# Ageing, financial markets and monetary policy – the Bundesbank's spring conference 2001

**In early May, the Bundesbank organised an academic conference at which the links between population ageing, the ensuing developments on the financial markets and possible implications for central banks were discussed (see the overview on page 76). It was apparent that central banks may, in the future, be affected by this phenomenon in several different respects.**

*Population ageing is affecting many sectors of the economy*

Population ageing in industrial countries has been discussed in academic circles for many years and is also increasingly becoming a focus of political debate. As a result of longer life expectancy, on the one hand, and the lower birth rate, on the other, the indications are that in Germany, for instance, the ratio of over-60s to people of working age (i.e. aged between 20 and 60) will double in the decades to come.

In the past, discussions have focused on the challenges which an ageing society presents in terms of social security systems and the labour markets. However, structural changes in the age profile can also be expected to have an impact on many other areas of economic life. In particular, there are expected to be implications for the financial markets and monetary policy.

An important starting point for many considerations is the projected need to modify existing pay-as-you-go pension systems – still the predominant structure in Germany (as indeed in many other countries) – and to supplement them or partly replace them by other pension

## Conference programme

**Aging, financial markets and monetary policy**

Aging and saving in Europe
Agar Brugiavini (University of Venice)
Discussants: Eric Engen (Federal Reserve Board, Washington)
Reinhold Schnabel (University of Essen)

Aging and international capital flows
Axel Börsch-Supan and others (University of Mannheim)
Discussants: Gary Hufbauer (Institute for International Economics, Washington)
Ulrich Grosch (Deutsche Bundesbank, Frankfurt)

Should monetary policy be different in a greyer world?
David Miles (Imperial College, London)
Discussants: Hiroshi Fujiki (Bank of Japan, Tokyo)
Benoit Mojon (European Central Bank, Frankfurt)

Panel discussion
Aging as a challenge for economic policy
Participants: Claus F. Hofmann (Ministry of Labour, Bonn)
Platon Tinios (Office of the Greek Prime Minister, Athens)
Martin Werding (CESifo, Munich)
David Wise (Harvard University)

Retirement savings in an aging society. A case for innovative government debt management
Henning Bohn (University of California, Santa Barbara)
Discussants: Alan Auerbach (University of California, Berkeley)
Philipp Rother (European Central Bank, Frankfurt)

Aging and financial stability
E. Philip Davis (Brunel University, Uxbridge)
Discussants: Franklin Allen (University of Pennsylvania, Philadelphia)
Martin Hellwig (University of Mannheim)

Developments in decumulation: The role of annuity products in financing retirement
Olivia Mitchell (University of Pennsylvania, Philadelphia)
Discussants: David Blake (Birkbeck College, London)
Friedrich Breyer (University of Constance)

Panel discussion
How pension reforms are changing financial systems
Participants: Joseph Bisignano (BIS, Basel)
Hans Blommestein (OECD, Paris)
Olivier Davanne (University of Paris Dauphine)
Jürgen Pfister (Commerzbank, Frankfurt)

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schemes. These schemes work by building up a capital stock which is then used to finance future pensions. During the conference, the consensus was that it is both necessary and advantageous to increase pension funding.

*Ageing and saving patterns*

Of greater significance is the issue of whether attributing a greater role to funded pension schemes will affect national savings. Increased savings coupled with a larger capital stock could be a means of promoting growth, thus placing old-age pension provision on a sounder footing. Past experience is not easily interpreted in this connection. In addition to the impact of institutional aspects, saving is dependent on many other factors, such as, in particular, income growth, which makes it difficult to isolate the role of pension schemes. Moreover, the situation with regard to related data in Europe is not very satisfactory. At the conference, drawing on the analysis of an economic policy "experiment" in Italy, the theory was advanced that households react by making far greater efforts to save if their anticipated pension entitlement from the statutory, pay-as-you-go pension scheme is limited. This bolsters the position of those promoting the funding of pensions.

The problem of ageing populations is affecting most western industrial countries, albeit to differing degrees. By contrast, developing countries are frequently confronted with problems of a population that will continue to grow in the foreseeable future. The international flow of capital can act as a "bridge" in this respect. In countries in which the problems of an ageing society are particularly acute, more money is put into savings. If capital is allowed to move freely, these additional savings are also likely to flow into economies with better demographic trends, in which there will be a particular shortage of capital in the future and an above-average yield can be expected. This diversification opportunity thus lightens the burden of old-age pension provision.

*International diversification of savings alleviates the problems of pension schemes*

Against this background, a high outflow of capital from Germany can probably be expected in the coming decades (followed later by a reverse transfer of funds). Computational simulations presented during the conference suggest that capital outflow will increase until around 2020 and will amount, at its peak, to more than 5 % of the national product. Capital outflows will be especially large if pension reform pursues the line of making greater use of funding. In addition, these calculations suggest that the greatest proportion of capital outflows is channelled to other European countries, because considerable impediments to the flow of capital into economies that are still underdeveloped are likely to continue to exist. In order to overcome future ageing problems, it is important to improve the general conditions ensuring free and efficient movement of capital.

