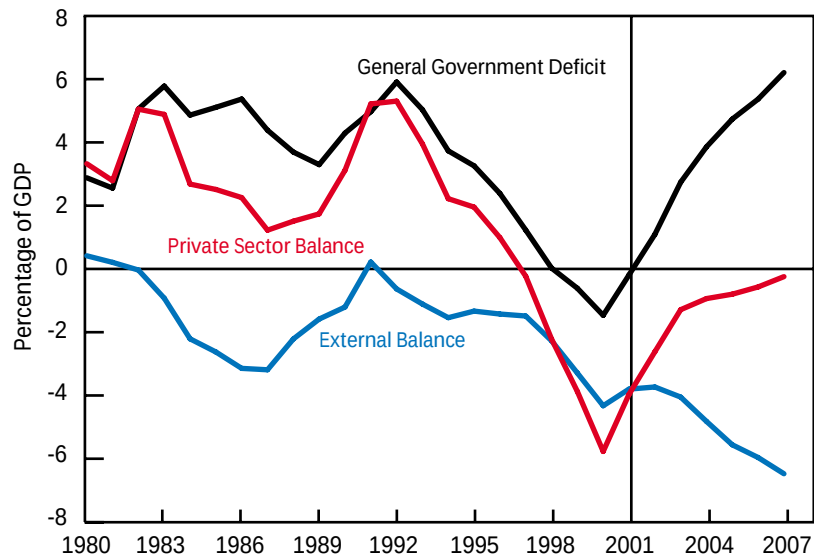
record, reaching perhaps 6 percent of GDP, with no hint of recovery in sight. This is a story of “twin deficits” with a vengeance, for with the private balance close to zero and the external deficit about 6 percent, the government deficit would be about 6 percent of GDP as well.

In the final projection, which we call the dream scenario, the motor for expansion comes not from the government budget, but from net export demand—an improved trade position. In producing this simulation, all three balances should converge to zero—a very agreeable prospect. According to the model used and our estimates for the relevant elasticities, this could, in principle, be achieved if there were a 25 percent devaluation of the dollar. This by itself would be enough to generate the necessary improvement in net export demand, and all of the balances would converge to zero.

Unfortunately, the assumptions and conditions necessary to bring that about are very strong. First, how do you devalue the dollar these days? It is a very difficult thing to do—it doesn't happen

As an old-fashioned Keynesian economist, it is remarkable to me that a period of record consistent expansion should also be a period in which not the ex post structural budget deficit, but the ex ante one, moves into surplus.

Chart 6 Balances of the Main Sectors When Growth Is Achieved by Fiscal Expansion Alone



Sources: NIPA and authors' model results

automatically just because a trade deficit exists or because interest rates are cut. How does it happen? I don't know the answer. It's slightly vacuous to say that a devaluation of the dollar would do the trick when I don't know how the devaluation would be brought about.

Secondly, inflation has been ignored in these scenarios. I happen to think that inflation is not the big obstacle under this theory, but that is a controversial position; some people would say it matters a great deal. But the direct effects are not more than 1.5 to 2 percent on consumer prices, which might or might not have a very big cumulative effect on inflation.

The third major assumption of an awkward kind is that the rest of the world remains in a given position. Two things have to happen for that to be true. First, if the U.S. external deficit does go to zero, the United States has to stop absorbing 4.5 percent more in consumption and investment than it is producing, which is a necessary counterpart to such a large improvement in the balance of payments. That is a very strong assumption, because it would mean that the fiscal stance would have to stay in an adverse position, and the reduction in consumption and investment that would be necessary would be palpable. Second, an equally serious constraint is that the major motor for expansion in the rest of the world would be withdrawn. This requires that the rest of the world expand its demand or adopt expansionary policies on a scale that keeps foreign demand raised above what it otherwise would be.

I observe that this is not the spirit in which the rest of the world is looking at things. The rest of the world is looking to the United States to be the importer of last resort. There are no foreign institutions, international or national, with the slightest intention of adopting expansionary policies. So I put to you this strategic view, along with the idea that the problems I have raised are of fundamental importance.

ANTHONY M. SANTOMERO

President, Federal Reserve Bank of Philadelphia

The Reluctant Recession: Why Was the Recession So Mild?



While considering our conference theme, “Economic Policy in Uncertain Times,” it occurred to me that extracting lessons from past recessions is a difficult business. Nonetheless, it is necessary to learn from history as we move our economy forward. I would like to thank the Levy Institute for inviting me to reflect upon our recent experience at this important annual conference on financial policy issues.

This recession is worthy of particular attention as it was unique in both its extent and magnitude. It was also unusual because of the number of negative shocks that hit our economy over such a short period of time: a stock market correction, the bursting of the tech bubble, the September 11 attacks, as well as the collapse of Enron and the ensuing debate over corporate governance. This list includes only the domestic disturbances; beyond our shores, we witnessed a global economic downturn, financial crisis in Argentina, erratic oil prices, and increasing unrest in the Middle East.

Despite it all, the recession of 2001–02 has been one of the mildest on record—relatively tame and not particularly deep. Incoming statistics have been remarkably strong. In fact, now that a recovery is well under way, the question on the minds of many economists has been, “Why was the recession so mild?”

I believe the answer lies in the powerful combination of four factors that came together to combat the recession:

- the exceptionally timely and stimulative policy mix;
- the increased responsiveness and capacity of the financial markets;
- the increased flexibility and productivity of businesses; and
- the greater confidence of the consumer in our economic future.

Together, these factors accounted for the benign nature of the recession, and our economy’s recent extraordinary resilience.

Today, I would like to elaborate on the role each of these factors played in moderating this recession, and how they might impact our economy going forward.

First, let me explain why most forecasters would define our recent economic performance as “a mild recession.” Looking back over 2001, GDP was flat in the first half of last year, fell in the third quarter, and then grew—surprisingly—in the fourth quarter. When GDP figures for the first quarter of 2002 are released, they too are expected to indicate positive growth. At least in terms of GDP, the recession seemed quick to relent. This is in spite of the fact that the economy came to a standstill in the weeks following September 11.

However, by other measures, the recession was very real. Nearly one million people lost their jobs in the fourth quarter. Capacity utilization fell by more than 10 full percentage points, and few would object to the characterization that we had a serious manufacturing recession.

Still, during this time of loss and hardship, positive developments were already at work, setting a course for recovery.

A Stimulative Policy Mix

Starting in January 2001, the Fed began a series of aggressive monetary policy easings. As you know, the Fed reduced interest rates by 475 basis points in 11 different actions in 2001.

