

Conference Proceedings

11<sup>th</sup>  
ANNUAL  
HYMAN P. MINSKY CONFERENCE  
ON FINANCIAL STRUCTURE

Can the Financial Structure  
Avert an Economic Downturn?

April 26-27, 2001 Annandale-on-Hudson, New York



The first part of the document discusses the importance of maintaining accurate records in a business setting. It highlights how proper record-keeping can help in decision-making, legal compliance, and financial management. The text emphasizes that records should be organized, up-to-date, and easily accessible.

Next, the document addresses the challenges of data management in the digital age. It notes that while digital storage offers convenience, it also introduces risks such as data loss, security breaches, and information overload. Solutions like cloud storage, encryption, and regular backups are suggested to mitigate these risks.

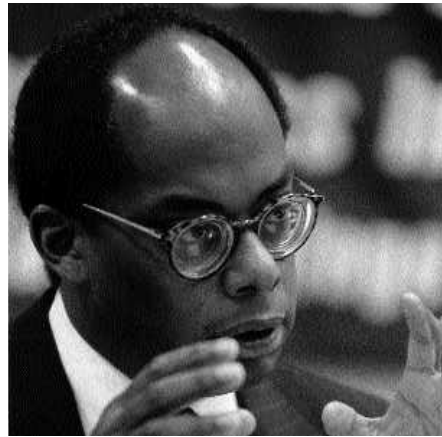
The third section focuses on the role of technology in streamlining business operations. It explores how automation and software solutions can reduce manual errors, save time, and improve efficiency. Examples include using accounting software for invoicing and project management tools for task delegation.

Finally, the document concludes by stressing the importance of employee training and awareness. It suggests that investing in training can help employees understand the value of data and the proper use of technology, leading to a more productive and secure work environment.

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The proceedings consist of edited transcripts of the speakers' remarks  
and session participants' presentations.



Top, left to right: Thomas Hoenig; The Honorable Roger W. Ferguson, Jr.  
Center, left to right: Diane Swonk; Marc Faber  
Bottom, left to right: James W. Paulsen; Peter Hooper

# F o r e w o r d

The following pages include the speeches and session summaries from the Levy Institute’s 11th Annual Hyman P. Minsky Conference on Financial Structure. Minsky was a distinguished scholar at the Levy Institute during the final six years of his life. For over 40 years, he developed analyses and offered keen insights on the linkages between financial markets and the economy. His path-breaking research explained how leading patterns and behavior swings can push an economy into speculative booms or severe downturns.

In his 1974 book *John Maynard Keynes* (Columbia University Press), Minsky wrote that “a fundamental characteristic of our economy is that a financial system swings between robustness and fragility,” and that these swings are an integral part of the process that generates business cycles. He disagreed with the conventional wisdom by arguing that “these swings, and the booms and busts that follow them, are inevitable in a free-market economy unless government steps in to control them through regulation, central bank action, and fiscal policy.” His financial wisdom endeared him to Wall Street.

At the time of this conference (April 2001) many economic commentators had pronounced the state of the U.S. economy—which had recently recorded an expansion unprecedented in the post–World War II period—precarious. Questions abounded about whether the equity market was overvalued. Federal Reserve Chairman Alan Greenspan had recently suggested that “last year’s market may reflect irrational exuberance among investors”; Robert Shiller reaffirmed his concern, stating that a 50 percent drop in value was plausible. Other questions related to the unprecedented amounts of private sector indebtedness, the ballooning trade deficit, and growing government surpluses. In response to the state of the economy, the Federal Reserve shifted its policy to an unusually aggressive easing. Moreover, according to a *New York Times* headline, government deficits have regained their luster.

In conferences past, we have discussed how Hy Minsky’s insights were significant for the 1960s, 1970s, and 1980s. Some of the comments made at this year’s conference show how they are also relevant to the 1990s.

Dimitri B. Papadimitriou

President

# Program

## THURSDAY, APRIL 26

- 8:30–9:30 A.M. BREAKFAST AND REGISTRATION
- 9:30–9:45 A.M. WELCOME AND INTRODUCTION  
Dimitri B. Papadimitriou, President, Levy Institute
- 9:45–10:30 A.M. SPEAKER  
Thomas M. Hoenig, President, Federal Reserve Bank, Kansas City  
“Perspectives on Financial Crises: What Have We Learned from the Events of Recent Years?”
- 10:30–10:45 A.M. BREAK
- 10:45 A.M. – 12:45 P.M. SESSION 1. THE STATE OF THE U.S. ECONOMY  
MODERATOR: Walter M. Cadette, Levy Institute  
Robert J. Barbera, Hoenig & Co., Inc.  
“The Consequences of Bursting the Brave New World Bubble”  
David A. Levy, The Jerome Levy Forecasting Center, LLC.  
Thomas I. Palley, AFL-CIO  
“Contradictions Coming Home to Roost: Lessons from the Great Expansion”  
L. Randall Wray, Levy Institute and University of Missouri, Kansas City  
“Fiscal Policy and the Backward Art of Tax Cutting”
- 12:45–2:30 P.M. LUNCHEON  
SPEAKER: The Honorable Roger W. Ferguson Jr.,  
Vice Chairman, Federal Reserve Board of Governors  
“Understanding Financial Consolidation”
- 2:30–3:15 P.M. SPEAKER  
Diane Swonk, Chief Economist and Senior Vice President,  
Bank One Corporation  
“Up Close and Personal with the ‘R’ Word”
- 3:15–3:30 P.M. BREAK

3:30–5:00 P.M.

SESSION 2. REGULATORY ISSUES IN THE FINANCIAL STRUCTURE

MODERATOR: Frances M. Spring, Levy Institute

Jane D’Arista, Financial Markets Center

“The Unsupportable Debt Levels of Lenders and Their Customers”

Gillian G. H. Garcia, formerly of the International Monetary Fund

“Domestic and International Deposit Insurance and  
Financial Stability”

5:00 P.M.

RECEPTION AND DINNER

SPEAKER: Marc Faber, Investment Advisor, Fund Manager,  
and Broker/Dealer, Marc Faber, Ltd.

“The Coming Global Boom or Bust!”

FRIDAY, APRIL 27

8:30–9:30 P.M.

BREAKFAST

9:30 A.M. – 12:00 NOON

SESSION 3. THE CHANGING ROLE OF MONETARY POLICY

MODERATOR: Dimitri B. Papadimitriou, Levy Institute

Stephen G. Cecchetti, Ohio State University

“The New Economy and the Challenges for Monetary Policy”

James K. Galbraith, Levy Institute and University of Texas, Austin

“Put Your Chips on 35, or Future History: The Humphrey-Hawkins  
Process and the Deeper Thought of Alan Greenspan”

Bruce Greenwald, Columbia University

“The Increasing Ineffectiveness of Monetary Policy:  
Theoretical and Empirical Observations”

Jan A. Kregel, Levy Institute and United Nations Conference on Trade  
and Development

“Rediscovering the Discount Window: Minskian Monetary Policy  
in a Debt-Free Society”

Martin Mayer, Brookings Institution

“The Systemic Implications of Non-Bank Financing”

12:00 NOON – 2:00 P.M.

LUNCHEON

SPEAKER: James W. Paulsen, Chief Investment Officer,  
Wells Capital Management  
“Economic and Financial Market Outlook”

2:00–2:45 P.M.

SPEAKER:

Peter Hooper, Managing Director, Deutsche Bank Alex. Brown  
“Outlook for the U.S. Economy: A View from the Street”

2:45–4:15 P.M.

SESSION 4. ISSUES IN INTERNATIONAL FINANCE

MODERATOR: Dimitri B. Papadimitriou, Levy Institute  
Robert Z. Aliber, University of Chicago

“International Capital Flows, Saving Rates, and Financial Bubbles”  
Karin Lissakers, formerly of the International Monetary Fund  
Parul Jain, TIAA-CREF  
“From Miracle to Debacle: Lessons from the East Asian  
Financial Crisis”

4:15 P.M.

CLOSING REMARKS AND ADJOURNMENT



# Speakers

THOMAS HOENIG

President, Federal Reserve Bank, Kansas City

## Perspectives on Financial Crises: What Have We Learned from the Events of Recent Years?

It is a distinct pleasure to be invited to speak at this year's Hyman Minsky conference. Throughout his career, Hy Minsky emphasized the importance of understanding the linkages between the institutional structure of the financial system and the macroeconomy. For many years, such an emphasis was, shall we say, out of fashion, both in macroeconomic modeling and in policy discussions. In recent years, however, dramatic changes in financial markets and a wave of financial crises around the world have brought renewed interest in the role that the financial system plays in economic growth and in macroeconomic stability.

Today, I would like to share my perspective on some of the broad lessons that can be drawn from the events of recent years. In my view, there are important policy implications both for the supervision and regulation of financial markets and institutions and for the Federal Reserve's role in maintaining financial stability.

### The Importance of a Strong and Stable Financial System

Let me begin by taking a closer look at the relationship between financial structure and overall economic performance. In normal times, it is easy to overlook the contribution the financial system makes to the economy. Indeed, in the U.S., the process of transferring funds from savers to investors through the banking system and through capital markets is so seamless and efficient that we often take it for granted.

Such is not the case elsewhere. In fact, one way we have gained a greater appreciation for the importance of the financial system is by comparing economic performance across countries with different financial systems. Over the past several years, there is increasing evidence, drawn from the experience of newly emerging market economies in Eastern Europe, Asia, and Latin America, that financial structure is a key feature distinguishing relative economic performance. Countries with a fragile financial system, a weak legal and regulatory structure, and state ownership or control of financial institutions are generally more prone to crises and show weaker economic performance.

The second way that we have come to appreciate the role of financial institutions is in times of financial stress when the intermediation process no longer functions effectively and when falling asset prices undermine household and firm balance sheets. Financial crises can affect the economy in a number of ways. Borrowers experiencing a sudden increase in the cost or a reduction in the availability of credit may be forced to curtail their spending, resulting in a contraction in output and employment. In addition, changes in asset prices may generate changes in wealth that affect spending directly as well as influence consumer and business confidence.

Over the past recent decades, we have seen an increased incidence of financial crises around the world. Indeed, in just the past 20 years, more than two-thirds of IMF member countries have experienced one or more financial crises. Many of these crises have had severe economic consequences in terms of lost output and employment. In each of the affected countries, policymakers have faced the dual challenge of managing the crisis while also developing institutional reforms to create a more stable financial system for the future.

## Five Lessons from Recent Financial Crises

While all financial upheavals have unique features, they also have important similarities, which enables us to draw some general conclusions about appropriate ways to manage them and inhibit their recurrence. As I look back on those that have occurred in the U.S. and other countries, I would suggest five general lessons to be gained from the experience.

### Lesson 1

First, financial market regulation must be dynamic, not static, and must adapt to a changing financial environment. It is unrealistic to believe that a regulatory framework designed for a particular financial structure will continue to be effective when that structure changes. A good example is the growth of capital markets and increased importance of institutional investors in the U.S. financial system, a development that is bringing about far-reaching changes in how we regulate banks and other traditional financial intermediaries.

Moreover, there is an ongoing interaction between regulation and those institutions that are regulated. Regulation changes incentives, which causes further changes in institutions' behavior and the need to further modify regulation. Classic examples are the response of banks to interest rate ceilings, reserve requirements, and capital standards. In each case, banks have developed methods of reducing or avoiding the costs associated with regulations. Regulators, in turn, have been forced to continually modify and, in some instances, eliminate regulations. This process is unlikely to change going forward, and so I suggest prudence requires considerable flexibility in regulatory approaches as we attempt to keep pace with changing financial markets and institutions.

### Lesson 2

The second lesson is that, while regulatory change is necessary, it is also difficult and costly. Indeed, in the short run, regulatory changes can be destabilizing

rather than stabilizing. In the U.S., we saw this in the savings and loan industry in the early 1980s when interest rate ceilings on deposits were removed and lending powers expanded without appropriate adjustments in supervisory oversight being made. Similarly, a common factor in a number of financial crises in developing economies in recent years was a decision to open domestic financial markets to international capital and competition without strengthening the domestic banking system. These events suggest that regulatory change must be carefully managed and, in some instances, gradually implemented so as not to become a destabilizing factor in the economy.

### Lesson 3

The third lesson is that, once in a financial crisis, there are no easy solutions for dealing with it. Recent examples include Japan and some developing economies. Over the past decade, weakness in the Japanese banking system has had a serious impact on the performance of the Japanese economy, and the cost of financial disruptions in some developing countries has exceeded 50 percent of GDP.

When the intermediation process breaks down, as in Japan, a restoration of bank lending is needed. However, for a number of reasons, this is difficult to accomplish. In many respects, regulators still do not have the information or the tools to resolve a severe crisis that affects a large part of the financial system. Many times, banking authorities do not have the necessary information that would allow them to distinguish liquidity-impaired from insolvent institutions in a timely manner. Moreover, there is sometimes a tendency for supervisory actions to be overly restrictive, based on a worst-case scenario that does not accurately distinguish between degrees of problems in financial institution portfolios. In addition, a resumption of bank lending may require a recapitalization of the banking system, which may be difficult to accomplish without large-scale government lending or the creation of significant moral



hazard problems. Moreover, in an uncertain financial environment, it may be difficult to convince even well-capitalized banks to undertake additional lending, as we discovered during the credit crunch in the early 1990s.

#### Lesson 4

Given the difficulties and costs of resolving severe financial crises, a fourth lesson is that preventing crises should be a focal point of financial market regulation. In the U.S. over the past few years, we have enhanced efforts in this direction. For example, we have strengthened bank capital requirements and attempted to make them risk-based. With FDICIA, we have put into place a framework that allows us to close troubled institutions before they put the deposit insurance system at risk. We have also changed the focus of supervision to match more closely the risks faced by individual institutions, and we have encouraged institutions to improve internal risk-management practices.

In addition, we have removed antiquated restrictions on permissible activities and geographic location in order to make the financial system more diversified and more competitive. We have taken steps to strengthen the large-dollar payments system to reduce the likelihood of the transmission of financial disturbances through the payments system. And finally, we have attempted to improve the trans-

parency of financial institutions and their activities in order to increase the scope for market discipline in guiding the evolution of financial markets.

While these are all important actions, a couple of cautionary notes are in order. First, with the strong performance of the U.S. economy over the past decade, many of these new procedures have not been tested under the fire of a significant economic downturn. Second, financial markets continue to evolve rapidly, which, as I noted earlier, will require further changes in the regulatory and supervisory structure. One ongoing development of particular note is the rapid consolidation of the financial services industry. A particular concern that I have in this regard is whether consolidation will exacerbate the problem of “Too Big to Fail” to the extent that market discipline will be applied unevenly across financial institutions of different sizes.

#### Lesson 5

The fifth and final lesson that I would take from the events of recent years is that there is significant value to having a diversified system of financial intermediation. Historically, most countries have relied heavily on the banking system as the principal source of intermediation. As we know, troubles in the banking system can weaken the intermediation process, with severe macroeconomic consequences. When intermediation is more broadly based, however, with capital markets as well as banks, the resulting system may be more stable and robust in times of crisis.

A couple of examples from recent U.S. history help illustrate this point and also illustrate some of the limits to diversification. First, if we look back to the 1960s and 1970s, we see how dependent the housing market was on the health of the savings and loan industry, which at the time was the predominant source of funds for housing. In particular, when Regulation Q ceilings curtailed the flow of funds into savings and loans, there was an immediate impact on housing. Contrast this to the situation in the early 1990s when the economy was recovering

from the 1990–91 recession. Housing bounced back strongly even though a large part of the savings and loan industry was being closed down. By this time commercial banks and the secondary mortgage market had become important sources of housing funds and were able to continue lending despite the problems in the savings and loan industry.

A second example is the impact of the Asian financial crises in the fall of 1998. Capital markets seized up suddenly, and even prime corporate borrowers found a sharply higher cost and reduced availability of funds in capital markets. Banks continued to lend during this period, however, and were able to take up much of the slack that had developed in capital markets. As a result, there was little reduction of credit availability and the Asian financial crisis appears to have had little impact on U.S. economic growth.

These examples suggest that the presence of multiple channels of financial intermediation may make the financial system more robust to problems in particular sectors. However, even in the U.S., it is important to recognize that banks and capital markets are not perfect substitutes. While banks lend to a broad spectrum of businesses, capital markets are less open to the needs of smaller businesses. Thus, while capital markets provided some offset to the reduction of bank lending during the 1989–92 credit crunch, the offset was not complete, and small businesses continued to have difficulty obtaining funds. As a consequence, the reduction of bank lending was probably a contributing factor to the slow recovery of the economy from the 1990–91 recession despite the presence of alternative sources of funds for some borrowers.

### Implications for the Federal Reserve's Role in Crisis Management

I would like to close today with some observations regarding how changes in financial markets are likely to affect the Federal Reserve's role in crisis management. In doing so, I would like to return

to Hy Minsky. In his book *Stabilizing an Unstable Economy*, Hy attributed the relative mildness of financial crises in much of the postwar period, in part, to “prompt and effective lender-of-last-resort interventions by the Federal Reserve System, the FDIC, and cooperating private institutions.” The issue that I would like to address is whether the changes in financial markets and institutions over the past 20 years have materially altered the Federal Reserve's role. Indeed, I believe they have, in several important respects. It is noteworthy, I think, that we now talk about “financial crises” instead of “banking crises” or “banking panics,” a change that is reflective of the evolution of financial markets. This change in terminology appears quite apt as financial crises increasingly appear to start outside of the banking system, in nonbank financial intermediaries, capital markets, or foreign exchange markets. Thus, the question emerges; can the Federal Reserve respond to “financial crises” in the same way that it responded to “banking crises” in the past?

My own view is that the Federal Reserve now has less flexibility in responding to crises via its operation of the discount window. Historically, the discount window has been the Federal Reserve's principal facility for providing liquidity in times of crisis. Indeed, going back to the 1980s and early 1990s, the Federal Reserve provided extensive lending through its extended credit program to banks experiencing prolonged liquidity problems. Going forward, however, the discount window is less likely to be used for several reasons. First, use of the window is now circumscribed by the provisions of FDICIA designed to minimize FDIC exposure if the Federal Reserve lends to institutions that ultimately fail. Second, banks have become reluctant to use the window in normal times and so may not be willing to approach the window in difficult times for fear of signaling changes in their condition. Third, to the extent that crises now originate outside the banking system, nonbank institutions do not have direct access to the discount window to meet their liquidity needs.

It should not be too surprising, then, that the Federal Reserve's response to the Asian financial crisis, like the response to the 1987 stock market crash, was to provide liquidity through open market operations by lowering the federal funds rate target rather than by using the discount window. However, using open market operations rather than the discount window has potential implications for the overall stance of monetary policy. When the Federal Reserve provided extended credit to the banking system in the 1980s and early 1990s, discount window borrowing was generally offset by open market operations to keep overall liquidity in the banking system unchanged. As a result, the stance of monetary policy was kept independent of liquidity provision via the discount window.

By contrast, when the Federal Reserve uses open market operations without the discount window, the stance of monetary policy is changed. This raises two concerns. First, what if the appropriate monetary policy stance conflicts with the need to provide liquidity to individual institutions or to financial markets? Second, if open market operations are used to provide additional liquidity in times of crisis, when is the appropriate time to remove this liquidity to prevent a buildup of inflationary pressures? These are important questions deserving further research and analysis.

### Concluding Comments

In conclusion, I believe that the changes in the financial structure and the financial crises we have experienced in recent years have had far-reaching implications for financial market regulation and for the Federal Reserve's role in promoting economic and financial stability. At the same time, these developments serve to emphasize the continuing relevance of Hy Minsky's work for understanding the relationship between the financial system and the economy. Never has this been truer than today, with our even larger institutions and our even more interdependent market systems.

ROGER W. FERGUSON JR.

Vice Chairman, Federal Reserve Board  
of Governors

### Understanding Financial Consolidation

Consolidation of all types of business activities has been a prominent feature of the economic landscape for at least the past decade. The financial sector has participated actively in this development. Indeed, the last few years have witnessed an acceleration of consolidation among financial institutions.

In recognition of the importance of this marketplace evolution, and especially its potential effects on a wide range of public policies, the finance ministers and central bank governors of the Group of Ten nations in September 1999 commissioned a major study of the possible effects of financial consolidation on matters of policy concern to central banks and finance ministries in the G-10. This study, which I was privileged to direct, was released to the public in January 2001. Today I would like to discuss the major findings and their implications.

The G-10 study had two primary objectives. It attempted to isolate the effects of consolidation from those of other powerful forces transforming our financial systems and to identify key areas in which financial consolidation requires new or accelerated policy development. The diversity of the economies involved—even among the G-10, Australia, and Spain—and the interdependent nature of many of the forces affecting our financial systems made achieving these objectives difficult, to say the least. However, I believe the study was a success.

### Patterns and Causes

With a study of the depth, breadth, and, quite frankly, the length of this one, it is always potentially dangerous and even possibly misleading to summarize the key points in a few words. However, I believe that policymakers should communicate to a wide audience their thinking on important policy concerns,

and thereby stimulate and contribute to dialogues in the public and private sectors. Thus, despite the risks, I would like to highlight what are, in my judgment, the study's key findings and policy implications.

The report documents that, in the nations studied, a high level of merger and acquisition activity occurred during the 1990s among financial firms, defined to include depository institutions, securities firms, and insurance companies. During the decade, approximately 7,500 transactions, valued at roughly \$1.6 trillion, were consummated. Moreover, the pace of consolidation increased over time, including a noticeable acceleration in the last three years of the decade. For example, the annual number of deals increased threefold during the 1990s, and the total value of deals increased almost tenfold. In Europe, roughly two-thirds of merger and acquisition activity, as measured by the value of the European firm acquired, occurred during the decade's last three years. Using a variety of measures, the United States accounted for about 55 percent of M&A activity, partly because of our historically large number of relatively small financial firms. However, it is also true that many very large U.S. banking institutions expanded their geographic footprint by acquiring other very large banks, especially later in the decade.

Most of the last decade's merger and acquisition activity in the financial sector involved banking organizations. Acquisitions of banking firms accounted for 60 percent of all financial mergers and 70 percent of the value of those mergers in the nations studied. In addition, most M&A transactions involved firms competing in the same segment of the financial services industry within the same country, while domestic mergers involving firms in different segments of the overall financial services industry were the second most common type of transaction. Cross-border mergers and acquisitions were less frequent, especially those involving firms in different industry segments. Still, all types of mergers and acquisitions, whether within one country or cross-border and whether within one industry seg-

ment or across segments, increased in frequency and value during the 1990s.

Joint ventures and strategic alliances provide an interesting contrast with some of the patterns in outright mergers and acquisitions. As with M&A activity, the number of joint ventures and strategic alliances increased during the 1990s, with especially large increases in the last two years. In the United States, which accounted for nearly half of all joint ventures and alliances, the arrangements were overwhelmingly domestic. However, in the other 12 countries studied, cross-border joint ventures and strategic alliances overall exceeded domestic deals.

Our research shows that financial consolidation substantially decreased the number of banking firms during the 1990s in almost every nation studied, and measures of the national concentration of the banking industry tended to rise. Still, at the national level, the structure of the banking industry continues to differ greatly, ranging from very unconcentrated in a few nations—the United States and Germany—to highly concentrated in about half of the nations in our study. In contrast to banking, there are no consistent patterns across countries in changes in the number of insurance firms or concentration in the insurance industry during the 1990s. Within the securities industry, several specific activities, such as certain types of underwriting, are dominated by a small number of leading institutions. It is unclear, however, whether this pattern changed much over the 1990s.

