## Discussion

## 1. Helmut Schwarzer

Robin Brooks presented an excellent paper, which stimulates discussion with original contributions and advances in relation to the previous state of the art.

An impressive feature of the paper is its use of an extended data set reaching to a period before World War II, to better capture the long-term relationship between demography and financial markets. However, as noted by the author himself, extending the observation period does not eliminate one of the problems affecting all of the literature on the likely impact of the baby boom on future financial market outcomes, which is that there has still been only one baby boom. But this fact does not invalidate the effort made. On the contrary, in Brazil we have a saying, 'if you don't have a dog, you chase with a cat'. The analysis provided by Robin highlights important trends and likely developments, providing some convenient rules-ofthumb to guide policy-makers in the future.

As a policy-maker, I don't look at Robin's paper, or indeed several other contributions prepared for this workshop, in search of mathematical precision. Rather I am interested in what hints or clues he can provide to people in my position, who ask pragmatically, what can policy-makers do right (or wrong) to manage the process of population ageing in the future? So, I do not want to discuss the model, its assumptions or other technical matters, because I think there are much more qualified experts from academia here who can comment on these issues.

One of the most important conclusions that I drew from this paper (along with several others submitted to this workshop) is that, despite demography being a 'slow-moving fundamental', it affects financial markets. As one of many forces acting on the same subject it implies a certain underlying trend, which should not be neglected. However, this influence will not necessarily lead to an 'asset-price meltdown' when relatively larger generations run down their accumulated stock of wealth to fund retirement consumption.

Another lesson drawn from the literature discussed at this, and previous, workshops–I remember especially Axel Börsch-Supan's contribution on the impact of ageing on labour, product and capital markets written for the 2004 G-20 seminar on Demography and Ageing held in Paris – is that good public policy may soften the demographic transition process, moderating its impact on labour, product and capital markets as well as on public finances (and, conversely, bad policies increase the likelihood of adverse outcomes).

Since the future is uncertain (remember that in the 1970s there was talk that high fertility rates would lead to a population explosion), it is likely that our thinking on how best to design institutions and rules to manage the process of demographic change will evolve in the coming decades. While it might seem an obvious point, I would like to stress the importance of comparing international experiences, policies and results across different countries to evaluate the success of alternative policy responses.

Continuing and deepening pension reforms, adjusting the parameters of public payas-you-go (PAYG) pension systems, streamlining their incentives and strengthening the supervision of private funded regimes are among the usual policy recommendations in response to the demographic transition. There is no once-and-for-all unique type of pension reform. Rather, it is a continuous process because social security is a social contract, which needs to be reformulated as society changes. Many countries will need to adjust their social security systems in the future. This includes Brazil, despite the approval of two relevant constitutional amendments in recent years.

Regarding pension reforms, we have already experienced a considerable learning process over the past two and a half decades, at least in Latin America. The original Chilean model – of replacing public PAYG pension schemes with privatised, fully funded (FF) retirement income provision – is now being re-examined. In particular, important questions have emerged over issues such as the fiscal costs of this type of reform. On the basis of the experiences of Latin America, and the discussions in this seminar, I feel that it would be unwise for countries to adopt systems which totally replace public PAYG schemes with private FF schemes. Instead, I would be inclined to support mixed models that supplement the public PAYG scheme with a private FF one. The latter could operate on a voluntary basis if the replacement of pre-retirement income from the first pillar is sufficiently large, or on a compulsory basis if the replacement rate of the first pillar is low and broad support for private retirement income options exists.

Conserving PAYG schemes as part of the social protection structure – provided they do not create adverse incentives for labour force participation – is important because, despite some of the criticisms they have suffered (many of which apply to FF systems as well), they are able to redistribute income and provide widespread coverage far more effectively than private FF schemes. Another advantage of PAYG systems is that they allow governments to adjust pension contributions and benefits in response to new demographic developments without disrupting financial markets. So, while building supplementary FF private pension systems and allocating capital reserves for public schemes (to soften the transition in the event of unfavourable demographic or economic outcomes) may be desirable, radical pension reforms like those seen in Chile or even Argentina in 1994 seem, to me, to be an overreaction.