One question that has been raised recently is whether these policy actions were more aggressive than usual. I believe they were not. In studying the historical record of policy actions relative to both inflation and the pace of economic growth at the time of action, we acted in a rather typical manner during this business cycle. Though the Fed’s swift response to the temporary financial market paralysis following 9/11 is somewhat difficult to quantify relative to previous actions, I would assert that nothing fundamental has changed in the Fed’s approach to monetary policy during the past year.

Nonetheless, as a result of these prompt actions, the federal funds rate dropped to a 40-year low, providing a much-needed boost to the economy, and keeping economic activity from declining significantly further. The auto market is a clear indication of the effectiveness of that monetary policy. Low rates made it feasible for auto manufacturers to offer zero-percent financing, eliciting a strong response from consumers and buoying the sector.

Meanwhile, fiscal policy added extra stimulus through both an acceleration in government spending and tax cuts. The former represents the most rapid increase in federal government spending in over four decades. The latter was helped by fiscal stabilizers, such as the automatic reduction in tax revenues for those who suffer profit declines or job loss. Both provided another means to bolster the weakened economy. To be sure, the swing in the federal budget from a 10-digit surplus to virtually nothing indicates the robustness of the government’s policy response.

This response came in several stages. Last summer, Congress and the president kicked off a 10-year tax reduction program with cash rebates to individual taxpayers. Then, after September 11, federal spending accelerated as the result of expenditures to help with rescue and rebuilding, support affected industries, improve security, and mount a military response. Most recently, Congress

has enacted an extension in unemployment benefits as well as tax incentives for the business fixed investment.

For the most part, though not deliberately intended to be, these measures were perfectly timed as countercyclical policy actions. The crisis and defense expenditures addressed the immediate needs of the nation in the post 9/11 environment. The tax reduction package was on the president's agenda when the economy was still flourishing. Nonetheless, it was the net effect of these fiscal actions that helped to stave off a protracted recession.

Responsive Financial Markets

Beyond stimulative fiscal and monetary policies, this time around, the financial sector was also quite effective in insulating the economy from the effects of recession.

In general, banks entered the recession with strong balance sheets and well-positioned capital, and will emerge from it in good financial health. During the expansion of the 1990s, banks remembered the lessons learned from their past experiences. Speculative commercial real estate received only limited bank financing. In addition, banks were cautious in transactions with both the booming tech and telecom sectors. As a consequence, losses and delinquencies associated with the recession did not impede banks' capacity to lend during the early stages of the recovery.

More than this, the financial sector shielded the economy from the financial implications of this recession through the strategic distribution of risk. Diversification policies were rigorously enforced, and concentration limits proved to be valuable in the subsequent market decline. As a result, much of the tech boom was financed by venture capital and IPOs, with risk distributed away from depository institutions to those most willing and able to endure high-risk/high-potential-return venture financing.

In general, banks entered the recession with strong balance sheets and well-positioned capital, and will emerge from it in good financial health.

In the credit market, though banks grew cautious, their lending activity continued. Meanwhile, increasingly efficient and sophisticated financial markets provided a ready alternative supply of credit throughout the downturn. Where appropriate, this helped sustain spending, as in the case of housing and consumer durables.

Financial markets also moderated the downturn in another way: through their price response to expectations of policy actions and subsequent economic activity. As a result, market interest rates cushioned the economic effects of the downturn.

As we all know, the Fed directly influences just one market interest rate: the overnight rate on Fed funds. Therefore, for the Fed's policy actions to affect economic activity, they must ripple out into other short-term interest rates. How, and to what extent, this occurs is a matter of expectations.

When the Federal Reserve changes its Fed funds target, financial markets make an assessment on how persistent that change will be, what it signals about the future path of Fed funds rate targets, and the economy's reaction to the policy. This alteration in market expectations drives changes in other short-term rates and ripples out to the long end of the term structure. Thus, a single Fed action affects the entire pattern of interest rates.

In this business cycle, fixed income markets responded to, and even anticipated, the softening economy and the Fed's countercyclical moves. Short-term interest rates moved with monetary policy actions, as well as with the anticipated effects of those actions. Long-term rates moved as a direct result of the effects of the predicted policy response. So did foreign exchange rates.

The Fed's increased transparency was one reason that the effects of policy actions have rippled so effectively through the economy this time around. The more clearly the markets can foresee the Fed's future course of action and its results, the more accurately markets can respond, and the more effective monetary policy will be.

We recognize that financial markets must have clear and accurate expectations about the future direction of monetary policy for short-term interest rates to transmit our policy actions to the economy. In this dimension, the effectiveness of Federal Reserve policy has been enhanced by our policy procedures aimed at enhancing clarity and transparency of the Fed's policy stance. Long-term interest rates can now better anticipate both economic developments and monetary policy actions. By falling relatively early in the cycle, long-term rates helped sustain the strength of the housing market and generate consumer spending.

The financial sector shielded the economy from the financial implications of this recession through the strategic distribution of risk.

Diversification policies were rigorously enforced, and concentration limits proved to be valuable in the subsequent market decline.

A Cautious, Yet Flexible, Business Sector

Government policy and financial sector developments worked unequivocally to moderate the recession. Developments in the nonfinancial business sector presented a more complicated picture.

This recession has been labeled a "business recession" because it was the collapse in business investment spending that pushed us into the early stage of this downturn. The bursting of the tech bubble caused a shakeout among companies with recently ramped-up high-tech systems. The overcapacity in telecommunications caused a precipitous downturn in the performance of former high flyers. When the economy decelerated, general business investment spending plummeted. So the boom-bust pattern in the business sector's investment spending was the major catalyst for this recession.

Faced with softening demand, businesses quickly mounted an aggressive response. In some ways, far from curbing the downturn, their response worsened it. They slashed inventories, driving down production and employment. Thus, the impact of the recession on the manufacturing sector was amplified, and industrial production fell sharply. However, while the businesses' actions hastened the onset of the recession, their prompt action may also have avoided a deeper and more prolonged one.

The response of the business sector to slower demand and excess inventories did help to moderate this downturn in another way as well. It prompted businesses to cut prices, offer discounts, and generally do what it took to move merchandise. These actions were crucial in securing the robust state of consumer spending throughout this recession.

Interestingly, businesses' quick and aggressive responses to this recession were made possible by the investments in new technology that companies made during the long expansion. These same technologies also allowed firms to continue to improve their productivity throughout the downturn, which is quite unusual by historical standards. In short, high-tech investments have allowed companies to expand capacity, increase efficiency, and, essentially, create a new business model of recessionary dynamics.

