The Boom-Bust Capital Spending Cycle in the United States: Lessons Learned

E. Gerald Corrigan

Washington, DC • 2002

Foreword

The second 2002 Per Jacobsson Lecture was delivered by Gerald Corrigan, Managing Director, Goldman Sachs & Co., on the topic of "The Boom-Bust Capital Spending Cycle in the United States: Lessons Learned." Mr. Corrigan's presentation, held at the Omni Shoreham Hotel in Washington, D.C., on Sunday, September 29, took place on the occasion of the Annual Meetings of the International Monetary Fund and the World Bank Group. Mr. Jacques de Larosière, Chairman of the Per Jacobsson Foundation, presided over the event, the proceedings of which are presented in this publication.

The Per Jacobsson lectures are, in general, held annually and are sponsored by the Foundation, established in 1964 in honor of Per Jacobsson, the third Managing Director of the International Monetary Fund. The Foundation promotes informed international discussion of current problems in the field of monetary affairs.

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Opening Remarks

Jacques de Larosière

Ladies and gentlemen, or I should say dear friends, because I see among you many older friends and newer friends, closely associated with my life here in Washington when I was Managing Director of the IMF. It is my great privilege and pleasure, *not* to introduce—that would be presumptuous—but to tell you that a man of great stature is here to deliver the lecture. The world is changing so fast and is so complex today, and we are very fortunate to have Gerry Corrigan help us explain what is going on.

The title of his lecture is, indeed, most topical—"The Boom-Bust Capital Spending Cycle in the United States: Lessons Learned." And I love the optimism of the word "learned," because as a European, being a little more cynical, I would have said "lessons to be learned."

Anyhow, the fact of the matter is that Gerry Corrigan needs no introduction. He has exactly the right mix of experiences and qualities to speak on the subject. He spent 25 years of his career at the Federal Reserve, and he did a lot of things at that wonderful institution, and perhaps one of the most intelligent things he did, I must say, in terms of his training, was to be the personal assistant of another great man named Paul Volcker.

Now, I happened to have known Gerry when he was President of the New York Federal Reserve. That was, I think, between 1985 and 1993. I was not there the whole time, but over a period of several years, I worked very closely with him and admired, among many other personal qualities, Gerry's ability to tackle very difficult crisis situations.

Why did he take on these challenges? Because he showed leadership. And he exercised leadership for three reasons. One reason is because he knows the "nitty-gritty," the facts of what he is tackling. He learned an enormous amount about things on a very technical level, for instance, in terms of payment systems, he knows the details.

Second, he has an ability to react quickly, and in crisis situations, if you do not react quickly, well, you are nowhere.

And, third, Gerry is firm in execution—he has got the right vision.

So, for these reasons, we need to pay him great tribute. Gerry eventually left the public sector, and for the last ten years or so, he has been with Goldman Sachs, where he is doing a fantastic job of telling them that they had better look at risks, because he knows what risks are in the financial markets. So, without giving any more details—you'll find his biography in the program—I am going to give him the floor now for his speech. Thank you, Gerry.

MR. CORRIGAN: Jacques, thank you very much indeed. I have so many very fond memories of my long association with you. I should say at the outset that, as I walked in here this afternoon and saw so many old and dear friends, all of a sudden I felt intimidated about the prospects of having to address you collectively. And that intimidation, I should say, is a high form of praise and respect for all of you who have been so helpful to me for all these many, many years. So I thank you all for being here.

The Boom-Bust Capital Spending Cycle in the United States: Lessons Learned

E. Gerald Corrigan

I am pleased and truly honored to have this opportunity to deliver the Per Jacobsson Lecture, which has been among the headline events at the Annual Meeting of the World Bank and the International Monetary Fund for almost 40 years. The topic of my remarks, namely, the lessons to be learned from the recent investment boom-bust in the United States is both timely and important for policymakers, business practitioners, and the public at large. In addressing this subject, I will draw on both my 25 years of experience as a central banker and almost 10 years in the private sector with Goldman Sachs.

What Happened and Why Did It Happen?

The first subject I want to cover this afternoon will be to identify the major proximate causes of the extraordinary run-up and subsequent collapse in technology-related investment spending during the second half of the 90's and into the first two years of the new decade. Hereafter this combination of events will be called the "episode" for the shorthand reference. Obviously, it is not possible to capture in a few minutes the complexities and subtleties of an episode that scholars, practitioners, and public officials will be examining for years to come. Yet, it is possible to capture at least some of the central highlights of what we have witnessed. At the risk of great oversimplification, I will describe the central forces driving the episode as consisting of three separate but related phenomena as follows: *first*, the burst of new technology experienced over this period with particular emphasis on its applications to the Internet and to telecommunication; *second*, the erosion of business practices; and, *third*, the "hype" associated with the so-called "new economy." I will then comment briefly as to the consequences of the convergence of these three phenomena into a single overwhelming force; a "perfect storm" if you will. Understanding how this perfect storm not only influenced, but dominated, behavior on a broad scale is central to our ability to better understand, in retrospect, what might have at least moderated the episode and what might be done to help prevent or moderate future such episodes.

Technology

Looking at the 90's as a whole, it is reasonably clear that there were three forces at work that were certain to spur a substantial surge in capital spending. Two of these forces were major technological platform changes: *first*, the move to the so-called client server platform that dated roughly to 1990; and, *second*, the move to the so-called Internet platform that dates roughly to 1995. While both of these platform changes were watershed developments, their implications for capital spending were, in some respects, working at cross purposes in that the former called for greater decentralization while the latter pointed in the direction of more centralization. These two platform changes were certain to spur capital spending but were also certain to cause redundancies and inefficiencies in capital spending. To further complicate matters, however, industry also had to contend with a *third* factor having enormous implications for capital spending on technology, namely, the approach of Y-2K. Thus, even ignoring the profound character of the technological changes that were occurring, the stage was set for what was certain to be a binge in capital spending.