One of the most important conclusions of our study is that financial consolidation has helped to create a significant number of large, and in some cases increasingly complex, financial institutions. In addition, these firms increasingly operate across national borders and are subject to a wide range of regulatory regimes. These observations have several important implications that I shall return to in a moment.

Our work finds that the most important forces encouraging financial consolidation are improvements in information technology, financial deregulation, globalization of financial and nonfinancial

markets, and increased shareholder pressure for financial performance. Because we expect these forces to continue, we expect financial consolidation to continue as well, even though the pace may be interrupted by swings in the macroeconomic cycle and other factors. The study considers few possible future scenarios but concludes that the likelihood of specific future developments is impossible to assess with confidence. My own guess is that various patterns will emerge. Globally active universal financial service providers will continue to emerge. We should also see the further development of firms specialized in the production of particular components of financial services or in the distribution to end-users of products obtained from specialized providers—providers that may exist within or outside the traditional financial services industry. I fully expect a large number of efficient and profitable small and medium-sized financial institutions to remain important players in the United States. I would guess this will also be the case in many other nations. In addition, the uncertainties of successful postmerger integration may well favor more use of looser forms of consolidation, such as joint ventures and strategic alliances.

### Monetary Policy

One of our more important policy concerns in designing the study—and the issue of greatest relevance to the participants in this conference—was the potential effect of financial consolidation on the conduct and effectiveness of monetary policy. There were three broad areas of concern. First, it seemed possible that consolidation could make it more difficult for central banks to implement policy if it reduced the efficiency of the market for central bank reserves or the markets used in the conduct of monetary policy operations. For example, consolidation might reduce the liquidity or increase the volatility of the reserves market, making it more difficult for central banks to keep their policy rate near its target. The second possibility was that consolidation could affect the transmission mechanism linking changes

in the policy interest rate to the real economy. Consolidation could do so if it affected the liquidity or volatility of key financial markets and so the arbitraging of interest rates across instruments and maturities. Moreover, consolidation could, at least in theory, alter the credit channels of monetary policy. For example, if consolidation fostered the creation of larger banks having better access to markets for managed liabilities, it could affect the way that the availability and pricing of bank loans adjust in response to changes in the stance of monetary policy. Third, consolidation might affect the environment in which policy is conducted. This could occur if consolidation led to the faster transmission of shocks across markets or geographical regions, or affected the behavior of indicator variables such as monetary and credit aggregates used by monetary policymakers. Consolidation could also affect the policy environment by contributing to the formation of very large and complex financial institutions: difficulties at such firms could pose challenges for central banks in both their monetary policy and lender-of-last-resort roles.

Despite these concerns, the study finds that financial consolidation has not significantly affected the ability of central banks to achieve the objectives of monetary policy. Why is this? Let me try to explain briefly.

As part of our research, we asked central banks in all the nations studied about their experiences with consolidation and the implementation of monetary policy. Virtually all reported that they had experienced, at most, minor effects, and that they did not expect the effects to be large in coming years. A key reason for this finding is that, even with the substantial consolidation we have observed, the financial markets important for monetary policy have generally remained highly competitive. Even in those nations where consolidation has been considerable, competitive behavior has generally been sustained by the possibility that new firms could enter the markets at relatively low cost. It is also well worth

noting that our work suggests that the development of the euro has been particularly helpful in maintaining competition in Europe. The euro has encouraged development of European money and capital markets, thus making the number of participants in a particular nation's markets less relevant.

The central banks also indicated that the effects of consolidation on the monetary transmission mechanism have been small. Some of the central banks thought that consolidation could have more significant effects if its pace accelerated for a time, but the likely nature of the resulting changes was uncertain. Moreover, frequent reviews of the data should allow central banks to take account of any future changes when setting policy.

Similarly, the central bankers we spoke with did not think that consolidation had importantly affected the environment for policy. They generally reported that consolidation had not adversely affected the operation of financial markets, and that the effect of consolidation on the behavior of indicator variables was quite small. Clearly, in the event of financial difficulties at a very large and complex institution, central banks would need to evaluate carefully the appropriate level and duration of emergency liquidity provision, as well as the possible need to adjust, perhaps only for a short period of time, the stance of monetary policy.

On balance, and despite these positive results, our study recommends that central banks remain alert to the implications of any future reductions in the competitiveness of the markets most important for monetary policy implementation. Similarly, we suggest that central banks monitor potential future effects on the transmission mechanism for monetary policy. Monetary policy is simply too important to the health of all our economies to do otherwise.

### Financial Risk

Financial consolidation can affect the risks to both individual financial institutions and the financial system as a whole. Importantly, our study concludes

that existing policies appear adequate to contain individual firm and systemic risks now and in the intermediate term. However, looking further ahead, the study identifies several topics that deserve careful attention by policymakers.

For example, we conclude that the potential effects of financial consolidation on the risks of individual financial institutions are mixed and that the net result is impossible to generalize. Thus, we must evaluate individual firm risk on a case-by-case basis. Consolidation seems most likely to reduce risk through diversification gains, although even here the possibilities are complex. On the one hand, diversification gains seem likely from consolidation across regions of a given nation and across national borders. On the other hand, after consolidation some firms shift toward riskier asset portfolios, and consolidation may increase operating risks and managerial complexities for those firms. Diversification gains may also result from consolidation across financial products and services, although research suggests that the potential benefits may be fairly limited.

In part because the net impact of consolidation on individual firm risk is unclear, the net impact of consolidation on systemic risk is also uncertain. However, as I noted, consolidation clearly has encouraged the creation of a number of large and increasingly complex financial institutions. Our study suggests that if such an institution became seriously distressed, consolidation and any attendant complexity might increase the chance that winding down the organization would be difficult or disorderly.

We recommend that the risks to individual firms and to the financial system be reduced by stepped-up efforts to understand the implications of working out a large and complex financial institution. Because no institution is too big to fail, I believe that regulators should develop a clearer understanding of, for example, the administration of bankruptcy laws and conventions across borders; the coordination of supervisory policies within and across borders; the treatment of over-the-counter



derivatives, foreign exchange, and other “market” activities in distress situations; the roles and responsibilities of managers and boards of directors; and the administration of the lender-of-last-resort function. I say stepped-up discussions are needed in some of these areas because considering adverse developments is or should be a normal activity in all countries. Our study helped to clarify the need for international attention to this topic.

Consolidation, and especially any resulting increased complexity of financial institutions, appears to have increased both the demand by market participants for and the supply by institutions of information regarding a firm’s financial condition. The resulting rise in disclosures has probably improved firm transparency and encouraged market discipline and has thus lowered individual firm risk and perhaps increased financial stability. However, the increased complexity of firms has also made them more opaque, and their increased size has the potential to augment moral hazard. Thus, the net effect of consolidation on firm transparency and market discipline is unclear. Indeed, we conclude that there appears to be considerable room for improvement in disclosures by financial institutions.

Our study suggests that both crisis prevention and crisis management could be improved by additional communication and cooperation among central banks, finance ministries, and other financial supervisors, domestically and internationally. Indeed, the study strongly supports existing efforts in these areas. In our view, the most important initiatives include proposals to improve the risk sensitivity of the international Basel Capital Accord and bank supervision and efforts aimed at improving market discipline. A critical element of improved risk-based supervision is risk-based capital standards that are tied more closely to economic risk. Capital standards provide an anchor for virtually all other supervisory and regulatory actions and can support and improve both supervisory and market discipline. For example, early intervention policies

triggered by more accurate capital standards could prove to be important in crisis prevention.

### Payment and Settlement Systems

Financial consolidation is affecting the market structures for payment and securities settlement as well as banks’ internal systems and procedures for payment and back-office activities. Our study concludes that, on balance, financial consolidation has led to a greater concentration of payment and settlement flows among fewer parties. Fortunately, our analysis indicates that the greater concentration of payment flows does not appear to have decreased competition in markets for payment and settlement services. However, we suggest that it would be advisable for government authorities to continue to monitor competition in the payment system.

By contrast, our work indicates that we should closely monitor the risk implications of consolidation in payment and settlement systems. On the one hand, consolidation may help to improve the effectiveness of institutions’ credit and liquidity risk controls. For example, increased concentration of payment flows may allow institutions to get a more comprehensive picture of settlement exposures or create a greater ability to net internal payment flows. In addition, central banks have made major efforts over recent decades to contain and reduce systemic risk by operating and promoting real-time gross settlement systems and by insisting on the implementation of risk control measures in net settlement systems. On the other hand, consolidation may lead to a significant shift of risk from interbank settlement systems, where risk management may be more robust and transparent, to customer banks and third-party service providers, where risk management practices may be harder for users to discern. In addition, to the extent that consolidation results in a greater concentration of payment flows, the potential effects of an operational problem may increase.

These and other developments imply that central bank oversight of the risks in interbank payment

systems is becoming more closely linked with traditional supervision of individual institution safety and soundness. As a result, we conclude that increasing cooperation and communication between banking supervisors and payment system overseers may be necessary both domestically and internationally.

### Efficiency, Competition, and Credit Flows

Our study concludes with an extensive evaluation of the potential effects of financial consolidation on the efficiency of financial institutions, competition among such firms, and credit flows to households and small businesses. The study determines that, although consolidation has some potential to improve operating efficiency, and has done so in some cases, the overall evidence in favor of efficiency gains is weak. Thus, we suggest that policymakers carefully examine claims of substantial efficiency gains in proposed consolidations, especially in cases where a merger could raise significant issues of market power.

Our work also attempts to shed some light on why academic researchers are less optimistic than business practitioners regarding the potential for consolidation to lead to efficiency gains. We suggest four possible reasons, which are not mutually exclusive. First, practitioners may consider cost reductions or revenue increases per se to be a success, without also taking into account independent industry trends as a benchmark. Second, managers may focus on absolute cost savings rather than on efficiency measures that compare costs to some other variable such as assets or revenues. Third, research finds little or no efficiency improvements on average, but this also means that some institutions may improve efficiency while some suffer from lower efficiency. Managers with inside knowledge of their firm may be justified in believing that their institution might be among those improving efficiency through a merger or acquisition. Lastly, past M&As may have suffered from regulations that reduced the benefits, and such regulations may not exist in the future.

The effects of consolidation on competition and credit flows are case-specific and depend on the nature of markets for individual products and services. Some markets, such as those for wholesale financial services, generally show few problems. Others, such as those for retail products and services, sometimes experience problems from consolidation. Thus, as with other issues addressed by our study, a case-by-case evaluation of the relevant facts is required.

### Conclusion

In conclusion, financial consolidation clearly is a powerful force that is deeply affecting the evolution of the financial system of the United States and many other nations. A thorough understanding of this force and its potential effects is critical for prudent decisionmaking in both the public and the private sectors. I believe the study that I have just summarized takes some major steps toward that understanding, and I hope that my remarks have helped you to comprehend our study's findings and implications. Still, all of us have much to learn, and much of what we know today will almost surely change in the future. I commend the Levy Institute for seeking to advance our knowledge, and I again thank you for inviting me to contribute.

## DIANE SWONK

Chief Economist and Senior Vice President,  
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### Up Close and Personal with the “R” Word

I grew up in Detroit in the 1970s and early 1980s and saw firsthand the consequences of poorly conceived economic policy: inflation, near-depression, lives turned on ears, and my best friend reduced to poverty. There were 25 percent unemployment rates when I was looking for jobs between college semesters. I do know what a recession is, and this is not it. When one has seen it—been to the abyss and looked over the edge—one knows what a recession really is. The Wall Street-centric view of the world is that when Wall Street loses, the world has come to an end. Well, there are a lot more Main Streets out there, and they outnumber Wall Street. These Main Streets are not doing that badly.

A little over a year ago, New Economy gurus were saying that the business cycle and inflation were dead. These very same people are now the most vocal in saying that a recession is not only imminent, but that it probably started in the fourth quarter. That is a 180-degree turnaround. Either they were really bad forecasters a year ago, or they are really bad forecasters today. Or perhaps they are not paying attention to all the facts. I would like to put some perspective on what is going on out there.

Chicago is in the heartland—a stopover between New York and Los Angeles. It has a lot of old-line industries that produce and account for a lot more than the new economy. Humans, by their very nature, tend to extrapolate the most recent past into what it means for the future. In economics, the most recent past often sets the stage, but not necessarily the trajectory, for what is coming next. That is often forgotten, and it is how, as economists, we can separate ourselves from the pack and have better forecasts.

There was once the belief that the sky was no limit on the Nasdaq. Then a year later, the belief was

that the floor was no limit. Reality is somewhere in between. It is important to understand how what happened before sets the stage for what is next rather than just going off the trajectory. Many of those forecasting recession today are going off the trajectory of the slowdown in growth that was inevitable. Many were calling for a slowdown, but they were a bit surprised by the magnitude of it. A little over a year ago, we had a mortgage refinancing boom triggered in part by the global financial market crisis, which was in the process of playing out. The housing market had peaked in June of 1999 and by the second quarter the spillover effects were dwindling. Gas prices were rising. Utility bill problems took hold after the summer. We had investment over a year ago that was inflated by a Y2K-related high. We had 67 percent annualized gains in information technology investments in the first quarter of 2000. Companies in the tech sector thought that kind of growth rate would never stop. That is the example that humans, by their nature, extrapolate into the future.

Yet, as economists, we know that growth rates like that will end. We sensed at that time that the Y2K-inflated highs of the fourth and first quarters were trying to guard against the January 1 “end of the world,” which actually turned out fine. That should not have been a surprise. It seemed that some time zone ahead of us would get hit first and give us some warning were there to be problems. The bottom line was that with the Y2K-inflated high in investment, people were doing leapfrog investments to become Y2K compliant. In fact, banks had to do it by the end of 1998. Thus, many investments were made that would not otherwise have been, or that would have been made in the future.

That is not necessarily a cyclical problem; it is a displacement issue. Y2K is now behind us and the silver lining to the burst in the Nasdaq bubble is that investment is now focused where it really belongs—enhancing productivity growth in old-line industries. There is no industry better positioned to

exploit this than the auto industry, which has a long learning curve on applying technology. My father, who was an inventory specialist for General Motors, told me back in 1983 that he knew the price of a part anywhere in the world. This was before the suspected invention of the Internet in 1985. This is an evolutionary, not a revolutionary process. The hype that got ahead of it was really silly, but it also created some economic distortions that are not necessarily recessionary today, but that did create distortions nonetheless.

There is one other point that led to the slowdown and exacerbated it. In December 2000, the Midwest got as much snow as it ordinarily gets for an entire season. We had 15 inches of snow on the ground for almost the entire month. This really affected production. As one of my good friends said, "It was pretty tough to test drive a car in a blizzard." Vehicle sales fell. Vehicle deliveries fell. Housing starts in the Midwest in December dropped 21 percent from a year before. This fed into the view on Wall Street that the world was falling apart. The weather had an impact on and exacerbated the slowdown in the fourth quarter, and yet, nobody wanted to hear anything about it until February, when there was a snowstorm in New York. All of a sudden, there was an interest in the weather. Weather displaces, but does not destroy economic activity. Weather problems inadvertently create economic activity even though they drain saving and drain the profits of insurance companies.

We also knew there would be a slowdown because we had an economy going 110 miles per hour, that was Y2K inflated, that was coming off the buzz we had gotten inadvertently out of the global financial market crisis, and that ended up going 50 miles per hour. Manufacturers kept finding themselves behind the curve in terms of building and ended up with a pretty bad inventory cycle on their hands. In fact, much of the strength of the year 2000, we all know, was frontloaded into the year, so over the course of 2000 they were chasing production

down and inventories were very hard to drain, even though the consumer was still spending.

The key to understanding an inventory cycle, versus moving it into a recession, is whether the consumer is still spending, whether the consumer is still king. One of the things that we have held to is that the consumer is not only king, but more resilient than many believe. Many people looked at consumer confidence numbers and said that the world was coming to an end. Yet, in the wake of this, people started buying more homes and more cars. Actions speak louder than words. The gap between expectations and current financial conditions explains a lot of that. Current financial conditions were hurt a bit by rising utility bills. We saw it in our own credit portfolios. People paid down their Visa bills less, and that was good for us as long as they kept paying them. People also shifted their debt around in order to keep spending during the utility bill crunch.

If this slowdown had occurred in 1990, we would probably have ended up in a recession as we did in 1990. However, this slowdown occurred against the backdrop of the best labor market situation we have seen in more than 30 years—one in which the demand for workers was outstripping the supply of workers and the upward pressure on wages was still positive, which incidentally was still the case even in the most recent months of employment data.

How can this be? It is important to understand the labor market as a shock absorber to today's economy. The U.S. economy is still generating positive income, even though it has slowed. Moreover, we have easy credit. We just had the largest Fed stimulus in history, on a percentage basis, without any sign of real recession. We have an economy where mortgage refinancing is up again and multipliers from home sales will last a year. It is hard to get from that point to a recession. This is especially so when one accounts for the current status of the vehicle sector. It is an amazingly large swing factor in any given quarter. After four quarters of negative declines in the auto sector, there was a turnaround in March in

production. The bottom line is that the shelves are bare, and as long as consumers are spending anything, those shelves must be refilled.

This is a very different view of the world. I originally viewed the second quarter as a sort of transition quarter. If I am wrong, then most likely it will be stronger than we think because of that swing back to vehicle production. The negative that everyone talks about is the stock market. There is one way that the stock market can be a threat and that is through capital markets. If firms cut back on employment because of the discipline created by Wall Street, then they might actually stop capital spending. I view the current capital-spending environment very differently. What we are seeing is the giveback from earlier gains. We will see a resumption of capital spending. Firms that we have spoken to say they plan to spend more internally on the Internet.

We are still generating the sort of positive income we were not generating for 30 years. Real wage gains for that period averaged about half a percent. They have slowed a little bit recently but are still 1.5 percent or so and probably will accelerate quite sharply in the next couple of months as long as we do not get too large an increase in oil prices. If one wants to believe the argument that stock market wealth effects alone will take us down, then one must get away from the fact that the stock market is still concentrated in a very wealthy group of individuals. It is very important to understand that concentration. In 1998, 0.3 percent of U.S. households accounted for almost 60 percent of realized capital gains. Almost half of us own something in the stock market or have a 401(k), but for the majority of us, the equity held in our home is still larger than the equity held in our stocks.

In order to believe that the stock market alone can take down this economy, one must assume that people spend capital gains as income, and that is silly. They do not spend capital gains as income. They do spend the mortgage that they refinance—not as income but as a windfall. The multipliers on

that are huge. Capital gains, however, are often reinvested, not spent as income.

The real risk in this situation is trade. There is a circular argument that if the rock of the U.S. falls apart, then the rest of the world will crumble. What if it does not? What if we have a reacceleration in growth? What if the reacceleration in growth is faster than we think, much like the deceleration in growth was faster than we thought it would be? Then the rest of the world not only does not crumble, it comes back with us.

When one adds it all up, what does one get in terms of our economy? GDP numbers come out tomorrow, and if the number is negative, which is well within the range of possibility, then inventories will be the key. If we come out with a really big negative inventory number, then there is no better reason to have a sharp reacceleration in growth, because that means the shelf is really, really bare. The inventory number is the telltale sign. There will be a strong domestic demand—somewhere around a 3.4, 3.5 percent gain in personal consumption expenditures in the first quarter. That rate indicates an acceleration. In the early 1990s we hoped to get 2 or 2.1 percent. Now we are at 3.5 percent and people are saying that the world has come to an end. Main Street does not think it is.

The Federal Reserve is one of the most misunderstood institutions. It is useful to backtrack a bit and think about what the Fed has done in order to understand where it is today. Back in 1998, we saw a Federal Reserve that was ready to tighten in July because it thought the economy had gone through the global financial market crisis and was poised for inflation. There was good reason to be concerned. Yet, within just two and a half months, the Fed turned 180 degrees on policy. I know of no other policymakers in the world who are that proactive and that willing to reassess how to conduct policy at any given time. This has been unique to this Federal Reserve and is one of the reasons why it has been so successful.

In 1998, the Fed decided to hedge risk and ease. No central banker would say that the Federal Reserve became a central bank to Brazil at that point in time, but there are some signs that perhaps Brazil factored very heavily in Fed decisions. When the problems in Brazil spread to financial markets in the U.S., it became a real problem in terms of liquidity in the U.S. Liquidity is the oil of a market machine, and one cannot allow it to freeze. On October 4, 1998, Fed Chairman Alan Greenspan was giving a speech at the annual NABE meeting. He had just come out of some very high-level IMF meetings. He is always very careful of what he says, yet, he turned over his one page of notes to the blank side and went on about how in all his 50 years of watching the U.S. economy, he had never seen such an enormous dichotomy between the performance of financial markets, which were locking up, and the real economy, which was by all evidence accelerating. What a difficult decision to deal with financial markets at that point in time.

A few days after that was the historic intermediate move by the Federal Reserve in mid October, and then the extra move in November as an insurance policy that financial market fragility was going to be gone and that financial market stability would be restored. The problem was that it was very similar in context to 1987 when we had a financial market crisis. The Fed had been tightening before that crisis. Then in 1988 it retrenched quickly in order not to leave the liquidity out there, which would have made the market prime for asset bubbles.

In 1999, I would guess that the Fed was hoping to take back its steps during the crisis very quickly, but 1999 was not like 1988. The problems were rooted abroad and Brazil was still being held in the balance in the beginning of January. It took until November, a full year after the Fed's previous easing, to fully retrace its steps. It is no surprise that that kind of environment was prime for a bit of asset bubbling, which showed up in the Nasdaq.

The Fed did the right thing. It had no other choice at that point in time. There were conse-

quences, and those consequences were seen in financial markets. The Fed did not get back to square one until the end of 1999. Its real attack against inflation started in the year 2000. The growth experiment—allowing the economy to expand until inflation appeared—was a very different view from the preemptive policies earlier in the decade. In the February CPI, energy prices started to show up. The disinflationary effects of the global financial markets were playing out. Growth was going off the charts. Unemployment was still falling. Wages were accelerating. Inflation was actually, at the core level, accelerating. The Fed tightened by a quarter point, not very much.

More important was May of that year, when the Fed tightened by 50 basis points. Again, core inflation was accelerating. Growth was still exceedingly robust—full justification for another tightening. And then the Fed sat back, knowing, as did most people who watch the economy, that the stage was set for a slowdown. The Fed wanted to see how much it would slow down. It is an important context about Fed policy that we need to think about. The 1990–91 recession was purely an accident. There were some faulty data. It was the first time that the Bureau of Economic Analysis actually missed a recession. Not until 1992—a little late for policymakers to react—was it printed in the BEA statistics that there had actually been a recession when the economy was reporting positive growth numbers.

It is important to understand that the Fed was more than willing to fight accelerating inflation off of very low levels. Inflation is inertial too, by the way, so it is not going to accelerate very fast off of low levels. The late 1990s and early 2000 had low inflation with growth, which has an inertial quality to it. Remember the late 1970s, when we had “stagflation”? Growth was slowing, unemployment was rising, yet inflation was accelerating. The economies of the 1990s–2000 and the 1970s are flip sides of the same coin, so the Fed had some time not to be overly aggressive. Seventy-five basis points was not an overly aggressive move in an environment where inflation was accelerating.

