Mr. Feldstein: I’d like to add one thought of my own about China. As Rakesh Mohan indicated, China is really in quite a different position demographically from the others, as we heard yesterday. It is also true in terms of its interest in reform of social security. I have been very interested in those reforms. They are fascinating in themselves and important, more generally. It is also interesting as a response to some of my American friends who think that the move toward a funded system is some kind of a conservative right-wing conspiracy to tell them that it was the Chinese Communist Party that got there ahead of us. The Chinese have on paper a two-part system with a pay-as-you-go part and a larger funded part. Right now they are implementing that. Despite a number of problems, they are implementing that in several of the major regions. It is a very interesting experiment for us to follow.

Mr. Fraga: I am struck with Don Johnston’s remarks. I have tried that myself while I was in government, and it is not easy. I have a couple of things to report and a couple more creative comments.

One, it seems very difficult to get these things done under democratic conditions for some reason. Of course I am not against democracy, please don’t get me wrong. But we should study—do a
breakdown—of successful reforms and see who did what and under what circumstances and to see how those who managed to succeed under democracy found a way to do so.

In Brazil, in 1998, we voted a constitutional amendment that now requires actuarial balance in our social security. That was a big thing. It was done under enormous pressure. And, of course, now we need to vote the laws that will implement that, which may take a couple decades.

Another reform done in Brazil, which is creative and interesting, is that for the nongovernment social security system, there is now a link between the age of retirement and the table of mortality. As the age expectancy grows, the retirement age will grow automatically. I thought that was a good thing to do. I do not know if that has been done elsewhere.

On the more creative side of things, one idea would perhaps be to start discussing this not with the kind of people who listen to us current and former central bankers but rather than with kids in school. My guess is we need to start fostering a culture of savings in secondary school.

Lastly, of course, we all like fully funded systems, but we haven't seen them mature yet. I think we should throw a word of caution out there for the market risks involved and the resulting disparities in retirement levels across people and over time. You can do your numbers with stock market returns and bond returns over a few decades to see that. I wonder what the political consequences will be as you find these great disparities. There will be huge political pressures for the government to equalize and provide a retirement floor. It's not too early for us to start thinking about these issues.
Mr. Mussa: I wanted to make two related points. First, it is a mistake to throw too much garbage at pay-as-you-go systems. The exact consumptions/loan model of Samuelson, which Jim Poterba so elegantly described in his remarks, shows that under those assumptions there is a net increase in social benefit from a pay-as-you-go system.

In Singapore, where we have a fully funded public pension system, they have to invest a substantial fraction of their provident fund in external assets. If they invested it all at home, they would push the domestic capital stock beyond the golden rule, and that does not make much sense. If we talk about public pension systems that have net liabilities of 200, 300, 400 percent of GDP to add that much to the capital stock by making them fully funded would not make in most countries a great deal of sense in most countries. What is important, in most of our countries where capital is below The Golden Rule, is that at the margin the system should be fully funded.

Even more important, and this is a point that came out in the remarks and was not sufficiently emphasized, the marginal incentives for perspective pension recipients need to be gotten right. That is the most important thing to do about our pension systems—to make sure that those who are willing to contribute more, or have more contributed in their behalf, get higher benefits and those who contribute less get proportionately less benefits. Those who work longer before they begin to collect get proportionately more benefits. Those who work shorter periods get fewer benefits. That is the way in which we get the incentives for private behavior in terms of work as well as investment to not be enormously and disastrously distorted by the pension problem. That is the key reform that needs to be kept in mind in virtually every country.

Mr. Rajan: There has been a fair amount of pessimism expressed about specific solutions being the single solution that would solve the problem. Immigration has been mentioned more than once. Rightly so, because we did an exercise at the IMF for the forthcoming World
Economic Outlook to see how much of a particular measure would be needed to keep the working-age population to total population constant until 2050 in developed countries. When you look at increasing labor force participation, you need an increase of about 11 percent for this group, which is considerable. For Japan, it requires an increase in the participation rate over and above 100 percent. So, that clearly will not work.

If you look at immigration, it requires cumulative immigration of 30 percent as a fraction of population by 2050 in those countries. Again, Japan is way out of the ballpark.

If you look at increasing the retirement age, it is about seven years on average for these countries. Again, if you look at Japan, it takes you beyond life expectancy if you want increasing the retirement age to be the solution.