The demonstrated flexibility and ongoing productivity gains offered by new technologies will give businesses a strong incentive to continue investing in them once the economy more fully recovers. Strong productivity gains may also offset a short-term profit squeeze, even while the aggressive inventory adjustment of 2001 sets the stage for a pickup in production by midyear.

Consequently, while business spending patterns may have aggravated the downturn in early 2001, they are also likely to help speed and strengthen the recovery in 2002. The recent pickup in production may well signal that inventory decumulation is essentially over. From here on, increases in demand will translate into additional increases in output.

A Confident Consumer Sector

Perhaps more than anything else, the shallowness of the current recession has been a direct result of continued consumer spending, and consumer decisions are strongly impacted by their view of the future. Expectations about Federal Reserve actions figure strongly into the public's perception and consumer spending behavior. In short, maintaining public confidence both in the stability of prices and economic growth helped the economy to rebound, as consumer spending varied little in spite of substantial economic forces buffeting their fortunes.

Although businesses remained cautious throughout the recession, consumers exhibited a staunch willingness to spend their way through it. Consumers maintained confidence in our economy and in stabilization policy's capacity to minimize the magnitude and duration of the recession. Their confidence worked to transform their perspective into a reality.

In fact, the responsiveness of consumers to recent price and interest rate cuts—again, perhaps best exemplified by the housing and auto markets—was indicative of this confidence. Price and interest rate cuts can only stimulate spending when consumers are convinced they will soon be reversed.

Now, as the recession gives way to recovery, consumers' incentive to increase spending will no longer come from reduced interest rates and price discounts, but from rising incomes and improving job opportunities.

It is for this reason that a moderate recovery is being forecast, as consumers emerge from the mild recession with little pent-up demand and a fair amount of debt. Since consumers never recessed, they have little incentive to step up and buy goods, especially at the beginning of the recovery. Longer term, consumers' willingness to spend will reflect their confidence in a rising standard of living, as a result of ongoing strong productivity growth.

Implications for the Future

As I indicated at the onset, extracting lessons from recessions can be a difficult business, but one that we must pursue. The lessons learned will impact our economic future. Most significantly, the lessons might answer the question on everyone's mind, "What will the next recession look like?"

To gain insight to bring to the future, we should look to the moderating factors we discussed here today: the stimulative policy mix, the responsive financial markets, the flexible business sector, and the confident consumer sector. Were these factors one-time events? Or were they sustained changes to the economy?

Let's dissect each in turn.

On the monetary policy front, the Federal Reserve responded to this recession with a policy program that I would consider somewhat typical, given the sharp slowdown in economic growth and the lack of inflationary pressure. On the fiscal policy side, the usual countercyclical force of the automatic stabilizers was bolstered by a series of deliberate taxation and spending actions. These measures were enacted to address national needs and priorities beyond those of the current business cycle. They should not be considered harbingers of a new, more proactive, countercyclical fiscal policy.

So going forward, I think we should continue to see monetary policy as the predominant discretionary stabilization tool. If future recessions are milder, I think that will be the result of permanent changes in the private sector economy, rather than any change in the conduct of public policy.

To gain insight to bring to the future, we should look to the moderating factors we discussed here today: the stimulative policy mix, the responsive financial markets, the flexible business sector, and the confident consumer sector.

By contrast, the financial sector was more effective than usual in insulating the economy from the shocks that generated the recent recession. This is likely to be a permanent feature of our modern economy. Lessons learned and risk management systems implemented within the financial sector are likely to remain relevant in the years ahead. In short, the financial sector may well have improved as a result of past experiences. This experience, in particular, has shown the beneficial effects of efforts made and systems installed.

Finally, there are lessons to be learned from the dynamics of the real economy. The business sector responded more rapidly, cutting both production and prices in light of the decline in final sales. However, as I indicated, this was a double-edged sword, and is likely to remain so going forward. Last, but by no means least, consumer confidence in the economy's capacity to recover provided the incentive to spend throughout the downturn, and expedited the recovery.

Technological progress has given the economy the capacity for stronger, steadier economic growth, presumably with the support of good stabilization policy. Right now, the public seems to be confident that this capacity will be realized. Again, that public confidence helps make it so.

The challenge for the Fed is to provide a policy that is demonstrably supportive of—rather than disruptive to—the market economy's adjustment processes.

As you all know, this involves appropriate policy in times of weakening and strengthening demand. This means that as the economy gains momentum, it will be time for the Fed to shift gears, moving monetary policy from its current stance, geared toward stimulating a recovery, to a more neutral stance, geared toward sustaining a long-term expansion. This will provide us, and the private sector, with the next challenge toward long-run sustainable growth. As to when the challenge will come—in anticipation of your likely first question—it is still too soon to tell.

GARY H. STERN

President, Federal Reserve Bank of Minneapolis

The (Uncertain) Resilience of the U.S. Economy



The key words in the title of this conference, as far as I am concerned, are “uncertain times.” They are key because there is almost always considerable uncertainty when it comes to economic policy making. I recognize this statement may sound typically like a Federal Reserve official trying to build sympathy, largely for imaginary difficulties in policy making, but I will try to convince you that uncertainty is real and has significant implications for policy. I also recognize that, as the last speaker at a daylong conference, I am in an unenviable position, especially because earlier participants were both distinguished and knowledgeable. Thus I take as my charge to be mercifully brief and to be provocative, at least by

Federal Reserve standards. Let me note, in this regard, the now-obligatory disclaimer that I am speaking only for myself and not for others in the Federal Reserve.

As a monetary policy maker, I cannot avoid making forecasts of future economic performance—because I would like policy to be anticipatory and to head off prospective economic problems, or simply to contribute to stability if that is all that is required. We are all familiar with the story of long policy lags that make preemptive or anticipatory policy desirable. But the other traditional characteristic of policy lags—their variability—is almost synonymous with uncertainty, and suggests caution in pursuing preemptive policy.

In any event, anticipatory policy requires forecasts and requires that I pay some attention—give some weight—to them. Unfortunately, neither my personal forecasting record nor that of the economics profession is particularly good. To illustrate this, consider a few time frames from recent experience. I pick these because they are at hand, but since I have been at this for more than 30 years now, I could find many other examples if need be:

- the second half of 1999
- the first half of 2000
- the second half of 2000
- the fourth quarter of 2001
- the first quarter of 2002

The fact is that no one has sustained a good record of forecasting the short-term performance of the U.S. economy. What does this mean for policy making? The normal prescription is that, in the face of substantial uncertainty, policy actions should be modest and infrequent so that, at worst, they will not be destabilizing. I endorse this conclusion and would add a couple of observations.

