General Discussion: Global Demographic Change: Dimensions and Economic Significance

Chair: Lawrence H. Summers

Mr. Hale: The focus has been very much on Europe this morning. I just wanted to ask Professor Canning and Professor Mokyr if they could comment on China. This country has some very compelling demographic changes going on. Because of the one-child policy brought in 35 years ago, the birthrate has fallen very low and we are missing 400 million Chinese compared with what would have happened with the birthrate that we had in the 1960s.

Second, the society is now aging very rapidly. By 2040 China will have 400 million people over the age of 60, compared with 50 million 10 years ago.

Third, there is no pension system. But despite the lack of a pension system, they already have a savings rate of 40 percent, which means that somebody is at least getting ready for this problem of retirement.

Finally, because of this one-child policy, there is a real imbalance between boys and girls. In the next 10 years, China will have 50 or 60 million more boys than girls for the age group 20 to 35 because of this preference for boys.

Could you comment as to how you see all these different factors playing out? Are we looking at possible great instability or just a transition, which will follow the old industrial countries that we've seen before?

Mr. Feldstein: I wanted to comment on a couple of things that were said. One was about the fact that dissaving doesn't seem to be as much in retirement years as lifecycle theory would suggest. That takes too narrow a definition of dissaving. After all, a lot of people have defined benefit pension plans. So, if you ask what their financial assets are at age 65, that includes the present value of all those future defined benefits and that goes down as they age and receive benefits. Of course, the most important of those is Social Security. From the individual's point of view, they are behaving rather like the theory suggests. They are using up the line of credit that they have as they age.

A very important point was made about the financial incentives for early retirement. There are a number of very interesting studies that Jon Gruber and David Wise have done on the European experience, where the problem is really terrible. The incentives to retire early are very strong and they drive up the costs, and therefore the payroll tax rates, in Europe. We have done a very good job in the United States of changing that over time, so that we are essentially an actuarially fair system.

I have one question and that is the word "divorce" wasn't mentioned. Yet, that has to be a major factor, I would have thought, in demographics. I wonder how that comes in to the kind of calculations and projections that are being done.

Mr. Ferguson: I would like to pick up a bit on what David Hale said. It is not just a question of the Chinese gender imbalance, but also to pick up on Joel Mokyr's point and add some comments on the fact that mortality rates are actually going up in a number of countries because of HIV/AIDS. We have the phenomenon now that the life expectancy in Russia for someone born today is shorter than it was for someone born in Russia 40 years ago. There are a number of other countries, including China, that show this gender imbalance throughout southeast Asia and even in some parts of India and other subsets.

So, if any of the professors could comment on how these demographic influences are likely to change or modify the views that we have heard, that would be helpful.

Ms. Woodall: There has been much discussion this morning about how changes in the dependency ratio affect growth rates. I wondered how changes in the average age of the working population might affect growth rates. I know in the UK I have seen some study that suggests that the productivity of a typical worker rises up to the age of about 40. From then on, there is evidence they become less efficient. So, as the average age of the working population gets older, what are the implications of that for average productivity growth?

Mr. Taylor: I want to raise a financial factor that is implicit in the discussion of migration in the paper and actually in some of the other papers. That is this issue of remittances from immigrants back home. There is more and more interest in this in the international financial institutions and so forth. We are getting more and more information. The numbers are mind-boggling. Right now, it looks like at least $100 billion of remittances goes from the developed countries to the developing countries. We are looking at ways to reduce the cost, have the funds used more effectively, but it is many times the total amount of foreign aid. So, the question I have is that maybe it is a way to get at some of these externality issues that were mentioned in trying to compensate losers. Obviously the funds going back home to families are a benefit to the country from which the immigrants came. It is a question of omission and maybe a question as well.

