Eight years ago, in this very place, the theme of the conference was "The Rocky Dollar on the Rocky Mountains." Well, we still have the Rocky Mountains, we may have the rocky dollar, we may also have a misaligned dollar, and we still have exchange rate volatility. In addition, there was a debate about whether volatility or misalignment was worse. We are now discussing the financial instruments that were developed to deal with these problems, and how these solutions to the problem of volatility and misalignment have come back to haunt us, and made the conduct of monetary policy more difficult.

The three questions that Chairman Greenspan posed at the beginning of our meetings were fully addressed at this conference. We discussed the effects of changes in financial markets on the way that monetary policy affects the economy; we discussed how the changes affect the way monetary policy is formulated and implemented; and we also discussed how all these changes affect the stability of the financial system.

We began with Franklin Edwards' paper, which described and documented the decline in the banks' share in the economy. Edwards' discussant, **Kumiharu** Shigehara, showed that this phenomenon is really an international one. Several questions were posed. Is this phenomenon due to excess capacity in the banking industry? Is it due to excess regulation? How should we react to it? And, in short, need we worry about it? Charles Sanford predicted that in the year 2020 banks will not exist the way we know them today, and therefore,

maybe there is no point in occupying ourselves with these questions.

However, we should be concerned if the declining role of banks arises from a distortion, such as that induced by regulations like the Glass-Steagall Act. The key challenges are on the supervisory side. For example, do we have the capacity to supervise this new breed of sophisticated financial products? Do we have the expertise? The issue goes beyond the distinction, discussed by Shigehara, between a functional and an institutional approach to regulation. What we have now is a situation in which the markets are much more prominent, and the entire role of supervision and regulation in the new world should be based more on market than on administrative rules.

Sanford indicated that the challenges in the year 2020 will be how to make technical experts and managers play the same tune. I don't believe that Alan Greenspan's challenge on how to ensure communication between managers and experts was met. As a matter of fact, in a changing world, the managers of today, who were the experts of yesterday, might almost by definition already be obsolete. They became managers because the new experts came from the new breed. Thus, if we define the challenge as a technical one, the issue of communication and interpretation remains with us.

The world is changing. Indeed, Ben Friedman began his remarks by noting that M2 relations have broken down, that M1 relations had broken down previously, and even relations based on the debt concept that Ben promoted so well in the previous decade have broken down. Basically, the vast changes in the nature of the financial system have rendered previous rules obsolete.

This reminds me of the story of Mr. Rabinovich, who went to his friend's office and said to him, "Oh, you've changed so much. You used to be tall, and now you are so short. You used to have a beard, and now you are clean-shaved. You used to wear glasses, now you don't? What happened to you, Mr. Rabinovich?" "I'm not Mr. Rabinovich," he replied. "So you have also changed your name!"

In this rapidly changing world, mathematical formulas are not a substitute for good judgment and analysis. The role of formulas is

rendered even more complicated in the world in which Rabinovich changes his name, because history is no longer linked to the present, which is a new universe, and also the past is not what it used to be. As a matter of fact, as people change and society carries with it experience and memories, even the future is not what it used to be.

Lewis Carroll's rhyme applies particularly to this changing world: "All the king's horses and all the king's men, couldn't put Hurnpty Dumpty together again." This is due not to poor engineering, or lack of ability to deal with mathematical formulas, but to changes, real changes of circumstances, changes in the rules of the game.

What does all this tell us about the European exchange rate mechanism (ERM)? One thing is certain, as Andrew Crockett said: German unification is a unique event, and indeed it is. The ERM will never be the same again. In the past, people held conferences full of nostalgic views of Bretton Woods, and asked how can we return to those days? I assume their predecessors asked similar questions about reverting to the gold standard, and in the next few years there will probably be numerous conferences asking how can we return to the ERM? It seems to me that the ERM will not return, at least not in the same form.

What does this tell us about policy? What lessons about policies can be learned? We were told by Sanford that in 2020 we should avoid systemic collapse; this is also true today. We were told that in 2020 "one should never lend unsecured to anyone who eats." Morris Goldstein and Michael Mussa gave us the right response to this: risk must be appropriately priced. If it is, this will not be such a difficult problem.

A recent conference, organized by Marty Feldstein some years ago, looked at the entire spectrum of crises in the history of monetary systems and domestic policymaking. A major conclusion from that conference was that most crises ultimately arise from situations in which uncertainties and risks have not been properly priced. People, corporations, and enterprises have undertaken excessive risk—"excessive" from society's perspective—assuming that "Big Daddy" (the State) will bail them out. And that is why the second dictum of Goldstein and Mussa—the "no bailout" provision—should be strictly

adhered to.