As we know, however, the technological changes we were seeing in the related areas of the Internet and telecommunication were not your garden-variety events. Indeed, almost at once, the concepts behind the seemingly benign words "browser" and "broadband" were about to shake the very foundations of not only business practices but also the basics of how individuals communicate with each other.

As these forces fed upon themselves, it should have been more clear than it was that the surge in capital spending was predestined to overshoot. One reason for this likely overshoot was that the competitive fear of being left behind on the junk heap of technological obsolescence was so powerful that many companies felt compelled to push ahead with spending programs even when there may have been doubts as to the timing, if not the merits, of such spending programs. The resulting technologically driven momentum was, certainly in retrospect, astonishing. For example, between 1995 and 2000, in Europe and the United States alone, more than $2 trillion in bank and bond debt was plowed into the telecom sector alone. In the dot.com world, start-up companies went from garages to IPOs almost overnight.

The dot.com phenomenon was driven importantly by the view that the most successful of these start-up companies would significantly displace traditional vendors of goods and services to both consumers and businesses. Thus, these companies were seen as having the potential to grow at extraordinarily rapid rates. Indeed, the conventional wisdom seemed to suggest that across a portfolio of investments in such companies, a small number of winners would more than compensate for a much larger number of failures. But the failure rate was very high indeed as seemingly attractive business models were swallowed up by cash burn rates that ultimately choked off new sources of capital. At the same time traditional vendors of goods and services found very effective ways to complement their normal distribution channels through the use of the Internet.

The dust has not yet sufficiently settled to permit even a rough tally of the extent of the direct financial damage caused by the excesses of the investment boom. This task will be a difficult one for many reasons, including the fact that there probably will be some recoveries relative to today’s depressed valuation levels and, over time, there remains the potential for substantial returns from further application of the underlying technology. Nevertheless, it seems quite clear that the direct costs of the excess spending on equipment and software in GDP terms over the second half of the 90’s will be the equivalent of a significant fraction of the roughly $450 billion cumulative rise in such spending in real terms between 1995 and 2000.

The Erosion of Business Practices

Driven in no small way by technology itself, the day-to-day conduct of virtually all businesses was becoming substantially more complex and especially so in financial terms. In ways that were not fully understood, these added elements of financial complexity contributed to a breeding ground for excesses and abuses that would become more evident when—as was inevitable—the bloom came off the rose. As examples, these financial complexities placed enormous pressures on an already complex rules-based accounting system in the Unites States that was ill equipped to cope with this ferocious pace of change. Similarly, the sensitivities to potential conflicts of interest began to erode—a problem that, regrettably, has taken on particularly distasteful dimensions in the financial sector. Finally, financial complexity was also producing strains on some of the pillars of corporate governance, such as the ability of boards of directors to grasp highly complex issues relevant to their historic oversight—as opposed to managerial—responsibilities.

It is difficult to pinpoint the precise point in time when these and other pressure points produced the rupture that triggered the appalling abuses and outright fraud we have witnessed. However, symbolically a few benchmarks seem to me to capture the mood of the time. Among those benchmarks were the following:

- The pressures to produce clockwork-like quarter after quarter increases in earnings even if that implied the willingness to push accounting practices to the limit or beyond.
- The shift in valuation conventions for high-tech companies—especially in the dot.com sector—from earnings multiples to revenue multiples.
- The "you had to be there" phenomenon whereby even the skeptics were driven by competitive forces and the fear of being left behind to modify behavior and practice in order to secure their place on this rapidly changing landscape. As a seemingly trivial but revealing example, in the battle for skilled personnel, traditionally "grey suit and white shirt" financial institutions (including Goldman Sachs) and law firms modified not only their compensation practices but also their dress codes in order to compete for personnel with Silicon Valley and other tech centers around the country. It did not matter if

you were an equipment vendor, a money manager, a stock analyst, or even the typical man or woman on the street. The pressure to be there—to "talk the talk and walk the walk"—was overwhelming.

Reflecting in part these and other factors, the slippage in sensitivity to basic business norms and practices gained momentum and in a few cases it hemorrhaged into the worst imaginable in terms of raw greed and unrestrained arrogance. However, even absent the extremes of Enron, WorldCom, Tyco, etc., the case for serious reform in a number of areas of business practice is compelling.

The "Hype" of the New Economy

As the second half of the 1990's proceeded, the macroeconomic and macrofinancial performance characteristics of the U.S. economy soared. Many macroeconomic indicators reached or exceeded benchmarks that only a few years earlier seemed unthinkable. At some point—and I don't recall exactly when—the term "new economy" became part of our daily vocabulary. Obviously, this was a term of art having somewhat different meaning to different people. However, the new economy seemed to most to have the following features: *first*, it was driven by technology; s*econd*, it was producing a major structural change in such fundamentals as trend productivity and potential GDP growth. For some, the order of magnitude of the change was such that potential GDP growth was seen as moving from 2¼ percent or so in the years prior to 1995 to something approaching 4 percent; *third*, the upward shift in growth potential, combined with the restraining effect of productivity growth on unit labor costs, implied a robust outlook for corporate profits as well as continuing restraints on inflationary pressures; and, *finally*, the new economy seemed to hold the promise of budget surpluses as far as the eye could see, implying the ample availability of both domestic and foreign savings to finance ongoing high rates of private investment thus reinforcing the virtuous cycle.