First, with regard to real growth, I think we have seen over the past 20 years that the U.S. economy is terrifically resilient. Recall that the economy grew uninterruptedly from late 1982 until mid 1990, then again from the spring of 1991 until the spring of last year. This was a gratifying performance, made even more so by the shocks and storms the economy weathered along the way, including the stock market crash of October 1987 (and several other corrections of note); financial crises in, for example, Latin America, parts of Asia, and Russia; significant downsizing of the defense industry in the wake of the collapse of the U.S.S.R.; the virtual demise of the S&L industry; and domestic banking problems of note.

Despite this litany of problems, economic growth proceeded, and I think it is fair to say that, on average over the past 20 years, the surprises largely have been on the upside. To be fair, some of these shocks and disruptions did, in fact, provoke a policy response; thus we do not have a clean test of resilience. But I, for one, am under no illusions that policy was so appropriate and precise that it deserves the lion's share of the credit for this economic performance.

Upside surprises in economic growth are usually easy to take, especially if they are accompanied by persistently low inflation, as was the case in much of the 1990s. As noted earlier, we appear to have had another bout of this in the last quarter or two, with growth exceeding earlier expectations. Interestingly, although I think most forecasters estimate growth of at least 4 percent in the first quarter, many in the business community remain quite cautious about the economy and its

There is a voluminous body of evidence for the long run indicating that monetarists are correct about inflation. In the long run, inflation is a monetary phenomenon . . .

prospects. This divergence between the views of business leaders and those of economists is not trivial, and yet the numbers are "neutral," speak for themselves, and are undeniably positive. What accounts for the divergence?

The short, honest answer to this question is "I don't know," but I am willing to speculate a bit. In a nutshell, I think many businesses are still adjusting to a low-inflation environment. In general, profits cannot be improved by price increases because such increases will not stick. In a highly competitive, low-inflation environment, cost containment or outright cost reduction is critical to improved profitability, but this will not necessarily be easy to achieve. Thus, I would speculate, business continues to experience bottom-line pressure even though the recovery is well under way in at least several sectors.

The preceding commentary was a bit of a digression, but it serves the purpose of introducing the subject of inflation, another topic—in my view—challenging to those responsible for short-term forecasts and to monetary policy makers. There is a voluminous body of evidence for

the long run indicating that monetarists are correct about inflation. In the long run, inflation is a monetary phenomenon, and by the long run, I mean periods of five or 10 years or more.

But this relation doesn't get us very far if accurate short-term forecasts of inflation are the goal. One favorite way to produce short-term, say annual, forecasts of inflation today is with some variation of the Phillips curve, usually involving the concept of NAIRU (nonaccelerating inflation rate of unemployment). The underlying notion, albeit perhaps an oversimplification, is that unemployment is a reasonable proxy for labor market pressure, and that labor market pressure ultimately translates into inflation, presumably because of its implications for wages, compensation more broadly, and unit labor costs. NAIRU is key because significant upward pressure on compensation, say, is expected only when actual unemployment drops below it.

Depending on your tastes and preferences, this may be a compelling story, but for this policy maker, an important question is how well the NAIRU models work in practice. The answer to this question is, in short, "not well," and this has been true since 1984, according to our analysis at the Federal Reserve Bank of Minneapolis. In short, our research suggests that unemployment has not contributed significantly to forecasts of inflation for quite some time.

Specifically, two of our economists, Andy Atkeson and Lee Ohanian, now both faculty members at UCLA, reviewed a variety of inflation-forecasting models. Their results revealed that, beginning in 1984, Phillips curve-type NAIRU models did no better at forecasting inflation than a simple model which assumed that next year's inflation rate would equal last year's. And as a practical matter, many of you may recall that many forecasters generally overpredicted the pace of inflation, from about the mid 1990s on.

In light of this evidence, am I ready to discard the NAIRU concept in its entirety? No, although it's tempting. But I do think that, speaking only for myself, the burden of proof has shifted to those who believe it's a valuable concept. In fact, the whole exercise is beginning to remind me of the gyrations in which we used to engage in the 1980s to try to preserve or to resurrect various short-run demand-for-money equations as they went increasingly off track. Ultimately, the exercises proved futile and we surrendered.

What are the policy implications of these circumstances? In my view, they exacerbate the degree of uncertainty and, other things being equal, ought to contribute to caution in the response of monetary policy to changes in conditions and forecasts. Indeed, one way of interpreting the conduct of policy from about 1996 through 2000 is that a good deal of caution was in fact exercised. To remind us, the economy was into its sixth year of expansion by the spring of 1996, and the unemployment rate dropped below 5 percent by 1997. It continued to decline, on average, through

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2000, yet there was, at most, minor tightening of monetary policy through this episode. Recall, finally, that virtually all estimates of NAIRU at the time were in excess of 5 percent, and some were as high as 6 percent.

Two obvious reservations are in order about a persistent policy prescription of caution. First, such a prescription runs counter to desires to be preemptive, and, second, it would seem to risk an inadequate response to a serious problem, should one arise. I take these reservations seriously but am not yet overly concerned. Effective preemptive policy action in fact requires the ability to accurately forecast short-run fluctuations in the economy, and I have already expressed reservations on this score. Perhaps more importantly, I have also emphasized the fundamental resilience of the U.S. economy and would add that, much of the time, excesses in the economy, positive or negative, are largely self-correcting. Policy rarely has to try to save the day. Put another way, given the fundamental soundness and strength of the U.S. economy, it is important that we get policy approximately correct, but it is not necessary that we get it precisely correct. And the costs associated with overreacting are probably at least as great as those associated with caution.

S e s s i o n s

SESSION 1

The State of the U.S. Economy: A View from Wall Street

MODERATOR: DAVID LEONHARDT

Economics Writer, *New York Times*

ROBERT BARBERA

Executive Vice President and Chief Economist,
Hoenig & Co., Inc.

RICHARD BERNER

Managing Director and Chief U.S. Economist,
Morgan Stanley Dean Witter & Co.

MICKEY D. LEVY

Chief Economist, Bank of America



David Leonhardt

DAVID LEONHARDT, economics writer for the *New York Times*, noted that the U.S. economy has offered two broad surprises during the past year and a half. The first was the significant underperformance of the economy relative to the expectations of most economists during the first, second, and third quarters of 2001. The second was that economic performance was much better than expected during the fourth quarter of 2001 and first quarter of 2002.