But if you take a combination of these three, it turns out to be far more attractive. An increase in participation of 3\(\frac{3}{4}\) percent, an increase in immigration of 10 percent over 50 years, and an increase in retirement at an age of 2.3 years, all of which seem completely plausible but would be reasonable solutions. I just wanted to throw that on the table.

**Mr. Meltzer:** I want to make an obvious point, which has not been fully put out in front. That is to consider the political economy of this problem. There is a clear and obvious direction of change in economic solutions even though we may not agree precisely on the details of the distribution, as we heard a moment ago. The difficult and intractable political problem is getting to any one of these economic solutions when we have governments that are elected for four to five years and are asked to solve a problem, which has to be resolved over 20 years or more.

Second, we have a rising percentage of the older voters coming into the labor force so that the people who are going to be deprived or
asked to work longer are the people who are going to be voting in larger numbers. That problem is going to increase as time goes on, as we have heard.

Third, we have the attitude of their children, who in many cases believe that if the government is not going to provide these pensions, that some of that burden is going to fall on them. So, they support the system as well.

Finally, we have the very modest proposals for reform that we see coming out of governments. That is tremendous effort to get to modest changes in the existing system without really trying to deal with the long-term structural problem that we see here. So, missing from the discussion is how we get from the political problem that is so clearly at the root of this problem to an economic solution. That seems to be something that has been totally ignored. Yet, that is the crux of the problem. The economic solutions, some mixture of immigration, longer work life, and so on are pretty obvious, and they are clear to everyone who examines this problem. Yet, no country seems to be of a mind to do anything about it. The politics are really what has been missing from the discussion.

**Mr. Liikanen:** I have two comments. First, when the baby boomers have retired, they will have a qualified majority. That is a real problem. So, if we want to run, we have about five to eight years to make reform. After that, the qualified majority is always in the hands of retired people. That explains also one issue. You can do reforms, which have an impact on the longer term. But if you must cut the direct benefits now, you have a real difficulty.

Secondly, I have a question for Mr. Corbo, who had an elegant presentation on the reforms in Chile in Latin America. You mentioned that private funds are running the system, but then in your paper you say there are many limits on their rights to invest. Of course, that has an impact on the rate of return on investment. Could you give some more insight regarding that? What kind of return on
the investment do they do? Do they have rights to investment abroad, for instance, and so forth?

Ms. Tumpel-Gugerell: The OECD has played a crucial role in identifying the aging problem, and the IMF is monitoring the progress. But the remaining biggest challenge is really to raise the public awareness. It does not make sense to create fear and to threaten the people because this creates pessimism about the future, and we can see the restrictive consumer behavior, for instance, in some European countries. Therefore, building up some confidence that the problem can be addressed is crucial as well.

Mr. Schoenholtz: Throughout this conference, there have been some references to the rising cost of health care and the relationship to aging. Yet, most of the quantitative work and the discussions have focused on pension costs and resolving them. It might be appropriate to ask Don Johnston if he would like to comment on OECD policy recommendations about dealing with future health costs. In the United States, for example, there have been a variety of estimates that suggest that the Medicare shortfalls are four to five times the size of that of Social Security.

Mr. Corbo: First, regarding the question that one can also work with the pay-as-you-go system, in emerging markets the pay-as-you-go system has been abused. In Chile you had close to 120 different schemes, where the most powerful groups got the most benefits. The strongest trade unions were able to get the best schemes. So, there were a lot of intragenerational retributions. The old system was completely abused. That is why we had the enormous deficit and so on. It proved very difficult to try to instill more fairness in the old system. That would have helped the incentive, but this was not something one could do. Assets were already being taken away.

Allen Meltzer has an important argument from the standpoint of how one can create an incentive system in such a way that progress can be made. Here, one should consider initiative aimed at improv-
ing the old system as much as possible to phase in the introduction of the new system. So, the speed of reforms will have to be tailored to the political economy that it will have to be brought in.

