About this time last year, the atmosphere was dominated by the situation in Russia and the interpretation that the world had moved from an excessive chase after yields without paying due regard to the risks to an excessive chase after liquidity and the willingness to forego profitable opportunities. Indeed, Chairman Greenspan focused on this issue in his opening remarks yesterday morning. He focused on the widening of the spreads, the importance of the pricing of risk, how expectations are formed, what happens to the value of assets, how we should calculate wealth, and whether it matters that the value of wealth changes from a source like the housing market or the stock market. Eventually, we came to the physiological conclusion that we are witnessing a disengagement from an activity, whether it be entering a dark room or taking positions in the markets.

This is the legacy of the experience that we have gone through over the past year. The overshooting has settled and spreads seem to have narrowed. People seem to have forgotten some of the things that happened. And now we are talking about how to conduct monetary policy in an era of price stability.

The question is how come? Have we forgotten? Or have we learned our lessons? The key is in the nature of capital markets. As we know, capital markets operate very rapidly and are very deep, in general. Things that used to take place over a long period, such as lags of mone-
tary policy and impacts of announcements on the economy, are now shrinking and becoming very rapid.

Someone once said that in capital markets you have two types of investors: those with short memories such as commercial banks and the like, and those with no memories such as institutional investors, multilateral organizations and the like.

When Mr. Yamaguchi said yesterday that the Japanese bubble is not a part of the past, it is still part of the present. I assume he meant there is still some financial sector cleanup to be done. I would argue that even when the financial sector cleanup is complete, the bubble would continue to be with us in the fundamental sense of impacting our understanding of capital markets.

If memories are short or if there are institutions with no memory, is it really a handicap? Is it really a criticism? Is it really a constraint? Well, the answer is it depends on the circumstances. If circumstances change very rapidly and the future is very different from the past, it is a waste of resources to remember the past or to operate according to the norms that guided us in the past.

What is clear is that time has become very nonlinear. Those of us who remember the work of Maurice Allais on German hyperinflation recall that he developed the concept of time being nonlinear, not measured on the metric of the calendar but rather on the metric of psychology. Under this concept, years may pass very quickly, and days like today maybe may pass very slowly. This is the new essence of capital markets where current prices reflect the entire history from the past and the entire future as being capitalized into the present. That is why Chairman Greenspan spoke yesterday about the discounting feature. It is exactly this nonlinear mechanism that is capable of collapsing the entire spectrum of time from the distant past to the distant future into the present. This mechanism makes the results of current policy so dramatic.

In the old times, we called this an overshooting problem. But today we should really call it the mechanism that enhances the transmission
mechanism of current policies. As we are carrying out current policies today, they show themselves immediately with a vengeance because these current policies are being projected into future policies and the like, which means we need to be very careful.

Through capital markets, the role of expectations is to provide a true market discipline of assessing good monetary or other policy. That is why the concept of credibility was so prominent in the discussion over the past two days. Credibility is viewed as a form of capital that can be rapidly depreciated and must be cultivated.

Then we come to Lars Svensson’s question: What happens in extreme situations? During the coffee break, Lars told me what he really meant by the question and he is right. One should make contingency plans before the storm because decisions that take place in the midst of the storm are bound to be excessively weighted to getting out of the storm rather than to not destroying the future.

Maggie Thatcher once said, “The unexpected happens and we better prepare for it.” But how do we prepare for the unexpected? I think conventional medicine is still very valid. You must have a flexible economic system. You must have lender of last resort without creating moral hazard. And you must have a sound financial system with good regulation and supervision without destroying the need for risk taking. Remember the dictum that markets are like parachutes. They work best when they are open. Ultimately, at the end of the day, we must find mechanisms—not formal ones but through the incentive system, by which the maturity of assets gets longer because much of the problem arose when the maturity of assets became too short.

Well, how does this link to what we are talking about today? Some years ago, James Gleick wrote a book on the theory of chaos. A key element in the book is a story about a butterfly that is fluttering its wings somewhere over the Pacific Ocean, and because the author assumed there was no friction, the gentle waves created by the fluttering of the butterfly in the beginning get amplified and eventually create typhoons somewhere else on the globe.
So, how come we do not have typhoons all over the globe? After all, there are butterflies all over. The answer is there is friction. What we have seen in the capital markets over the past decade, especially in the last few years, is the amount of friction has diminished very rapidly and those little butterflies are creating havoc. How should policy respond to it? One way to help is to reduce the friction. Put sand in the wheels. Implement capital controls and mention Chile ten times in one sentence, not remembering that Chile actually suspended that tax on capital inflow. Alternatively, improve the safety of rapid driving by widening the roads or installing safety belts. That is the right way for policy to respond in a world in which butterflies can create havoc.

Last fall, when investors lost their appetite for investing in capital markets and emerging markets saw capital flight, there was a colorblind reaction. Investors said, “We want out.” When you asked them, “Out of what? Taiwan, Mexico, Argentina, Israel?” They said, “I do not care. Out of emerging markets. They are all the same.” Of course, this was an overshooting.