Mr. Summers: Let me pose a question either for David Bloom, David Canning, or for Chairman Greenspan. I find myself confused with respect to the two roles that I have. As a macroeconomist and someone concerned with the importance of national saving, I worry that retirement ages are coming down rather than going up. I see the benefit of people working longer, so as to enable us to keep our fisc in better balance. As the leader of an institution that has—surely as in what Chairman Greenspan referred to as the conceptual sector of the economy—I observed with the elimination of mandatory retirement, professors and other academic personnel are now retiring at an age on average of about 72, with that figure rising from mandatory retirement at 65 a decade ago. I view this trend with terror as representing a serious problem. It is my impression that my counterparts who lead conceptual research organizations in the private sector or hospitals or law firms have somewhat more leverage over their staffs than I do, but view similar trends with similar kinds of concern, except that they take more effective measures. If one looks at a number of leading financial institutions, one would find, for example, that in the most intellectual and senior functions within those institutions there would be almost no one over the age of 60 and certainly over the age of 65. I wonder how to square what seems like microeconomic rationality in the face of the kind of data of the kind of experience that Pam Woodall referred to with this kind of macro trend.

Ms. Swonk: I have two comments. One is on remittances because that is a big issue that I've been looking at as well. The follow-up is not only the remittances going back to families, but also entrepreneurial knowledge and capital going back and starting up small businesses. There have been some studies that have suggested that a lot of our entrepreneurial knowledge is being exported, which is a very good thing for many of these developing countries as they get the money back. That is a comment on that.

The other issue is I wonder what role—we talked about people not having large families, which I think economists just don't understand women, but that is another issue—but I also think there is an issue, and I wonder because I observe it in very wealthy families—is the ability in developed nations to extend fertility way beyond a woman's fertility. We have a vice presidential contender whose wife had children at age 48 and 50, well beyond when most people would think women of having children. This change may affect demographics going forward of wealthy families being able to extend their fertility much longer than we saw in the past.

Mr. Canning: The questions on the sex ratio and divorce are very good questions. We haven't addressed those issues in our research, so I don't think we can say very much about them.

The big worry in giving a talk like this is someone comes up with a good contra-example to what you say. China isn't the contra-example. China is probably one of the best examples of a country that is getting the benefits of a high ratio of workers to dependents today and also the savings effects. It actually seems to fit the model perfectly. It is much more extreme, it is much faster, and so the effects are happening in a much more compressed space of time than we've seen in other countries because of its policies. I agree completely with the point about the problems associated with defined benefits, as shown in the Gruber and Wise reference.

About the problem in Europe that it is very hard for people to work longer because of the institutional arrangements, I think something will probably have to be done. The point here that Lawrence Summers made is a good one. Forced retirement, in a sense, overcomes the problem of getting rid of unproductive workers in a very easy way. It is an institutional challenge. What you are really getting at is a combination of tenure and no retirement age. It is an institutional factor rather than a fundamental one. But the institutions will have to evolve to cope with it; though I would like to revisit you perhaps when you are 72 and see what your view is one the matter at that stage.

Mr. Summers: Like Bob Solow's view, my view is the age at which people are most wise and productive is explained by a very simple rule. I take my age and add five years. I have found that rule to be predictive of my views for the last 25 years.

Mr. Canning: We didn't mention HIV/AIDS, which is a very important issue for Africa. It is driving down life expectancy, it is causing a high mortality rate, but it isn't actually affecting income per capita very much because it is reducing income; however, it is also producing reducing capitas. The long-term effects of HIV/AIDS will be seen on savings behavior and education. The signs that we have at the moment are very worrying for the long-term future of Africa because of this decline in longevity.

On the average working-age effect, we have done some models where we add experience effects. We do find a modest effect of the working age on macroeconomic performance, however it doesn't add up to very much. The countries with a higher working age tend also to have longer periods of schooling, so the experience effects are quite small. The experience advantage of the developed countries over the developing ones is not as big as you would expect. There will be an effect of an aging population in terms of worker productivity, because we know the experience effects. In terms of the macroeconomic impact so far, these have been rather modest.

The question of remittances and return migration is really important. It is important to recognize that most migrants—when they migrate—plan to return home and large numbers of them do. They send remittances home. When they return home, we have strong evidence that they earn higher wages. They seem to build up human capital as part of their migration. So, migration is not only an issue for developed countries as a way of overcoming their aging populations, but for developing countries it is a path toward development.