More generally, as the financial system and the role of policy change, we come back to the question of rules versus discretion. And we reached several conclusions. First, the obvious one: bad rules are always worse than good rules. While this sounds trivial, most rules that failed were of the bad variety. So let's not take it lightly. Second, we recognize that the future of rules lies in their consistency, transparency, and predictability rather than in randomness. We also recognize that discretion usually brings about the "too little, too late" syndrome. But this is not an argument against discretion, but against hesitation. The real issue, as far as I am concerned, is the distinction between systematic versus erratic policymaking. Systematic discretion becomes a rule if it is followed consistently.

This brings us to the issue of forecasting. Donald Kohn told us that monetary policy involves making forecasts. Andrew Crockett told us that monetary policy in the United Kingdom today is, in general, geared toward the forecast of inflation one or two years ahead. But Allan Meltzer maintained that adaptive rules, while using new information, need not engage in forecasts. This reminds me of a lesson about forecasting that Marty Feldstein taught me in early 1987, when I joined the International Monetary Fund. He told me: "If you have to make a forecast, don't put a date on it; if you do, do not use a quantitative forecast; and if you are stupid enough to put a date on a quantitative forecast, then make sure you revise it frequently."

Nevertheless, I do come down on the side of forecasts. It is very difficult to think of the design of economic policy in general, and monetary policy in particular, without being engaged in some type of forecasting. Policy design involves asking what a policy change will do to the economic system, rather than whether we adhere to the rules, even if it is designed to deal with new information in an adaptive fashion.

We then switched to the drama of war and peace. Ben Friedman brought us Clausewitz's dictum, Donald Kohn reminded us that monetary policy is hell, and Arthur Bums told us about the agony of central banks. In this debate, I side with Michael Mussa's view that

in the new world with powerful private markets, policymakers should befriend the markets and enlist their help rather than make enemies of them. Policy is not an exercise in fooling markets. It is not an exercise in wiping out enemies and winning wars, but rather one of engagement in a long-term relationship which requires continuous communication.

What are the criteria for a successful system? There was no explicit discussion of this issue but there was an implicit one. Before answering the question, we must first ask whether we judge the success of a system according to its operation during "normal" or "stormy" periods. I would say that in normal periods, when the water is calm, it doesn't matter. Most systems would work —including fixed or flexible exchange rates. It is precisely during times of noise and crisis that the winners can be distinguished from the losers as far as the quality of systems is concerned. It is during crisis that the strength of a system should be assessed. What is the valve that ensures that the adjustment of a system under pressure reflects the successful operation of the system, rather than signaling its collapse and destruction of its credibility? In other words, the frequent adjustments needed in a changing world must be an integral part of a properly designed system, rather than a manifestation of its demise.

As Henry Kissinger once said, "The new world order should not be viewed as an emergency measure." Goldstein and Mussa argued the case for orderly rules of collapse. What is interesting about the difficulties of the exchange rate mechanisms of 1992 is not the fact that they arose, but their disorderly fashion.

This reminds me of a friend, who spent much of the week before his wedding working on the divorce contract. When he was asked why, he replied, "Because now, as we love each other, we have clear heads, and so if we split up, it won't be in a disorderly way." I don't suggest that this is always a good strategy. (By the way, he got divorced because since everything was ready, it was so easy for him.) But there is a lesson in this story—the way in which a system disintegrates illustrates the quality of the system itself.

What are the general lessons that can be learned? Lesson number

one: never lose credibility. As a matter of fact, those of you who read Hans Tietrneyer's paper will have noticed that it has two parts. One part was written when the system was working, and the last few paragraphs tell us about the lessons to be learned from its demise. He says: "Don't lose credibility. After all, credibility is a central bank's most important asset." I agree.

But how do you make sure you don't lose credibility? Lesson number two: don't lose your anchor. Don't engage in real exchange rate rules or in real interest rate rules, because they can be adhered to at any rate of inflation. Such rules are dangerous. In other words, if you are going in this direction, make sure that you still have a nominal anchor at hand. It can be a nominal quantity or a nominal price. In the world of change, I would probably recommend an exchange rate policy as a possible anchor.

Lesson number three: do not put "sand in the wheels." I think there was a complete consensus on this issue. I did not hear a single dissenting voice. As any mechanic knows, if you put sand in the wheels you may cause irreversible damage. The proper solution to traffic problems is to widen the road and install seatbelts in vehicles, rather than to narrow the road or even stop driving. It is a mistake to stop the free movement of capital.

Lesson number four: if you decide to liberalize and deregulate your financial system, you must strengthen the system of supervision. As a matter of fact, almost paradoxically, a system that is very rigid, and that allows no freedom of action, does not need a lot of regulations. If nothing is allowed, there is very little that is left to be regulated. It is precisely in a system which is supposedly free that the rules of the game must be very well designed and supervised.

It was a very telling remark of the Goldstein and Mussa paper that it is only in the last three years that some European countries have adopted complete capital account convertibility. Three years ago we were sitting here, discussing current account and capital account convertibility in Eastern Europe and the republics of the former Soviet Union. I remember that the first step the various republics wanted to take was to have a currency of their own, internationally tradable and

completely convertible. Needless to say, that is the last step along this road, not the first.

