Mr. Corrigan: Thank you, Stan. At this point, we are going to open the proceedings for discussion and comments from the floor. But before that, in my capacity as chairman, I would like to make a comment or two. Stan, I really think that your effort to put forward and get on the table this “going-public” issue is a very useful contribution. I said at the beginning that this area is a case of what you see is not always what you get. And I for one would welcome observations from the floor as to how to square the circle on that very, very difficult issue of “going public.” And also, Andrew, I can’t help but resist picking up on something you said. I suspect you were being cautious, at least I hope so, but you said at the end of your remarks that you weren’t sure, over the long run, that one can segregate the goal of financial stability from the goal of price stability. From my perspective, I am quite sure that you cannot, and indeed for that reason I will go to my grave believing that central banks have to be involved in the supervisory arena. Now, questions from the floor. Henry Kaufman.

Mr. Kaufman: I found the presentations this morning exceedingly interesting, but I noted that there is a significant emphasis on traditional banking and the role of banking as the form of stabilization in the financial system. Now Andrew did indicate, “Yes, there is the growth of the financial markets.” I think this is where the
dilemma arises for central banks—that we have a mushrooming financial system securitized, we have a restructuring of risk taking, we have an enlarged growth of our mutual funds in the United States. And so there is the dilemma, I think, for central banks, on the one hand, of always looking at stability in terms of prices for economic goods and services and somewhat of an unwillingness to deal with what I would call an inflation in financial asset values. And how do you square that problem of an inflation in financial asset values, which to some extent is taking place today, against a background of reasonable price stability in prices, goods, and services? There is a hesitancy really in trying to deal with this. The dilemma will come about when financial asset prices decline someday and, in this new financial system of ours, how do we intervene—traditionally through the commercial banking system or are there other measures that ought to be put to use?

**Mr. Corrigan:** A nice thing about being the chairman is that you don’t have to answer that question. Andrew.

**Mr. Crockett:** Well, I’m tempted just to pass the question to Mr. Greenspan. You’re absolutely right. It’s a dilemma and I certainly don’t have an answer to it. I suspect that Chairman Greenspan probably doesn’t either, remembering that his famous reference to “irrational exuberance” was posed in the form of a question and not in the form of a statement. I think it would be a source of concern if you had conclusive reasons to believe that an inflation in financial asset prices was a bubble that would be reversed, because we know that it would generate, at the very least, resource misallocation while prices were out of line and quite possibly even more serious consequences when prices fell again and institutions, exposed as a result of the irrational or wrong prices, then had to face the consequences. The problem is—and I think I alluded to that in the paper—it is never very easy to say with confidence that the prices are indeed wrong. I will confess that I personally have got a number of hesitations about where the stock market stands now. I would be concerned that there is a potential for a bubble there. But I am cautious enough to say that I thought the same thing about two years ago, and we’re another 3,000 points higher. Similarly, with exchange rates in floating
currencies, you can never say conclusively that this is a bubble and it will be reversed. As Stan Fischer implied, the type 1 and type 2 errors. You don’t know whether the prices are right before or the prices are right afterward. I think it would be extremely difficult—I’m not saying it should never be done but it is extremely difficult—to take concrete action beyond that of warning the market to very carefully assess whether indeed the fundamentals are adequate to buttress the situation. To actually walk in and take action is something that I would reserve personally for extreme cases where you felt a much greater degree of confidence. Possibly the 1985 situation with the level of the dollar was one such occasion, and indeed, it proved to be a rather successful form of intervention. But I think there is a relatively limited number of such cases.

**Mr. Corrigan:** Alan, do you want to add anything to this?

**Mr. Greenspan:** Sure I do.

**Mr. Corrigan:** But later, right? Stan.

**Mr. Fischer:** Just briefly on this issue. Bubbles often occur in real estate investments. In some countries you can tighten regulations and try to get at real estate booms via financial regulation. This was the case years ago in the United States when markets were more regulated, but it may be possible also in other markets when a particular asset price appears far out of line.

**Mr. Corrigan:** Up front here, please. Jeff Sachs.

**Mr. Sachs:** I would like to continue along the same line of really asking when is a crisis really a crisis, rather than a movement of market prices?