*Life pensions as a means of providing for retirement*

There are a number of new risks at various levels associated with population ageing. Financial market innovations are devised not least in order to make it easier to contain these risks. At the level of individuals who are having to cater for their old age, it is, for example, important, given that they do not know how long they will live, for them to make sure that their savings are not used up prematurely, while at the same time ensuring that they are not obliged to save too much in their old age. As a means of reducing these risks, for some time it has been possible in some countries – and increasingly so in others – to enter into a contractual arrangement which guarantees an annual (possibly even index-linked) pension until death in return for payment of a fixed sum (annuities). Particularly for risk-averse investors, this kind of pension plan is an important facet of old-age pension provision. The acceptability of these measures is likely to be dependent on how a fair price for such life pensions might be calculated and how these instruments are promoted in future. Appropriate supervision and regulation of the providers of these agreements play a particular role in this respect.

*Population ageing affects government debt management ...*

The problems of an ageing society can, of course, be alleviated by appropriate old-age pension schemes and financial innovations; the basic issue of burden-sharing between "old" and "young" nonetheless continues to exist. Some examples are given to clarify how different old-age pension schemes allow specific risks to be borne by different generations. A pay-as-you-go system leading to a fixed pension burdens the members of the population of working age with all the risks of unforeseen developments in population growth, in terms of future average life expectancy or macroeconomic productivity. A funded system in which shares are purchased in order to provide for a pension transfers the productivity risk (in part) to the generation of pensioners; on the other hand, a system in which the state incurs debt by selling fixed-interest securities (which are purchased by future pensioners with a view to providing a pension) leads to people who will in future be of working age – and who will have to redeem the government paper – having to bear greater risks. Against this background, concepts were presented of how, for example, new types of government paper might contribute to a more efficient way of spreading the risk across the generations. Among other things, the possibility of issuing long-term government paper was discussed, the return on it being linked to future wage developments or to average life expectancy. In this connection, it is also important for the distributive effects to be taken into account in taxation. This applies, for instance, if investment income tax is mainly paid by the (well-off) older generation. In this connection, it has become clear that the spread of risks between "old" and "young" can only be correctly assessed if all relevant elements are considered together. It therefore appears problematic to discuss specific parts of an old-age pension reform in isolation.

*... and the stability of the financial systems*

At the conference there was also discussion of whether dealing with the problem of an ageing population can lead to risks for the stability of the national financial system (or rather, how to keep such risks to a minimum). In a pay-as-you-go scheme, the burdens placed on the younger generation could turn out to be unsustainable in the long run (or else the promises of old-age pension provision become increasingly implausible). If the reactions of households were to demonstrate insecurity or if the response of fiscal policy were to increase taxes or government debt, evasive action might well be taken and this could, in the end, also affect the stability of the financial systems. A simple example is the interest rate increase generated by the resultant, permanently higher and rising government debt, with far-reaching implications for the financial systems. In a funded pension scheme in which pension funds play a key role, problems might, however, also occur because – possibly owing to unhelpful incentive structures – such funds impede the smooth functioning of the financial markets. Excessive volatility, liquidity crises and such like may be the outward expression of such shortcomings. The debate about how serious such problems will be in the future and what measures are appropriate to counter unwelcome developments will intensify further in the coming years. Central banks, one of the tasks of which is to ward off the dangers of systemic risks in the financial systems as far as possible, will be encouraged to review newly suggested solutions and to put forward their own ideas for discussion.

*Possible implications for monetary policy*

The narrower field of monetary policy is also affected by changes in the age structure. It needs to ask itself whether indicators that are currently used to guide monetary policy will change or lose their informative value, whether changes in the monetary transmission process will occur and finally whether, in an ageing society, the objectives of monetary policy will also be redefined.

The aforementioned implications for international capital transactions clearly demonstrate the need to take account of the problems posed by ageing societies when interpreting economic indicators. These transactions have, in turn, an impact on the rates of exchange and the global current account pattern. In addition, the equilibrium real interest rate used as an analytical concept by several central banks is also affected; it is likely to be viewed differently depending on the demographic trend and the actual old-age pension structure concerned. Much the same applies to a number of other variables which monetary policy occasionally takes as indicators.

As far as the transmission process is concerned, consumer reactions to monetary policy measures were, in particular, analysed during the conference. Model calculations were used to show that these reactions can be very different, depending on whether the households are mainly young with limited savings or elderly with above-average savings. Whereas credit restriction problems are more likely to exist among young households, if monetary policy is tightened, monetary policy measures can have particular repercussions for wealthy households in terms of the value of their financial assets. Moreover, the monetary transmission process is influenced to a large extent by the financial system concerned. Changes in this area which, for example, have been brought about by restructuring old-age pension provision, therefore also affect the transmission channels of monetary policy. Finally, the question was raised of whether an ageing society attributes a particularly high value to price stability, and whether, in a society in which old-age pension provision is mainly secured by building up capital stock, price stability is accorded a greater role than in a pay-as-you-go scheme. Further empirical analyses are needed in this field.

Overall, the conference helped to sharpen awareness of the fact that central banks also need to take account of future changes in the age profile of our societies in their deliberations. Such adjustments may have a bearing on the macroeconomic framework within which central banks work. They also affect the impact of monetary policy.

The conference papers are to be published. The Bundesbank will provide information about this special volume in its Monthly Report.