Tietrneyer reminded us that while liberalizing, it is important not to undermine your capacity to conduct effective monetary policy. If you do, you lose the anchor of stability, and it will be argued (wrongly) that the uncertainties and inflation were caused by the deregulation, rather than by the poor conduct of policies.

Lesson number five: foreign-exchange intervention is ineffective. I think this has been in the air since the famous Jurgensen report. Many people hoped that we could simply intervene in foreign exchange markets, substituting that for real fundamental changes in economic policies. I think we have learned that this just does not work. It does not work because there are massive capital flows. Still, during normal periods intervention can be useful, by sending signals about economic policy changes. But those signals must be credible. *Go* back to lesson number one and Tietmeyer's remark.

Lesson number six. Here there was a controversy. Andrew Crockett concluded that basically we have a two-system universe, flexible and pegged. Anything in between is so complicated that it should be carefully avoided. And so the sixth lesson is: reach first the stage of convergence of the new economic variables and once you have reached it, get hooked—to whichever pegged currencies you desire. Pegging according to this argument should not occur before convergence, since you will not be able to sustain the peg. However, I think it would be a shame if the benefits from the stable or pegged system are delayed until that last stage.

In Israel, we have introduced an exchange-rate system that I think can provide a solution to this transitional dilemma. Our exchange-rate system is basically a "crawling band." We have an inflation target which implies an exchange-rate path and we allow for a band around this average exchange-rate path, so as to allow for equilibrium real exchange rate changes. We have a central parity which changes at a rate equal to the difference between our inflation target and our trading partners' expected inflation rate. As we make progress on the inflation front, we are lowering the slope of this diagonal band. Eventually, we

will converge to the "nirvana" that Andrew Crockett wants to achieve at the end of the road. But the crawling band exchange-rate system helps us during the transition. The system has been working for us for two years. It has helped us to cut inflation by half, while maintaining external competitiveness and stability.

I would like to speak about the constraints of monetary and fiscal policies. There was a question, which was also implicit in Alan Greenspan's first question, about whether the rapidly integrated capital market has diminished the capacity to conduct monetary policy. Most papers indicated yes. I agree.

With highly integrated capital markets, information travels so rapidly that a policymaker barely has time to breathe and assess where he is. This is very important. Do you remember Herbert Stein's statement that the challenge facing policymakers is to decide what to do when you *don't know* what to do? In other words, you don't have time to formulate a policy response, and in this sense the rapidity of response does affect the capacity to act.

Allow me to make a few additional remarks. First, Goldstein and Mussa indicated that the stability of a pegged system requires a single monetary policy. The logical result, therefore, as indicated by **Crock**ett as well, is that you need convergence. But do you need to have it **before** or **after** adopting a fixed exchange rate? The answer depends on whether you go the route of Crockett, or you adopt the Israeli diagonal exchange-rate system of the crawling band. But ultimately, a single monetary policy is needed.

Second, Goldstein and Mussa argue that the internal requirements of monetary policy do not permit it to focus only on inflation. It also needs to consider unemployment, the real exchange rate, maybe the stability of banks, the situation in the cycle—a lot of things for this poor policymaker. But then, how do countries that follow these indicators choose a pegged exchange rate with a country that only looks at inflation? After all, the convergence of inflation rates is not enough, because first you need to agree on the goals for the so-called common monetary policy. If they incorporate more than just inflation, then we are really in deep trouble. But this is precisely the issue.

Therefore, we should not be surprised about the ERM, and the problems may not be just due to convergence.

That reminds me of the story about the French nobleman. As you know, during the French Revolution many people were beheaded. After being beheaded, one French nobleman took his head under his arm and started walking from Paris to Versailles. When he arrived at Versailles, everyone applauded. But a wise man looked at them and said, 'I don't understand why you applauded when he reached Versailles; you should have done so when he made his first step out of Paris.' In other words, if the precondition for the ERM is a resolution of the debate about the goals of monetary policy—prices only, prices and unemployment, stability of banks—then why are we discussing questions of convergence? We should really go back to Paris before taking the first step.

My final remark concerns policy coordination. And here I must make a confession. For many years I have been standing here making the case for coordination. And indeed, there is a lot to be said for coordination—intellectually at least. But every day that passes brings me closer to Marty Feldstein's views. The way the policymaking process works, the formation of policymaking, requires much more coordination, between the Ministry of Trade and the Ministry of Finance, between the Ministry of Finance and the Governor of the central bank, or between the parliamentary finance committee and the executive. Only then does international coordination become relevant. If the latter works and the former does not, then you cannot really go very far.

So policy coordination is good, but I would think of it as the frosting on the cake. It is not a substitute for the real hard choices. Here I must conclude by siding with Andrew Crockett. The danger of focusing on monetary coordination is that this is feasible. And there is the temptation to do it just because it is feasible—at the expense of not doing anything else, especially on the fiscal and structural fronts. Then a "successful" coordination of the wrong policies may indeed be ineffective or even counterproductive.