**Mr. Corrigan:** You’ll know it when you see it.

**Mr. Sachs:** Well, that’s the question. And I’d like to come to the Thailand case, which is the immediate one. Stan, I think, said it exactly right. There was ample reason to believe ex ante that the baht
needed to be devalued. Actually, the amount of dollar depreciation in all of the Asian countries is less than what has happened in Europe this year. So, what looks like a crisis in Asia is a currency movement that has some good reason, given dollar exchange rate movement versus the yen and the European currencies. And also Stan said, I think rightly, that the Thais were warned amply by the Fund and by a lot of other people that there needed to be a devaluation or at least more flexible movements. My question is: In light of all of that, why is there a need afterward to do anything in terms of the international response? Does this fit the contagion issue? Does it fit the multiple equilibria issue? Does it fit the panic issue? I have questions about that, given what we’ve seen, what we knew, especially from a systemic point of view given that they were warned amply, why then run in afterward?

**Mr. Corrigan:** Stan, I think that’s yours.

**Mr. Fischer:** There are two reasons, maybe three, and you mentioned them all. First of all, it’s a very complicated issue as to whom exactly you punish when you don’t help a country in trouble. You’d be punishing three policymakers—all of them are in any case already out of their jobs—and 60 million other people by forcing a much deeper adjustment by withholding IMF assistance in Thailand. The same could have been said in Mexico—why help when the policymakers were responsible? I think the international community still has an obligation to mitigate the consequences after an accident has happened. We all know that the system would produce fewer crises without insurance. Nonetheless, the optimal solution is not to get rid of the insurance, but to do everything else that can be done—via surveillance for instance—to prevent crises, while having in place mechanisms to mitigate the effects of those crises that will happen—and they will happen. Second, there are contagion effects. These are connected to the third possibility you mentioned—multiple equilibria. I don’t know how many financial systems there are in small countries that are sufficiently strong so that a system that looks pretty good under normal behavior, still looks reasonably strong after the currency has been hit hard and interest rates have been raised a great deal to protect the currency. I don’t rule out, in my
mind at least, the possibility that there are multiple equilibria. For instance, and to commit a heresy, I doubt that the economics of the situation required Mexico to adjust by as much as they had to, and that there was another equilibrium which only took half that size of adjustment—if the international capital markets had provided half the financing they had in the previous year, that would also have been an equilibrium. But we’ll never know whether there are multiple equilibria or not. To give you an example: If the U.S. stock market goes down by 30 percent in the next few months, we’ll be able to explain that perfectly. And, if it doesn’t go down by 30 percent, then we’ll be able to explain that perfectly too. We don’t have enough knowledge to know what the equilibrium should be. That’s why the multiple equilibria story is a plausible one.

**Mr. Corrigan:** Thank you, Stan. Chairman Greenspan.

**Mr. Greenspan:** Stan raised an issue earlier about if a government is weak, it has difficulty implementing actions which are essentially perceived as having short-term costs with no benefits. I am not sure there is any government which can do that—strong or weak. One of the reasons is that the issue of economic policy is a very vague one to most ministers. They are very reluctant to take on costs which they themselves do not perceive to be absolutely necessary. And with the exceptional degree of difference among various economists’ views about how a particular problem is evolving, it is very easy for any government to find the appropriate economist to utter the appropriate reassurance to demonstrate that no action is required. If that is in fact the case, then the question really gets down to: How do you resolve this issue? And I think Stan raised the question of greater transparency. One of the things that every nation tends to do when it runs into trouble, indeed every company tends to do, is to hide the facts. It’s a normal human response when something goes wrong, differing from plan. The first reaction is, “Don’t let anybody know right away.” And that obviously is where the problem arises. If we have a sufficient degree of data publication in which the mechanisms within the countries are relatively automatic so that the political structure itself is not constantly evaluating whether these data or those should be published because they are or are not against
the national interest, if you have a relatively free, analytical system within governments which publishes the data, which are real, then all the embarrassing stuff comes out automatically, very quickly, and the endeavor to contain and induce a backing up of problems is very materially reduced. I don’t know where the appropriate amount of disclosure is, but what is pretty clear from both the Mexican and the Thai experiences is that the level we had (at the time of the crises) was too low. And in expanding the amount of data that should be made available, I think two things are required. One is to clearly augment the statistical capabilities of a lot of the countries in collecting data. It’s not self-evident that you get good data merely by saying you’re going to do it. You don’t. And, indeed, even in the United States, which presumably has a very sophisticated statistical system, there are a lot of numbers we publish which I personally think are nonsense. And, I am sure that this is true to a general degree throughout the world. Once you’ve done that, then the next step is: How do you get a noncorrupt data publishing system on a timely basis so that the markets really know what is happening? And, in that respect, the markets can respond far earlier. Stan was raising a question and was quite surprised that the markets took so long on the Thai issue. I think one of the reasons is that they didn’t know as much as he did.