The euphoria associated with this vision of the new economy reached virtually every segment of our society, both public and private. Needless to say, for those who believed that the emerging performance of the U.S. economy in the second half of the

90's would be sustained into the new decade, the stock market was the place to be. To be sure, there were a few skeptics, but by and large those skeptical views were drowned out by the almost daily drumbeat of events that seemed to confirm the miracles of the new economy.

Today, with the collapse of the stock market bubble, the evidence of corporate misdeeds, and a few revisions to the past GDP data, it seems clear that the new economy was not nearly as new as it once seemed. As an example, it now appears that the potential GDP growth rate is about 3 percent—much better than 2¼ percent but a long way from 4 percent. Nevertheless, if the passage of time confirms that potential growth has improved by three-quarters of a percentage point, that in itself would be a remarkable achievement for a $10 trillion mature industrial economy. Yet, such an outcome does not alter the conclusion that the hype surrounding the late 90's version of the new economy played a major role in shaping the behavior and beliefs of vast segments of the business, household, and governmental sectors of our society.

The Perfect Storm

Any one of the three forces described above was quite capable of producing elements of economic instability. But as with the three storms tracked in the book and movie, *The Perfect Storm*, when these three forces combined and interacted with each other, the result was a chain reaction of events with devastating consequences. Unlike the meteorological perfect storm—these will not dissipate quickly.

Call it a bubble or give it any label you wish, but whatever it is called, the episode of the late 90's had all of the classic trademarks of the boom-bust cycles that have characterized recorded economic and financial history for centuries. Only history will judge how this episode—in both its diagnostics and consequences—stacks up relative to others. However, we do not have to wait for the verdict of history to ask ourselves the question of whether, even now, we can identify lessons from this episode that can help avoid or at least moderate such episodes in the future.

Before turning to that discussion, let me forcefully address one crucial point immediately. Namely, I for one cannot conceive circumstances in which the postbubble correction process in the United States will result in the multiyear economic paralysis that has essentially crippled the Japanese economy for the past decade. To be sure, as I speak the overhang of the late 90's—including the reaction to corporate abuse and excess—is taking its toll on economic activity not only in conventional cyclical terms but also because public confidence has been badly shattered. However, I do not anticipate that these pressures will be cumulative or long lasting. As I see it, the economy will grow sluggishly over the second half of this year, followed by growth of 3 percent or a bit higher next year. Indeed, even in the midst of today's gloom we should never underestimate the vitality of the U.S. economy.

LOOKING TO THE FUTURE: LESSONS FOR PUBLIC POLICY AND PRIVATE ACTION

The first question that arises in the policy arena is whether, in retrospect, there may have been public policy initiatives that could have prevented, or at least moderated, the episode. For example, some might suggest that deregulation in a number of industries went too far. This suggestion seems to me to badly miss the point in part because much of what we have seen in deregulation has been forced by technology but also because deregulation is procompetitive and proconsumer. That is not to say there may not be room for some regulatory fine-tuning here and there but the course of re-regulation would be counterproductive. Like it or not, the genie will not go back into the bottle.

Similarly, fiscal policy is not equipped to deal with this kind of problem except, perhaps, for some targeted changes in tax policy in which I have neither the experience nor the expertise to comment. Thus, in broad the policy arena we are left with monetary policy or regulatory policy, broadly defined, or some combination of both. Allow me to turn first to monetary policy.

Contemporary monetary policy is a remarkably flexible tool of macroeconomic stabilization policy. It is also a blunt tool that, at the end of the day, works through interest rates and/or exchange rates. Because it is a blunt tool and for reasons of accountability and transparency, the policy goals for most central banks are stated in broad terms that are focused on price stability and/or sustainable economic growth, the latter of which is closely related to price stability. Not surprisingly, when asset price distortions or bubbles occur, the question often arises as to whether central banks should direct or target their policies at specific variables such as stock prices. My answer to that question is that the overall cost of seeking to target such variables by the use of interest rate policy would almost certainly impose crushing costs on other sectors of the economy that are not experiencing asset price inflation and yield delayed and uncertain effects on the asset price inflation itself. Thus, targeting selective asset prices, or the single-minded pursuit of a policy to burst an asset price bubble at any cost, seems to me to be fundamentally incompatible with sound and sensible monetary policy.

On the other hand, I believe a case can be made that there may be circumstances in which sharp and persistent increases in asset prices might justify a somewhat higher level of interest rates than would otherwise be the case if policy was focused only on the implications of these prices for the near-term outlook. Needless to say any such tilt in interest rate policy would have to be seen as being broadly consistent with core policy objectives and not as making particular asset prices a direct goal or target of policy. Obviously, a policy tilt involving somewhat higher interest rates would not be a panacea but one could speculate that such a policy might work in the direction of moderating—even if only at the margin—the bubble and its damage over the medium to the longer term. By way of analogy, I do not see this approach as fundamentally different from those occasions when central banks introduce a similar tilt to policy due to, for example, the behavior of the exchange rate.

This point of view on my part is not new. In fact, I made this exact argument when I delivered the Roy Bridge Memorial Lecture in London in May 2000. I concluded that discussion with the following observation:

> What I have said carries with it a powerful implication. Namely, the task of checking selective asset price inflation should be left primarily to the marketplace and the private institutions and individuals that constitute that marketplace. In turn, that implies that market participants are going to have to exercise greater self-discipline and prior restraints or they are going to have to be prepared to pay a hefty price for not doing so.