ROBERT BARBERA observed that personalities matter in a geopolitically charged environment, and proposed that the basis of an economic forecast should start from that insight. As a result of Enron and the events of September 11, the U.S. economy currently faces two great challenges: operating without the benefit of outlandish flexible accounting, and operating amid periodic military shocks. Conservative accounting and the war on terrorism end the ability to produce booming “brave new world” growth rates. A modest recovery is expected for the U.S. economy, aided and abetted by “super-easy money” over the next 12 to 18 months.

In recent years, outlandish flexible accounting inflated reported corporate profits and permitted consumption and investment to boom simultaneously. In opposition to the notion that Wall Street analysts hoodwinked



Robert Barbera

everyone, there was widespread willingness by the Federal Reserve, White House, Senate, and Congress to permit this faulty accounting. Using two sets of books allowed the boom to exist in the late 1990s. Comparing Standard & Poor's (S&P) operating profits and National Income and Product Accounts (NIPA) profits in GDP accounts from 1997 to the first half of 2000, the former continued to grow rapidly and profit margins continued to expand, while the latter started to decline and profit margins fell precipitously. The main difference between these two measures of profit is their treatment of options. The NIPA numbers correctly reported options as an expense, whereas they were not treated as a cost in income statements reported to shareholders. Therefore, operating income grew rapidly. Options contributed a full percent-

age point to wage and salary income growth (7.5 percent) over the three-year period, leading to a consumer spending boom. Thanks to good profit reports, the stock market rapidly increased and there was a capital spending boom. As spending exceeded production, the trade deficit widened and resulted in a large external imbalance.

Because conservative accounting will be used in the future, the twin booms in consumption and production will not be reproduced—profits will be lower and wage and salary income will not be artificially boosted. During the past year, the CBO's outlook for the next decade's federal budget surplus has been reduced by \$4 trillion. Initially, the CBO's underlying assumptions included permanent peace, no inflation, and an uninterrupted boom market for equities. However, periodic military incursions will have a negative impact on stock markets, which still have the vestiges of "brave new world" price-earnings ratios that depend on peace and prosperity.

In the short run, monetary policy can overwhelm valuation and liquidity matters. If secular headwinds kept the federal funds rate easy in the early 1990s, then geopolitical wind shear confronting excessive equity market valuation will keep the federal funds rate very low. A soft landing for the slow deconstruction of the Brave New World outlook would be a stock market that struggles and goes sideways with "super-easy money" and an earnings pattern that slowly grows into those stock prices.

RICHARD BERNER also forecast an economic recovery, but outlined a number of challenges to such a recovery: squeezes on profits and leverage (both financial and operating), restrictive financial conditions requiring easy money, current account deficits, and the bubble mentality (pertaining to real estate rather than equity prices). Factors currently propelling the economic recovery include monetary and fiscal stimulus, an end to corporate cost-cutting, and a rebound in profitability (a leading

indicator). However, profits reported to the IRS will be depressed by recent changes in tax laws that allow corporations to accelerate depreciation. As a result, the healthy revival in profits seen this year will be significantly lower in 2003, even with a fairly robust economy. Thus, valuation, rather than earnings, is the stock market's problem.

Margins and the return on invested capital peaked in 1997. Since then, the latter has declined sharply, notably in technology, which reached negative proportions. There was a buildup of operating leverage as a share of total business costs, as corporations invested heavily and improved productivity. This, however, came with a price tag: Fixed costs relative to total costs were raised through higher depreciation and interest expense. A subsequent slowing in growth squeezed margins and triggered intense cost cutting, both in capital spending and in labor force payrolls, which produced the recession.

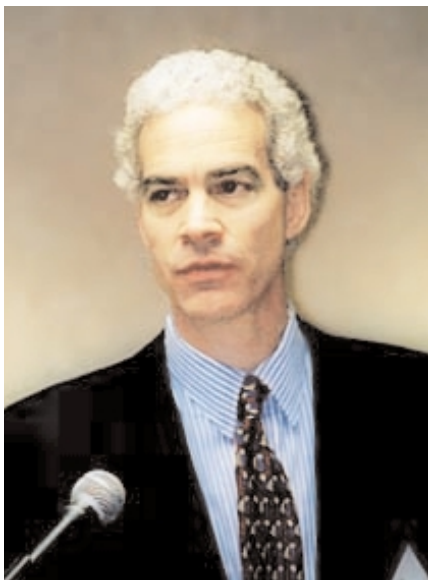
Financial leverage is also high by traditional measures. Corporate America is benefiting from tax cuts that support profitability, economic recovery, and capital spending. The personal sector financing gap (the difference between internally generated funds, measured on a book basis, and total capital spending, as measured in the Federal Reserve Flow of Funds accounts) widened dramatically, but is now shrinking as a result of cutbacks in capital spending and declining prices of capital goods. Better price performance for capital goods could help to finance the revival of capital spending, but financial leverage has led to highly restrictive financial conditions; in other words, a credit crunch. There may be a sharp decline in demand for short-term credit when companies massively liquidate inventories. However, the U.S. banking system is healthy and able to finance a recovery.

The current account gap, which has narrowed only slightly during the recession, will eventually be reduced by a combination of slower U.S. growth relative to the rest of the world, a big change in relative prices, or a change in the exchange rate, but the adjustment process will take time. The synchronous global recession will likely see a synchronous global rebound. A decoupling of relatively cheaper markets abroad will likely lead to capital flows into those markets and a decline in the dollar.

The housing bubble is not a worry because favorable demographics, such as immigration, will continue to support housing demand. There is little inventory overhang in new construction, and no supply or land-use constraints. Moreover, recovery dynamics in 2002 and 2003 predict a recovery in jobs and income, which supports profits and consumer and capital spending.



Richard Berner



Mickey D. Levy

MICKEY D. LEVY agreed that the economic recovery was unfolding and predicted that both monetarists and Keynesians would claim victory. From the monetarists' perspective, the economic response was a textbook example of the Fed having pumped monetary growth as interest rates came down, resulting in a steeper yield curve, higher demand for money, lower velocity, and decelerating nominal GDP growth. Keynesians, on the other hand, could say that last year's tax relief was the "Worker Assistance Act of 2002," which resulted in economic growth. Both perspectives refer to an economy stimulated by a form of public policy.

However, it is much more important to look at underlying spending and tax structures than changes in budget deficits or surpluses when measuring the effect of the fiscal stance on resource allocation and incentives.

The CBO changed its potential growth projections in an ex post, ad hoc manner, so that the gap (or structural deficit) could explain the state of the economy. This approach, however, is not very helpful in forecasting.

