MR. JOHN W. PADDON: While I have the microphone, I can ask the first question of the authors. What practical problems and challenges do you see in taking your ideas that you just expressed in these four papers and making them known to policymakers, bringing your ideas to their attention and having your ideas effectively implemented? What kinds of solutions are realistic in this regard?

MS. ANNA M. RAPPAPORT: I see two things that are of big concern. For one thing, I think that right now we have an administration that has a definite idea about the direction that it wants to go in. It's much more concerned about moving in that direction than about studying all the implications. I feel that's unfortunate. But sort of underlying that, in terms of what we might do as actuaries and what we might promote, it seems to me that any time we're talking about a benefit change, whether we're working for a plan sponsor or whether we're working on a government system, these programs are frequently complex and there are people in many different situations, so it's very important to understand how that change would impact the benefits and who's going to get what. Very often we hear discussion without any kind of an analysis. "Okay, within that framework of that program there are these eight pockets of people that are getting benefits (there might be more than eight). These people are going to win, and these people are going to lose." In particular, people like widows and divorced elderly women, whom we didn't mention, are very dependent on assistance, but they're not even part of
Impact of Aging Populations

the discussion. They're talking about what somebody is going to get at retirement age, and we don't think about that. I say to be sure to pay attention to who gets the benefits and what they're going to get. Make it part of the discussion to look at the distribution. I think getting fuller information out there is important. It's challenging. I also think a solution is to try to get people who are traditionally in different camps, at least in the United States, lined up to feel the same way, or politically it becomes very difficult. If you can't compromise between different issues groups, you tend to get stuck.

MR. ROBERTO HAM-CHANDE: When I was coming to this meeting, I received a notice that we got a grant to study the oldest-old in Mexico. I am not going to conduct that research myself; it's going to be the role for sociologists and anthropologists. This is a sign that they are paying attention to these problems about aging. If I look again into my figures of what's going to happen, for instance, in the course of annuities because of these improvements in mortality and survival, we see that it's not too sensitive to that but to economic performance. If we change the rate of interest just by half of a point, things are quite different. What I'm saying from this is that we in Mexico have different problems than the United States. These are not the same as what Anna was telling us. We have problems of economic performance, socio-development and, of course, fairness—socio-economic fairness. These are the challenges that we have to look after.

MR. PRAKASH BHATTACHARYA: First let me tell you about the problems with the Indian pension system. Then along with the problems, I want to tell you about what type of solutions I am proposing in this context. The first problem with the Indian pension system is that the level of coverage is very low. Only 8 percent of the total working population is enjoying some source of pension facilities. I propose that these facilities be extended to each and every section of the working population.

The next problem is that presently there are pension schemes where the liabilities are unfunded, and those liabilities are not calculated through an actuarial valuation. I am proposing that these unfunded liabilities be totally eliminated in the best interest of the economy, as well as for the solvency of the corporations.

The next problem is that our government is presently playing a role of pension provider, but it is my proposal that government should act as a proactive regulator of pension providers. Another problem right now is that the products available are not based on the needs of the subscribers. So it is a requirement for the players, those who are planning to enter into the area and the insurance companies who are acting as a pension provider in the present scenario, to design the need-based products that should suit the needs of that working population and the present situation.

Next, just to insure the solvency of the players, it is my suggestion that there should be some control over their expenses. At the same time, our Pension Funds Regulatory and Development Authority should come out with comprehensive
policies in relation to the investment norms and in terms of the control of expenses. If the investment norms are framed properly and if the expenses are controlled properly at this point, I am quite sure that the pension funds will succeed and be available to provide a good amount of pension during the post-retirement days to this huge amount of working population.

Lastly, the government's Pension Funds Regulatory and Development Authority should take proactive measures in relation to the failure of any pension providers, because if there is any failure on the part of any pension provider, there will be a gouge in the market, and people will be busy in taking out their money from the pension provider and then from all the pension providers. As a result, all the pension providers will find it very difficult to sell to the market. That's all. Thank you.

DR. ROBERT BOURBEAU: I just want to say that Canada and the United States face the same challenges, although the demographic trends are different in terms of fertility. I saw that the cover page of Tuesday's newspaper said, "Age Gap may be Trouble for President Bush. Social Security Plan Divides Young and Old." The young people have the same preoccuption in Canada as in the United States. Most of the young people believe that they won't get benefits under the current system. Nearly two-thirds of those under 30 years old say that they don't think Social Security will be able to pay them any benefits when they stop working. It strikes me that Canada and the United States have the same problem in terms of intergenerational fairness. That is the point I wanted to make.

FROM THE FLOOR: I am the Chief Actuary of the Canada Pension Plan. First of all, let me thank you for your excellent papers. My question is addressed to Mr. Bourbeau. I agree with you about the merits of prefunding the liabilities of social programs. Now, suppose that we have a limited amount of money or contributions or even taxes to invest annually to prefund future liabilities of any kind. In your view, what would be the best program to prefund the old-age security program, which is also operating on the pay-as-you-go system, or the future health-care expenditures?

DR. BOURBEAU: Thank you for your very easy question. One thing I can say is that of course old-age security is one of the cornerstones of Canada's system, so we must keep a priority on this old-age pension. But in terms of health care, we must make some choice between what I have called the "cure" sector and the "care" sector. I think that we put too much emphasis on the cure and not enough on the care sector. For the details, I know that there are lots of expert actuaries that can propose a solution.