The last question inquired about investment returns and restrictions. In the case of Chile, the average annual real rate of return in the system since its introduction in 1982 until today is 10.4 percent. That is not just because of the system; it is because of how the economy has been doing thanks to the massive reforms that unleashed a period of high and sustainable growth. As progress has been made and as resources have been accumulated—now, as I said, the system has accumulated resources close to 60 percent of GDP—so the restriction on investment has been lifted. The second part of the question was the proportion of pension assets can be invested abroad. Today, in the Chilean system you can invest out of the country 30 percent of the accumulated fund. In most of the other countries in the region, it is the same question. In Bolivia, because of the small size of the domestic capital market, they can invest abroad up to 50 percent of the accumulated fund. The most-restrictive one is in El Salvador, where, because of political pressure, pension funds cannot be invested outside the country. Therein lies a cost on risk diversification and so on.

*Mr. Johnston:* The comment on Brazil and its law that was adopted to establish an actuarial balance of the social security system might be an easier thing to politic on than to say we are going to cut back your pension fund. Probably the way to approach it is to have framework conditions, if you could get them in place, that would automatically adjust. On the retirement age growing, I was thinking where we would all be today if that had been adopted by Bismarck at age 65. Alan Greenspan was mentioning that the other day; if you extrapolate that, all of us would be very, very active in the workforce and so would our parents. It is an interesting position.

The point that Meltzer made is absolutely fundamental. How do you move from a political problem to an economic solution? We have
a very major political problem within nearly all the OECD countries, more with some than others. Our experience is of great value to China, Korea, and India because they can see that in a robust democracy, it is easy to give and it is very hard to take away for all the reasons that Meltzer described. I do not think I have an answer to that yet, but that is what we have to struggle for.

On the issue of health, it is interesting you raised that. I did not spend much time on health in this paper because the health costs vary from country to country, depending on the policies. The OECD just completed a major three-year study on comparative health systems. We are going to continue those studies because the best practices are so critical when you look across all our countries and find that all the systems have problems. Some are very efficient but are spiraling out of control. Some are unduly expensive and not delivering. It goes right down through the whole health delivery system—private, public, mixture of public/private, pension, the issue of pharmaceutical costing, and the issue of alternative treatments that might be available or not be made available. We delivered this to the ministers in May when we had a health ministers’ gathering.

We were invited to continue with this work, which is incredibly important because it is the fastest-growing area of public expenditure in all our countries. Whereas we are talking about the pension issue here, it is really the Medicare issue that is the bigger problem in the United States, looking down the road. That is not true of all countries, but nearly every country within and without the OECD is concerned about rising health costs.

*Mr. Feldstein:* When you talk about Medicare, there are really two problems. One is the cost of actually delivering the product, whatever that product should be. And the other problem is the financing. The financing is very much analogous to the pension financing. So, to the extent that prefunding in an investment-based system is a good idea for accumulating resources for other kinds—nonhealth consumption in old age—why is it not a good idea for the financing of health care
in old age? That is separate from the issue of how you actually control the health care spending.

Mr. Mohan: I endorse what Raghuram Rajan said about migration, but more from the sending side. In India, for example, we are now receiving something like 3 to 4 percent of GDP in terms of remittances. Those are basically family-based remittances that do not seem to vary very much for the interest rates or stock markets, etc. There were some comments made yesterday that if too much migration takes place, the sending country will suffer. Our experience shows that is not correct. In fact, the sending country also gains first from the remittances themselves and a lot of that goes into the care of the elderly in terms of the parents and, second, the on-the-job training that migrants get and many of whom then come back.

Second, I also wanted to comment on the political issue ventured by Allan Meltzer that despite the fact that in our case, in India the percentage of the elderly is very large. In terms of political weight, they seemed to increase much more in recent years. We have created most of the investment of the provident fund, etc., which is really funding the fiscal deficit in government securities. There has been a huge debate in the last few years in terms of interest rates that has actually caused us a lot of difficulty in monetary policy because they are set much higher than market interest rates, and people forecast nominal interest rates rather than real interest rates.

Third, regarding the health issue I previously mentioned, I want to again underline that what we are observing is that with the rise in technology, many less well-off families and middle-income families are going bankrupt because of very high medical costs. That is an issue that we will have to tackle along the lines previously mentioned.

Finally, I want to again emphasize that a good part of whatever provision exists for provident funds and so on, is invested in government securities that for this whole fully funded privately funded system to work—whether it is for health insurance, whether it is for
pensions—that the development in the financial markets is really essential. One cannot say enough about that. What I forgot to mention as I was preparing for this paper is that I found a mountain of work that NBER has done on all of these issues. I wish that it would extend its wings to Asia and get all that work done in Asia because there is a huge lack of knowledge about these issues there.