The recent recession followed a typical pattern except for one aberration: consumption did not decline. Since real consumption exploded during the initial stages of recovery following the past three recessions, the risk now is not that consumption will fall, but rather, that consumer spending will rise and accelerate modestly. Consumption always leads employment and, according to internal Federal Reserve calculations, most of the growth in consumer indebtedness was in the highest and lowest quintiles of income. Earlier models predicting consumer indebtedness overestimated defaults; consumer credit quality has proven better than expected. Therefore, consumer spending should continue to rise and accelerate modestly.

Business investment as a share of GDP rose in the 1990s. It had three important capital spending characteristics: nearly 70 percent of business investment growth was in information processing equipment and software; most capital investment, excluding telecommunications, was in industries with rapid obsolescence; and the significant decline in prices of new capital reflected technological innovation and rapid gains in productivity. The sharp decline in capital spending on equipment software since that time was stabilizing, but continued to decline because it lags behind the business cycle. However, modest but uneven growth can be expected for the second half of 2002 as a result of a sharp decline in telecommunications.

In terms of fiscal policy, the tax rebates of 2001 were really advances on retroactive cuts in marginal rates rather than a fiscal stimulus. The public's sense that they were temporary means that the funds were probably saved rather than spent. This year's \$70 billion tax relief came through lower withholding schedules; these imply a sense of permanence and any refunds, therefore, would likely

be spent, leading to an acceleration in nominal spending growth. The extra \$40 billion in emergency relief and national security, authorized by Congress in late September, is a government purchase that goes directly into GDP. Defense spending as a percentage of GDP is expected to rise during the next couple of years, adding more than a percentage point to GDP (about \$100 billion) over the next 12 to 18 months, and eventually crowding out other types of spending. After the Fed raises interest rates and nominal GDP growth stabilizes, private consumption and private investment growth are expected to become more constrained.

The use of capacity utilization measures to forecast capital spending (and inflation) is misleading in an environment with rapid technological innovation, short-lived capital with rapid obsolescence, and declining prices. The sooner the Fed raises rates and flattens the yield curve, the better off we all will be.

SESSION 2

Macroeconomic Issues in the Recovery

MODERATOR: LAURENCE H. MEYER

Distinguished Scholar, Center for Strategic & International Studies

LAKSHMAN ACHUTHAN

Managing Director,
Economic Cycle Research Institute

JAMES GLASSMAN

Senior Economist and Managing Director,
J.P. Morgan Chase

CHRIS VARVARES

President, Macroeconomic Advisers, LLC



Lakshman Achuthan

At the outset, moderator **LAURENCE H. MEYER** noted what appears to be a very significant rebound of GDP for the first quarter of 2002, but significantly less momentum heading into the second quarter of the year. As a result, the strength of the overall recovery is questionable. Two main themes are the postbubble hangover and well-maintained productivity numbers. The equity market correction and its negative wealth effect are restraining the economy from normal expansion, as are a dampening of consumer spending and capital overhang. Moreover, financial conditions are not as accommodating as expected, as reflected by the equity price correction resulting from the dollar appreciation during a period when it was expected to depreciate. On the other hand, productivity numbers relating to the pace of innovation and income growth over time support both consumer confidence and capital spending.

We have been in an environment of disinflation during the past 20–25 years, but are now close to the long-run inflation objective and, therefore, should be operating according to a maintenance situation, rather than in a disinflationary program. What happens if inflation falls below the long-term objective, and how does the unusually low peak unemployment rate at the beginning of an expansion period affect the economic outlook and monetary policy?

LAKSHMAN ACHUTHAN observed that the National Bureau of Economic Research, which officially determines the beginning and end of a

recession, defines a recession as a significant decline in output, income, employment, and trade (as opposed to two consecutive quarters of negative GDP). Compared to the previous seven recessions, the current downturn is the shallowest and shortest on record, comparable to the 1980 recession in terms of duration. Industrial production, however, showed the fourth largest, and longest, decline. This recession's employment rate declined the least of the seven, but was close to those of 1969–70 and 1980. In addition, the decline in nonfarm payrolls exceeded that of all but the previous two recessions. Therefore, major indicators that define the state of the U.S. economy show that the recent downturn was a recessionary episode.

The most recent recession was not unique. Although the decline in manufacturing and trade sales was (by a narrow margin) the smallest of the seven, its persistence matched or exceeded that of three previous recessions. In terms of income, it is not unusual to have recessions with no cyclical declines. The pervasive loss of jobs was completely in line with the last three recessions. These overall comparisons show that the most recent economic slowdown was a classic, cyclical recession.

The fourth quarter of 2001, however, was an anomaly; GDP was positive because of post-September 11 factors, such as aggressive cuts in interest rates that allowed for zero-percent financing on auto-related sales, and increased government spending. These each accounted for more than the rise in fourth-quarter GDP. Therefore, absent these aggressive policy responses, fourth-quarter GDP would likely have been negative.

The sequence of events, as described by the long leading, coincident, and lagging indices, was consistent with a cyclical downturn. The long leading index turned down ahead of the recession, the coincident index followed that downturn, and the lagging index confirmed the existence of a cyclical event and a recession. Those who believe anything less are likely to underestimate the risk of recessions in the future and continue to believe that the business cycle has been completely tamed. The long leading index now suggests that there will be a durable, sustainable recovery through the end of 2002.

JAMES GLASSMAN expected the Fed to be a little less aggressive in response to expansions. During the past 20 years, the Fed has worked to bring inflation down, and now seeks to maintain the current zone. The combination of Fed and fiscal policy is a potent mix and, combined with an unusual inventory situation, suggests that something is about to happen to the economy.

For all the turmoil that has adversely affected the markets over the past year, and despite a large current account deficit and a strong dollar, there is deep-seated optimism underpinning the stock and currency markets. Recovery prospects are exceptional, fiscal policy changes are highly stimulative, and inventories have been drawn down at a record pace. Foreign investors believe there is something going on here. Moreover, as reflected in real bond yields, bond investors are quite optimistic about what is happening. Fed policy is highly stimulative, as demonstrated by short-term interest rates well below market rates and real interest rates close to zero. Combined with fiscal policy changes that rival Reagan's tax cuts and defense spending in the early 1980s, and

an inventory depletion rate far below the final sales growth rate, there will be a decent recovery with above-trend growth over the coming years.

A slowdown in the pace of liquidation and an expected return toward growth of final sales will remove a huge drag from the economy. (However, the normal inventory sales level is not really known.) Capital spending, a key weakness last year, will also contribute to higher overall growth relative to 2001. In addition, profits are turning less negative—down 35 percent in the third quarter, 25 percent in the fourth quarter, and 11 percent in the first quarter of 2002. Seasonally adjusted, this trend signals that something positive is unfolding, something not recognized by “The Street.” There has been a positive turn on the profit side, with the exception of hiring. When the pace of hiring picks up, the Fed will begin to withdraw from its accommodative stance. Rising interest rates are expected later in the summer of 2002.