FROM THE FLOOR: On Anna Rappaport's analysis, it is certainly a concern that widows in particular are going to be mostly the ones who rely only on Social Security. Put that together with something I mentioned yesterday, which is that the projections of Medicare are that in about 30 or 40 years, the total premiums and
out-of-pocket expenditures for the elderly for Medicare will exceed the average Social Security benefit. That makes it, I think, an increasing problem. Dr. Bourbeau is certainly correct in saying that the expenditures are greatest in the last year of life. The U.S. actuaries take that into account in making projections of Medicare, but the expenses are also very large for people who are not in the last year of life. When you put those together—take the fewer deaths but a larger population—certainly in the United States I think the sensitivity studies done in Medicare show that an increase in the population over 65 does, in fact, increase Medicare expenditures. I'm wondering if you've taken that further step in the total expenditures and how they relate to the increased population over 65. I wanted to know if Dr. Bourbeau had taken the equation a step further.

DR. BOURBEAU: I agree with you that it's a simulation. Of course, we want to attract the attention of experts of the government, so perhaps we don't in this exercise. Of course, an increasing aging population will increase the cost, but the main message of our paper was that the catastrophe that we were expecting because of the large cohort of Baby Boomers arriving at the retirement age would not be that big a problem if mortality were to improve more than we expected. But I agree with you that increasing population aging will increase the cost.

MR. DOUG ANDREWS: Congratulations to all of the presenters. Those were very interesting papers. I'm sure that a number of people will have questions, so I will limit mine to one question but two comments. First of all, Anna Rappaport, I urge you to continue to fight the Social Security reform. I think it is very important that you have a defined benefit-type of system to help provide for widows, as you said, but also for those in need. I would make a similar comment with respect to Mr. Bourbeau's paper. I have written a paper that draws quite similar conclusions to yours, and I am certainly very much in favor of finding prefunding solutions to health care and I do share with you the concern that there will be increasing costs as mortality improves. In my paper I focused on the additional costs in the last six months of life. You're focusing on the additional costs in the last three months of life, and certainly there is that spike up. You start to look at solutions like "let's just eliminate the last three months of life or the last six months of life" or you start thinking that perhaps the health-care system should only provide for expenses up to a certain level or perhaps Canadians might only expect reasonably to have health care up until age 80 and after that they're on their own. If you look at nomadic tribes, they abandon their elderly at a particular age, and that's the way that they deal with that. So there are a lot of social issues, and I would say that that is a type of defined contribution thinking. I think we have to eliminate that from the health-care area. We really do need a universal plan and consequently, I would say that your prefunding is the right way to be trying to address these issues.

With respect to the Indian system, I found it tremendously interesting because there are so many pressures that you identified on this system that is changing—very significant and dramatic change—but when I looked at Anna's charts with the people that are under retirement age versus the retirees, you're in a situation of
about 7:1 that are working. You said yourself that the average age is 23. I think you have an extremely difficult job ahead of you to get pension reform with that kind of demographics, but certainly you've identified the problem very early and you should continue to work on it. With respect, though, to one of the solutions, and I know you didn't have an opportunity to elaborate on it, you talked about the advantages of infrastructure investment. I can see that there could be considerable advantages to the society in improving the infrastructure in the areas that you talked about, but I see that there could be real dangers to the pension system if they're relying a lot on those infrastructure investments. One point on your slide was corporate governance. I think that it's far more difficult to have good forms of corporate governance in the area of infrastructure investment. There's another item that you didn't talk about. Perhaps it's my inaccurate perception, but I would think that corruption is a potential risk that India faces. With infrastructure projects, I think that there's even more opportunity for corruption, so I would be afraid that through infrastructure investments, you won't have those pension monies available when the time comes. Could you comment on that, please?

MR. BHATTACHARYA: Particularly here, I'm proposing infrastructure investment. Number one is that as far as the pension funds, we are carrying out the reform process right now. The reform process is under way; already the Pension Funds Regulatory and Development Authority has been formed, in the year 2003. The infrastructure sector is one of the potential areas in which to make investment for the pension funds, because our infrastructure needs a lot of money to be invested, and the return from these infrastructure facilities will be for a continuous time and for a long time. For example, if we are going to develop a particular bridge, considering the demand of the people, then the people will be using the bridge for a long time. We can estimate the average life of a bridge is more than 50-60 years. So if we get funds, if we get user charges from the bridge continuously for a long time, say 50-60 years, we can use those proceeds from the user charges to make the payment of the pensions to the retirees. That is one of the ideas I've considered. In this way, we can make the investment in other areas, like roads, telecommunications and electricity. These are the potential areas where we need lots of funds for investments. These areas have been seen to offer regular return, so that is the reason I suggest it.

Corruption is also one of the major issues for Indian concern, but investment in the infrastructure sector is not really with corruption, actually. The entity that is planning to invest in a particular area would be given the opportunity to collect the user charges. Here the point is that what might cause some concern is not corruption but political risk, because our government is changing. As the government is formed by one political party and again, when the government changes and another political party comes to power, what will happen is that the next political party changes the policies, as happened in the case of Enron.

FROM THE FLOOR: I'll just make a brief comment. I'm referring to the paper of Rappaport and Dragut. I noticed this chart, which has the picture of line trends on
the labor force participation for the population 70 and over. I'm not sure whether this point was made, but I want to make it clear to everyone that those two trendlines do not at all reflect the trend in the age of retirement. You cannot directly determine, by looking at labor force participation, the trend of retirement age. You have to make a conversion, which would change—it turns out by chance, not entirely by chance—that the male curve would look somewhat like that, moving over the period, say, from 1950 to 2000, downward sharply, as it does for the first few decades, and then leveling off between age 67 and 63 for the males, but the female figure would look almost the same. You have to make this conversion. I have written a number of papers on these and that follows the trend, using mean age of receiving beneficiaries and also using labor force from the current population survey to make comparative estimates, which tend to agree closely that it's the two series, Social Security and the labor force series.