It is debatable whether the Fed could have changed its stance sooner, but in December it did, on the grounds that it was now hedging risks of recession. There is a difference between managing an economy where inflation is accelerating and hedging risks of recession. Basically, inflation had accelerated but not enough to run the risk of recession in a low-growth economic environment. That is very important. Inflation was moving from 5 to 6 percent when the Fed accidentally tipped us into recession in 1990 and 1991. In the early 1980s when recession was actually caused deliberately by the Fed, we had double-digit inflation. It takes a lot of inflation for the Fed to put us deliberately into a recession. So the Fed moved toward hedging risk. It has made itself clear from day one, although the markets clearly did not understand this. They saw the January 3 intermediate move as some kind of panic.

I have been asked if the Fed has some kind of line to God and knows more about the world than the rest of us. The Fed is why one uses a fund manager. A fund manager watches the stocks a little more closely than you probably want to, but the fund manager, and the Fed, do not have any lines to God. The Fed does, however, have more resources than many of us do. The Fed was not trying to signal to the market that things were worse than they were. It was doing the opposite. It was saying that it did not think the economy was going into a recession, but it was going to eliminate any risk of recession. Politics may have played a bit of a role. Greenspan has been blamed for one Bush recession; he does not want to be blamed for another. There are a lot of other politics that might have played a role in this, but the reality was that the Fed was hedging risk.

The message hit on April 18 that the Fed was not going to let the ship go down. It is amazing that it took so long for Wall Street to get the message through its head. In fact, some in the bond market started thinking that the Fed might overshoot. If the risk of recession is only 25 percent, then 75 percent of the time there will be overshooting. The Fed is

willing to overshoot. That means it has to take it back. A year from now we will be discussing how high rates will go rather than how low. Add little tax cuts on top and one has an economy that is reaccelerating. The effects of the Fed policy have not fully begun to hit the system.

The Fed will probably ease again. My own forecast is for another half percent in May, because the Fed is willing to make sure the ship does not go down. But that should be it, and by year-end, the Fed will be tightening again. It is important to understand that with tax cuts added on top of this, the bond market will get a little nervous. They should be starting to get a little nervous. One of my greatest fears for next year is that we have monetary policy fighting it out with fiscal policy. That is something that Chairman Greenspan has successfully avoided for a long time.

So what does it all mean for financial markets? Financial markets were pricing in recession and we were not going to have one. The Fed was going to overshoot and if we had a reacceleration in growth, there would be some profits return, even if not to 1990s growth levels, and a ripe environment in which to buy. Putting my money where my mouth is, I bought an index fund on the S&P 500 and on the Dow on March 22, although the order was not executed until the 23rd. So I missed the low by a day. The bet was that at that point in time—even though we were not overwhelmingly bullish about the phase of the expansion we were moving into—Main Street was getting the upper hand over Wall Street. If wages are going up, wealth holders lose out. When Main Street gets an upper hand over Wall Street, it tends to be the longest phase of the expansion, which Wall Streeters do not always seem to remember when they look at expansions.

We are poised for a rally. There is still some cash on the table for this year, but it is a catch-up rally. It is very different than a return to the kind of extraordinary gains we saw in the late 1990s. When the Fed starts tightening again next year, we are not going to

be able to generate the kind of profit gains we once did. Productivity growth will slow in the current quarter. It may come back a little bit, but it is hard to see a doubling of productivity growth from here. It is not hard to see very rapid increases in wages. The relationship between wages and productivity growth is like the race between the tortoise and the hare. The hare is productivity growth and it races all around. Sometimes it takes a break. Everyone puts money on the hare, but the tortoise keeps plowing along. If labor markets are tight enough, the tortoise wins, and eventually inflation occurs. I expect that we will get some wiggle room out of energy prices not putting as much of a squeeze on inflation in the near term, and that gives the Fed a little elbow room on rates. However, we will see the Fed tightening again.

Today the Nasdaq is rebounding—a bit. I tend to underscore it because when it comes to the Nasdaq, one needs to look before one leaps. I am not overwhelmingly optimistic on bonds. The bond market has not priced in aggressive Fed moves; they are starting to realize that this might mean some consequences down the road. They have gotten beyond tomorrow and I think that bonds, over the long haul, are a bad bet.

To conclude, the recent past does not necessarily set the trajectory for what is going forward, but it does set the stage. With an inventory drain now behind us, the stage is set with the consumer still spending. The consumer has proven resilient more than once. Many people do not understand this consumer because they get too caught up in their own little world. Ask wealthy people if they have stopped spending and they will say no, but they are sure that someone else has. Dot-com millionaires are not spending as much, but all those options were not even cashed in, in the first place. No expansion is homogeneous.

I will end with this story. Nearly every weekend my family goes to the botanical gardens in Highland Park. Last year, Chicago had an unusually warm winter. It was 70 degrees in February, which is just unheard of. As a result, the rose garden, which is one

of the more beautiful parts of the botanical gardens, started to bloom early. As we walked through the rose garden, we could see some early blooms, much earlier than usual. By June or July there are thousands of roses. It is absolutely gorgeous. One can smell the sweetness of the garden at its prime. In August, one can smell fall in the air, but it is not yet the end of the rose garden. We went back to the garden in September and October and the roses were still there.

Today's economy is in its August. We are not yet into September or October. In fact, that rose garden did not die until the coldest November and December in history this year. So we are in the August of this expansion. It still has long legs, but its characteristics are going to change quite dramatically from the ones we have known over the last couple of years, and that is what expansions are about anyway.



MARC FABER

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### “The Coming Global Boom or Bust!”

[Editor's note: Serious microphone difficulties throughout the speech resulted in an incomplete transcript. Comments here are therefore abbreviated.]

For reasons of time, my comments on the global economy will be superficial; to talk in details about everything in the world, about so many different countries and cultures and economic events, would take longer than the time at hand. I will, however, attempt to provide some of my views about the economy, the problems that have arisen, and problems that could still arise.

In the late 1980s and early 1990s, the outlooks for the developing world and emerging markets were extremely promising. In the 1980s, many communist and socialist countries broke apart. Within the Indian subcontinent, policies of isolation and self-reliance came to an end, and countries that had not been integrated into the global economy and the capitalist system suddenly joined. As a result, the world's economic sphere grew about as much as it had at the time of the 15th century's discovery voyages. People in these former communist and socialist countries had the desire and the initiative to work and suddenly were able to consume goods.

Another event that was important for the 1980s was the emergence of a truly global capital market. During the 1970s, national capital markets still existed—American capital stayed in America, Japanese capital stayed in Japan, and German capital stayed in Germany. The emergence of a truly global capital market during the 1980s had the consequence of allowing regional industrialization. If, say, China or part of Eastern Europe wanted to industrialize, capital was readily available to finance it, resulting in industrialization that occurred at a much faster pace than ever before. The danger of

global capital was that, combined with a global media, positive sentiment about a small country (such as Thailand) would result in too much capital flowing into its borders, creating a tremendous bubble. An analogous situation occurred when capital left such a country.

Next came the emergence of a wave of innovations and inventions, which, when they hit the system, created a catalyst for business expansion. These three combined events led many people to believe that the 1990s would be extremely favorable for many economies in particular, and for global growth generally. What happened in reality was the 1994 Mexican crisis followed by the 1997 Asian crisis. (Many people do not realize how severe the Asian crisis was. In dollar terms, GDP per capita in Indonesia collapsed by about 70 percent; in other words, Indonesia, with 200 million people, has a total GDP that is approximately the same as Switzerland's, which has only 7 million people. Currency depreciations result in an impoverishment of local population in dollar terms. This was a very severe crisis, probably one of the most severe economic downturns in terms of GDP per capita that the world has ever seen.)

Through contagion, the crisis in Asia spread to Eastern Europe, Russia, Long Term Capital Management, and later to Brazil. Today we are facing other crises—one in Turkey, not yet resolved, and another possible in Argentina. So although the 1990s began on a very promising note, the result was a series of bubbles followed by serious crises. We should ask ourselves what is wrong.

### The High-Technology Spending Boom

The features of a technology-driven boom are usually overestimated demand and underestimated supply. In the early 1900s, “high tech” was the rail industry. These were not railroads, but railways that shipped people between city centers and suburbs, and growth was strong. Around 1910 the automobile arrived and thereafter the demand for railways diminished.

In 1910 car production in the U.S. totaled about 100,000 cars, but the number of car manufacturers had already been cut in half from between about 500 or 600 to about 250. Someone wise enough to have invested in the current industry could have said, “Well, we don’t know which three will survive, so let’s buy the supplier of the car industry,” and would have decided to buy into the rubber industry. The stock of the main manufacturer of rubber plants peaked in 1912 and has never again seen that price. Despite that, worldwide demand increased, but supply was underestimated because rubber trees were transplanted to Borneo and Sumatra. Thereafter, a technical innovation—synthetic rubber—further depressed prices. People who say that prices always go up in the long run are talking nonsense; prices tend to go down in the long run.

Someone may argue that if management is smart it can reinvent itself by adapting to new technologies and launching new products. Unfortunately, the historical record is not favorable in this respect. For instance, several leading companies of the late 1960s and early 1970s—Xerox, Polaroid, and Kodak—hit their financial peaks. Kodak, for example, had a fantastic base in the traditional film business. Then came the advent of digital film technology, and what did Kodak do? Nothing. Eventually they will become a very small company supplying the professional market for traditional film. Profitability will not be as high in digital photography due to the nature of the market and the fact that there is no brand name associated with digital photography in the same way that Kodak has been associated with traditional film. So far, efforts by Kodak in digital photography have been successful, but not profitable. A problem of technology, then, is that successful companies do not last very long due to the rapid pace of change.

Now comes a new era in which the speed of change has accelerated. Products that might have taken many years or decades to develop—the automobile, the refrigerator, or the radio, for example—

take considerably less time. The Internet has done it in five years, so the speed of change very clearly accelerated. What has changed in the new era is that growth curves are much steeper than before; in other words, market penetration is reached much faster than, say, 50 years ago. What does not change is the shape of the growth curve: they all look alike, with a phase of accelerating growth and a phase of decelerating growth.

Equally important about the speed of change is that it has accelerated competition and industrialization throughout the whole world. It took the American economy approximately 100 years to change from a rural economy in 1800 to an industrialized society in 1900. Korea and Japan did it in 40 or 50 years. Shanghai became a modern city in just 10 years. This is the speed of change today.

The Chinese declared an open-door policy in 1978, but until about 1986 not much happened; afterward, it started to take off. In the late 1980s Chinese exports began to take market share away from other export countries, especially after the roughly 55 percent devaluation of the Chinese RMB in 1994. After that, China squeezed out the other exporting countries, which led, in part, to the rise in the trade and current account deficits of the South-east Asian countries that were the cause of the crisis. The catalyst came from the capital market, but the causes were the growing trade and current account deficits. China’s trade surplus with the United States now exceeds Japan’s trade surplus with the United States. Quite frankly, it is difficult to see how the U.S. will export a lot of goods to China because the Chinese have a trade surplus in high tech with the United States. Combined with easier monetary policy and continuous consumption growth in the U.S., this means that the trade deficit of the U.S. with China (and other emerging economies) can only continue to grow. The accelerating speed of change has also meant a rapid decline in the price of new products. For computers and high-tech equipment, the price deflator is much more pronounced than

for other products, which makes it much more difficult for that sector to achieve expected profitability.

Productivity is a less important issue; the profitability of individual companies is more important. For example, the introduction of the tractor and the combine greatly increased agricultural productivity in every culture to which they were introduced. Based on this productivity improvement, every farmer should be rich. Instead, farming over the last 150 years has turned into a low-profit business. Productivity improvements have caused European agriculture to go essentially bankrupt, living on subsidies, and in the United States, to barely survive due to low-cost production.

As occurs in most industries, the huge boom in technology was followed by entrepreneurs expanding capacity. Maximum capacity occurs at the same time as demand slows—the famous “error of optimism” described by Pigou. Expansion of productive capacity as demand slows means that the capacity utilization rate falls, so prices decline in the boom sector, which then leads to the bust.

#### Unusual Features of the Current Expansion since 1998

It is important to understand that since medieval times, there have been periods of rising and falling prices. Business is not necessarily bad during periods of falling prices and good during periods of rising prices. Quite the contrary: all major capital spending and innovation booms occurred during periods of falling prices.

For example, let's say you produce coffee. Every year the price you receive for the coffee beans from your plantation goes up 20 percent. You can do nothing and every year you will earn 20 percent more. Compare that to owning the coffee plantation and every year coffee prices go down by 10 percent. In such a case the only way to increase your profitability is to become more productive. In other words, you have to find more efficient means of producing your coffee. Therefore, major innovations and invention

booms occur in periods of weak pricing. And because the invention itself is deflationary, it reinforces the deflationary trend of the already-weak-pricing macroeconomic environment.

In addition, in a weak pricing environment, interest rates decline, commodity prices are weak, profits decline, and monetary conditions are accommodating. Every major mania has occurred in an environment of weak pricing and falling interest rates: the canal boom of 1835, the railroad boom of 1868–73, the big innovation boom of the 1920s, and the current boom in the United States. But it is nonsense to think that deflation is “bad.” During the century between 1800 and 1900, commodity prices fell by approximately 50 percent. The U.S. population grew from four million people in 1800 to 80 million people in 1900. Deflation was only considered “bad” because of the bad thing that occurred prior to the inflation, namely, debt accumulation. When deflation occurred there were massive defaults, but nothing is wrong with continued deflation.

#### What Happens Now?

The big question in the current economic environment—falling commodity prices, declining interest rates, and very strong financial markets—is, “What follows from here?” There are different theories. One is that the economic slowdown will be over during the second half of 2001, and the U.S. will recover. This, combined with accelerating growth in Europe and recovery in Japan and in the emerging markets would then lead to a global healing and strong growth around the world. I am not saying that such a scenario is impossible, but I do want you to think about the consequences. This scenario would mean that the declining growth rate in the global economy would reverse and that worldwide growth would be relatively strong. In my opinion, if that happens—since commodities have been in a bear market since 1980—commodity prices would have to have found a low so that they could then rise relatively significantly. Commodity prices have never been as cheap in the history

of capitalism as they are now compared to, for example, financial assets. Oil prices have already shown some signs of life, having tripled over the last two years, and other commodities may follow.

And don't forget: in Asia, there are over three billion people. In China and the rest of Asia, oil demand has doubled during the last six to seven years. The U.S., with 280 million people, consumes 22 million barrels a day, or about 12 barrels per day per capita. But Asia, with three billion people, consumes 6 billion barrels a day, or less than two barrels per day per capita. In Latin America, it's 4.4 barrels per day per capita. I do not think that Asian consumption will match U.S. consumption any time soon, but it will increase as people move from bicycles to scooters to cars. They also will use air conditioning and heaters and computers. If there is global growth, Asian oil demand will double over the next 10 years. Whether oil companies can accommodate such world growth is questionable.

Among all commodities, if Asia grows, strong price increases will follow. Remember that performance in emerging economies is closely correlated to commodity prices and OECD growth. Therefore, if you are optimistic about the world, you should sell S&P 500 stocks and buy in emerging economy stock markets. In America, even after the recent decline, stocks are still up, say, five, six, seven times over their 1990 level. In Asia (in dollar terms) most stocks are down 80 percent from the 1990 peak. If you want to be optimistic, look at the currently emerging economies, including Russia and Southeast Asia, and maybe some selective stocks in Eastern Europe.

### The Nature of Manias

I am a bit more cautious about an environment of global healing because I think that we have been in a major, rolling mania that started with the Japanese bubble in the late 1980s, then hit the emerging economies, and the most recent U.S. bubble is probably the largest one in the history of capitalism. Manias have always existed, even in the precapitalis-

tic age. Although most manias are built on something rational, what is not rational is the pricing of assets during the mania. In the case of the United States, manias have involved an optimistic sentiment. In 1982 the market was no higher than it had been in 1964; in real terms, it had declined by 70 percent. The Dow Jones was selling at seven times earnings, yielding 6 percent dividends on depressed earnings. The mutual fund industry in 1982 had \$40 billion in assets and was smaller than it had been in 1970, plagued by net redemptions. Today's mood is one in which confidence has been running high. The optimistic analysts have now scaled down their expectations about this year a bit, but are still very optimistic about the next five years, during which earnings growth is expected to reach, starting in 2002, 16 percent per annum; in my opinion, this is a totally unrealistic assumption.

The features of a bubble are rapid credit expansion and money. Inflation does not show up in consumer prices but it does appear in rising asset prices. There is a difference between inflation in consumer prices and asset prices. When consumer prices go up, consumers are unhappy and complain to politicians who tell the central banks to do something about inflation. Money gets tighter and inflation eventually cools down. Moreover, rising consumer prices do not necessarily lead to huge overborrowing. In general, then, consumer price inflations are not particularly dangerous. "Dangerous" is the situation of benign consumer prices or declining wholesale prices (such as in Japan in 1985–89 or the U.S. in 1920–29 or more recently), and asset inflation because the latter leads to overborrowing. Everybody wants to participate in the party and nobody wants to do anything against it because everybody gets richer. In such an environment, monetary policy stays loose for a long period of time and the bubble gets bigger.

In each case of an asset bubble, debt accumulation was strong. In this environment, entrepreneurs have the highest debt levels ever. They should have

had the current debt level in 1950, ahead of the big inflation, until 1980; at that time it would have been wonderful to have large debts, but in the current potentially deflationary environment, the worst situation is a high level of debt. This is the problem at the present time.

### Results of the Recent Mania

The debt level has exploded not only in the United States; in some other countries it is much worse. In 1979 the global bond market was just \$700 billion; in 1985 it was \$6 trillion, and in 1994 Henry Kaufman made the projection that it would hit \$35 trillion in 2005, a level that has already been reached. It will now grow at about 10 percent per annum, implying a level of \$560 trillion within 25 years. I leave it to your imagination to think whether that is realistic. What will it lead to? Hyperinflation or massive default—something is going to break. Debt cannot grow at a much faster rate than nominal GDP indefinitely, although the Japanese have been particularly adept at doing so: government debt in Japan has increased from 30 percent of GDP 12 years ago to 130 percent of GDP today, and they spend 60 percent of their tax revenues on interest payments on the debt. Some American companies have advised them to reflate massively, so interest rates are sure to rise, meaning they soon will be spending 100 percent of tax revenues on paying interest on the debt.

Back in the U.S., equities have risen compared to hourly earnings. Although it is true that consumer price inflation has been benign, a worker today who wants to retire in a number of years must now pay eight times more for a Dow Jones share than was paid in 1982. This is a kind of inflation that will make retirement among many people less profitable than for those who were able to buy equities 20 years ago. Moreover, equities are high compared to the general level of real estate home prices.

There are periods, such as in 1990, when earnings per share and total earnings have grown faster than GDP, but a bull market has a big impact on cor-

porate profits. That was true for Japan in the 1920s and again during the high-tech years, and for America in the current super-high-tech years. In addition, some factors of the 1990s—falling interest rates, falling commodity prices, declining wages as a percentage of revenues—were very favorable, but will not continue far in the future. In terms of globalization, the 1990s were heaven for the multinationals in emerging economies because when they entered a country such as China, India, or Vietnam, there was no local competition. They did not have machinery, technical know-how, marketing skills, or access to capital, or cheap capital. Corporate profits of the multinationals, then, were growing rapidly and performing well between 1990 and 1998.

After the Asian crisis things changed a bit. The currency depreciation caused earnings performance to be less than expected. Now comes the revenge of the emerging economies. Although it was wonderful to outsource production for a while, outsourcing created potential competitors. Many local companies that were manufacturing for multinationals had to decide whether to continue producing for multinationals, produce the product and sell it in the local markets as fake, or start to produce their own brands. What has been an ideal environment for multinationals likely will not be present in 10 years. Another factor is the general antimultinational sentiment that has crept up in the world, reflected in antiglobalization demonstrations.

During the next few years corporate profit growth will not be at the 13 or 16 percent per annum rate that occurred during the last few years but, rather, there could be a profit deflation that could last for a number of years. There could be positive economic growth without profit growth, as China has proven during the last 15 years.

In addition, capital spending booms eventually come to an end, which relates to the acceleration principle: during times of rising sales, investment can suddenly rise dramatically. Even if sales do not decline, the capital spending boom collapses because

no new net investment takes place. Capital spending therefore is highly volatile and with its end come long-term repercussions such as those experienced in the oil industry after 1980 when many Texas oil drillers and banks went bankrupt. Stock market collapses, then, such as those in Asia after 1997 or Japan after 1989, inevitably result in a rise in the cost of capital. Capital spending therefore collapses. The capital spending decline in the United States will, in my opinion, last for quite some time and, because high-tech capital spending was driving the economy during the last two years, the recession will be more sticky than people believe. To think there will be a recovery in the second half of the year is a pipe dream. I think the economy will probably hold up for a couple of months before plunging during the second half of the year.

Consumer confidence will also take a hit unless consumers continue to believe that stocks will rise forever. In that case, they will continue to build and acquire homes and spend on credit. Only when it becomes obvious that the market at very best will hold within a given trading range will the saving rate go up and consumption weaken. Combined with the bust in capital spending, you are left with a weak economy with a deflationary force at work. This will not be good news for emerging markets because they have been supplying many goods to the United States. There is a close correlation between consumption growth in the U.S. and exports from Asia. Nevertheless, many emerging economies do not depend that much on exports. For the Chinese economy, 10 percent of GDP is exports; in India it is even less. Therefore, an emerging economy with a vibrant domestic economy can offset slow or no export growth.

In Asia, there was some export growth after 1998, and total exports from Asia to the rest of the world now exceed the 1997 level. But this must be viewed in the context of the American trade deficit, which has doubled since 1998. In other words, without the doubling of the American trade deficit, the Asian economies would have had hardly any recov-

ery; now that there is some recovery, imports are rising again and the external balances are deteriorating.

I agree that the U.S. dollar will weaken again one day, but against what? Certainly not against the Thai baht, the Filipino peso, and the Indian rupee, because these countries are now in a competitive devaluation mode; that is, they have to devalue to stay competitive against the Chinese manufacturing sector. And all these Asian currencies will continue to decline. The Korean won collapsed during the crisis, recovered, but now has weakened again. The Indian rupee and the Filipino peso have hit new lows and the Thai baht is on its way. The dollar, then, has no chance to weaken against these emerging economies' currencies. Eventually the Chinese yuan may have to devalue along with the Hong Kong dollar and the Argentine peso. The dollar could weaken against the euro, but the amount that the euro might appreciate against the U.S. dollar would maybe be 10 to 15 percent. There will not be a dollar collapse like the one between 1971 (when Nixon went off the gold standard) and 1980 (when the dollar lost 70 percent of its value against the European currencies).

The big problem in Asia was the rescue of Mexico in 1994: had Mexico not been bailed out, Asia would have had a recession in 1994 or 1995, but not the crisis it had in 1997. Between 1994 and 1997, foreigners, under the advice of investment banks, continued to finance worthless golf courses, empty office buildings, and excess capacity in the manufacturing sector. When the collapse finally came, it was much more violent than would have been the case in 1994. That was done because of easing monetary policies.