Given that there are substantial limitations as to what monetary policy can and should do in the face of selective asset price inflation, the remaining major policy question is whether one or more elements of regulatory policy can materially help prevent or limit future asset price bubbles and the excesses of behavior that inevitably accompany such events. Here, I believe that the answer is "yes"—especially if such regulatory initiatives are accompanied by supportive and complementary actions in the private sector.

Given the understandable public outrage about high profile cases of corporate abuse, to say nothing of the related serious damage to public confidence more generally that has emerged, it is not at all surprising that a sweeping agenda for reform has emerged. Broadly speaking, that agenda is directed at several areas of concern including the following:

- strengthened independence for accountants and auditors,
- improvements in accounting policies and practices,
- multidimensional improvements and enhancements in corporate governance,
- efforts to better rationalize approaches to executive compensation,
- strengthened efforts to better manage potential conflicts including enhanced independence for research analysts, and
- enhanced public disclosure policies and practices for all listed companies.

Literally dozens of institutions and individuals, both public and private, are contributing to efforts to shape and implement this agenda for reform. As a result, the initiatives that are on the table or already in place are far too numerous and far too detailed to cover in this lecture. However, two broad observations, as well as a few words on three specific aspects of the reform agenda, are in order.

The two board observations are as follows: *first*, generally speaking, the reform efforts are working in the right directions and are proceeding at a rapid pace. Indeed, from my vantage point, it is clear that we are already witnessing a constructive sea change in the attitudes and behavior throughout corporate America. *Second*, there is, of course, the danger of overreaction, which brings with it the risk of counterproductive knock-on effects that can be detrimental to economic activity. One such danger of particular concern is the risk that well-intended reform gives rise to elements of risk aversion that in subtle but certain ways can choke off economic activity. The United States has a remarkable and long-standing track record of striking a reasonable balance in responding to economic and financial adversity so as not to undermine the creative genius of our economy. One would hope and expect that this pattern of reasoned response to adversity will prevail in this case as well, keeping in mind that reasoned response must include appropriate punishment for those who have broken the law.

As mentioned above, there are three particular aspects of the reform agenda that I want to mention in some detail. One relates to a particular aspect of corporate governance, another relates to accounting policies and practices, and the third relates to public disclosure policies and practices.

Turning first to corporate governance, there has, of course, been a great deal of attention devoted to this subject with particular focus on the role of board of directors and especially the role of independent directors. There is, however, one critical aspect of corporate governance that is receiving surprisingly little attention. That aspect relates to the independence and stature of the officials who are responsible for core control functions including credit due diligence, risk management, and especially corporate controllers. The latter includes the corporate officials who are responsible for accounting; the integrity of books and records; and, most particularly in the financial institutions, the all-important task of price verification.

In looking at the recent blockbuster cases of scandal and fraud, one common denominator is the extent to which these critical control officials were co-opted or ignored when they either were, or should have been, in a position to know that things were badly amiss. It seems to me that common sense tells us in unmistakable terms that these officials must have the independence, the stature, and the competence to stand for what is right and proper even in the face of enormous competitive and business pressures. I also know from my experience at Goldman Sachs that independence and strength in these critical functions contribute greatly to both commercial and cultural excellence. Therefore, it is an inherent responsibility of CEOs and boards of directors to insure that the officials responsible for these functions have the independence, the stature, and, I might add, the compensation to discharge their responsibilities with the highest degree of competence and integrity.

The second reform-related topic I want to discuss relates to needed changes in the norms and standards that guide day-to-day accounting practices. This topic is related to, but distinct from, the various structural reforms in the accounting industry that are largely associated with the Sarbanes-Oxley Act of 2002, which was recently signed into law by the President.

As things now stand, accounting practices are a mixed bag of procedures, which have evolved over a long period of time both here in the United States and around the world. As examples, here in the United States, financial institutions follow a dual system, based in part on historic cost and in part on fair-value accounting models. Similarly, U.S. GAAP is heavily rule-based while U.K. and European models are primarily based on broad principles. Finally, the distinctions between U.S. GAAP and Japanese GAAP can produce sharply differing pictures of the very same business entities.

In these circumstances, the challenges of moving to a coherent global approach to accounting practices that are better able to reasonably reflect economic reality, both domestically and internationally, is truly formidable. Indeed, reconciling the legacy of the past with the needs of the future in a globally integrated world will require a considerable amount of time, hard work, skill, and statesmanship but it must be done with all deliberate speed. Therefore, it is in our collective best interest to fully support the work of the International Accounting Standards Board in achieving this goal.

While on the subject of accounting practice, I want to acknowledge that there is one critical area in which my own thinking has changed materially since my days at the Fed. That change relates to the need to substantially accelerate the move to the universal adoption of fair-value accounting for all financial institutions.

Having learned the advantages of historic cost accounting and the perils of fair-value accounting for banks from the master, Paul Volcker, I am more than mindful that this subject is controversial and that there are practical, policy, and philosophical issues to be addressed in managing this transition. Without in any way diminishing these issues, the critical factor that has changed my thinking on this subject is the discipline associated with the need to mark-to-market all positions—on and off balance sheet—on a daily basis.

From my vantage point as cochairman of the Global Risk Management Committee at Goldman Sachs, I have witnessed at first hand the ways in which fair-value and mark-to-market accounting impose prompt discipline on business practices and risk appetites. Recognizing losses (and gains) as they occur constructively influences behavior in ways that I simply did not comprehend from the distance of my former lofty perch on Liberty Street.