Economists tend to disagree about the levels of full employment and noninflationary unemployment, which appeared to be lower than expected as recently as the mid 1990s . . .

It is unclear at this point whether the unemployment rate of the past decade has moved below the long-run natural rate.

Although most investors and the public are not worried about inflation and do not think it will move lower, near-term disinflationary forces are at work in the economy. There may be a further small decline in inflation, depending on the level of excess capacity. Economists tend to disagree about the levels of full employment and noninflationary unemployment, which appeared to be lower than expected as recently as the mid 1990s. (This may have been the result of favorable supply shocks and a strong dollar, or perhaps the emergence of China. Both China and Japan are

exporting their deflation, a situation that will continue as the emerging economies of Asia are integrated into the global community. This may help inflation in the United States.) It is unclear at this point whether the unemployment rate of the past decade has moved below the long-run natural rate. Since there is still some slack in the labor markets, cost pressures will decline. Therefore, unemployment at 5 percent or slightly lower is not much of a threat.

The level of investment relative to GDP was high in the 1990s, but this was not based on unrealistic expectations, since there was a real payoff in terms of productivity growth and technology. The most important story in our time is what has happened to inflation. The Fed has room to be more accommodating, a stance that would enhance the efficiency of the U.S. economy and contribute to our good performance. Therefore, there may be another decade ahead of solid, noninflationary growth.

In the near term, CHRIS VARVARES agreed that the recession was over and that we are currently undergoing a recovery. Inventory investment has contributed 2.5 percentage points to GDP growth so far this year (but is expected to slacken), and consumer confidence has rebounded following the events of September 11. Consumption and capital spending growth will be sufficient

to maintain final sales growth this year. However, a major concern is the sustainability of final sales growth, which has temporarily benefited from the weather, energy prices, zero-percent financing, tax cuts, and monetary ease. Given little pent-up demand, potential drags on final sales, a weaker housing sector, a strong dollar and growing U.S. trade deficit, a reduction in federal spending, and adverse wealth effects, it is unclear whether the current trend will result in a new growth profile or return to a flat trend. Although higher federal spending is included in the forecasts of Macroeconomic Advisers (MA), the potential remains for inadequate federal spending increases in 2003, followed by spending reductions thereafter. Therefore, the key to a sustainable recovery is a revival of capital spending in the second half of the year, along with continuing strong consumption and housing activity.



Chris Varvares

Productivity and profitability are expected to continue to surge during the first half of 2002, and then slow during the next couple of years. Near-term forces for disinflation include a sharp, cyclical deceleration of unit labor costs (expected to decline another 4 percent in the first quarter of 2002), and the effects of a strong dollar and a drop in energy prices during 2001 on core inflation. In the period between late 1999 and early 2000, capital deepening contributed up to 2 percentage points to structural productivity growth. The subsequent slowdown in investment and capital stock growth is expected to take a full percentage point out of structural productivity growth. This decline has been offset by an acceleration in total factor productivity growth, which played little part in the structural productivity acceleration of the second half of the 1990s (which was the result of capital deepening). Therefore, MA forecasts an increase of just under half a percentage point in structural productivity growth.

A short-term resumption of above-trend growth is also forecast, with the slack in the economy being absorbed quickly. This growth rate would encourage reversal of the Fed's monetary policy by June. Unemployment is assumed to peak not much above the nonaccelerating inflation rate of unemployment (NAIRU), which is estimated to be 5.4 percent. The downside risk to the forecast is that there will be less-than-expected capital spending, business investment, and rising energy prices. The upside risk is that federal spending will be higher in 2003 and inventory investment will be higher than expected.

There were four major reasons for the post-September 11 rebound: accommodative monetary policy, fiscal policy, a rebound in confidence, and other temporary factors (zero-percent financing; a mild, dry winter; falling energy prices; inventory dynamics). According to MA's equity evaluation model, the real federal funds rate is affected by changes in reserves. To get a broader picture of

monetary and financial conditions, these changes are then transmitted to such measures as market interest rates, rental prices, the user cost of capital, the business rental price, the dividend-price ratio, the value of equities, the consumer equity wealth effect, and the exchange. To determine the absolute effect on GDP, changes are simulated to each of the five impulse variables in turn, and the effects on the GDP's dynamic time path noted. The results are then catalogued in a monetary and financial conditions index.

In the mid 1990s, monetary policy contributed very strongly to growth (about 2 percentage points). This was followed by the rise in the dollar. According to the model, the decline in the federal funds rate added about half a percentage point to GDP. An expected aggressive reversal of this rate in June would result in a 3 percent rate by the end of the year and a 4.75 percent rate by the end of next year. Forward bond yields are also expected to rise significantly. Simulations of the model showed that the tax rebates of 2001 were largely saved and added little to growth. However, huge increases in federal real consumption and gross investment would add a percentage point to growth in 2002, and another half a point by the end of 2003. The effect of fiscal policy on both spending and taxation has been very important. Bonus depreciation was shown to help marginally by boosting software investment.

A rise in the use of market mechanisms to allocate resources, combined with globalization and deregulation, has allowed the United States to absorb shocks to its economy, which has become more flexible. Globalization has allowed specialization and the benefits of comparative advantage. Today's trend, therefore, is toward shorter, shallower recessions. In addition, sensitivity of the markets to changes in the economy has grown exponentially.

P a r t i c i p a n t s

LAKSHMAN ACHUTHAN is the managing director of the Economic Cycle Research Institute (ECRI), an independent organization focused on business cycle research that developed and maintains over 100 economic indexes for 18 countries, including the Weekly Leading Index, Future Inflation Gauge, and *Journal of Commerce*–ECRI Industrial Price Index. Achuthan is the managing editor for ECRI periodicals, including *U.S. Cyclical Outlook* and *International Cyclical Outlook*, serves on the Economic Advisory Panel of New York City’s Office of Management and Budget, and is the treasurer of the Downtown Economists Club. He is frequently interviewed in the print and broadcast media, and makes weekly contributions to CNN’s *Lou Dobbs Moneyline*. He has taught graduate courses at Long Island University and given seminars on business cycle forecasting. Achuthan earned a B.S. in economics and finance from Fairleigh Dickinson University and an M.B.A. in international business from Long Island University.