#### What to Do?

Long-term, high-quality bonds? I am not so sure about being in the bond market any longer because I think it is acting poorly. We've had a 20-year bull market in bonds and I think easing monetary policies in the United States will probably lead to some kind of inflation or depreciation of the dollar. So I am cautious about long-term, high-quality bonds.

Low-quality bonds? If my scenario of a sticky recession plays itself out, you certainly do not want to be in low-quality bonds, because many of them will eventually default. But obviously there will be a time to buy them.

Avoid equities, for which investors have inflated expectations; that is, the S&P 500, Nasdaq, Dow Jones.

Buy euro-denominated bonds. I think the euro can appreciate somewhat against the U.S. dollar, but by no more than 15 to 20 percent.

Emerging market equities are relatively cheap. Are they really cheap against old-economy stocks in the U.S.? I'm not so sure. They're not as cheap as they were in 1985–86 in Asia, or 1988–89 in Latin America.

I think that the only assets that are greatly undervalued are mining companies and gold compared to, say, the Dow Jones. Of course, all of you will say "gold has lost its luster and nobody wants it anymore," but I hear this at every conference. The way people talked about gold and oil in 1980 is the same way equities are spoken about today. I think that the dollar will not depreciate much against other currencies, but eventually there will be a massive depreciation of the dollar against commodity prices, maybe agricultural prices, maybe oil, maybe gold, but in general I think that commodities are today extremely low and that is where I would look.

Geopolitically, I think that the coming recession will lead to some losers. I suppose the multinationals will be attacked. The patent laws will be attacked. Royalty payments will be attacked. The industrialized nations will probably suffer more, and the emerging economies will probably emerge in a stronger position than one would assume at the present time.

The issues I have discussed today, however, are minor in the context of the entire world. The most important issue is wealth inequality in the United States, although that is a relatively small problem when compared to wealth inequality in the world. Until 1800 most people were equally poor in the

world. The average Indian had a calorie intake that was about as high as the average Swiss's. Starting in 1800 there was strong growth in the world, but it was very uneven.

In the most developed countries, GDP per capita in real terms has increased over the last 200 years by roughly 21 times, but in the developing countries by only 2.5 times. Historically, there never was a place in which 80 percent of the world's population lived, and consumed and produced only 20 percent of the goods, while the other 20 percent of the rich population consumed and produced 80 percent of the goods. This wealth inequality creates a world in which many people have nothing to lose, and is extremely unhealthy. The 80 percent of the world's population would like to consume and have the willingness to consume, but not the means. The implication for economic growth is much slower growth than would otherwise be the case if there was a more even wealth equality. I think this is a central problem of today's economics: how to bring the poor nations to a higher standard of living, to higher purchasing power.

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I would like to address two issues—the economy and markets. My comments on the economy will be a bit gloomy. However, on the market as a whole, I am more optimistic, even though the growth environment in the world will be challenging over the next several years.

It is important to explain first the miracle of the 1990s, because the entire operation of the economy is radically different for policy officials, for consumers, and for corporations. My story of how we got where we are is a bit different than that of others.

There were five major miracles in the 1990s. One was the continued absence of the return of inflation, even though we wrung our hands about it continuously during the last 20 years. The second was the profit miracle. The third was the stock market miracle. The two remaining miracles were the low unemployment rate and the fiscal surplus. These five things occurred because sales growth in the developed world was bad.

If one looks at total annualized growth in nominal gross domestic product in America decade by decade since the 1940s, one sees that sales during the last 11 years (1990–2000) have grown at about a 5.5 percent annualized rate. When we look at the miracles of the 1990s, we assume that the economy has been growing unbelievably rapidly. However, it is one of the weakest-growing economies, in terms of sales, that we have had since the Depression. The 5.5 percent growth rate is about one-fifth slower than the slowest decade in the postwar era, and that was the 1950s. Much of what has transpired is tied to the death of sales.

Why is it that we went from a period of rapid growth in top-line sales in the developed world to one of reduced growth? In the postwar period, the corporate CEO learned that there were two rules, and much of how he operated was based on these rules. One was that sales would go up because they

always went up in the developed world in the postwar era. The second was that he could always raise his price. With these two rules, there was nothing the corporate CEO ever watched except top-line growth. If the top line was growing at 8 to 10 percent, he did not need to look below the top line because his profit grew at about the same rate and was sufficient to keep him employed. Indeed, he did not worry about costs, because they were irrelevant. If he over-inventoried, he would grow out of it. If he over-capacitized, he would grow out of it. If he had a three-martini lunch, he would raise his price afterward. There was no need to pay attention to anything below the top line. And so, for 40 or 50 years, we had dramatic cost run-ups because the strength of total demand in the world came out of the developed world in sales.

This changed beginning in the 1980s. By the early 1990s, the CEO came in to work and saw that sales had died. This aggressive, growth-oriented capitalist who, for 50 years, was outward-looking and growth-oriented, became a contractionary, downward, inward-looking executive who no longer talked of sales, but of cost-cutting, efficiency, right-sizing, margin enhancement, and downsizing. That is what the 1990s was really about. The death of sales turned corporate behavior upside down.

In the early 1980s corporate CEOs spoke of the new plants they were building and of how much payroll numbers were up. That was the badge of a good CEO. CEOs in the 1990s spoke of not having to build anything new, about adding another computer, and about how much payroll accounts were down. That is the badge of the Brave New World CEO. The difference is striking.

What this has also done is change the model of the economy. In the developed world after the Depression, the economy was consistently driven by excess demand in which the active agent was the consumer or the household. That active agent would always be out in front of the supply side of the economy, in which there was a chronic shortage of



goods and an unprecedented rise in prices for the longest period of time in U.S. history. The consumer household was the driving sector and the corporate sector the passive agent that responded to the consumer by price increases.

Since the 1990s and the death of demand, the economic model is the opposite. We now have an economy where supply is chronically out in front of demand. There is chronic overcapacity throughout the system. Yet, growth in unit sales is still good, but the reason for it is different. Now the corporate sector is the leading segment of the economy and the household sector the passive agent. The mechanism now is that there are too many goods and not enough buyers and the way we get the buyers to come is for the corporate sector to drop the price.

Thus, the growth miracle in real unit growth—real GDP—is due to deflation. It is deflationary stimulated buying. It is encouraging consumers to buy by lowering the price. Certainly this is obvious in technology, where prices drop every day in order to sell more units. We marvel at the growth rates of this new business era, but it is really because we are dropping the price by 20 or 30 or 40 percent a year. Thirty-five years ago the leading industry in this country was automobiles and the tag line was that the sticker price went up every year. All other industries came to operate under the same model. In the early 1980s there emerged new firms on the scene, such as Wal-Mart, that had this weird philosophy called “Everyday Low Prices.” The old-line companies initially ignored it and thought that lowering prices was a dumb thing. However, Wal-Mart and similar firms gained market share and today, the old-line industry of automobiles has fully adopted the new industry of deflationary unit growth. We have deflating prices in automobiles for the first time ever, which is driving up unit sales. The result is still real GDP growth, but the mechanism by which we get there is very different from what it was.

Our primary problem for much of the past 20 years has been lack of demand. Three major forces

drove demand in the developed world after the Great Depression. The first was demographics, which were the same in Japan, Europe, and the United States. After World War II everyone went home and had children. Within a gestation period of 15–20 years all these labor inputs hit the world job market and job growth rose dramatically, as did incomes and demand. We are now on the dearth side of that and we are seeing the lack of demand.

Second, we came out of the Depression with this idea that if private spending goes down one can get out of the depression by subsidizing it with public spending. We continued this strategy for the next 50 years so that by the early 1980s, public demand in this country amounted to one-fifth to one-fourth of our total demand. However, that changed with the advent of public disgust with deficits, as expressed by Margaret Thatcher and Ronald Reagan. The move to get rid of fiscal deficits has taken a big bite out of total demand. The government now amounts to about 16 percent of our total demand—down substantially from where it was.

Lastly, the Depression left a legacy that lasted for decades. Across the developed world no one ever wanted this to happen again. Thus, all focused on growth over inflation and constantly practiced stimulative policies with aggressive monetary growth. For years, mortgage rates were kept at 2 percent and the result was a dramatic period of demand growth. Again, this has changed dramatically since the aftermath of the 1970s inflation scare.

Our primary problem now is answering the question “where are we going to get demand?” The answer is “developing economies.” The problem is that we are a bit late in getting started. In the late 1970s we went to the Third World countries with exploitation on the brain because what we wanted from them was their natural resources, their gold, their copper, their coffee. Prices were escalating and we wanted a piece of the pie. In the 1990s, we had development on the brain. We wanted them to elongate their demographics beyond the average age of 35.

We wanted them to develop wealth so that they could buy all the goods that we produce. We needed the developing economies to become the new malls of America because the developed world has aged beyond that ability.

Consider the ratio of manufacturing capacity divided by real demand or real GDP. When this ratio rises, supply grows faster than demand. When it falls, supply grows slower than demand. Until 1995, there was no period during which supply was growing faster than demand except during a recession. All of the economic expansions over this period were excess-demand-driven. The household was out in front of the business sector. All of the falling ratios in the 1970s, and during all the expansions, indeed even the 1980s, were excess-demand-driven events. This fits right into the NAIRU/Phillips curve idea that expansions eventually lead to inflation.

The post-1995 expansion was unique. Real GDP was growing, often above trend, and yet supply capacity was growing even faster. How can capacity constantly grow faster than demand? If there are weird things happening, such as layoffs during an expansion—which there have been rather regularly throughout the 1990s—it is because this is a supply-driven expansion, not a demand-driven one. In demand expansions of the past, there were never layoffs.

We often associate the low unemployment rate in this country with tremendous growth in jobs. However, the job growth and job creation rates in the 1990s were the weakest since the Depression. It is not that jobs were growing fast, but rather, that we avoided a recession for a 10-year period. If one does that, eventually the unemployment rate gets low.

Consider data from the CRB Raw Industrials commodity price index. Again, in most cases, when the top ratio is falling, commodity prices are rising. When the top ratio is rising and supply is outpacing demand, prices go down, with the notable exception of the post-1995 expansion. In that period we had supply beating demand, yet demand was still grow-

ing in a period when the CRB Raw Industrials had been collapsing throughout. This was truly a deflationary growth rate and very different from what we have seen in the postwar era.

A deflationary, excess-supply-driven economy leads to problems when policy officials try to restart the engine. There are four different component parts of GDP, which I break down into “structures and durable goods” and “nondurable goods and services.” Structures and durable goods, whether from the consumption or the business sector, are goods bought that do one of two things: increase future supply capacity or reduce future demand. When one buys a nondurable good or service, that is repeatable consumption. However, when one buys a durable good or structure, one will not buy another for awhile. If consumers buy more durable goods today, they will buy less tomorrow.

On the other side, if a business makes an investment today, it will boost future supply. We have had a 10-year period during which there has been a huge future-supply-driven growth rate. We have great supply capacity yet to come because of past investments and/or we will have much less demand, because if everyone in this room during the last couple of years has bought a house, a car, a computer, and a couch, it does not matter how low the Fed takes interest rates or how many tax cuts are given, we will not buy another one this year. It will take time to work off the excess-supply-spending cycle because of this supply-side-driven economy.

The biggest policy stimulus in the last 10 years has not been fiscal policy or Fed policy, but falling prices. The miracle of technology growth rates of 50 to 80 percent is because prices dropped so rapidly. One of the reasons that the tech bubble ended was because prices were no longer dropping as fast. We had strong real GDP numbers but they were due to weak pricing conditions in the economy. The Fed was tightening because there was too much real growth, but the only reason we had too much real growth is because price inflation was so weak, at least in the computer sector.

What happened in the tech sector is also happening throughout the rest of the economy. Consider auto sales, which remain strong. When the Asian crisis hit, the rest of the world melted into close to one of the biggest global depressions since the Great Depression. Yet, auto sales went up dramatically in America. The reason for that is the same reason that computer sales went up. Prior to the crisis, new sticker auto prices were going up 2 to 3 percent a year. After the Asian crisis, there was deflation to the tune of almost 1 percent. And lo and behold, just like PCs, if the price drops, people buy more. That is exactly what has happened in the automobile industry.

With regard to housing, right about the time of the Asian crisis housing sales started to rise even though the inflation rate in housing was falling. In addition, homeowners who refinanced got another \$300 of cash flow every month. So the effective price of housing was really deflated for the entire decade, not only by relatively modest inflation but also by lower payments. Every one of these examples is essentially the same new corporate model of management—using prices on the downside as opposed to the upside.

Look also at real wage income. Prior to the Asian crisis, the rate of wage growth was around 4 percent in this country and the rate of CPI inflation was about 3.5. Real wages were growing about one-half of 1 percent. When the crisis hit, it took the inflation rate in this country (CPI) down to about 1.5 and wage growth remained at about 4 percent. The result was that real wage growth went from one-half of 1 percent to about 3 percent. Real consumer spending then followed. Thus, the boost from real income did not come from wage inflation; rather, it came from CPI disinflation.

Until 1995, when there were real growth expansions, there were also pricing expansions. When there were real growth slowdowns, there were also slowdowns in pricing. From 1995 on it has been entirely different. Real growth kept rising, even though pricing got weaker. We got into a vicious cycle where real indi-

cators would go up, so the Fed would tighten, which would weaken prices further, which would stimulate real growth even more, which would force the Fed to tighten even further. Because of our tightening, our currency went up so much that it blew out much of the rest of the world and we had to stop doing it. However, we returned to this policy as soon as Asia seemed to be back on its feet.

This difference between the delinking of pricing and unit sales is not quite foreign to this contemporary postwar period. Here is an example that gives a sense of how much corporate CEOs have had to deal with, especially in retailing. The past decade was a tough one for retailing in general. Indeed, many of the old-line retailers went by the wayside. For most of the decade they fought against wage inflation rising faster than final selling prices. When the Asian crisis hit in 1997, suddenly CEOs faced a deflationary selling price. Yet, at the same time, the wages they paid accelerated. Many CEOs probably thought that they would be fired.

Right before the Asian crisis, the retail industry was reporting about 2.5 percent growth in man-hours and 3.5 percent in unit sales. During and after the crisis, retail sales plummeted and consumers bought more. Unit growth went from 3.5 to 8 percent as deflation stimulated consumer purchasing. Retailers survived because even though their output rate went from 3.5 to 8, their retail labor man-hour usage went from 2.5 to 1.5. That is the new era of the productivity miracle at work. This situation can be kept going provided that corporations can continue to cut costs to keep up with their weak top-line prices. Then their prices can keep coming down and they can keep unit sales growth strong.

However, the impact of this is starting to be felt in labor. Almost from the start of the Asian crisis, manufacturing jobs fell by three-quarters of a million. Indeed, half a million of them were lost before the country even started talking about recession. We were still worried about overheated growth when jobs in the manufacturing sector were being lost

every month; even so, production has gone up by 12 percent. In the retail industry, they were able to produce more than double the unit growth rate with almost half the labor hour usage.

For the aggregate economy, we are running about a 4 percent growth rate in real GDP with almost 0 percent labor man-hour growth. Turning to profits, as one would expect, until the 1990s there was a strong and positive correlation between GDP growth and profit growth. When sales went up, so did profits, and vice versa. This changed in the 1990s. Sales growth in America in the 1990s was at the slowest rate since the Depression, yet profits were amazingly strong. The weak sales growth forced CEOs to look below the top line. They discovered that by cutting interest costs, improving inventory turns, and laying off white-collar employees, they could still produce profits and drive up stock prices.

I would argue that the profit miracle exists because demand is weak in the world and in the early 1990s it was from one-time income statement fixes. There had been 50 years of excess in the corporate sector. What corporations did in the 1990s was cut bloat. We now have a corporate sector that is lean and mean. In the late 1990s, when deflation started again, corporations resorted to two standard cost-cutting methods. One is to gain economies of scale through mergers and acquisitions. M&A activity is 9,000 to 10,000, up from a 2,000 average. This is not because greedy capitalists wanted to monopolize their markets, but because capitalists wanted to survive. The second method is to use technology. Theoretically, tech spending can lower the unit cost every time.

Looking toward the future, we may or may not have a recession. If we do, we will soon get out of it, officially. However, the aftermath will be tough and we will not be able to figure out how to get the economy cranked up again. We will drop interest rates and wait to see if anything happens. When it does not, we will drop rates again. That is the pattern that we are back into.

We face daunting issues. One is the pure saturation of demand. The only solution for this may be time—time for all the things we have bought to wear out. A second issue is that the Fed may have less punch than we are used to. We know very well from decades of experience what the impact of Fed easing is on the manufacturing, housing, and other sectors. However, we know very little about the impact, if any, on the tech sector cycle. I still believe that there is not much impact on this industry, and yet, it is such a large part of our economy, accounting for almost one-third of our growth rate by 1999.

There are many reasons why technology went from bubble to bust. Only one relates to Fed policy, and that is the economic cycle. One can argue that in some sense, the United States avoided two recessions because of the technology sector boom, which was inherent to the technology industry but had nothing to do with the policy officials. In 1995, tech spending as a percentage of the change in real GDP tripled from about 5 percent to 15 percent, and that surge, mainly a PC surge in 1995, kept the U.S. out of a recession. In the late 1990s, the technology revolution mutated from a PC revolution to an Internet revolution, and again the exposure of technology increased, from 15 percent to 30 percent. That kept us out of the Asian crisis. Continued tech spending by businesses kept us afloat until consumption eventually came back. Had we not had these two revolutions—the PC and the Internet—we would already have had two recessions. The problem for the future is that there is nothing on the horizon on the order of magnitude of a PC or an Internet that will drive tech spending anywhere close to what it has been in recent years. There will be again someday, but not soon.

The Fed faces some other challenges. One is the flat yield curve. Long bond yields coming down in each of the last two cycles for a full year and by 2 to 3 percent before the Fed even starts to move rates have created a flat yield curve from which the Fed starts easing. One way the Fed can stimulate the economy is by making it profitable to lend. It has dropped

rates aggressively, yet rates are still only back to where the long end of the curve had already moved, and the curve is still a lot flatter than it was in the earlier 1990s.

Another challenge is the dollar. It keeps going up. One of the major stimulative ways that Fed policy can work is by lowering the value of the dollar. So far, it has not come down. I think that is because the Asian crisis resulted in people using the U.S. currency as a safe haven.

Throughout most of the postwar period, when rates went down, stock prices went up. That is one of the mechanisms by which the Fed reestablishes growth. It stabilizes the stock market by lowering interest rates. However, since the Asian crisis, the Fed has not been able to do that because there has been a unique delinking of the stock and bond markets. Rather than looking at lower rates as positive for future growth, what often happens now is that when bond yields go down, stocks panic, which means that there is even weaker growth coming. Can anyone remember a period when the 10-year bond yield fell by 20 percent (2 percentage points) in a one-year period and the stock market also fell by 20 percent during the same period of time? The only other time I can remember was the Depression of the 1930s or Japan of the 1990s.

We are about to see the first significant rise in the unemployment rate since the 1990 recession. One reason many people feel confident that the economy is okay is because normally in the postwar period the consumer sector led the economy. However, this has changed and the business sector now leads the consumer sector. That the business sector has contracted as much as it has implies that a consumer contraction is yet to come. The mechanism by which that will be transferred is through the job market. We are probably looking at a 5 percent or greater unemployment rate in the next year.

Another challenging issue will be restarting the profit engine, something we have been able to do in the past. Corporations are facing several hurdles in

that regard. Labor costs have come up a bit as productivity has fallen off at the end of the cycle. Corporations are also being squeezed by the persistence of energy pricing. They are coming into this slowdown with one of the highest-fixed-cost structures ever because many went through a massive investment, which put tons of depreciation on the books. This is of great concern.

We may finally be at the point where the lack of pricing flexibility is such that corporations cannot keep up. There probably will be diminishing returns from cost-cutting initiatives, particularly from tech spending and from economies of scale. Without that, and with still-weak pricing, the profit equation will probably be difficult for a while to come.

The miracles of the 1990s were the results of the absence of demand relative to supply and persistent price disinflation. That has done a wonderful thing. Since we never had a big inflation spike, the Fed never found it necessary to tighten as aggressively as it did during the periodic recessions of the 1970s. Ergo, since 1982, we have had only two inverted yield curves—one in 1989 and one last year—and one recession, in 1991. Outside of that, we have never had to invert the curve because inflation has never risen. That has allowed us to enjoy the longest expansion in U.S. history, which allowed a slow-growing labor market to become fully employed and an out-of-control fiscal situation to go back to surplus.

If one never puts a dent in tax receipts, or raises welfare expenditures, or boosts the unemployment rate, then eventually unemployment gets low and fiscal policy goes to surplus. That is exactly where we are. And the catalyst was the lack of demand in the world. The miracles of profits and the stock market were also the result of the absence of demand, which caused corporate CEOs to change how they operated and go after margin enhancement. Thus, even though the top line did not grow, profits did and the stock market followed.

Much of what has happened is wonderful. It just sounds bad—deflation, lack of price flexibility. I do

believe that we could continue to the point where inflation works its way down to zero over the next several years. Productivity and technology could provide even greater benefits in the future—lowering costs while maintaining profit margins. We will have two or three years where profits will be really difficult to achieve. Jobs will be lost. However, that does not necessarily mean we must return to inflation or that we must fall into the same sort of situation as Japan. We could also fall back into a pretty good situation.

**PETER HOOPER**

Managing Director, Deutsche Bank Alex. Brown

**“Outlook for the U.S. Economy:  
A View from the Street”**

The view of the U.S. economy that I present here is, of course, affected by the way the Federal Reserve views it, since I spent many years with the Fed. However, that view is now also changed since I shifted from one of policy wonk in Washington to more of a salesman on the street. Looking at some of the near-term indicators suggests that we are not yet in a recession. However, we are concerned about a future slowdown. The economy is likely to be considerably weaker than the general consensus believes.

World gross domestic product (GDP) growth this year should slow to some 3 percent, down from 5 percent last year. Something in the 2 percent range would qualify as a world recession. The lowest the world GDP growth has been in the last 50 years is a little over 1 percent. We are getting close to that, but we should have a moderate recovery next year. The most recent release on U.S. GDP shows 2 percent growth. We had expected something like one-half to 1 percent. This 2 percent was a surprise, but nevertheless, we still see weakness going ahead. We expect zero growth in the second quarter, then a very sluggish pickup in the third and then something a little more noticeable in the fourth, but still an economy that through next year is operating noticeably below potential.

Inflation is unlikely to be the number one issue. Core inflation will increase a bit this year but decrease next year as the labor market weakens. One can expect to see an unemployment rate above 5 percent by the end of this year or early next. The Fed is likely to continue easing interest rates. We have been saying that the Fed was going to be cutting rates rather aggressively and in view of the weakness visible in the economy, the Fed funds rate will likely drop below 4 percent by the third quarter this year.

At this point the key indicators say that the U.S. is not yet in a recession; none are yet in that range, but some are getting close.

The causes of the slowdown are well-known factors, such as the bursting of the stock bubble, severe tightening of credit market conditions, a run-up in energy prices, overinvestment in inventories, and rising output capacity. One can add to that list the strong dollar.

The first cause is clear: the stock market has burst. The quality of credit among corporations has shifted substantially toward deterioration. Not surprisingly, credit market conditions have tightened. High-yield spreads—the spreads of high-yield bonds over treasuries—have reached levels not seen since the last recession. They have come off their peak, but are still bouncing up at very high levels. Bank lending standards—the conditions that banks require of customers to make loans—have tightened substantially. There has been a sharp drop-off in the growth of total credit, bank credit, and the commercial paper market.