Having said that, one of the concerns that is often raised about fair-value accounting is that for many complex and/or long-dated or synthetic transactions fair value entails a considerable amount of judgment and subjectivity. Obviously there is truth to this observation but it is also true that any accounting system entails both judgment and subjectivity. More importantly, there are techniques, tools, and governance arrangements that can provide a very high level of assurance that fair-value practices are applied in an appropriate, disciplined, and consistent manner. Indeed, the strong and independent financial controllers mentioned earlier—including their responsibilities for conducting independent price verification—are the critical ingredients in insuring that any accounting practices are applied in the appropriate manner.

Fair-value accounting for financial institutions is not an end unto itself; it is a means toward the end of more consistent and economically relevant financial statements and greater financial discipline. It will not prevent abuse or fraud; nor will it resolve the rules versus principles dilemma associated with all accounting systems. Finally, it will not overcome the need to adopt workable and pragmatic approaches to guide accounting practices for particular classes of financial services such as small business loans where there may never be either direct or indirect techniques to mark positions to market.

The choice of the preferred accounting model for financial institutions comes to what is best, not what is perfect since perfection is beyond reach. Given the weight I personally assign to the model that comes closest to economic reality and provides the greatest discipline, fair value for financial institutions seems to me is the way to go.

Before bringing this lecture to a close, I want to add one further thought and it relates to the subject of enhanced public disclosure. Clearly, enhanced transparency is a good thing and there are aspects of enhanced transparency that in the current environment are "no brainers." As an example, the new disclosure policy that requires institutional research reports to disclose investment banking relationships of the analyst's employer fits this description of a "no brainer." However, there are also areas in which enhanced disclosure may be aimed at inherently very complex subject matter that is intended to help investors make informed judgments about the absolute and relative prospects for individual companies. Highly complex measures of market and credit risk exposures are cases in point. Here, there will often be a fine distinction between public disclosures that enlighten and those that may confuse. At a minimum, this requires that approaches to enhanced public disclosure must be highly sensitive to the law of unintended consequences and they must rely on a blend of quantitative and qualitative disclosures that, if anything, place more stress on the latter than the former.

CONCLUSION

It would be tempting to conclude these remarks with the words of that well-known contemporary philosopher, Pogo, who observed "we have met the enemy and it is us." While there is a good deal of truth to that quip, life is not that simple. Thus, I will wrap up with a few shorthand points of substance as follows:

First, the euphoria of the second half of the 90's clearly got out of hand. The boom, like all booms, produced excesses in spending and excesses in behavior. That's the essence of any boom. What strikes me as different is the extent to which the excess in behavior in the relatively few instances took on the appalling dimensions we read about in our daily newspapers.

Second, the U.S. economy has held up remarkably well in the face of considerable adversity, especially taking account of the tragedy of September 11, 2001.

Third, while the "hype" associated with the new economy was very much overblown, the fact of the matter is that the U.S. economy has achieved important structural improvements in recent years. These improvements bode well for the future.

Fourth, while spending on Internet and telecommunication projects got way ahead of itself, these innovations are real and will continue to produce long-term benefits.

Fifth, the reform and cleansing effort—including the pursuit and prosecution of those who have broken the law—is well underway and is already producing clear benefits even if a great deal of hard work lies ahead, especially in regard to accounting practices.

Finally, despite the gloom of the day, I believe the U.S. economy, and particularly its financial system, will emerge from all of this stronger than ever. On that upbeat note, thank you for your patience and attention, and I look forward to your questions and comments.

Questions and Answers

Mr. Corrigan answered questions from the audience following his presentation.

MR. DE LAROSIÈRE: Thank you very much, indeed, Gerry, for this remarkable presentation which has captivated all of us. You are kind enough to take a few questions, so I will ask the audience, if someone wants to ask a question, to please stand up and make your point.

QUESTION: I'm from Denmark. I have listened to your analysis with enormous interest, and I can, from a European Danish viewpoint, follow you a long way in your conclusions. And I agree with you that the need for independent controllers or control systems seems to be one of the factors you need in the future.

What surprised me, however, is that you didn't, in any way, seem to put a question mark to the system of a one-tier board that you have here in the United States, where you mix the executive directors with the independent external directors, while in Europe we have a two-tier system—at least on continental Europe—which seems to at least limit the scope for excesses. And I wonder whether this is something that will not change here in the United States because I think it is a fundamental question.

MR. CORRIGAN: It was hard to hear, so let me repeat the question for those who may not have heard it. Essentially, the question comes down to the point that I didn't get into—questions about the structures of boards of directors, the so-called European two-tier system, and I would add to your comment, the particular U.K. system, although it's not unique to the United Kingdom, where the chairman and chief executive officer are not, typically, the same person. So there are a number of legitimate questions there.

As to the specific question of the European-style two-tier board mechanism, all I can say is I have never worked with one of those boards. I really don't feel qualified to comment. But I would add that I have always had a certain amount of sympathy with the idea that the chairman could well be somebody other than the chief executive officer. Some of you may remember back in my days at the Fed when we were having a few problems with some pretty important financial institutions. I was kind of actively flirting with that idea at the time.

The only other point I would make about directors in general and the increased emphasis on independent directors, which I think is broadly consistent with the point you're making, is that it is not going to be easy for corporations to attract and to retain independent directors who really have the skill sets to be able to deal with the kinds of questions that they are essentially being asked to deal with more directly now than at any point in the past. I don't think we should have any illusions about that.