Returning to Robin's paper, I would like to make two more remarks. First, I am pleased that the paper raises the issue of who actually saves – middle-aged individuals, as in the assumption of the life-cycle hypothesis, or older active workers who have raised children and finished paying off the mortgages on their own homes. This has important implications for the conclusions and for the policy recommendations implied by many models. Second, Robin reminds us that most models operate in closed economies. Given the substantial expansion of capital flows over the past few decades, international portfolio diversification could be an option for economies hoping to moderate the impact of demographic change. However, it is important to bear in mind that policies to stabilise international capital flows and foreign direct investment are required to guarantee that both net lending and net borrowing economies may benefit from those developments. Additionally, I would note that the benefits of international capital flows may be limited by the fact that

developing countries are facing demographic transitions as fast as, or faster than, those facing developed countries.

Finally, Robin mentioned in his paper that historical events and other developments such as technical progress may moderate or even overwhelm the impact of 'slow-moving fundamentals' like demographic change. This is more than just a hypothesis – the history of the past two centuries provides many examples of what a powerful impact such events can have.

I would like to conclude by congratulating Robin for his contribution to this workshop and say that I think that his paper (and those of the other contributors to the workshop as well) represents a valuable resource for those of us who will have to develop the social policy responses to demographic change in the future.

## 2. General Discussion

Overall, there was broad agreement with Robin Brooks' conclusion that the ageing of the baby boomer generation may place some downward pressure on financial asset prices and returns, but that a dramatic 'asset-price meltdown' seems unlikely. Discussion focused on three topics: the empirical validity of the life-cycle hypothesis; the implications of asset accumulation in the form of residential housing; and policy responses to asset-price volatility.

Much of the discussion again focused on the usefulness of the life-cycle hypothesis as a link between demographic change and asset prices and returns. Participants compared the implied age coefficients from Robin Brooks' model with the life-cycle age-savings patterns observed in household survey data. A number of participants agreed that Robin Brooks' results are consistent with survey evidence for the United States, which suggests that households tend to run up financial wealth well into old age, then do little to run it down in retirement. Yet, while he finds a more conventional life-cycle pattern for Italy and Japan, this is less clear-cut in survey data for these countries. Another participant argued that the observation that the US households do not run down assets in retirement is not necessarily at odds with the life-cycle hypothesis; people accumulate assets through their working lives, then in retirement stop accumulating assets and live on the income generated by those assets. Participants highlighted that one advantage in using household survey data is that cohort effects can be identified; these effects are not controlled for in Robin Brooks' model. As an example of such a cohort effect, one participant suggested that increasing longevity might alter life-cycle patterns, as households are more likely to inherit later in life. However, participants also agreed that household survey data may understate life-cycle saving behaviour by excluding defined benefit pension and public pension assets. Similarly, a participant emphasised the importance of distinguishing between the equity holdings of households and institutional holdings, as the latter will follow life-cycle patterns by definition.

While Robin Brooks' paper focuses on stock and bond prices, participants also discussed the implications of ageing for housing prices, noting that in many countries

the majority of people hold wealth, and leave bequests, in the form of residential housing. Some participants argued that, unlike other asset prices, for housing it may be important to consider the effect of population growth, as well as the effect of the changing age structure. That is, as the supply of land is often limited, shifts in demand for housing may have significant wealth effects; where housing prices increase, this will be a windfall gain to those who own property, and a windfall loss to those who do not. One participant remarked that the distinction between the effect of population growth and age structure may also apply to decisions about leverage, which are based on expected future prices; in a world of slower population growth, and hence weaker housing price growth, these decisions may need to be re-assessed.

Finally, whether triggered by the retirement of the baby boom generation or other factors, participants acknowledged that big swings in asset prices and returns will have implications for the adequacy of retirement incomes. A number of participants argued that this is exacerbated in many countries by increased emphasis on private saving for retirement, which has increased the exposure of households to these investment risks. Participants suggested that this reinforces the need for a mixture of public and private sources of retirement incomes.