Energy prices have increased. The share of nominal consumption devoted to energy was in a downward trend for most of the past decade, but has now risen strongly, taking a substantial bite out of the pocketbook. The outlook for a number of other sectors, such as inventories, business fixed investment, consumer expenditures, and the stock market, does not look good. The inventory cycle is most depressing the economy. We had several quarters of inventory accumulation running above average, even in the face of slowing sales growth. Inventories are beginning to adjust but have further to go.

One reason why we are not at the end of the line on inventories is in the tech sector. The inventory sales ratio for tech was in a downward trend through the 1990s but has increased over the last six or seven months. The desirable level is probably 5 percent of production below current levels. Further significant correction in the tech sector on inventories is needed

and will produce a weakness in output in the next couple of quarters.

Turning to capital spending, the big surprise was the first-quarter GDP number for real business fixed investment in equipment and software. We expected a 10 percent decrease but it was only 2 percent. The reason we expected 10 percent is that the data on shipments of nondefense capital goods, excluding aircraft, pointed to a pretty sharp drop. Still, we expect a weakness in business fixed investment in the second quarter, which is one thing that gives us that number very close to zero, despite a positive surprise in the first quarter.

During the 1990s, we had a sustained acceleration of the capital stock, not that far out of line with the kind of cycles seen in the past. It is interesting that the growth of the capital stock, as one goes through a recession, seems to bottom out somewhere around the potential rate of growth in the economy. Our forecast has it coming down about in line with that potential GDP growth. However, to get that kind of deceleration, investment must decline for several more quarters. This factors in a relatively high rate of depreciation on tech capital. Nevertheless, in order to have the growth of the capital stock in line with a 3.5 potential growth rate, one needs a decline of several quarters in business fixed investment, which is what gives us this negative view for this year at least.

As a bit of corroborative evidence, there are indications that the market expects weakening sales. Analysts are taking a good look at what they expect for their markets and they see a slowdown in orders. In the consumer sector, there has been a dramatic slowdown in real retail sales growth over the past year, down from last year's very high levels. Our forecast for consumption is that growth will slow over the next few quarters.

We expect the saving rate to rise gradually, moving up about a percentage point over the next year and a half. Another important factor is that mortgage

rates and long-term interest rates have come down. Consumer finance rates have been relatively favorable and consumer credit growth has continued at very high levels. Not surprisingly, household debt service burdens have been rising. We are getting up to peak levels that were last seen on household debt service in the mid-to-late 1980s. By comparison, business interest expense has dropped off sharply, largely because of the drop in the level of interest rates since that time.

The asset side of the household balance sheet is, of course, deteriorating with the drop in the stock market. During the second half of the 1990s, essentially all of the increase in the wealth-to-income ratio was due to the stock market. With the stock market having dropped, we are seeing a substantial reversal of that ratio.

The real risk in the consumer sector is that the personal saving rate, after averaging some 8 to 10 percent over much of the past 40 years, has dropped to below zero in the past decade, a tremendous decline. Much of this can be attributed to the fact that households have, at least in the past five years, depended increasingly on the stock market to do their saving for them. If one adds realized capital gains to saving out of current earned income, the saving rate looks a little more stable. However, with the reversal of the stock market, realized capital gains are going to come down at a pretty substantial rate. The question is, do households try to maintain this overall saving rate by saving more out of current earned income? If so, that could push the economy into a more prolonged and deeper downturn.

The saving rate is also related to the issue of confidence. Historically, the most important factor affecting confidence has been job prospects. As the unemployment rate moves above 5 percent, confidence is likely to drop further and that will have a further negative effect on saving. The unemployment rate explains maybe half of the variance in confidence over time, but there is no question that the drop in the stock market is also beginning to

have an effect. That is certainly being picked up in confidence surveys.

So, one key question is, will the stock market drop further? Our forecast is that earnings expectations will drop further. This means that the stock market is in for some heavy sledding. Yet, the expectation for next year is about 15 percent earnings growth on the S&P 500. If one looks at the behavior of earnings going back to 1960, one can draw a 5 percent growth trajectory and a 7 percent growth trajectory. What happened recently is that, after a depressed period in the early 1990s following the last recession, there was a long period of recovery and very rapid growth. It is difficult to think of earnings growing much more than nominal GDP for a sustained period of time; thus, a 7 percent number seems reasonable, but not 15 percent. Yet, current expectations for the next year are still up around 15 percent.

Thus far, the stock market has held, due to Federal Reserve policy. The market tends to rise after a Fed easing. This time around, the Fed is a bit ahead of schedule: it typically starts easing about four months after a cyclical peak has passed, during which period the market tends to decline as bad news about earnings comes through. One reason the Fed is ahead of schedule this time is that inflation has been under control. Generally, inflation picks up an average of 2 or 2.5 percentage points in the last two years of an expansion. This time around there has been essentially no increase. Much of this can be attributed to the tremendous increase in labor productivity growth over the last decade, from about 1.5 percent in the first half of the decade to 2.75 percent over the second half and 3.5 percent toward the end. That strong performance has tended to reduce labor costs, which has held core inflation in check.

The reason for the strong performance in productivity is rapid growth in the stock of information technology capital. There has been tremendous investment in this area. Now, however, with the slowing of investment, we see a significant slowing



in the growth of this capital stock. That is not good news for labor productivity and we expect to see a substantial increase in labor costs. This could be another reason to expect a drop in earnings expectations over the period ahead.

We may get some relief from energy prices. Oil market experts expect a decline in oil prices. One could be skeptical about this because the U.S. certainly faces other constraints in energy production. It has had a very low rate of investment in energy production for quite a few years. Continued pressures on the energy price front could put pressure on profit margins.

With regard to the external imbalance, the current account balance has dropped, but the dollar continues to be strong. There is that safe haven factor going on here. Through much of the 1990s, the U.S. was a relatively attractive place to invest because of the high growth of investment in tech and the strong growth in productivity. Now that the bubble has burst, one does not have that factor to point to. However, as the global situation turns more negative, people will still see the U.S. as a relatively safe place to invest. The dollar could lose strength if the U.S. consumer becomes more cautious, if the saving rate increases, or if the economy goes into a deeper downturn. These situations could cause a drop in the inflow of investment. There is no way to get the current account or net exports to jump appreciably without a substantial drop in the dollar.

On a more positive note, the U.S. has built up a substantial war chest on the fiscal front. As the personal saving rate dropped precipitously over the past decade, government saving rose even more. Political pressure will build to use more of this in the form of either tax cuts or spending increases to offset a prolonged or deep downturn. Thus, at worst we get out of this with a U-shaped recovery, something with a downturn stretching into the middle of next year.

Another positive sign is that the inventory correction is progressing well, except in the tech area. There is some negative news. Capital spending will

most likely weaken further throughout this year, with a substantial drop still to come. The consumer sector has been remarkably resilient so far, but it is vulnerable to a substantial drop as the saving rate jumps, which could well mean a recession. There is some bad news on the productivity front and on labor costs, especially with the drop-off in IT investment. In this light, a strong rebound in the stock market seems unlikely. Earnings expectations are likely to come down and continue to weigh on the household sector. The Fed easing is on track, but it does have more to go, at least another 75 basis points. The fiscal stimulus, however, is clearly there and will be needed to a significant extent.

# S e s s i o n s

## SESSION 1

### The State of the U.S. Economy

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### The Consequences of Bursting the Brave New World Bubble

Last year we demonstrated that there was no plausible way that companies could deliver earnings at trajectories for the time necessary to make any sense of the market, and agreed that the future would bring a sharp decline for Nasdaq. Now life gets more complicated because we have to handicap the aftermath of the burst bubble (where we are on more tentative ground) and repudiate the economic framework that justified the bubble.

The economic underpinnings of the Brave New World framework were driven by the bubble and not the reverse. Greenspan set the stage in a January 2000 speech when he said that we may be entering a once-in-a-generation or once-in-a-lifetime acceleration of innovation, productivity, output, corporate profits, and stock prices. Alternatively, he said that we may be experiencing one of the many euphoric, speculative bubbles that have dotted human history. At the time, Initial Placement Offerings (IPOs) were being issued at \$10 and closing at \$110 on the same day, even though the companies had not done any business.

Over the past year, the bubble has burst, but not the framework. There is still a great deal of confidence about strong productivity, profit growth, investment, and growing budget surpluses. The key to Greenspan's framework is surging synergies for technologies and technological progress that elevate the prospective rates of return on high-tech investment, create oppor-

tunities for technologically savvy venture capital and equity investors, and produce a high-tech capital spending boom by raising productivity growth rates and generating strong Standard & Poor's (S&P) profits and booming technological profits. The response is a soaring stock market and wealth effects that generate a consumer spending boom. In this elevated economy (in terms of growth rates), tax receipts soar and the public debt can be paid down or eliminated.

Productivity, profit data, and the surplus can be framed in a fashion that puts a lot more emphasis on the market driving the numbers than the numbers driving the market. The key is irrational exuberance. Greenspan's framework was right for the economy from 1992 to 1997, but from 1997 to March 2000 the land of surging synergies was left behind for the world of surging share prices, where the equity cost of capital is effectively zero. Consequently, technology investment boomed.

The boom in technological spending was superimposed on the Y2K boom, and this, combined with old economy companies compelled to do business on the Internet, substantially inflated the long-run trajectory for technology spending. The top 20 S&P companies were supposed to grow at 27 percent a year for the next 10 years (IBIS long-term forecast). The market figured out last year that this was categorical nonsense. Stocks are down 61 percent but the IBIS long-term forecasts are down only 10 percent. Analysts are about a year behind the market and they have to figure out what is patently obvious from a top-down perspective—that this is impossible. Stocks do not have to go down further but we have to be more aggressive about deconstructing the Brave New World framework.

The rule is that earnings drive share prices. The spectacular dynamic of the last two years on Wall Street (ending the middle of last year) is that share prices drove earnings. A good company reports high and rising, and a penny above expectation, earnings—a growth-at-any-price stock. A company that disappoints loses 50 percent of market capitalization

in about three weeks. A plan for making sure that the top and bottom line meet analysts' expectations is to pay everybody with options rather than bonuses, and to issue debt so there is no dilution. Moreover, give stock to buyers; for example, buy \$80 million worth of goods, get \$20 million worth of stock, and book \$100 million, which is great for your top and bottom line.

Standard & Poor's operating profits grew spectacularly while economic profits grew much more tentatively. If you were Cisco, you reported to shareholders that your profits boomed and to the IRS that you didn't make any money (because you were issuing options that employees were exercising and generating extraordinary amounts of income). Consequently, operating profits grew at 16 percent a year in the S&P data, and economic profits at 9 percent. Real incomes grew at a reasonable rate and profits at a great rate.

Inconsistent accounting uses one set of accounting for profits and another for consumption. Consumption and investment boom and add up to more than GDP. A large current account deficit squares the circle. The large profit numbers were, to a significant degree, illusory. Option-generated income for the top 385 S&P companies was \$6 billion in 1994, \$60 billion in 1998, and perhaps \$110 billion in 2000. For the economy overall, tax revenues were \$210 billion (roughly \$90 billion in income taxes and \$120 billion in capital gains). This option-generated personal income goes to the individual and does not appear as a cost to the company, although it obviously is one. It allows for booming investment and GDP above expected levels. Technology investment as a share of GDP soared in an environment in which tech shares increased as a percentage of the S&P. Predictably, technology investment as a share of GDP is going down.

The debate about productivity is critically important. In nominal terms, technology spending in 2000 accounted for 12 percent of growth, while in real terms, it accounted for a third. That's the power of Moore's Law and negative deflators. This year, technology spending will be down, so productivity will be

horrible. It takes a lot out of growth and there is nobody to fire since it accounts for 2 percent of the workforce.

The Congressional Budget Office (CBO) does not look at option-generated income. Personal tax and nontax payments as a share of GDP soared from 1995 to 2000. The CBO forecast stayed at this elevated level. There was no reversal despite the fact that Nasdaq was down 68 percent.

### DAVID A. LEVY

Minsky believed in policies to cope with, rather than avoid problems. In the current economy, we need policies to cope with problems. Essentially, the problem is too much debt. There have been long-time upward trends in the ratio of household sector debt to after-tax income and nonfinancial corporate sector debt relative to GDP. If debt rises relative to income over a long period of time, debt service requirements (with the exception of periodic declines in interest rates) also rise and debt servicing is a bigger part of the economy. According to Minsky's lexicon, more people move from hedge to speculative borrowing, and from speculative to Ponzi borrowing. If the economy gets in trouble, more people will have debt problems. There have been a lot more financial crises over the last 20 years than in the early part of the postwar period.

With so much debt, boom conditions are needed to maintain strong profits and cash flows to service the debt. When the economy slows down, cash flows are hurt and there are problems with debt. Ideally, one moves to a period where there is less debt relative to income.

The year-over-year private sector (nonfinancial) debt growth rate is generally higher than the nominal GDP growth rate. When the economy is growing, debt grows faster than nominal GDP. Debt shrinks relative to GDP in recessions or just after—the only

exception was the early 1990s (the “contained depression”) when there was very sluggish growth, consolidation of private debt, and reliance on heavy growth in public debt to get the economy going. More problems come with debt growth, and in the long term, there will be an adjustment sooner rather than later.

Fed policy is very tough right now, as it is unlikely that there is a policy that is going to do what everybody wants. We are in a recession. Profitability, and business investment processes combined with initial unemployment claims, which broke 400,000 today for the first time, look much like an early recession pattern. A retrenchment process has started. Although it is possible that it could be nipped in the bud, the odds are against it. The start of a downturn triggers a reaction and an adjustment for all the long-term excesses in capacity, debt, and asset prices. These things are all linked together on the financial side of the economy.

The new economy, where technology leads to incredible productivity gains and high real growth, is not the whole story. Our economy is basically a financial system. Profits drive business as a financial concept. Financial obligations matter and these were being left out, resulting in more deterioration because they were all tied to financial factors (for example, tech investment to financing).

The macroeconomic profits process used by Minsky was essential in tying his whole view together. It starts from the simple profits identity (saving) and, by substituting profits for business, is like the saving investment identity—profits equal investment less saving by everybody else. Although it is an identity, it can be used as an accounting framework to analyze changes in wealth in the economy, and why profits did something (where the wealth came from). It also represents a dynamic process. In terms of the lag between when decisions are made and when actions are taken, a company will set its budget for capital spending ahead of the quarter (it is, thus, largely predetermined) and in the short term, profits are essentially a dependent variable.

This identity can be translated to national product accounts.

The outlook is for falling business equipment orders and profits, which have downward momentum. Business structures investment is probably at a peak and is very predictably cyclical. Inventory investment has been deteriorating and inventory ratios are still too high. Foolishly, the auto industry has tried to crank up production again. Housing is the one part of investment that has been very strong. At least two things on which it is based—the lag effect of the stock market decline and the deteriorating job picture—will cause that to go down. In the year ahead, there are many negative factors and we are going to see a fairly serious decline.

The economy now is experiencing four vicious cycles, which were virtuous cycles during the boom but have all reversed. The first one is the nonfinancial economy—inventory buildup, capital spending cycles, trade influences, and interest rates (financial) on demand levels generally. The other three cycles are normally not nearly as important as they are now: the stock market wealth effect—a dominant player that was critical in the boom and will continue to be on the downside; credit conditions—not interest rates set by the Federal Reserve but rather the general willingness and ability of the financial system to make credit available (ranging from easy flow of credit in 1999 to the credit crunch caused by bad debt problems in the early 1990s); and international linkages—financial problems in this big-balance-sheet economy, where debt and asset values loom very large relative to the economy, quickly cascaded in 1997 and affected U.S. exports and manufacturing. Instability feeds back to profits and the United States is critical in maintaining its strength.

The wealth effect has been well documented. The outstanding reflection is the plunge in personal saving rate. As the stock market boomed and pushed wealth up relative to saving income in a way never seen before, there was an extraordinary change in the saving rate. There must be a reaction for it to go

down and then come back up. Last year at this time there was the greatest prosperity in 30 years in terms of the unemployment rate, length of the expansion, and profitability. However, peculiar financial things were going on—very high junk bond defaults, banks cutting back loans to riskier and smaller companies, rising spreads in bonds (which were a bit erratic but strange for that level of prosperity), and widening spreads of commercial paper. By the first quarter of 2000, the Fed reported that banks were cutting back on business loans or tightening lending standards at the fastest rate since the 1991 credit crunch. Something was changing.

This is important because a credit crunch is bad, particularly with respect to profit generation. The items in the profit equation—investment, saving, and borrowing—are very much tied to credit, so there is a disproportionately powerful effect on profits when credit is constrained. There could be a much worse credit crunch in a bad recession now than in the early 1990s.

Internationally, there were a few small countries in crisis in 1997. In a global economy that had too much debt and capacity and overpriced assets, things cascaded in a way that surprised a lot of people. Now there is even more debt and excess capacity in a lot of industries. In many areas, asset prices have farther to fall and the United States is leading the way down. In the last couple of years, the United States has been supporting the global economy to a greater extent than for at least half a century. The widening U.S. trade deficit is a surplus for the rest of the world, and there are enormous profit flows. Between mid 1998 and mid 2000, the United States was boosting the rest of the world's profits by about 10 percent a year. This, plus capital flows, kept things going. (Brazil is on its way to another crisis, not because it is doing anything wrong, but because it has so much debt that it is going to be swamped any time global conditions turn bad.)

These are difficult times. All the vicious cycles are creating the perfect storm, and it is going to take

a lot to stop it. We are headed for some kind of trouble. On the one hand, the Fed wants to create enough liquidity to head this off. On the other hand, enough liquidity to do that is enough to launch, once things stabilize, another surge. With significant labor pressure in 1999 and into 2000, there is not much room in terms of the unemployment rate. It has become a very difficult environment in which to act. In the longer run, enormous liquidity and enormous debt growth are needed to get through these problems. Politically, it is unacceptable to go through another period of contained depression—erratic growth, private debt consolidation, and deficit spending. People expect government to make the economy grow, which may not be possible. Massive tax cuts may do much more damage than good in the long run by making the bubble bigger. Although there is a bright future in the long run, difficult adjustments need to be made for some years to come. The speculative juices need to be taken out of people by having them learn about the other side of things, and we need to get these balance sheets back in order.

THOMAS I. PALLEY

### Contradictions Coming Home to Bost: Lessons from the Geat Expansion

This is the beginning of the 11th year of the Great Expansion, and it is in trouble. There are two public policy issues—explaining the Great Expansion, and accounting for its ending. The answers have enormous implications for public policy understanding of how the economy works, and for appropriate policy in the short and longer terms (by putting in place Minsky-type rules that stabilize the economy).

There are two broad schools of thought: the “temporary excess” point of view (the dominant view that the slowdown will be mild and temporary) and the “aggregate demand generation process” point of view (there are deep inconsistencies in income distribution in our economy). Both views refer to financial market excess but have vastly different interpretations—either the excess is temporary and readily correctable, or it reveals structural failings that are much harder to correct.

Consumer spending is on the verge of hitting its ceiling, the stock market has hit a valuation contradiction, and investment is checkmated by the emergence of excess capacity. These problems have been hidden for a long time. Income distribution has been deteriorating for 20 years. The two long business cycle expansions in the 1980s and 1990s generated large amounts of aggregate demand. The mechanisms of demand compensation are very long-operating and have finally come to a crunch (using a historical institutional point of view of how economies work rather than looking into the future and confronting future problems today through backward recursive thinking).

The income distribution problem is two-tiered. GDP can be divided into profits and wages. The wage share went down in the 1980s and 1990s, and the profit share went up. Contrary to progressives, this is good for an economy; profit rates in the United

States are neither historically nor internationally out of line now, and they are good for investment. The problem is the shift in compensation from production and nonsupervisory workers (representing 80 percent of the work force) to management. This problem first started during the time of the Reagan deficits, when there were huge government budgets. The absolute deficit peaked in the 1986 fiscal year at \$221 billion. Throughout the 1980s the federal government ran a huge deficit on a National Income and Products Accounts basis of about 3.5 percent of GDP. Deficits continued with a move to surplus in 1998. During the 1990s, the stimulus from the federal government was declining but still positive.

At this time there were also huge changes in the private sector. As the public sector reduced its deficits, private sector deficits kicked in. The private sector (net financial) surplus was positive through the early 1990s before it dropped off the floor. According to Wynne Godley, at the aggregate level, the private sector now has a net financial deficit—it is issuing more liabilities and its balance position has been steadily deteriorating. If the private sector is the borrower now, the lenders are the government, which is running a surplus, and foreign sectors. By breaking down the private sector financial balance (saving minus investment), the private sector saving rate as a share of GDP has been falling steadily since the early 1980s.

As income distribution worsened, there was compensation in terms of reduced private sector saving, which continued steadily through the 1990s. The investment share of GDP increased and has again been a bigger part of this boom, but it is not out of its normal historical range. The private sector saving rate share of GDP is now far beyond its historical range, which suggests that this pattern is unsustainable. The corporate side of the private sector has slightly increased its retained saving, while the personal share of GDP is collapsing. The household sector has been increasing its consumption spending by reducing its saving, and the personal

saving rate is now negative (fourth quarter of 2000 and first quarter of 2001). Norway and Sweden, which experienced negative personal saving rates in the late 1980s, ended with very hard crashes. A number of countries are now close to a zero personal saving rate, including Canada, Australia, New Zealand, and Sweden.

The personal saving rate—saving out of personal disposable income times personal disposable income relative to GDP—has fallen steadily since 1980. This is a behavioral parameter. Something is going on in the household sector that is causing households to reduce their saving as a share of GDP. Until 1990, personal disposable income as a share of GDP was rising, but now it too is falling. Saving is being driven by two factors: income and behavioral propensity effects are both working to increase consumption spending by households.

The aggregate saving rate can be thought of as two sets of households—one affluent, with positive saving, and one financially stressed. Affluent households can be thought of as lending to the financially stressed households. Households earning below \$50,000 per year have a debt-to-income ratio of close to three, while the ratio of those above \$50,000 is close to one. Households below \$50,000 per year actually owe about half of total outstanding household sector debt. How long can this group continue to borrow?

The household sector is much more fragile than suggested by the aggregate numbers. Debt has been part of the process, filling in for the demand shortage caused by worsening aggregate demand. It can continue for a long time and its upward trend reflects financial innovation and rising ceilings; that is, it is cyclical around a rising trend. This cannot continue, because the bottom group of households is financially fragile and has big problems in terms of monetary policy. Therefore, interest rates may be much less effective in terms of stimulating demand again, since one group of households is not in the market to borrow, and the lower-income group is

affected by credit risk (the rate they pay is not set by wholesale funds) and is now viewed as potentially unworthy to borrow. So lowering interest rates is unlikely to get debt growing again.

Although the profit shift mechanism and rise in the profit rate have been good for investment, they are checkmated by falling aggregate demand and the enormous emergence of excess capacity, both internationally and domestically. Therefore, investment cannot compensate for consumption and income distribution as a result of this excess capacity.