After awhile, money must find a place to go, but investors have become much more selective. Individual countries are asking themselves, “What should we do in order for the pool of resources to flow back in our direction?” It is like standing in line trying to win a beauty contest. Well, how should a candidate in a beauty contest prepare itself? The answer is to go to the judges and ask them what they look for in choosing a winner. You do not look in the mirror and ask, “Am I beautiful?” You ask the judges, “What do you look at?” And if they tell us Standard and Poor’s, Moody’s, and the like, that it is a consolidated budget, low inflation, an open capital account, a low tax burden, etc. Well, that is the recipe for a small country or an emerging country to win the beauty contest. So, from this perspective, I see no rationale for advising any emerging market economy to enter into a beauty contest by saying, “Let me start by raising confidence in my economy by imposing some restrictions on capital flows.” Then the argument is do not restrict all capital flows, only the bad ones. Well, try to go on a diet that keeps out the bad cholesterol and only lets in the good cholesterol. You cannot do it. You need to go on the right diet.
What does this all have to do with the exchange rate regime? I looked at the American Economic Association program for the last twenty-five years or more, and there was not a single year that did not include a session on the appropriate exchange rate regime. It is the same questions but the answers have changed. The answers have changed not because people were erratic but because circumstances have changed. How does the world look today when many of us held great interest in the luncheon speech yesterday and recognize the importance of the euro and the ECB? When we understand the concept of central banking independence? Where central bank objectives are more clearly defined? When fiscal consolidation is part of the strategy? Where there is conceptual consolidation and you do not need to hear a different theory for a transition economy, a Latin America country, or industrial countries? Where the exchange rate regime is understood to be part of the financial institution? Where the knowledge of exchange rate is not just a competitiveness question of what happens to the value of exports but rather it is something that has to do with the financial markets. In this context, the exchange rate regime is obviously linked to monetary policy and the concept of commitment becomes key.

Then we get to the conclusion, if the above statement is true and markets are so deep and broad, then there is likely not enough reserves anywhere in the world, particularly in a central bank, to defend the wrong exchange rate. But who wants to have the wrong exchange rate? We always want the right exchange rate. The fact of the matter is, if you look at the history of all speculative attacks against countries, if there is such a thing, they are always happening to governments that are attempting to defend a price that is different than what has been determined in the marketplace.

The most important issue of the new capital market and the fact that time is not linear, is the distinction between the long run and the short run becomes very blurred. Policy-makers frequently say, “We will do this in the short run even though in the long run it is a different thing.” Whether it is in the trade-offs, debates, or whether it is in exchange market intervention. If there is one lesson of the rapid reaction of capital markets is that the long run is with us today. In this regard, the gen-
eral advice is to not adopt policies for the short run if they are not sustainable for the long run.

Furthermore, the in-between regimes, regimes in-between the flex and the fixed, are becoming less attractive. Not only have many people stated this, but they are also becoming less attractive on a purely intellectual level. The case for an intermediate regime or for a little flex and a little fixed is the illusion that you can have the best of both worlds. You can have the stability of the fixed exchange rate and the flexibility of the flexible exchange rate, but you can also have the worst of both worlds. You may get the volatility of the flexible exchange rate and the non-sustainability of the fixed rate. As time passes, I believe the latter becomes more realistic. Therefore, I think we will see a small group of countries that have an extremely flexible rate and within that group some will have an extremely strong fix. Strong fix not in the sense of an adjustable peg but in a much stronger way. I do not know if this will take place in twenty years or so because in a world in which time is non-linear, who knows what it means to have a twenty-year perspective.

In this regard, I would like to note remarks made by both Arminio Fraga and Guillermo Ortiz about their respective countries moving to floating rates. Both said their countries’ decision to move to floating rates was not a result of an intellectual debate, but rather from a lack of choice. Their backs were against a wall and this is a costly way to get to a good system because you arrive with a credibility deficit. Normally, you do the right measure only after you have exhausted all other possibilities.

This brings me to the issue of Currency Boards. Everyone except for Rudi believes that a Currency Board is not a panacea and that there are some serious preconditions that must be in place. Preconditions like fiscal order. It’s important to remember that fiscal order means discipline and discipline is a key goal that people want to get when they go to a Currency Board.

How will the groups be arranged? Will it be based on geography like it is now? I do not think so. As we look ahead, the role of geography will become less important because the concepts of comparative advantage will become blurred. We all know the theory of compara-
tive advantage. It depends either on technological advantage or on different endowments of factors of production. But in a world that has complete mobility and complete sharing of know-how and data, the very concept of comparative advantage becomes somewhat different and will focus less on who is capable of collecting the data and more on who is capable of creating the knowledge.

We are moving from a world of archeology to a world of economics. For archeologists the past is changing all the time. For economists, hopefully, the future is changing all the time. As we look ahead to the formation of these groups, it will not be geography that molds them but rather the capacity to produce in the new future.

Do we need a new architecture? I think the answer is no. Gerry Corrigan is fond of saying that what we need at best is new plumbing and, indeed, we need the payment system and all sorts of other things that we are all familiar with. However, I am sure that if architecture is defined as new structures, that is not what is missing today.

If there is a lesson in all of this, I think Mr. Yamaguchi described it yesterday when he talked about the wisdom of the Japanese authorities not to accept the advice of well-wishers to intervene in the foreign exchange markets in a way that was not called for. I also believe there is a more general rule. Foreign exchange intervention should only be done in very extreme cases and for the maintenance of orderly markets rather than for the determination of an exchange rate. First, you cannot do it. And, second, if you do it, you create moral hazard that will come back to haunt you.

On the debate of whether one should first strengthen their financial system or deal with foreign exchange markets. I have a very strong view. Any system that is built upon a weak financial system is doomed to fail. It makes no sense to start down the road and lose the credibility that is lost by not having a sound and strong financial and banking system. It is an illusion to think that an exchange rate regime will help you fix your banking and financial system.