The second point I would make, which came up at our meeting in Aspen a few months ago, is that many observers, at least around the United States, seem to believe that right now there has already been a marked power shift away from executive officers, including the chief executive officer, to boards and, particularly, the independent directors that make up audit committees and compensation committees.

So, again, I don't feel qualified to speak on the European model in any great detail, but those are at least a few thoughts that I think are broadly germane to your question.

MR. DE LAROSIÈRE: You have a few questions that have been submitted in writing.

MR. CORRIGAN: Jacques, I wish you hadn't given me these questions. They're all hard to answer. But I might add they're also quite predictable.

The first one says why did I ignore margin regulations. I try very hard to avoid unnecessary controversy, and this is a subject where I think controversy is inevitable, but let me try to respond in the following fashion.

First, I think we need to understand that in the context of the run-up in stock prices in the United States, margin credit is very, very unimportant. At its peak, it amounted to only about 1.4 percent of total stock market capitalization. So it's not big. And the second thing to keep in mind is that the margin regulations that exist right now are about the easiest thing in the world to get around if one chooses to get around them. Now, the thrust of that comes down to, I think, saying that if there was some benefit to a change in margin requirements—and I'm not passing judgment on whether there was or there wasn't—it would simply be a signal benefit. It would not have had any material effect whatsoever on the amount of credit being used to "finance the stock market bubble." Now, as I said, I'm quite prepared to leave it at that.

QUESTION: Would the speaker care to comment on the responsibility of governments, which essentially have organized the licensing of 3G networks sold on the part of the people?

MR. CORRIGAN: The answer to, "Would the speaker care to comment," not really. But, again, I think the point here is the governments that were involved in the process looked upon the environment of the late 1980s as manna from heaven because the opportunity to sell these assets at these inflated prices was so considerable.

Now, what that also says to me, and we should not lose sight of it, is that the bubble mentality was every bit as much present even in the government sector as it was in the private sector. We've got to understand that—and, again, I'm not excusing the bad things that have happened; some of this stuff makes me sick to my stomach—this was the textbook case of "everybody riding the same train." And I think that's why, or part of the reason why, things got as far out of bounds as they got. And it's also the reason why, it seems to me that, when we look at the damage and we look at the facts, I think the U.S. economy is going to get out of this without any really major damage. I think that's quite remarkable when you consider the extent and nature of what was going on and the extent and degree to which it dominated behavior pretty much every place. So, again, that's about the best I can do with that question.

Just to correct something regarding total productivity in the United States. Productivity growth in the United States is continuing to rise in the sense that it's going up, but it is not going up at anything like the rates at which people thought it was going up.

QUESTION: Would it not be unjustified to refer to the present economic malaise as being caused by the bursting of the high-tech boom? Is it not instead attributable mostly, if not wholly, to corporate misdoings?

MR. CORRIGAN: This is why I used that perfect storm analogy—these things kind of feed on themselves. I'm not old enough to be able to remember, for example, whether some of the excesses in terms of corporate behavior that we've seen over history were worse or not as bad as what we've seen in this episode. Based on my own living-memory span, some of these cases seem to be beyond what I, at least, could have ever imagined. You know, when the Enron case first broke, I said "My god"; and then when the next one came, I said "That can't be"; and then the next one. . . . From my perspective—some of you are a little older than me and may view it a little differently—these are truly off the charts. There's no question about that. There's no excuse for it. As I said twice in my remarks, the people that broke the law are going to be prosecuted. There's no question about any of that.

But what I also said was, even aside from those egregious cases, the behavior that we saw over this period calls for reforms. And that, I think, is the really key point.

Now, as bad as the Tycos and such cases are, I think you have established mechanisms to deal with that, and they are being dealt with. This stuff isn't being swept under the rug. But it's not good enough just to deal with those cases. We've got to deal with the basic reforms that are necessary. We have met the enemy and it was us.

I don't think you can single out blame, and, as appalling as these outlier cases are, I think we would have had a hell of a mess on our hands even if those outlier cases weren't there to begin with.

QUESTION: At a Georgetown University bankers forum some years ago, I seem to recall that you expressed some questions about abandoning Glass-Steagall.

MR. CORRIGAN: I do remember that very well in fact. Actually, 20 years ago, with some prodding again from Mr. Volcker, I wrote an essay, which is still widely used in universities, I guess, all over the world, called “Are Banks Special?” I essentially argued—this was in 1982—that banks were special and that we have to be very careful about altering the fundamental structure that had guided banking in the United States for at least most of the past century. In 1987, I wrote another long, long paper in which my views had begun to change because in that 1987 paper, I did, for the first time, say that a properly supervised and regulated bank holding company with broader product capabilities and powers probably was inevitable, again, because of the forces of technology. So my views actually had changed a long time ago.

Now, having said that, I think when you look at what we’ve seen in the financial sector, there clearly are issues that cry out for reform. The one that, understandably, is getting a tremendous amount of attention is this whole question of the independence of analysts—institutional as opposed to economic research analysts—from investment-banking-type people and that there’s just no question that while this may or may not involve violations of laws or regulations, it sure seems to have crossed the line with vigor in terms of the spirit and intent of the relevant laws and regulations. And that’s got to be fixed.

What is the right fix? I’m still not quite sure. But, as you can see from the newspapers, a variety of alternatives are under consideration, ranging from going as far as the complete spin-off of institutional research entities from banks, investment banks, and other kinds of financial service companies. Whether we’re going to have to go that far or whether some middle ground can be found that is credible, I’m not sure at this point. But I am sure that the issue is real and that the need for reform is powerful, indeed it is compelling.