A third mechanism is the stock market. A 20-year boom underscores how long-lasting compensation mechanisms can be. The wealth effect (as asset prices go up, people feel wealthier and spend more) is not where the action is. In terms of equity ownership, the top 10 percent of the income distribution own 87 percent of all equities, including pension wealth. That is not a large enough base for the wealth effect to be large. Instead, the stock market reflects two other effects—the confidence effect (a rising stock market, perceived as an indicator of good times, is good for consumer confidence and affects all households whether or not they own stock) and the price expectations effect (rising prices are extrapolated into the future, and consumers believe they will be wealthier, whether or not they own stock). The wealth effect is a price level effect—it only needs high prices. Consumer confidence and the expectations effect only operate as long as the stock market is rising (and pushes one into the contradiction of an asset price bubble, which cannot continue forever).

This range of mechanisms has been the reason why the effects of the worsening income distribution on aggregate demand have not shown up for a 20-year period. What can we do about it? The Fed should keep interest rates low, though Japan's experience suggests that this may not be enough. Moreover, if there is stabilization the Fed might errantly respond by raising interest rates before there has been a proper transition to a more sound basis. We

need to spend the on-budget surplus via a middle-class and low-income tax cut and a Medicare prescription drug benefit. However, political contradictions, such as a phased-in tax cut aimed at richer households, will both delay and diminish its impact.

The off-budget social security surplus is a huge problem checkmated by prefunding, which is disastrous since it is deflationary, and levied through a payroll tax, which gives every corporation an incentive to take their jobs offshore. We should have a pay-as-you-go system, paid out of general revenues, and remove the job tax. Concern with managing the time profile of the debt path because of future obligations can be linked with the need for a current fiscal policy stance. But both parties and the whole profession are firmly locked into the prefunding approach.

The international economy is deeply problematic. Reducing the trade deficit would be an easy source of demand but it is an expenditure switching approach. The trade deficit cannot be reduced by recession, as it is not the way to bring down imports. Expenditure switching suggests depreciating the dollar, but that could import price inflation with an errant response by the Fed, or cause a recession around the world by reducing imports. Since we are the global lender of last resort, this will come back to haunt us through the interconnected financial and goods markets.

The critical thing is to focus not on the import, but the export side of the equation. Raise exports not by more North American Free Trade Agreement-style trade agreements, but by increasing world growth via new development policies that account for income distribution in the developing world, and a financial structure with stable flows of development capital. This is totally an anti-Washington consensus agenda, and there has been no progress in getting policymakers to change their view.



### Fiscal Policy and the Backward Art of Tax Cutting

In an open letter to Congress, many prominent economists have warned that the downturn may be deeper and longer than those of the recent past. They hopefully call for interest rate reductions and, recognizing that those may not be enough, advocate a temporary, one-time tax cut that would send a sizable check to every American and provide the immediate help the faltering economy needs. By contrast, Bush's plan is labeled too large, too skewed to the wealthy, and too late to head off a recession. Moreover, the plan is criticized because it is predicated on a 10-year forecast of the U.S. economy, and risks returning the United States to chronic budget deficits and reducing the capacity of government to provide future needed spending. In addition, there is talk of introducing triggers that would reduce tax relief if the budget surplus disappears.

Neither Bush's plan nor that of our prominent economists can halt the progressive deterioration. Bush's tax cut proposal during the campaign was mainly justified on the basis of long-run supply-side reasons, while much of the recent debate has centered on the near-term prospects for a downturn. The evidence that the United States is sliding toward recession is there—economic growth has fallen from a 6 percent to a 1 percent rate the last quarter of 2000, and to zero this quarter. Inventories are being cut in anticipation of sluggish sales while earnings reports are continually downgraded. Large-scale layoffs are a daily event—total nonfarm payroll employment fell by 86,000 in March, manufacturing has lost half a million jobs since last June, dot-coms have shed more than 75,000, and even the service sector is losing jobs.

The aggregate value of equities has dropped from \$17 trillion a year ago to about \$12 trillion today. Overall, price-earnings ratios are still at 24,

earnings are going to fall, and stocks must fall much further. In terms of private portfolios, equities averaged about 18 percent of wealth from 1960 to 1980, were 24 percent in 1991, and are 41 percent today. Equities would have to lose another \$5 trillion if relative ratings returned to 25 percent. Even if the Dow managed to stay at 10,000, the expansion is doomed because only capital gains can fuel borrowing. By the same logic, the \$5 trillion in losses already this year must eventually cool the consumption boom, if it hasn't already.

The boom is almost certainly finished but the recession could still be some distance in the future. The depth of the coming recession will in part be functionally related to the length and depth of the preceding expansion, which was fueled by never-before-seen deficit spending by the private sector. Given an overall budget surplus of nearly 3 percent of GDP (including state government surpluses) and a trade deficit of about 4 percent of GDP, the private sector's deficit has reached almost 7 percent of GDP. Even as GDP growth slowed in the fourth quarter of 2000, the net flow of credit actually rose to more than 14 percent of private disposable income. According to Wynne Godley's estimates, household debt alone reached over 100 percent of disposable income by the end of last year.

There is no fine rule determining how much debt the private sector can handle. Psychology, rules of thumb, and interest rates, together with total debt, determine the debt service ratios. Falling interest rates have slowed the growth of debt service burdens (now 14 percent of income). If the Fed continues to reduce interest rates, the private sector can accumulate larger debt burdens, so moderate growth might continue for a few more quarters. This entails a more precarious financial position ("stretching liquidity," according to Minsky) that generates financial fragility. Households and firms will become increasingly vulnerable to any curtailment of income flows or to interest rate increases. Such processes push many firms and households

from hedge to speculative and finally to Ponzi finance. The position becomes increasingly precarious if interest rate reductions encourage more borrowing and extend the expansion.

While most of the focus has been on the wealth created by high-flying tech stocks, much of the economic boom can also be attributed to the incomes directly created in dot-com land, as well as in services such as advertising, real estate, and consulting. As bubble dot-coms deflate, problems snowball through the service sector, which explains the unusual job losses there.

There are two separate issues—the size and scope of the necessary tax cut, and the precarious nature of the projected surplus. A temporary tax cut, no matter how large, can only postpone the inevitable. A private sector deficit has to reemerge if growth continues after the temporary tax cut dividend has evaporated. Given globalization and our import propensities, the United States will run trade deficits as long as our economic growth is near that of the rest of the world. Dollar depreciation could help to reduce our trade deficit but it is difficult to see a situation in which the required fall in the dollar (25 percent) could be maneuvered or tolerated. Recent trade figure improvements were due to falling imports, which shows how fast consumer spending is deteriorating. And with our trading partners slowing, exports are not going to improve much.

The other imbalance is in the federal budget, which will remain in surplus even at small rates of growth. The CBO projects the surplus will reach 5.3 percent of GDP by 2011. Therefore, even if we achieve balanced trade and state and local governments balance their budgets, the private sector would still have to run an overall deficit of 5.3 percent of GDP in 2011 in order to maintain economic growth at just 2.5 percent. Although there is no iron law of deficits, the normal case is for short-lived private deficits during robust expansions, followed by a return to private sector surpluses. Given the projected federal budget imbalance, personal saving will

have to remain negative and grow increasingly negative over the next decade in order to keep aggregate demand high enough for the economy to grow in the context of such tight fiscal policy. It is highly irresponsible to formulate budget policy on the presumption that Americans will continue to spend in excess of their incomes for the foreseeable future.

A very large and permanent adjustment must be made to the fiscal stance. To eliminate fiscal drag, the adjustment should be equal to 2.4 percent of GDP this year, rising to 5.3 percent of GDP by 2011. In light of the likelihood of continuing trade deficits, the size of the required fiscal adjustment becomes much larger. Many at the Institute believe that an immediate adjustment of at least 4.5 percent of GDP is required (\$450 billion annually). This is considered conservative. The demand gap that opens up as households and firms adjust their spending with income could easily be 8 percent of GDP, or \$800 billion a year. The president's plan is, at most, one-third of the fiscal adjustment needed. Not all of this needs to come in the form of a tax cut. The president's plan to reduce marginal income tax rates should add at least another \$200 billion of annual tax cuts, targeted to the bottom three-quarters of the population. Bush's tax relief plan plus another \$300 billion in payroll tax relief plus \$350 billion in additional enhancements in the form of spending increases leads only to a balanced budget that will not drag the economy down.

Some economists who recognize that some form of tax cut is needed want to tie future tax cuts to the size of the surplus. If the surpluses never appear, the tax cuts would be eliminated. This is the finest example of the backward art of economic thinking. The purpose of fiscal adjustment is to eliminate fiscal drag, which, if successful, eliminates future surpluses without requiring a recession that would destroy private sector income and wealth and tax revenues. Surpluses will not come to pass under any likely scenario, with or without tax cuts, but we can choose whether to eliminate surpluses with or without a

recession. In the case of Japan, surpluses only continued for a few years after the economy collapsed. The budget then turned to huge deficits—8 percent of GDP—because the sluggish economy reduced tax revenue. Compared to Japan, our position is not quite so perilous since U.S. consumers are far less thrifty.

Although the potential for a very deep recession exists, we may be able to avoid one that lasts as long as Japan's. However, our budget path might look like Japan's if we don't make discretionary adjustments immediately to eliminate fiscal drag. A 5 percent adjustment today can make an 8 to 10 percent deficit tomorrow unnecessary. The desired relationship between a government's revenue and its total spending depends on the performance of the economy. It is normal to have a budget surplus at very high rates of growth as tax revenues rise as a percentage of income and some spending falls. When an economy falters, however, it is desirable for the budget to move toward deficit. The problem is that budgets don't move quickly enough. This is compounded in the United States by the fact that our automatic stabilizers have weakened in recent years. Furthermore, there is the likelihood that consumption will fall sharply as households reduce credit finance purchases. The gap between income and spending slowly increased as households became more accustomed to purchases on credit. However, this can be sharply reduced in a short time span when uncertainty about the future rises, and it means that the fiscal adjustment required on the down side may be very much larger than what is required on the up side. Moreover, the idea behind triggers is seriously flawed. As the surplus disappears due to slower growth, we need to increase, not decrease, the fiscal stance.

## SESSION 2

### Regulatory Issues in the Financial Structure

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#### The Unsupportable Debt Levels of Lenders and Their Customers

The following discussion is about debt in relation to the most important aspect of financial structure: the role it plays in the transmission belt for monetary policy. The belt has stretched considerably and changed a good deal in the last two decades.

A symposium at the Kansas City Reserve Bank in 1993 dealt with such issues as the shift of saving to institutional investors, the end of the special role of banks, and securitization. An interpretation of Chairman Greenspan's comments about the impact of these issues to 1993 is that central banks had abandoned monetary tools that involved quantitative restrictions. Interest rate ceilings, limits on credit growth, liquidity reserve requirements, and capital controls were either eliminated by many central banks or were in the process of being eliminated. The Federal Reserve was left without a direct influence on the supply of credit and increasingly had to rely on influencing the demand for credit by enforcing a given short-term target rate. This abandonment was part of the intellectual trends of the time—the pursuit of liberalization and the belief that quantitative restrictions came under the rubric of government interference in the markets.

There has been a dramatic decline in bank reserve balances at the Fed as a result of the shift to vault cash, some of which has been associated with the expansion of ATMs. There has also been an increased use of sweep accounts, permitted by the Federal Reserve in sympathy with banks' complaints that the cost of non-interest-bearing reserve balances affects their ability to compete for funding.

Beginning in 1994 there was a policy shift toward announcements of rates. In many cases, the Federal Reserve no longer bothers to back up its announcements with explicit open market operations. It depends on the market to believe that it can enforce this rate and, therefore, the market is in the position of scrambling to make sure the rate comes true. Even though banks are no longer the dominant channel for saving and credit creation, the shrinkage in bank reserves has eroded the Federal Reserve's ability to influence interest rates. Of note is the fact that the Federal Reserve is increasingly relying on overnight repurchase agreements (repos) rather than outright purchases to implement policy: 58 percent of its transactions from 1998 to 2000 were overnight repos, up from 26.5 percent in the period 1994 to 1998, and 10 percent in the previous period. There has been an increased role for repos as pseudo-deposits by banks (banks do not seek funding through deposits and the Federal Reserve responds where the action is). The shrinkage in Treasury debt issues has forced the use of longer-term securities as collateral for repos. At the moment, there is a difference in the market and in the operating procedures pertaining to the overnight maturity of the Federal Reserve's potential repos. Most importantly, the Federal Reserve recently announced that it is considering expanding the collateral used in repos to include mortgage-backed securities guaranteed by government-sponsored enterprises (GSE) as well as their own GSE issues, and certain state and foreign government debt issues. The debt issue is the place where there is evidence of the erosion of the Federal Reserve's ability to control the expansion of credit. This is an important role for monetary policy, in addition to price stability and levels of employment.

Credit expansion is central to the issue of the macroeconomy. To allow a debt bubble of the magnitude that has occurred in the United States is a failure of policy. Borrowing by all U.S. sectors, including the financial sector, doubled in the 1980s and then doubled again in the 1990s. The borrowing compo-

nents differed between the two decades. In the 1980s it was spread somewhat evenly across all sectors, including the federal government. In the 1990s it was spread among households, businesses, and the financial sector. As the economy slows, debt tends to grow more rapidly. Household debt as a percentage of disposable income was 101 percent at the end of 2000, up from 87 percent at the beginning of the year. Thus, the debt burden for the household sector is in uncharted territory.

Recognizing that it is difficult to measure some things in relation to saving and pension funds, nevertheless, the gap between financial borrowing by households and financial investment in 2000 was negative \$275 billion. Equally important is current business debt. Total debt rose 75 percent for all businesses in the 1990s, but 88 percent for corporations. The increase in corporate debt was a particular factor in the expansion and valuation of the stock market because of the negative net issuance during the decade. There were many IPOs and foreign issues but repurchases were much greater. Negative net issuance was minus \$153 billion in 2000 after peaking in 1998 at minus \$267 billion. From 1994 to 2000 there was a negative net issuance every year, despite the high issue of IPOs. The option issue was not only in high-technology companies but also in more blue-chip companies. The business sector was trying to deflect hostile takeovers by retiring stock and creating pools in order to offer and keep their options in the money so that they could be exercised. They met their objectives but the decline in the supply of stocks raised their value. The result was that they had to substitute debt for equity. They had to borrow money in the corporate bond market, which was attractive to foreign investors and open to typical corporate companies rather than high-technology companies. This result shows up, especially, in the analytical measures developed in the past two years.

For the corporate sector, debt as a percentage of net worth rose from 51 percent in 1998 to 56 percent in 2000, while debt as a percentage of market value of

outstanding equities jumped from 33 to 38 percent. Debt as a percentage of tangible assets rose from 40 percent at the beginning of the 1990s to 46 percent in 1998 and 50 percent in 2000. This result means that there is less productive capacity relative to the debt burdens of corporations than in the past, and it suggests a cautionary tale for the future of the economy.

The most extraordinary happening in the 1990s was the rise in debt of the financial sector itself. It rose \$5.8 trillion, or 222 percent, outstripping every other sector. The ratio of financial sector debt to non-federal, nonfinancial debt jumped from 31 percent in 1990 to 56 percent in 2000. By the end of the decade, financial institutions were borrowing more than were their customers.

The major story is securitization—the rise in the debt of government-sponsored enterprises. Their debt was up 200 percent, or \$2.9 trillion for the decade, \$400 billion more than the \$2.5 trillion increase in home mortgage debt. The mortgage instrument was being used for consumption and had become the premier instrument in the market as a result of the GSE position. It is an allocated instrument, and the most pervasive and effective form of allocation in the U.S. economy. Using the GSEs to model credit allocation works every time. The problem is that too much money is being put into the housing market for new housing construction and consumption.

Asset-based securities issuers for such things as car loans and consumer receivables were also heavy net borrowers in the 1990s. Their debt rose by \$1.5 trillion, or 542 percent (beginning from a very small base). Other, more traditional sectors such as banks, insurance companies, and securities dealers also posted substantial increases in borrowing.

Proprietary trading, position-taking, and derivatives all require borrowing, and they have been expanding rapidly. Banks rely increasingly on repurchase agreements for funding. Their repos were up \$342 billion for the decade, or 221 percent. Overall, the scale of leverage in this economy is unprece-

ented for three sectors—households, businesses (corporations, in particular), and financial.

The foreign sector has not been a major borrower in U.S. markets. Foreign borrowing denominated in dollars takes place offshore. The real role of the foreign sector is to be a large net supplier of credit to U.S. borrowers. On average, net foreign inflow supplied 10 to 15 percent of total annual credit flows in the 1990s, making up for any decline in personal saving. The results are considerable for the financial markets. At year-end 2000, the foreign sector owned 36 percent of outstanding Treasury securities, 12 percent of agency GSE issues, 20 percent of all corporate bonds, and about 8 percent of corporate equities. The U.S. is a net debtor that, by year-end 1999, owed 16 percent of GDP. This makes the U.S. economy vulnerable.

There are many reasons why a run on the dollar might not occur. If the U.S. goes into a recession, however, there will be a decline in the amount of foreign inflows. Potentially, some countries would be unable to earn dollars to repay debts, and there would be a considerable withdrawal of holdings of U.S. financial assets.

During the 1990s there was a flip-flop in the reserve holdings of countries. Industrial country reserves as a percentage of GDP declined. For emerging market developing countries, reserves increased substantially. The current global financial system involves countries making forced loans to the United States in the form of reserves, and losing the value of the money they invest there. This serves to produce an expansion of credit in the United States; therefore, the system should be changed.

There also needs to be a shift in the way that the Federal Reserve transmits policy, taking into account the change in the financial system. One proposal is to shift to an asset-based reserve requirement system. This proposal was used in the United States during the voluntary credit control program as a supplemental reserve on banks in terms of increases in foreign lending (the asset was the increase in foreign lending

while the reserve was a supplementary reserve on the liability side). Papers on the subject have been written by Robert Pollin and Tom Palley and published by the Financial Market Center ([www.fmcenter.org](http://www.fmcenter.org)).

What this economy and its financial system need is a system that includes all financial sectors under the quantitative influence of the Federal Reserve. It has to be an asset-based system because only banks are in a position to create liabilities in connection with additions to their assets in the form of reserves. In so doing, the balance sheets of both the financial system and the Federal Reserve itself have to change. Reserves should be put on the liability side for the financial sector and the asset side for the Federal Reserve so that reserves constitute the complete assets of the Federal Reserve system. On the liability side, include the liabilities that would incur to the financial sector as the implemented policy through repurchase agreements. There would then be an explicit understanding that for the financial sector, reserves are liabilities to the central bank and the role of the central bank is reflected on its balance sheet, as its assets are the reserves. Implications of this are that if reserves are treated as the assets of mutual funds and the Federal Reserve adds reserves to the system, then this changes the price of financial assets. Since it is done already and with the interest rate as it is, this is a good thing.

There has to be variability in the reserve system to encompass the fact that insurance companies are different from banks. Banks are unique in that they create liabilities when they add to assets, while other sectors, such as pension funds and mutual funds, must wait for customers to bring in the liabilities. Nevertheless, this is a more efficient system that gives the Federal Reserve the direct quantitative control that would prevent the kind of expansion in credit seen over the past two decades when credit spiraled out of the influence of the Federal Reserve and became incredibly burdensome to this economy. The slowdown is occurring with this leveraged system and is creating a precarious future for the U.S. econ-

omy. Therefore, the connection between financial structure and the implementation of policy should be taken very seriously and should spark renewed interest and work by many people in this area.

GILLIAN G. H. GARCIA

### Domestic and International Deposit Insurance and Financial Stability

If the economy worsens, deposit insurance will play a larger role. Research at the World Bank and the International Monetary Fund (IMF) shows that countries that have a system of explicit deposit protection in place are more likely to experience a financial crisis. This result is counterintuitive and there is some criticism of the regression analyses that are the bases for this conclusion. If deposit insurance is done well, it can help lessen the impact of a recession, but done badly can make matters worse. An alternative conclusion from the regression analyses is that most countries have poorly designed deposit insurance systems that have contributed to their ills.

There are about 70 deposit insurance systems around the world. Deposit insurance design is important and a number of efforts have been made to improve these systems. Such efforts started at the IMF in terms of a series of best practices a few years ago, partly as a result of the Asian crisis when the G-7 countries created a Financial Stability Forum (FSF) and a working group on deposit insurance. This working group, headed by the Canada Deposit Insurance Corporation, is researching deposit insurance and advising countries how to start or revise their systems. The group focuses heavily on individual aspects and striking a balance (in contrast to the IMF, which applies certain basic principles to all countries). Countries can choose individual features without prejudice to the success of their objectives, or choose broad or narrow mandates. However, some

things are germane to all systems and should be compulsory. Others should absolutely be avoided, such as very high coverage, poor data, and weak banking situations.

Among the IMF best practices recommendations, the FSF found the two most popular objectives to be promotion of financial stability and protection of consumers. Some other objectives amongst a wide variety were to protect the payment system and to help borrowers.

Although deposit insurance serves as an automatic stabilizer, the U.S. system design is exactly counter to this element. The Federal Deposit Insurance Corporation (FDIC) has proposed the following reforms, recognizing that the U.S. system design lacks this element as well as others:

- Combine the bank insurance fund (BIF) for the savings banks and the savings association insurance fund (SAIF) for the loans associations.
- Eliminate restrictions on risk-based pricing (92 percent of U.S. institutions currently pay nothing for deposit insurance in spite of incurring some risk).
- Remove the automatic stabilizer deficiency: if deposit insurance funds fall below 2.5 percent of insured deposits, they must be restored to that level, preferably within one year (banks pay nothing for insurance during the best times and would be hit with a very large bill during bad times).
- Change the law regarding the current assessment base on which the FDIC pays rebates when the fund gets large (800 startup banks in the past five years do not pay deposit insurance but would nevertheless get a rebate).
- Index coverage to inflation.

Half of the systems in different parts of the world have a very limited mandate such as paying out only to insured deposits and depositors. The FDIC has a broad mandate, including resolving failed banks by managing their portfolios and minimizing risks. However, a system with a broad man-

date run by bankers to resolve failed banks and manage the system incurs a conflict of interest—the supervisor getting data from other banks run by other bankers. Nevertheless, there are 23 privately run systems in the world with this conflict. One can have private funding and be privately or publicly run, but there is a problem with giving public money to privately run institutions.

A system of deposit insurance should benefit the small depositor by making the system more stable and avoiding the bugbears of deposit insurance, particularly moral hazard (an insured institution takes less care than an uninsured one). To avoid moral hazard, it is best to explicitly define the system and make the public aware of it. Other bugbears include adverse selection (when bad clients join and good clients don't), regulatory capture (those in charge of the system are captured by the industry, such as the case of the Federal Home Loan Bank promoting the housing industry and getting in league with the U.S. savings and loan industry in the 1980s), and inter-agency conflicts (the lender of last resort lending to failing banks and increasing the cost to the insurance fund). Other recommendations include prompt corrective action to avoid or forestall failures and reduce the cost, low coverage (high coverage means there is nobody monitoring the bank's condition except the regulators), and offsetting loans of borrowers who are in default.

Deposit insurance is a growth industry since a large number of countries are in the process of introducing it. A 1995 study by Alexander Kyei at the IMF found far more implicit than explicit systems. Today there are 183 IMF members of which 73 have explicit systems.