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JAMES E. GLASSMAN is senior economist and managing director with J. P. Morgan Chase. He is director of the U.S. economic and policy issues research division, which provides analysis of the U.S. economic outlook, monetary and fiscal policy developments, and financial market prospects for the company’s capital markets activities and corporate relationships. Previously, he worked as an economist in Morgan’s global research group; at Chemical Bank (which subsequently merged with Chase

Manhattan Bank and, most recently, J. P. Morgan); and as a senior economist with the Federal Reserve Board in Washington, D.C., where his responsibilities included analysis of inflation, labor market developments, money and capital markets issues, and the Federal Reserve's monetary policy operating procedures. Glassman received a bachelor's degree in economics from the University of Illinois and a Ph.D. in economics from Northwestern University.

Two accounting-based models form the foundation of much of Distinguished Scholar **WYNNE GODLEY'S** research. The first model tracks the evolution of the U.S. economy using a consistent system of stocks and flows (such as income, production, and wealth). This system of information makes it possible (1) to identify significant trends and magnitudes, suggest policy responses to problems, and gauge economic outcomes, and (2) to assess the economic implications of different policy regimes. The second model, originally developed at Cambridge University, is a "closed" world model in which 11 trading blocs—including the United States, China, Japan, and Western Europe—are represented. This model is based on a matrix in which each bloc's imports are described in terms of exports from the other 10 blocs. From this information and using alternative assumptions (for example, about growth rates, trade shares, and energy demands and supplies), past trends can be identified and the patterns of trade and production analyzed to reveal any structural imbalances. Godley's findings are published in the Levy Institute's Strategic Analysis series. Godley was a member of HM Treasury's Panel of Independent Forecasters, the so-called Six Wise Men. He is professor emeritus of applied economics at Cambridge University and a fellow of King's College.

DAVID LEONHARDT covers economics for the *New York Times*, where he has worked since 1999. Previously, he wrote for *Business Week* magazine in Chicago and New York, and for the metro desk of the *Washington Post*. A native of New York, he studied applied mathematics at Yale University and enjoys writing occasionally about the use and misuse of statistics in politics, business, and sports.

MICKEY D. LEVY is chief economist for Bank of America, where he analyzes and forecasts national and international economic performance and financial market behavior, conducts research on monetary and fiscal policies, sits on the bank's finance committee, and is a member of the leadership committee of Bank of America Securities. Levy also serves on the Shadow Open Market Committee, the academic advisers panel of the Federal Reserve Bank of New York, and the board of directors of the Economic and Social Research Institute. Prior to his career in the private sector, Levy conducted research at the American Enterprise Institute and the Congressional Budget Office. Levy has testified often before congressional committees on topics concerning the Federal Reserve and monetary policy, fiscal and budget policies, economic and credit conditions, and the banking industry.

LAURENCE H. MEYER, a Distinguished Scholar at the Center for Strategic and International Studies in Washington, D.C., recently concluded his term as a member of the board of governors of the Federal Reserve System. Before joining the board, he was president of Laurence H. Meyer and Associates (now Macroeconomic Advisers, LLC), a St. Louis-based economic consulting firm that spe-

cializes in macroeconomic forecasting and policy analysis, providing forecasts and the use of its model to government agencies, trade associations, and private firms. He was also a professor of economics at Washington University in St. Louis and a research associate of the university's Center for the Study of American Business. Meyer has served as an economist at the Federal Reserve Bank of New York and a visiting scholar at the Federal Reserve Bank of St. Louis. He is widely recognized as one of the nation's leading economic forecasters, has had numerous articles published in professional journals, is the author of a textbook on macroeconomic modeling, and has testified before Congress on macroeconomic policy issues. Meyer received a B.A. from Yale University and a Ph.D. in economics from the Massachusetts Institute of Technology.

President **DIMITRI B. PAPADIMITRIOU'S** areas of special interest are community development banking, banking and financial structure, the Federal Reserve and monetary policy, and the distribution of wealth and income in the United States. He is continuing his work on financial markets and monetary policy and the appropriateness of using existing price indexes as targets for monetary policy, and will apply the findings to OECD countries. He is also executive vice president and Jerome Levy Professor of Economics at Bard College and recently served as vice chairman of the congressional U.S. Trade Deficit Review Commission. Papadimitriou is general editor of The Levy Economics Institute book series and a member of the editorial board of the *Review of Income and Wealth*. He received a B.A. in economics from Columbia University and a Ph.D. in economics from New School University.

ANTHONY M. SANTOMERO, president of the Federal Reserve Bank of Philadelphia since July 2000, is a leading authority on the financial services industry, risk management issues in financial institutions, and financial regulation. For 28 years before joining the bank, Santomero held various academic and managerial positions at the University of Pennsylvania's Wharton School, including Richard K. Mellon Professor of Finance, director of the Wharton Financial Institutions Center, deputy dean of the school, vice dean and director of the graduate division, associate director of the doctoral program, and cochairman of the finance department. He also served as a consultant to major financial institutions and regulatory agencies throughout North America, Europe, and the Far East. Santomero has written more than 100 articles on banking, financial regulation, and economic performance, as well as several books; his textbook on financial markets, instruments, and institutions is widely used. He is the founding coeditor of the *Brookings-Wharton Papers on Financial Services* and serves on several academic editorial boards. He also has acted as associate editor of the *Journal of Banking and Finance*; *Journal of Money, Credit, and Banking*; *Journal of Financial Services Research*; and *European Finance Review*. Santomero received a B.A. in economics from Fordham University and a Ph.D. in economics from Brown University. He also holds an honorary doctorate from the Stockholm School of Economics.

GARY H. STERN has been president of the Federal Reserve Bank of Minneapolis since March 1985, and is currently serving a full term that began in March 2001. Prior to being named president, Stern served as senior vice president and director of research, and then chief financial officer. Before joining the bank, he was a partner in a New York-based economic consulting firm; a faculty

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CHRIS VARVARES is president of Macroeconomic Advisers, LLC, a company he founded with Joel Prakken and Laurence Meyer as Laurence H. Meyer & Associates in 1982. The firm became Macroeconomic Advisers in June of 1996 when Meyer joined the board of governors of the Federal Reserve System. Varvares has over 20 years of experience in macroeconomic forecasting and policy analysis, both as a principal of Macroeconomic Advisers (1982 to present) and as member of the staff of the President's Council of Economic Advisers (1981–82). While on the council, he served as a member of the U.S. delegation to the OECD in April 1982. Varvares serves as a member of *Time* magazine's board of economists, and has been a panelist for the World Economic Forum. He holds a B.A. in economics from the George Washington University and received his graduate training in economics from Washington University in St. Louis.

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