Now, the other area that’s tricky is this question of—and, frankly, this applies I suppose more directly to banks, but that’s not the reason why I’m saying it—whether financial institutions, in general, and perhaps banks, in particular, are packaging services in a way so that—leave aside whether it violates the Bank Holding Company Act or not, I don't really care that much about that—they're using credit as a loss leader and, in the process of using credit as a loss leader, underestimating the potential risks associated with certain types of credit extensions. That, to me, is not so much a regulatory or legal issue, and it's not even a Glass-Steagall issue, but I think that is another question that probably has to get sorted out a bit.

So my bottom-line answer is that my views on Glass-Steagall actually changed a long time ago. Glass-Steagall, in and of itself, or its absence is not the problem. The problem transcends Glass-Steagall or its absence, but the problem, as I've defined it, I think does indeed call out for some very substantial reforms.

MR. DE LAROSIÈRE: Gerry, we have to finish up.

MR. CORRIGAN: Okay. I have one last question here.

QUESTION: Could you comment on Chairman Greenspan's speech in Jackson Hole.

MR. CORRIGAN: Fundamentally, I happen to agree with the chairman. The central premise of that speech, at least as I read it, was his saying that for the central bank to rely on interest rate policy essentially by itself, to burst the bubble at midstream would have caused enormous damage to the economy at large and, therefore, there was a clear limit to what one could reasonably expect from monetary policy in those circumstances.

If you read what I said, I said essentially the same thing, though I did raise a question of nuance—I guess I'll put it that way. We talk about monetary policy but we're really talking about interest rate policy. All these other theoretical niceties are wonderful for classrooms, but that's what we're talking about—interest rate policy. The question was whether there are circumstances in which a substantial and sustained rise in some category of asset prices, whether it's real estate or stock prices, could make the case for interest rate policy to be tighter, in other words, interest rates higher, than they otherwise would have been or should have been from just looking at near-term economic, macroeconomic developments. And what I tried to say was—and I was very careful about how I said it—one certainly can speculate that such a case could be made.

Now, it's one of those things that we'll never know. But what I was trying to say is that if we or any other country finds itself in a similar predicament in the future, it's at least worth thinking about.

Thank you all very much.

MR. DE LAROSIÈRE: Thank you very much, indeed. There were a few questions, unfortunately, that we couldn't take because it's getting close to the end of our meeting.

Thank you again, dear Gerry. Everybody has been under your spell. It's been a great speech, and those who had a few questions left could perhaps ask them directly of you during the reception.

Thank you very much.

E. Gerald Corrigan

E. Gerald Corrigan, 61, was named Managing Director at Goldman, Sachs & Co., effective November 30, 1996. Mr. Corrigan serves as cochair of both the Risk Committee and the Global Compliance and Controls Committee, and he is also a member of the firm's Commitments Committee. Mr. Corrigan joined Goldman Sachs on January 3, 1994, as Chairman, International Advisors, and senior advisor to the Executive Committee. On an ongoing basis, Mr. Corrigan is involved in a wide range of strategic and transactional projects around the world on behalf of the firm and its clients.

Mr. Corrigan ended a 25-year career with the Federal Reserve System when he stepped down from his position as President and Chief Executive Officer of the Federal Reserve Bank of New York on July 18, 1993.

Mr. Corrigan became the seventh CEO of the Federal Reserve Bank of New York on January 1, 1985. In that capacity, he became a permanent voting member of the Federal Open Market Committee (FOMC). He was also named Vice-Chairman of the FOMC, a position traditionally held by the president of the New York Fed.

In July 1991, he was named Chairman of the Basel Committee on Banking Supervision by the governors of the central banks of the Group of Ten countries. Mr. Corrigan was the first American named to that post.

Mr. Corrigan's career at the New York Fed began in August 1968 when he joined the Domestic Research Division as an economist.

From 1968 to 1976, Mr. Corrigan served in a variety of staff and official positions at the New York Fed. In 1976, he was named Vice-President of the Bank and subsequently had responsibilities for such diverse areas as the corporate secretary's office, planning, personnel, accounting, and domestic open market operations. In August 1979, Mr. Corrigan became special assistant to the Federal Reserve Board Chairman, Paul A. Volcker. In August 1980, he became president of the Federal Reserve Bank of Minneapolis, a position in which he served until his return to the New York Fed.

Mr. Corrigan was born on June 13, 1941, in Waterbury, Connecticut.

He earned a Bachelor of Social Science degree in economics from Fairfield University, Fairfield, Connecticut, in 1963. He received a Master of Arts degree in economics in 1965 and a Doctor of Philosophy degree in economics in 1971, both from Fordham University in New York City.

Mr. Corrigan is associated with a wide range of public policy and nonprofit organizations. Among others, he is a member or a trustee of the Bretton Woods Committee; the Group of Thirty; the Institute for Financial Stability, Bank for International Settlements; the Japan Society; the Per Jacobsson Foundation; the International Advisory Panel of the Monetary Authority of Singapore; the Trilateral Commission; and he is also Cochairman of the Aspen Institute, Program on the World Economy.

2002 *The Boom-Bust Capital Spending Cycle in the United States: Lessons Learned*. Lecture by E. Gerald Corrigan.

Recent Emerging Market Crises: What Have We Learned? Lecture by Guillermo Ortiz (Basel).