Ideally, an insurance system should cover as large a percentage of the number of deposits as possible while having a low percentage on the value of coverage. Many country systems cover about 90 percent of depositors (most of whose balances are small) and a much smaller percentage of the value of deposits. About 20 percent of the value of deposits





should be covered. An IMF rule of thumb is that coverage should be about twice per capita GDP. Middle Eastern countries tend to have the highest coverage (3.5 times on average). The Americas and Latin American countries also have a high level of coverage. Although Africa does not have many systems, coverage is still above twice per capita GDP. Asia has average coverage while European coverage tends to be below twice per capita GDP. The country with the highest percentage in the world is Oman and the lowest is Ukraine.

The United States is considering raising its indexing coverage, which is already more than three times per capita GDP. However, there is no need to increase it since it is meant for small depositors rather than large companies who can evaluate the risks and take care of their own financial systems. While the United States covers deposits of all kinds, many countries such as those in the European Union have exclusions such as government and business deposits. There are more limitations today than in 1995, possibly because it is easier to track deposits as a result of computers or there is a conviction not to insure certain deposits. Popular exclusions include interbank deposits (50 out of 70 systems), foreign

currency deposits (25 systems), government deposits (30 systems), insider deposits (about 29 systems), and illegal deposits. Countries have a right to make their own choices.

Two legal traditions pertain to offsetting: the Napoleonic Code (which tends not to offset) and the Anglo-American legal system (which tends to offset). Advice concerning a country's system depends very much on its legal tradition, which is going to influence the type of deposit insurance and its approach to offsetting. A good recommendation is not to insure depositors who have already defaulted on their loans or they can game the system rather easily.

To avoid adverse selection, membership should be compulsory, with risk-adjusted premiums. Today, a much higher percentage of systems are compulsory compared to 1995. Risk-based premiums have also grown from only the U.S. system in 1995 to about a third of the systems today. The FDIC is proposing to amend the law and charge some banks who do not pay any insurance because the fund is fully funded, since they pose some risk. This proposal should be supported.

To contain agency problems like those during the savings and loan crisis and in the early 1990s when there was banking weakness, it is recommended that there be an independent but accountable deposit insurance agency like the FDIC rather than the less independent (and now, nonexistent) Home Loan Bank. It is fine to have bankers on an advisory board, but they should not be in charge since they would make premiums as low as possible and then ask the government to bail them out when they got into trouble. Close relations with the supervisor and with the lender of last resort is also recommended. Contrary to the United States, many international boards of directors of independent deposit insurance systems have the central bank on their boards.

Almost half of the agency structures in the world are independent organizations. It is expensive for a very small country to have an independent

agency. It may be more cost-effective to have the agency in a relatively separate, independent department of an existing organization. Many agencies belong to the central bank, while the rest are split between the ministry of finance and the supervisor. Treasury should not run the deposit insurance system. FDIC's proposal to merge BIF and SAIF is probably a good idea. It would diversify the risks in a larger fund. It could also improve efficiency, increase fairness, and, one hopes, make political interference less likely. It could also reduce agency conflicts between these two insurance funds.

It is recommended to make the deposit insurance system financially secure. Many systems like the FDIC have an actual fund but a lot are funded ex post (United Kingdom), where the surviving banks pay the depositors. As a result, there should be adequate funds and the ability to pay out quickly. If one has to levy the banks, the money must come from the government or from borrowing in the marketplace, perhaps with a government guarantee. For practical reasons, there has been a trend toward actual funds as opposed to ex post funding.

Invest your money wisely. Some countries make the mistake of depositing money in their weakest banks because they think it will help these banks. However, this action will lose money. Good information and good public disclosure are needed.

The IMF's working group on deposit insurance is helping to improve the systems of deposit insurance. If it succeeds, deposit insurance can help consumer confidence, help to avoid a recession, or help the economy recover more quickly from an economic downturn.

## SESSION 3

### The Changing Role of Monetary Policy

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#### The New Economy and the Challenges for Monetary Policy

Central bankers' objectives are some combination of stabilizing prices in the long run and stabilizing growth in the short run. Fiscal policy should focus on issues associated with the composition of output, not on short-term stabilization policy. Tax and expenditure policy helps determine how GDP is divided between consumption investment and the government's own use of resources. Although it can seriously impact long-term sustainable growth rates, activist fiscal policy is not a useful tool for short-term stabilization.

The challenges faced by central banks are to forecast inflation, which requires an estimate of potential GDP or the sustainable growth rate, and to estimate the impact of interest rate changes, which requires knowledge of a constantly changing transmission mechanism. A related issue is that, while history is constantly changing, the Consumer Price Index (CPI) is never revised (although its methods of measurement are), so that CPI numbers also are not comparable. GDP numbers are also a big problem. In 1998 GDP was revised back to 1959 and almost completely eliminated the 1990–91 recession (on an annual basis). Another important consideration is the big difference between private sector forecasters trying to predict data releases and central bankers who want to know the truth. Therefore, to judge central bankers' actions is to look at the best estimates of the truth some time later.

The most dramatic performance during the past few years was that of U.S. real nonfarm business

output, which increased at an annual rate by over 2 percent more during the second half of the 1990s than the first half. This higher average growth rate is huge and was not thought to be possible in 1995. The productivity growth rate accounts for a significant part. There has been a debate concerning the sources of increased growth, with some claiming it was entirely from the production of information technology equipment. The information technology sector itself appears to be responsible for a significant part of the increased growth, which can be divided approximately into thirds between capital, labor and the unexplained. The unexplained category is believed to be improved efficiency from the installation of information technology equipment in production processes. Many examples of the uses of technology suggest that the unexplained category is efficiency-based. A concern is that much of the increase in growth in the second half of the 1990s can be ascribed to the growth in real information technology hardware investment (at an average

annual rate of almost 50 percent per year) and huge price declines in computer hardware. Are the price indices for computers reasonably estimated or not? Clearly, the Bureau of Economic Analysis and the Bureau of Labor Statistics think that computers are much cheaper and have added a significant amount to the growth rate. However, a collapse of business fixed investment is now occurring. If there is going to be a pickup, it has to come from business fixed investment and in particular, information technology hardware.

The inflation experience is the second part of the new economy. It dropped steadily throughout the 1980s and 1990s. According to the Research Series, which is methodologically consistent over the entire period and somewhat different from the official data, inflation indices ticked up in 1998 (as a result of energy, housing, and medical care) when no one thought there was any inflation. Monetary policy from the Federal Reserve during this period recognized an increase in the productivity growth trend



before most people in the private sector. There were also special factors, such as the decline in oil prices and medical care costs during the late 1990s. In terms of making adjustments, asset price movements themselves do not belong in measures of inflation, which are the objectives of policymakers and therefore should not be a concern of central bankers.

In terms of the challenges faced by central bankers, day-to-day policy requires information forecasts, knowledge of the productivity trend, an estimate of the impact that their instrument has on their objective, and hard numbers. Unfortunately, there is tremendous uncertainty in the relationship between interest rate movements and the path of future inflation. The biggest problem for policymakers is to differentiate transitory and permanent shifts in productivity growth trends. Much of the debate in the latter half of the 1990s was whether shifts were permanent or transitory and if the 2 percent increase in labor productivity was cyclical.

When growth rates shift, historical patterns are often a poor guide to the future. Permanent versus transitory shifts require very different policy responses. Attempts to deal with transitory shifts mean allowing inflation to move away from its target and stabilizing growth, while dealing with permanent shifts means stabilizing inflation and letting output move to its new level. There was a realization in the 1990s that the shift was permanent, as opposed to the belief in the 1970s that it was transitory. Nevertheless, during the 1990s, forecasts of growth were consistently too low and forecasts of inflation were consistently too high.

In the medium term, the problem for central bankers is to differentiate transitory from permanent shifts in productivity. The long-term issue is whether central bankers can maintain control of the level of their own liabilities. Can policy easing turn investment around without driving up inflation? The problem is that investment is much less reliant on traditional financing sources such as banks (where leverage has typically come from).

JAMES K. GALBRAITH

### Put Your Chips on 35, or Future History: The Humphrey-Hawkins Process and the Deeper Thought of Alan Greenspan

The procedures that followed the enactment of House Concurrent Resolution 133 and the Humphrey-Hawkins Full Employment and Balanced Growth Act set up a quantitative framework for regular reporting by the Federal Reserve to Congress. This framework, with its monetary targets (specified in detail as a result of discussions between the banking committee staffs and the Federal Reserve), enabled a comparison of forecasts with actual results on a consistent basis over time. The Humphrey-Hawkins requirements coincided with the rise of monetarism as a doctrine amongst economists, but its reporting procedures outlived the demise of monetarism in the early 1980s. These procedures evolved into a forum for largely nonquantitative and even philosophical dialogue between the Federal Reserve, Congress, other forums, and the public.

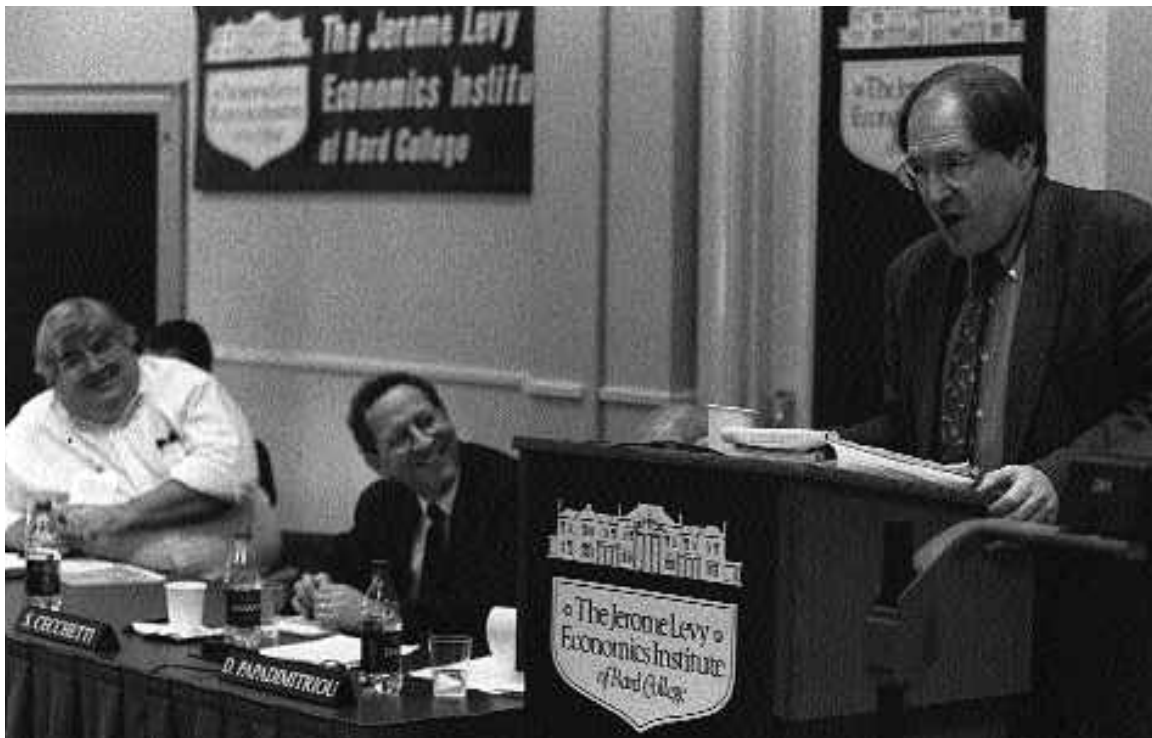
The philosophy by which we are being governed is outlined in the speeches of Alan Greenspan in the latter 1990s. The continuing theme has been the fear of inflation and the Federal Reserve's responsibility to avoid it. The counterrevolution in mainstream economic theory of the late 1960s and early 1970s was a defining event for the Federal Reserve because it created a fear of inflation following a period of confidence in the American economic and financial structure in the 1950s and early 1960s. The monetarist view makes the Federal Reserve responsible for any inflation that might occur. The mandate and responsibility of the Federal Reserve gave it no way to achieve this except by running the economy with a huge margin of excess capacity. This led to the enduring appeal of the nonaccelerating inflation rate of unemployment (NAIRU) doctrine following the demise of monetarism. Although the scheme to leave 10 percent of the workforce out of employ-

ment in order to keep things from blowing apart was derided by Keynes in 1929, it provided the central bank with an instrument to justify the margin of safety. The difficulty with the NAIRU construct was the lack of an actual number and Greenspan did not seem to be very strongly committed on that point. He was willing to test the limits on how low the unemployment rate could go without producing accelerating inflation in spite of holding the belief that eventually such limits might be reached.

The original medium-term targets of the Humphrey-Hawkins Act are 4 percent unemployment and less than 3 percent inflation. Greenspan is the only Federal Reserve chairman to claim credit for meeting the targets of the act, albeit about 20 years after they were written into law. A reasonably bold conclusion is that the monetarists and the accelerationists of the late 1960s and early 1970s were profoundly wrong, having generalized falsely from particular historical experience. The alternative tradition represented by the leftward flank of Keynesian tradition (Bob Eisner and Leon Keyserling) was

perhaps correct. The conviction that America's economic and financial structure would indefinitely and effectively contain any inflationary forces was perhaps not so far off the mark.

Rather than drawing this conclusion, however, Greenspan retreated to a series of indefinite and nebulous inflationary warnings. If full employment wasn't going to produce inflation, something else would. Some of these warnings, however, bordered on the bizarre—for example, that an inflationary threat occurs when productivity increases create even greater increases in aggregate demand than in potential aggregate supply due to expectations of long-term corporate earnings (when we know that this phenomenon is driven mainly by price declines). And in a stretch of economic logic, the act of buying corporate equities becomes a form of excessive consumption rather than a way of disposing of one's savings. Greenspan subsequently replaced the specter of excessive productivity growth with the specter of a reluctant foreign creditor. However, it is not clear how the provider of



what is essentially a forced loan can voluntarily withdraw that credit.

Since inflation never materializes, Greenspan covers this fact with his now famous position on the new economy, and notes the veritable shifts in the tectonic pace of technology (although it could be a bubble). This leads to the idea that perhaps the law of supply and demand has been repealed. The debacle of the conversation about the new economy has stretched Greenspan's illusion of the functionality of his own position. A deeper problem that has emerged is the core belief that the markets are the best judges of capital allocation (the cornerstone of Greenspan's philosophy).

The philosophical fork in the road is that either the new economy productivity miracle was true, or it was a speculative bubble fueled by the Federal Reserve's own deployment of the new economy to excuse the misfiring of its inflation prediction. If the former, then capital markets are to be trusted and never to be interfered with (such as raising margins in the face of an unsustainable increase in asset prices fueled by borrowing from brokers). If the latter, then the philosophy expressed in high places can have pernicious effects on the behavior of private capital investors. There is, then, the need to thoroughly clean out the cumulative inventory of economic theory, including monetarism, the NAIRU, and the new paradigm that brought us to this position.

Another conclusion is that the old objectivism is actually wrong about capital markets, and it should not hold the privileged position in our governing philosophy as the best allocator of scarce capital resources. We might have done better by putting our resources into areas of actual scarcity, including schools, transportation, environmental protection, and cultural amenities, rather than to the extent that we did toward fiber optic cables and Internet routers. A true rethinking of our system of thought in this area is long overdue.

BRUCE GREENWALD

### The Increasing Ineffectiveness of Monetary Policy: Theoretical and Empirical Observations

It is a myth that financial markets guide investment, since 90 percent of investment funds are institutionally guided, either through banking systems or through companies reinvesting in their own or related organizations. Only a small fraction of the enormous flow of capital has actually been diverted to Internet stocks. Since 1982, the years have been good to the U.S. economy and to Chairman Greenspan, but not at all kind to the rest of the world and, in particular, central bankers. Japan has managed to have a continuing recession for over 10 years when one would expect its central bankers to have emulated the successful model of behavior of Greenspan. In Europe, there has been 10 percent plus unemployment for the whole period and their drive for a common currency, which was supposed to become a reserve currency, has resulted in the euro falling by a quarter to a third in value. The European Central Bank has no solution to this central concern of European monetary policy. Canada has also had an extraordinarily difficult time, as have Australia, New Zealand, and most emerging economies.

The picture, with few exceptions, is of uniform failure rather than success, and this should induce thought and confusion. Several of the cherished views of monetary policy have never been consistent with available data. Monetary policy affects short-term interest rates but it has had no consistent effect on real long-term interest rates. By taking the average corporate bond rate and subtracting the lagging rate of inflation, real interest rates in the period 1990 to 1998 were flat. On the other hand, there was large movement in short-term interest rates, from 5.7 percent in 1991 to 3.0 percent, followed by a sharp rise in rates.

People have been unable to detect any impact of interest rates on investment after years of analyzing

macroeconomic and microeconomic data. Nevertheless, it is a critical underpinning of monetary policy. On the other hand, there seems to be a reliable connection between monetary policy and real economic activity despite the fact that there is no relationship between the deficits in the United States (or anywhere overseas) and real economic activity. A very confusing historical empirical picture underlies a huge range of performance in actual central banking. What problems have there been for other central bankers, but not Greenspan, in the last 10 years?

The most fundamental theory, an element of any macroeconomic system, says that the additions not generated by production-related income for the demand stream must counterbalance leakages out of consumption (the production-generated income stream that does not return to consumption). Therefore, net corporate investment (investment minus saving by businesses) has to make up for any government surplus, the foreign international surplus (which equals the U.S. deficit), and household saving, which altogether have to be in balance for the economy to be in balance.

The standard Keynesian story of adjustment is that if leakages are bigger than additions, investment accumulates in the form of inventories, which sets off the business cycle. If there is an imbalance, the first view is to lower interest rates and raise net investment by businesses. However, net investment by businesses is surprisingly stable and tends to be a lagging rather than a leading variable, so there is no quick response here. Where will the stimulation come from?

The government surplus is a matter of fiscal policy that is not on the table. Nor is the international surplus because the U.S. government (international) deficit must equal the sum of the surpluses of the other countries. Certain countries in the international system are committed, for historical reasons, to running surpluses. This situation has worsened with the addition of an essentially mercantilist and

dynamic Chinese economy. There used to be European deficits, but their willingness to allow the euro to fall suggests that they are not going to eat the two large surpluses from Japan and China. When the United States was unwilling to eat those surpluses, other countries such as Korea, Thailand, and Indonesia began to run deficits on current accounts. Nervous investors pulled out, exchange rates collapsed, and their deficit problems were fixed. But then the deficit problem was transferred to Argentina, Brazil, and Russia, and their economies collapsed. The deficit cannot go away unless somebody eats it. Such a failure contributed to the depression of the 1930s as countries deflated economies and devalued currencies in an attempt to pass around the deficit. There is no flexibility on the surplus side, and the United States is best at eating the surplus since it is least damaging here. One cannot get away from this situation unless there is systematic international reform to rein in the surplus countries or spread the surplus around. However, such reform is not on anybody's policy agenda. Therefore, the only thing to balance this situation is household saving.

How did monetary policy affect a transfer in the past, forcing households to save and transferring funds to businesses in a form that stimulated business investment? When there were tight financial controls on deposit interest rates, there were two effects. The first was a wealth effect. The federal government printed money; the banking system created deposits that paid, by law, zero interest; and the banking system was entitled to impose a tax on households equal to the increase in the value of deposits. It was a powerful, immediate, and entirely discretionary transfer of wealth from households directly to bank equity (not bank wealth) because the money could not be dissipated. This was a powerful wealth transfer that served to destabilize the economy. With one exception, the seven recessions in the postwar United States all followed a well-established event—inflation accelerates, the Federal Reserve lowers the level of expropriation that banks



can impose on households, thereby transferring funds to the household sector—and this sequence results in a recession. However, if the zero rate of interest on deposits goes away, that mechanism disappears, leaving short-term interest rate mechanisms. The consequences of financial deregulation have been the elimination of this powerful noninterest rate channel of monetary policy. What is left is a feeble, uncertain path of interest rates and increasing monetary ineffectiveness around the world.

Greenspan's success was a result of luck in three dimensions. One, the rest of the world was in trouble. As opposed to the inflationary crisis in the 1970s, the Europeans were the first to lower their rates of inflation faster and farther than the United States so that price competition and related mechanisms from abroad restrained prices there (a good inflation record predates a rise in the productivity growth rate). From day one, people have been surprised by the inflation performance relative to unemployment. Two, the failure of the Clinton health plan preserved forces that had a big impact on the health care sector, which resulted in a deteriorating health care inflation rate. These two dimensions helped Greenspan on prices. What helped him on the other side was that once surpluses appeared, they were huge. The only way to balance things in terms of international stability was zero saving by households. The reason Americans stopped saving was because of the extraordinary gains in the stock market. However, at some point, saving will turn positive and the adjustment, unless there is systematic international reform, will be a depletion of the government surplus. A lot of tax plans and government saving plans achieve the same objective but, in order to get out of this surplus position when Americans try to save, it is inevitable that there is going to be a recession.

JAN A. KREGEL

### Rediscovering the Discount Window: Minskian Monetary Policy in a Debt-Free Society

In January, Chairman Greenspan pointed out to Congress that if the government continued to run surpluses beyond the point of redeeming outstanding government debt, it would eventually have to invest in private sector assets. This is interesting and paradoxical because it suggests that the effort to get the U.S. government out of the private sector of the economy over the last 10 to 15 years will have the unintended consequence of getting it back in, in a very big way. Greenspan's statement emphasized the impact that government ownership of private sector assets might have on efficiency, allocation, and pricing of these assets. Another concern is related to monetary policy respecting acceptable substitutes for the market if the supply of outstanding Treasury securities shrinks.

Hy Minsky's natural response would have been that it really doesn't make any difference if there are no more Treasury securities because we can't do open market policy anyway. He was very much in favor of reinforcing the use of the discount window as the preferred means of monetary policy. Greenspan, in his February statement, added that the Federal Open Market Committee (FOMC) had decided to study further the longer-term issue of whether it would be ultimately necessary to expand the use of a discount window or to request Congress to broaden its statutory authority to acquire assets via open market operations. How would Minsky approach this issue and what changes in monetary policy should be discussed in the current environment? The presumption is that surpluses will continue and that it will be possible to redeem the redeemable parts of outstanding Treasury issues. Although I and a large number of people do not believe in this premise in the short term, it is useful to discuss what alternatives might be available in terms of changes in monetary policy.

The financial instability hypothesis deals with the endogenous process by which financial instability is created as an economy grows (through the effect of expanding private expenditures) and creates reduced cushions of risk and increasing instability. It is a normal evolution of the system that it becomes financially more unstable. Minsky's explanation is that as the system expands, injections that have to come from spending must be financed outside the internal earnings of the investment units; to finance that increasing expenditure, the units have to become indebted. Because households tend to be more risk-averse than business firms, there tends to be an increase in debt relative to equity as the expansion goes on, and the ability of holders of debt to be protected depends on the amount of equity. Once debt exceeds equity, debtors will be hit, so that their coverage is not total. Therefore, as the system expands, debt to equity expands and eventually the protection that households believe they have, in fact, is reduced. The system becomes more unstable.

Minsky suggested that the alternative was that the financial system would attempt to continue to match this increasing mismatch between the need for households to protect assets and the need for firms to finance the expansion. Financial innovation would make it less easy for the central bank to operate monetary policy, and the ability of the central bank to use monetary policy to control the system would decline as the potential instability of the system increased. Therefore, the central bank should attempt to reduce the mismatch between the risk preferences of households and the needs of firms for financing by putting a floor under asset prices. That is, monetary policy should stabilize asset prices rather than control the economy.