Mr. Corrigan: I’m not so sure as to who knew what and when but, in any event, I don’t mean that as a diminution of your institutional capability, Stan. Bruce MacLaury.

Mr. MacLaury: Thanks, Jerry. Andrew, you were speaking about a next stage in the distribution of responsibility for the determining of risk, saying that financial institutions themselves ought to be allowed to determine better than they are now the degree of risk of their assets and leave it up to the central banks or authorities to set the amount of capital to be held against those risks. My question is: Can one imagine, either theoretically or in practice, taking that dichotomy a bit further and saying that the degree of risk is not just relative to the risks of the assets of one institution against another, which they may be able to model, but rather, the risks of the system as a whole changing over time—going back to Henry’s point about
assets as a whole rising and falling. And the question, then, is whether you could envisage the central monetary authorities having *variable* reserve requirements against measured assets. We have variable margin requirements against stocks; we have variable reserve requirements against deposits, though they are very seldom used in the United States—as ways of influencing relative risk of the system as a whole. My question is: Do you see the ability to take one step further and have centrally determined variable capital requirements?

**Mr. Corrigan:** Andrew, why don’t you take that one?

**Mr. Crockett:** I’m not sure that I do see a case for variable reserve requirements, if that is the question. When institutions measure the risks in their portfolios, they have to use a model that we know is not a perfect model. They have to make assumptions, basically that the future is going to resemble the past in certain fundamental ways and that the distribution of outcomes is going to be normal in some statistical sense. We know that is only an approximation to reality. And that is why there is catastrophic risk insurance, because there are circumstances in which those measured risks will not exactly capture the events that are going to take place in the future. What I think you can see institutions doing is becoming more and more sophisticated in the assessment of their credit and market exposures, so that they can say on the basis of that improvement that the future is like the past. And on the basis that the distribution of outcomes is normal in some statistical sense, we can say that this is the variability in the net worth of our institution that is likely to come from the agglomeration of these risks, given the particular portfolio structure that they have. Then, personally, I feel it will always be up to the authorities to say, “Fine, this model provides you with this measure of risk. But we, as the ultimate guarantors of the system, want to limit the likelihood that we will be forced to intervene to a given percentage, and that is a judgmental decision.” That, I feel, will always be taken in the light of an assessment on the part of the official authorities—first, how much they are prepared to be called upon in extreme circumstances to support the system and, also, their assessment of the vulnerability of the system to extreme events. And I would say that in certain circumstances where you’ve got height-
ened vulnerability of the system, whether because of a trend to globalization, whether because of a trend to greater volatility in prices, then you might wish to be looking at the situation in which the capital cover would be different. I personally find it somewhat hard to imagine the authorities backing away from the fundamental decision of saying what this capitalization should be. I’m not sure if that quite answers what you have in mind.

Mr. Corrigan: Alan, do you want to add something?

Mr. Greenspan: I just want to ask Andrew—I assume when you were referring to normal conditions or normality, you are not referring to normal distributions, because as you well know, the biggest problems we now have with the whole evaluation of risk is the fat-tail problem, which is really creating very large conceptual difficulties. Because as we all know, the assumption of normality enables us to drop off the huge amount of complexity of our equations very much to the right of the equal sign. Because once you start putting in non-normality assumptions, which unfortunately is what characterizes the real world, then these issues become extremely difficult. While Bruce can argue that that might be in principle a useful tool, we have very much difficulty at this particular stage making adjustments of fixed capital requirements for a very simple set. When you start to think in terms of variable capital requirements for a complex set, when the non-normality of the system is such, I just wonder when we will come out with anything reasonably useful in the real world.

Mr. Corrigan: On that note, we must bring the first panel to a conclusion. Speaking for myself, I thank the three of you for what was a terrific presentation. Thank you very much.