2001 No lecture took place due to the cancellation of the Annual Meetings of the IMF and the World Bank Group.

2000 *Ten Years On—Some Lessons from the Transition*. Lecture by Josef Tošovský (Prague).

Strengthening the Resilience of Financial Systems. Symposium panelists: Peter B. Kenen, Arminio Fraga, and Jacques de Larosière (Lucerne).

1999 *The Past and Future of European Integration—A Central Banker's View*. Lecture by Willem F. Duisenberg.

1998 *Managing the International Economy in the Age of Globalization*. Lecture by Peter D. Sutherland.

1997 *Asian Monetary Cooperation*, Lecture by Joseph C.K. Yam, CBE, JP (Hong Kong).

1996 *Financing Development in a World of Private Capital Flows: The Challenge for International Financial Institutions in Working with the Private Sector*. Lecture by Jacques de Larosière.

1995 *Economic Transformation: The Tasks Still Ahead*. Symposium panelists: Jan Svejnar, Oleh Havrylyshyn, and Sergei K. Dubinin.

1994 *Central Banking in Transition*. Lecture by Baron Alexandre Lamfalussy (London).

Capital Flows to Emerging Countries: Are They Sustainable? Lecture by Guillermo de la Dehesa (Madrid).

1993 *Latin America: Economic and Social Transition to the Twenty-First Century*. Lecture by Enrique V. Iglesias.

1992 *A New Monetary Order for Europe*. Lecture by Karl Otto Pöhl.

1991 *The Road to European Monetary Union: Lessons from the Bretton Woods Regime*. Lecture by Alexander K. Swoboda (Basel).

Privatization: Financial Choices and Opportunities. Lecture by Amnuay Viravan (Bangkok).

1990 *The Triumph of Central Banking?* Lecture by Paul A. Volcker.

1989 *Promoting Successful Adjustment: The Experience of Ghana*. Lecture by J.L.S. Abbey.

Economic Restructuring in New Zealand Since 1984. Lecture by David Caygill.

1988 *The International Monetary System: The Next Twenty-Five Years*. Symposium panelists: Sir Kit McMahon, Tommaso Padoa-Schioppa, and C. Fred Bergsten (Basel).

1987 *Interdependence: Vulnerability and Opportunity*. Lecture by Sylvia Ostry.

1986 *The Emergence of Global Finance*. Lecture by Yusuke Kashiwagi.

1985 *Do We Know Where We're Going?* Lecture by Sir Jeremy Morse (Seoul).

1984 *Economic Nationalism and International Interdependence: The Global Costs of National Choices*. Lecture by Peter G. Peterson.

1983 *Developing a New International Monetary System: A Long-Term View*. Lecture by H. Johannes Witteveen.

1982 *Monetary Policy: Finding a Place to Stand*. Lecture by Gerald K. Bouey (Toronto).

1981 *Central Banking with the Benefit of Hindsight*. Lecture by Jelle Zijlstra; commentary by Albert Adomakoh.

1980 *Reflections on the International Monetary System*. Lecture by Guillaume Guindey; commentary by Charles A. Coombs (Basel).

1979 *The Anguish of Central Banking*. Lecture by Arthur F. Burns; commentaries by Milutin Ćirović and Jacques J. Polak (Belgrade).

1978 *The International Capital Market and the International Monetary System*. Lecture by Gabriel Hauge and Erik Hoffmeyer; commentary by Lord Roll of Ipsden.

1977 *The International Monetary System in Operation*. Lectures by Wilfried Guth and Sir Arthur Lewis.

1976 *Why Banks Are Unpopular*. Lecture by Guido Carli; commentary by Milton Gilbert (Basel).

1975 *Emerging Arrangements in International Payments: Public and Private*. Lecture by Alfred Hayes; commentaries by Khodadad Farmanfarmaian, Carlos Massad, and Claudio Segré.

1974 *Steps to International Monetary Order*. Lectures by Conrad J. Oort and Puey Ungphakorn; commentaries by Saburo Okita and William McChesney Martin (Tokyo).

1973 *Inflation and the International Monetary System*. Lecture by Otmar Emminger; commentaries by Adolfo Diz and János Fekete (Basel).

1972 *The Monetary Crisis of 1971: The Lessons to Be Learned*. Lecture by Henry C. Wallich; commentaries by C.J. Morse and I.G. Patel.

1971 *International Capital Movements: Past, Present, Future*. Lecture by Sir Eric Roll; commentaries by Henry H. Fowler and Wilfried Guth.

1970 *Toward a World Central Bank?* Lecture by William McChesney Martin; commentaries by Karl Blessing, Alfredo Machado Gómez, and Harry G. Johnson (Basel).

1969 *The Role of Monetary Gold over the Next Ten Years*. Lecture by Alexandre Lamfalussy; commentaries by Wilfrid Baumgartner, Guido Carli, and L.K. Jha.

1968 *Central Banking and Economic Integration*. Lecture by M.W. Holtrop; commentary by Lord Cromer (Stockholm).

1967 *Economic Development: The Banking Aspects*. Lecture by David Rockefeller; commentaries by Felipe Herrera and Shigeo Horie (Rio de Janeiro).

1966 *The Role of the Central Banker Today*. Lecture by Louis Rasminsky; commentaries by Donato Menichella, Stefano Siglienti, Marcus Wallenberg, and Franz Aschinger (Rome).

1965 *The Balance Between Monetary Policy and Other Instruments of Economic Policy in a Modern Society*. Lectures by C.D. Deshmukh and Robert V. Roosa.

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