If migration is properly managed and if the institutional arrangements for migration are properly managed, it is potentially a very, very powerful force.

Mr. Bloom: To add a comment or two about the AIDS epidemic: Roughly, 55 million people die every year in the world. Last year, 3 million people died of AIDS. In terms of its global impact on mortality, this is not overwhelmingly huge. But it is problematic insofar as the impact is concentrated in certain countries and in those countries 80 to 90 percent of AIDS mortality occurs among individuals in their 20s, 30s, and 40s—the prime working ages essentially. We have done a number of calculations for several countries to try to simulate the economic impact of AIDS mortality using the notions discussed this morning of the importance of age structure and population growth. It turns out that, in fact, there is significant potential for declines in income per capita, but that potential is confined to countries in sub-Saharan Africa where roughly 2.3 million of the world's 3 million AIDS deaths that occurred.

There was another question about the mortality crisis in Russia, which refers to the precipitous decline in life expectancy that began in the late 1980s and early 1990s. We have estimated that this shift is associated roughly with 1.5 million premature deaths—individuals who died before one would have expected based on mortality rates that prevailed in the 1980s.

The Russian mortality crisis is quite interesting in a number of respects. First of all, the mortality is disproportionately concentrated among men in their 50s and 60s. Also, it does seem to be associated with the transition to a market economy. However, we have done some fairly detailed analysis of the economic consequences of this mortality crisis and find that it is not big enough to have had an appreciable effect on Russia's macroeconomic performance.

Mr. Greenspan: I would like to add a point to the implicit dynamics of change that seem, in my judgment, to be inevitable, which starts at the early part of the 20th century with the very significant increase in longevity against an institutional structure which is very rigid in enforcing people to retire or to move into different activities. In democratic developed countries, an ever-increasing proportion of the electorate is going to be elderly people, and it is they who are being essentially barred from continuing to work. So, political pressures, in my judgment, are going to gradually break down. I don't know whether it is going to enforce the 72-year age, but we will basically say that it is the president of Harvard's age plus five.

Another issue that I think ought to be emphasized, which I tried to point out implicitly in my prepared remarks, is the emphasis invariably on the question of demographic change and many other aspects is on saving with the implication that the investment that savings will create will yield some rate of return that will enhance productivity. It strikes me that the data are far more mixed in this issue. The productive use of savings varies extraordinarily over history and across countries. We obviously were aware that centrally planned economies, especially in countries like the Soviet Union and earlier versions if not the current version of China, had exceptionally high savings rates and no productivity. In a sense, the savings were wasted. That they were created in the first place was obviously of no particular use to the economy or the society. In evaluating the incidence of savings and its direction without advertence to how those savings will be employed is less than half of a story. Here, the question of technology and increased multifactor productivity generally is really a crucial issue. That is an issue of education, institutions, incentives, and a variety of other things, which are only very indirectly related to savings. We are going to find that as the economics of demography—if we want to define it as the more recent version, not necessarily 1750 forward but clearly the latter part of the 19th century forward—the full implications of that are only just beginning to become evident. The next generation of economists is going to be dealing with the types of economic relationships and values and impacts, which we are only very marginally addressing today.

Mr. Mokyr: I want to make one brief point in response to the question about divorce, which drove home for me the real differences between what a modern age looks like and what things used to be until the beginning of the 20th century. That is, we have by and large changed the role of the family in making allocative decisions about the formation of human capital and about retirement. Until about 1900 or so, the vast bulk of these decisions were handled within the family. If there were an aged person who could no longer work, that person did not "retire." Basically, the person's children took care of them. Lacking that, of course, there were state institutions that were the safety net, but certainly the family was the first recourse. That is no longer the case. We have basically dethroned the family's role in that capacity and substituted for it a set of formal institutions on the federal or local level or perhaps things like pension funds in which the family really plays no role. That is quite crucial in understanding why we have reached the situation that we have reached and what the source of the problem is.