Minsky's two fundamental principles were that the ability of the economy to avoid sharp corrections or recessions was due to big government providing automatic stabilizers (short-term instruments that provide a floor under incomes for households to meet their indebtedness) and that the central bank,

as lender of last resort and by stabilizing asset prices, should do the same for the potential instability of the system. If there are no more Treasury securities, then there is no guarantee that the money supply can expand, and if there is no more backing for the currency issue, then there is no currency.

A study in the 1950s by Minsky for the Federal Reserve on reassessing the role of the discount system recommended that the use of the discount window be expanded, and said that it was necessary to provide discount window relief to savings and loan institutions because there was a very large potential mismatch between their assets and liabilities. He also recommended, prior to the credit crunch of the 1960s, that these institutions be given access to the discount window in order to meet their liquidity needs. However, there is no need to be concerned with this because if Treasury securities disappeared, an entire sector of Wall Street would also disappear because we would no longer need government securities brokers. Minsky's basic message is that it is possible to replace open market operations with the use of a discount window, and that this would be preferable in countering the loss of control that the Federal Reserve would normally have in a state of expansion.

Minsky recommends that currency creation be given to the commercial banking system, which would eliminate the source of instability, such as shifts between currencies, and the liability of the Federal Reserve system and private banks. This is a solution to Greenspan's problem. Commercial banks would issue notes and deposits against the backing of private sector assets. This also eliminates the problem of the federal government becoming the owner of private sector assets since the assets stay on the balance sheet of private sector institutions and commercial banks. This system looks like the pre-1914 (pre-Federal Reserve) system whereby commercial banks issued currency or deposits according to the public's choice and continued to finance commercial and industrial loans (the real bills doctrine). This system eliminates the problems raised by Greenspan

whereby the allocation of financial resources would take place through private institutions (not the market) and the problem of asset ownership would be in terms of commercial banks.

Reserve requirements are effectively commercial banks acquiring Federal Reserve liabilities and pledging those liabilities against demand deposits at the Federal Reserve. However, there are no liabilities in the form of currency, so another way of doing this is called “central bank money,” in which the central bank can create a notional deposit that represents a reserve. In order to solve the problem of runs across banks, the Federal Reserve might be willing to buy the currencies of the individual banks or hold them as reserve deposits, or the banks could issue bank acceptances that would be held as reserves. The discounting procedure would then have to go directly with the reserve requirements. The Federal Reserve could then discount either investment assets or parts of the loan book of the commercial banking system against changes in its holding of commercial bank issues of currency.

Changes in the system include, first of all, that the FOMC has much less importance. The district banks, by operating the discounting mechanism, would have more power. Minsky believed that it was important to have close relationships between local banks and the people regulating them. Secondly, the federal funds rate would become much less important as the discount rate once again took on its previous importance. Therefore, it is conceivable to have a system that would provide support for asset prices without requiring outstanding Treasury securities and the government issue of currency. This system, where bank acceptances are held by the Federal Reserve as part of reserve deposits, is basically the same as Jane D’Arista’s alternative system where reserves are shifted from the asset side to the liability side.

Minsky was in favor of extending discounting to particular savings and loan institutions and government bond dealers. In this case, the discount

window would have to be open to virtually all financial institutions, such as money market funds. Think about the possibility of monetary policy in a debt-free society, and a system in which commercial banks take over the currency issue functions while the central bank takes over the function of stabilizing asset prices.

MARTIN MAYER

### The Systemic Implications of Non-Bank Financing

The great majority (30–60 percent) of the Federal Reserve’s interventions after World War I were at the discount window, conducted to meet banks’ need for reserves. According to an early Levy study by Bernard Shull, the discount window is dead because it cannot survive in the age of information technology (transparency). If word gets around that you are borrowing from the government, it means that you cannot borrow from the private sector, so no one will lend you money anymore.

Most of today’s money supply (90 percent) is in the form of checkable bank deposits; only about 10 percent is currency. The problem is that central banks are a source of moral hazard, and they must assure the world that assets in the banks are sufficient to cover liabilities. If assets are not sufficient, banks will lie or buy the assets for more than their market value (or set up institutions to do this, such as savings and loans). The central bank’s major function is to make sure people believe in the banking system; to prevent a conflict of interest, nearly every country has moved the supervision of banks away from the central bank. The United States is alone in having gone in the other direction.

Although capital demand is well down from last year, and the year before when everybody was scrambling to meet the scenarios of Y2K, it is still

above what it was before that. The 4 to 6 percent annual growth figure cannot continue, but it is not clear that there will be an absolute drop in capital demand. We are still in the early stages of the behavioral revolution that grows from the coupling of very cheap telecommunications with constantly expanding information technology. One of the best explanations of our current problem is that marketing convinced the world that they had to have new products, like new computers to run new Microsoft products, which created demand. But demand for computer hardware fell off and everything else followed from that. However, there will be new products that will cut costs and enhance opportunity. We are in a period of Schumpeterian innovation when the demand for capital goods will take care of itself and investment will sustain growth.

Mere provision of liquidity does not take care of real problems. This country has a Rubik's Cube of imbalances, which together balance each other. Except for the Levy Institute, most discussions of our problems ignore this intricate balance and the damage that could result from a strong change in any part of it. The years ahead may test a fundamental tenet of the Levy view, which is the role of profits in the creation of employment. We are not going to see anything like the kinds of earnings or profits that were projected during the boom when unemployment disappeared; therefore, the reduction in profits may mean fewer jobs. There is not much that the Federal Reserve or financial system can do except insist on redundancies in the system that make it possible for institutions to shake off unexpected losses and move on.

Investment demand will revive fairly quickly and there will be sustained growth, although not the sustained levels of profits seen in the last years of the past decade. This retrenchment is different from others because it contains overinvestment finance, not by banks or the market, but by companies that sold the equipment to the customers going broke. Trade credits, or venture financing, funded the new

economy. Technology companies became investors in their customer's enterprises—in effect, selling their product for stock in the customer's company. It worked while the market was going up, as the application companies grew on investments paid for with paper of their own creation. Their vendors booked huge profits and greatly enhanced book value as the companies they supplied went public and generated fabulous prices for the stock they had substituted for loans. Historically, booms have gone bust when banks were taken by plausible borrowers, especially real estate developers. Banks fund their loads 90-plus percent with borrowed money, so they can't afford to have too many borrowers fail. As a notable fraction of loans go sour, banks become much less willing or able to lend to their usual customers or newcomers. Their books begin to look less solid and economic activity shrinks. To avoid contagion, central banks and governments intervene to make sure that this sort of debt deflation does not spread a financial panic that can deny employers and producers access to funds.

Modigliani and Miller pointed out that businesses that can pay their bills with other people's money have little reason to care whether this opportunity comes from banks eager to lend, suppliers anxious to give trade credits, or investors eager to buy stocks. Businesses will use whatever works. Theory has permitted the substitution of debt for equity. If debt begins to look sour, interest rates will go up enough so that people will stop issuing it, but people don't know. The information revolution has not yet caught up with the need for honest accounting.

The Nasdaq bubble was a result of the Federal Reserve's rescue operation in 1998 after the financial markets froze in contemplation of the Russian default, the Long Term Capital Management implosion, and the Y2K threat. However, monetary conditions were a minor part of the Nasdaq bubble and bust cycle. Many companies were counting on the interest they charged on the trade credits they extended or profits on the stock they took in lieu of

cash from the companies that “bought their stuff.” These companies had been financed by venture capitalists and initial public offerings of stock with little bank involvement. They spread their risk more widely than had been true in the old economy. When the banks got involved, they attempted to securitize the loans and sell them to other banks, insurance companies, pension funds, mutual funds, universities, foreigners, et cetera. These purchasers entered into credit derivatives, protecting themselves from nonpayment. Risk-shifting instruments proliferated as the financing of technology intersected with the technology of finance. Losses from the technology bubble seem to be spread through the community, unlike the losses from the real estate bubble in the late 1980s.

When a central bank seeks to stimulate the economy by injecting money through the purchase of securities, its acts can provoke four possible responses. One, nothing may happen, except for some reduction in the prices of Treasury bills and Fannie Maes. (There is a government guarantee of \$3.9 trillion of government-sponsored enterprise paper, so there is no shortage of stuff for the Federal Reserve to buy that is safe for open market operation.) This nothing-may-happen response was the experience of the 1930s and modern Japan, where deflation meant that borrowers repaid their loans in money worth more than when it was received. That's the liquidity trap.

Two, real activity may rise as businesses borrow the money that the central banks supply to the commercial banks. As “high power money” moves from bank to bank, the impact of the action of the central bank is presumably multiplied.

Three, the prices of goods and services may rise as more money chases the same quantity of goods. Four, stock or real estate markets boom and the new money goes into assets, which everybody likes.

Several of these responses can coexist. Growth in real economic activity may power inflation and raise asset prices. The Fed's conundrum is that they don't

know whether a given stimulus or restraint will affect economic activity, the cost of living, or the markets.

Circumstances are forcing increased attention on asset prices. Not only Minsky thought that one of the fundamental things that a central bank did was to change asset prices. Marx said that this was how the Bank of England ran the gold standard. Central bank activities operate mostly through changing asset prices but the way it happens is very complicated and poorly understood. Once we could argue about these matters in such terms as the demand-for-money function, definitions of money, and titles to money. In an age of home equity accounts, derivatives, and asset-backed securities, the traditional arguments affecting what a central bank does are matters of faith and morals, not economic analysis. For example, it is senseless to raise the margin, because the volume of leverage on the derivatives chassis is many orders of magnitude larger than the margin extended by brokers to their customers. However, raising the margin requirement would have a psychological impact.

Central banking has become an essentially theatrical enterprise. When it was young, the FOMC used to announce six months after the fact (or maybe never) that it had acted in the open market to raise or lower interest rates. Three-fifths or more of the financial intermediation was through the banks and they reacted to what the Fed did. This influenced real economic activity, which, in turn, influenced the market. Today, the Fed's whole effort is to affect the psychology of the markets. In spite of enabling home equity loan refinancing and putting money in people's pockets when rates are lowered, the notion that a 25 or 50 basis point change in itself is going to produce within the time horizon of your prediction a major change in people's behavior is very hard to believe. Greenspan handles the dramatic part of this extremely well.

## SESSION 4

### Issues in International Finance

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**ROBERT Z. ALIBER**

#### International Capital Flows, Saving Rates, and Financial Bubbles

The excess supply of saving in Japan and the Far East has to find someplace to go in the world. The Japanese bubble attracted Japanese capital, resulting in a below-trend current account surplus (still 2 percent in the bubble year). In the mid 1990s, Japanese capital was diverted to Bangkok and Hong Kong, and contributed to those bubbles. After implosions there, excess saving in the Far East went to the United States, so the successive bubbles were related to excess saving.

Comparing the United States and Japanese bubbles, the wealth-to-GDP ratio for Japan rises from 100 to 130–140, while the U.S. wealth-to-GDP ratio rises from 100 to 120. However, these data are not believable because there has been a much greater increase in real estate prices than indicated in the traditional data. Initially, it was believed that what was really important was the wealth effect and its effect on consumption spending. However, the real impact of a bubble is on the investment-to-GNP ratio. In the United States, this ratio increased by about 33 percent, comparable to what happened in Japan. There was a sharp decline in the cost of capital, but a surge in investment. Money was free in Japan in the late 1980s and is currently free in parts of the United States.

The rate of growth in consumption in Japan resulted from a surge in automobile sales in the last few bubble years in the late 1980s, while the rate of growth of consumption had been very modest and declined during the decade. Japan grew until the last three years: there was slow growth in the first half of

the 1990s, an acceleration in 1995 and 1996, and then a recession. The investment-to-GDP ratio surged about 20–25 percent, followed by a continuous decline in subsequent periods. Therefore, there is a much greater similarity between what happened in Japan and what has been happening in the United States. The United States is likely to see a continued decline in the investment-to-GDP ratio, which increased by 3 to 4 percentage points in the last five years of the 1990s. There is also going to be a much slower rate of growth of consumption, which will occur without a significant change in the U.S. current account balance. Adjustments to the decline in investment and consumption will occur while the current account balance remains constant. The other changing variable is the government, which will automatically move toward a fiscal deficit, although there may be a tax cut.

Assuming that Japan's underlying rate of growth is 3 percent a year and that the capital-to-output ratio is four, there is an investment-to-GNP ratio far below the saving rate. Since something has to give, the Japanese government may very well default. Japanese sectoral balance changes include businesses essentially deleveraging (paying down debt). The economic adjustment has seen the fiscal deficit and trade surplus surge.

The aftermath of the U.S. bubble will see an increase in the cost of capital in many industries, and sector imbalances will have to adjust in a big way. A similar historical episode occurred at the end of the 19th century, when the U.S. population, productivity, and relative income grew fantastically as price levels declined 1 to 2 percent per year. There was a stunted banking system and financial crises about every 10 years. (Supply has increased more rapidly than demand in Asia over the past month, and the banking systems have busted in every country. There is no growth in domestic credit, so growth will depend on growing exports.) A second episode took place in the 1930s, when there was a period of deglobalization and paid investment declined by a

factor of five. Price levels fell in the first half of that decade around the world; the common feature was that financial systems collapsed.

PARUL JAIN

### From Miracle to Debacle: Lessons from the East Asian Financial Crisis

The year 1997 was a watershed event in East Asian economic history, when the Thai baht collapsed and countries shifted to floating exchange rates. There was considerable dislocation as regional currencies lost 50 percent of their values against the dollar in just a few months. Dollar-denominated debts rose considerably and GDP growth was severely curtailed. Overnight, the highest growth region of the world seemed to be transformed from very robust to very fragile financial structures.

In a Minskian frame of reference, the economics of euphoria (a herd mentality on the part of lenders) and a lack of tightly wound positions enabled some of the crisis to escalate uncontrollably. Initially, the IMF did not learn from early experiences and fell short on immediate relief, converting a lot of debtors into Ponzi financing units. Although equity markets bottomed out and GDP growth stabilized, the region was severely impoverished in dollar terms and per capita dollar GDP fell about 70 percent. Significant longer-term problems are still perceived to exist in light of concerns about bad loans, high short-term external debt, and governance issues.

On the surface, macroeconomic problems were absent as inflation rates were under 10 percent, the fiscal situation was unbalanced, monetary policy was not overly expansionary, and high current account deficits could be rationalized on the basis of high investment rates in the region. Blame has been equally between the domestic authorities, the international investors (for inadequate credit analysis), and the IMF.

By allowing an overvalued exchange rate to continue, Thai authorities encouraged excessive short-term borrowing as fixed exchange rates and liberalized capital flows seemed to create a risk-free borrowing environment. (Thailand, with a GDP of \$100 billion, received new bank loans of \$36.5 billion in 1995 alone.) Financial liberalization in Asia was somewhat incomplete prior to the crisis, so some damage was already done because of earlier preferential loans (to, for example, Korea). There were accusations of crony capitalism and inadequate surveillance of financial institutions, and excessive net capital inflows with short-term maturity into the region (\$74 billion in 1995 and \$66 billion in 1996). Consensus suggests that one should move from more stable long-term funds to more volatile short-term capital market liberalization, not vice versa, and that the Bank of International Settlements should monitor the short-term buildup of external debt.

According to the Washington consensus, there was insufficient transparency to international investors. Surveillance and openness were blamed for bad investment decisions by international lenders, as available information was not really used in investment decisions and maintaining market share was considered to be more important. Falling spreads on debt issues indicated more overzealous lending than borrowing. Increasing asset prices encourages additional borrowing, overspending, and overinvestment, so the burden should have been shifted from the borrowers to the lenders.

In spite of attempts at moral suasion prior to the crisis, IMF warnings went unheeded because of a lack of enforcement. However, at the onset of the crisis, the IMF used the same standard remedies—devalue and then negate the resulting stimulus to the economy by contractionary monetary and fiscal policies. In light of the sharp decline in asset values caused by the currency decline, expansionary fiscal policy may have been more appropriate. Recent current account improvements have been made at the expense of falling imports, and the region still remains afflicted

by the drop in currency values. In light of IMF reform proposals and the search for alternatives, the IMF acknowledges that some of the criticism, particularly in the case of Indonesia, may have contributed to lender runs in the region, and failure to adjust for fiscal deficits for some of the drop in currency values may have contributed to contagion. Although the IMF can assemble a sizable package in response to a crisis, its disbursement approach defies classic rules for a crisis manager by lending freely against good collateral, and at a penalty rate.

Professor Minsky warned about some of the dangers inherent in the IMF's approach and how IMF policy could inadvertently lead to the creation of Ponzi units. However, as a result of the Asian experience, the lender of last resort rule is desperately needed to avoid some of the snowball effects stressed in Minsky's financial fragility hypothesis. According to Barry Bosworth of the Brookings Institution, there is not going to be an international lender of last resort. Developing countries must develop a more defensive strategy of their own, since industrialized countries have their own networks for providing financial support for each other and are not interested in providing additional resources to bail out developing countries. There is a principal agent problem, where the IMF is expected to be more responsive to the needs of the largest donors than those of the agent in dire need. The United States opted to stay out of the initial support package for Thailand in mid 1997, contributing, perhaps, even further to credibility and contagion. IMF conditionality forced a high cost in the region.

Asian country perception is that more regional initiatives need to be emphasized. A more decentralized IMF structure along the lines of an Asian Monetary Fund would perhaps work better. Japan was prepared to put up about \$30 billion at the beginning of 1997 but discussions were shelved with the creation of the supplement reserve facility. Minsky focused a lot on the center-periphery relationship, and this relationship has changed. There has been regional trade and investment growth, and Japan and the European



Union have grown in importance as trading shares have risen and banking links created a dollar-centric focus of financing arrangements. East Asia has become the third major pool of the world economy, along with North America and Western Europe, and its economic clout has risen. The Asian bloc accounts for about a third of the world economy and half of the world's monetary reserves. If only a small fraction of these reserves had been mobilized to supply short-term liquidity to Thailand early in the crisis, the resulting disaster for the region would have been contained.

There are some regional initiatives. There is acceptance of the fact that regional integration of trade and investment implies greater regional synchronization of economic performance, which increases the impetus for developing regional safety nets. Discussion forums include regular executive meetings of East Asian and Pacific central banks, the Asia-Pacific Economic Cooperation Forum, and the Asian Free Trade Area. One mandate is to monitor capital flows and put a surveillance mechanism in place for anticipating future crises. There has been a proposal for an Asian currency unit. The momentum for an Asian Monetary Fund exists. The role of the IMF may possibly be to just promote dialogue between the three-bloc world (North America, Western Europe, and East Asia).

The East Asian crisis has deepened the experience of Asian countries as crisis managers and the initial resistance by the United States has given way to a more open attitude. A stronger foundation for Asia is in the best interest of the United States. What would allow the dollar to depreciate and help cure some of the manufacturing sector's ills? Reducing the role of the dollar's key currency aspects leads to creation of more lenders of last resort.

The missteps in dealing with the East Asian crisis have served as a call for a new global financial architecture. Proposals include introducing exchange rate stability in the key currency areas of the world, sound macroeconomic management, and better surveillance. A more controversial issue surrounds the

IMF and regional financing arrangements. Expect a lot more debate and dialogue concerning changes on this front.

#### KARIN LISSAKERS

Although the mandate of the International Monetary Fund (IMF) is the management of crises, and this is the instrument of choice of its member countries, the IMF has also focused on crisis prevention. A consequence of some of these efforts is that emerging market countries are becoming more robust because the policy framework is being systematically strengthened (although they are still vulnerable to external shocks). However, there could still be a difficult period ahead because of slower growth in the United States and other industrial countries, high debt levels and risk spreads (partly reflecting high anxiety about Turkey and Argentina), and considerable caution on the part of investors and creditors.

There have been considerable improvements that will reduce the incidence and impact of external balance of payments crises. Many emerging market countries have adopted a floating, flexible exchange rate regime. Although this creates macroeconomic challenges, it is a better shock absorber against external pressures and more forgiving of political will failures and misjudgments in policy action. For example, doubts about Argentina's debt-servicing capability and the sustainability of its currency board have had a negative impact on almost all Latin American currencies. If these currencies were pegged, the pressure would have shown up on foreign exchange reserves and interest rates and there would have been severe contagion. Doubts about these countries' ability to service their debt would have increased, and there could have been a full-blown Asian-type balance of payments crisis.

Emerging market economies are also more robust because fiscal management is improving

significantly. There is a strengthening revenue-collecting capacity and tax structure and a better control system over expenditures—off-budget accounts are put on budget, state enterprises are either being sold off or put under proper management, and public finance information flows within government and to the public are much better. In spite of high domestic and external debt levels and associated interest rate pressures, there are clear policy intentions and political commitments toward fiscal balance by many emerging market countries. And there is an internal battle with provinces and states where fiscal discipline has been sorely lacking (state and provincial governments write blank checks and force the federal or central government to pay the tab).

Monetary policy is also being strengthened significantly. Recognizing that central bank independence is an asset, countries are adopting legislation that puts central banks on a stronger legal footing. They are also appointing better people and targeting inflation. By combining floating exchange rates and inflation targeting, central banks have the potential to focus on price stability rather than to maintain fixed exchange rates (and protect interest groups against excessive foreign exchange exposure). Thus, inflation in emerging markets has declined very broadly.

There is recognition of the critical role of the financial sector and that weak banking systems can trigger balance of payment crises (and the factors of financial contamination). A massive effort is under way to get countries to strengthen their supervisory structures and clean up weak state banks by closing them down or recapitalizing them. For example, Brazil, in an earlier crisis, had begun to address its banking systems, so that the impact on the real economy of the recent severe exchange rate depreciation was quite limited because its banking system was reasonably robust. Other countries are realizing that a stronger banking system greatly reduces both their internal and external vulnerabilities.

The IMF has moved to a more systematic approach of banking system cleanups, called codes

and standards. The World Bank and the IMF work with the Financial Stability Forum, international accounting organizations, and bodies with recognized expertise to codify and endorse best practices in certain key areas. They provide assessments of how countries measure up against these standards, and technical assistance to help meet them in 11 areas: fiscal, monetary, data dissemination, banking supervision, insurance supervision, securities market regulation, payment systems, corporate governance, accounting, auditing, and insolvency and creditor rights. By taking a gradual approach and allowing codes and standards to be adopted on a totally voluntary basis, more countries are recognizing that these tools can strengthen their performance and ability to benefit from globalization. Countries now ask for a detailed diagnostic of their supervisory structure and large financial institutions. The World Bank and IMF look at the books of individual institutions and the country gets a report card from a peer review of their financial sector. Emerging market countries that have had this peer review have been very enthusiastic about the results and have taken significant measures to strengthen their financial systems. The IMF has created financing and ex ante conditionality facility, so that if sufficient progress is made in meeting these codes and standards, a country is automatically eligible for a financial insurance policy, or continued credit line, from the fund.

Emerging market countries are becoming more sensitive to the importance of debt, external debt management, and communicating with their creditors and investors. Better and more educated people are now in policy positions. The next big area of activity will be trade opening, which can also strengthen the economic capacity and growth potential of emerging market countries if done in the right policy framework. There has been progress, but enormous vulnerabilities still exist. However, the approach to policy is much sounder and stronger now than it was five years ago.

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