

## **Hermann Remsperger: Aging: is this really a relevant issue for a central bank?**

Speech by Professor Hermann Remsperger, Member of the Board of the Deutsche Bundesbank, at the Bundesbank 2001 spring conference, Eltville 4 May 2001.

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Ladies and gentlemen,

I would like to warmly welcome you to the third Bundesbank spring conference, which introduces some innovations.

It is the first time that we are staging a spring conference jointly with an academic institution, namely the Burch Center of Berkeley University and its Director Alan Auerbach. I am very pleased about this "joint venture" and would like to thank Alan for his cooperation.

Another innovation: this year's spring conference is being held at the Bundesbank's training centre here in Eltville. I am sure that the somewhat longer route to Eltville will prove to be both interesting and productive. The inventor of printing, Johannes Gutenberg, is said to have operated one of the very first printing presses in Eltville. So this is an ideal place for communicating important messages.

The topic which we have chosen for this year's conference is by no means new. A whole string of conferences on aging have been held in the recent past. Nevertheless, the topic chosen represents an innovative step for us. Why innovative? – because we wish to discuss a problem whose relevance to monetary policy is not as clear-cut as were the subjects of our previous conferences. In 1999 we considered the monetary transmission process, and last year we discussed the investment process in Europe.

So far, the debate on aging has focused on the challenges which it poses to the labour market and the social security system. Thus the pay-as-you-go system in Germany is to be complemented in future by funded components in the form of company-based pension schemes and private pension plans. In my view this is an absolutely necessary step.

In Germany, for example, the ratio of the over-sixties to people aged between 20 and 60 will rise from just over 40 % to around 75 % by the middle of this century. Similar tendencies in the age structure of the population will also occur in other European countries as well as in Japan and – although not quite so dramatically – in the United States. Increased life expectancy, declining birth rates and earlier retirement are the factors behind this trend.

This gives rise to the following key question: In the context of an aging society, how can one ensure a rate of economic growth that permits a sufficient income transfer from the working population to pensioners which does not cause the "inter-generational contract" to collapse under its own weight?

Looked at from the perspective of monetary policy, the questions are more specialised, but just as fundamental. First, I ask myself whether the aging process in society is bound to change the indicators for central bank policy.

Second, we need to consider whether the economic consequences of the aging process will also have direct or indirect implications for the monetary transmission process.

And third, you could even ask whether the shifts in the age structure are at all relevant for the central banks' objectives.

Let me illustrate the first complex, namely the indicators, using the example of monetary policy in the Eurosystem.

As you know, the European Central Bank follows a two-pillar strategy. Under the first pillar it defines a reference value for monetary growth. The comparison between actual monetary growth and the reference value is a key guide to assessing the medium-term outlook for price risks.

The reference value for monetary expansion is derived from the trend rate of real GDP, the trend in the velocity of money and an inflation rate that appears acceptable under stability considerations.

Other things being equal, if the working population grows more slowly or declines, this will eventually dampen potential output. However, an increasing amount of savings and a larger capital stock could counteract the effects of a shortage of labour.

Countervailing effects could also be generated by technical progress. On the one hand, a shortage of labour may stimulate technical progress.<sup>1</sup> On the other hand, the aging population may constitute an obstacle to technical progress. At any rate, my children certainly surf the Internet a lot more skilfully than their aging father!

I would add that the velocity of money may likewise be affected by the consequences of the aging process. Thus both inside and outside Europe wealth has been found to affect money demand, or the velocity of money.<sup>2</sup> If the aging of a society leads to more capital-intensive production and to increased asset accumulation, the relationship between wealth and income should also change, and this in turn might have an impact on the trend rate of the velocity of money.

Concerning the ECB's analysis of the second pillar, I would like first to draw your attention to labour market conditions.

The impact of a changing age structure on the labour market has been debated very intensively in the United States. However, the institutional conditions in the USA are very different from those in Europe. In the USA in the 1990s the unemployment rate declined. One of the reasons was that, by the nineties, the baby boomers were already well integrated into the labour market. Therefore, the level of unemployment among active job seekers was low. Normally search unemployment is high whenever a large cohort enters the labour market.<sup>3</sup>

In Germany we have a situation where early retirement very often is preceded by a period of unemployment. It may thus be assumed that here the non accelerating inflation rate of unemployment is relatively high because a large cohort is close to retirement age. Conversely, this rate should fall if the rules which currently encourage pre-retirement unemployment are changed. It is estimated that in Germany around one fifth of total unemployment is the result of old-age including the early-retirement regulations.

The range of factors which the ECB covers in its second pillar includes changes in current account balances and exchange rates. Here, too, changing age structures could have a significant impact. It may be supposed that savings exceed investment during phases when a "baby-boom" generation has entered the workforce. Consequently, a current account surplus would be "normal" during such a period. An opposite movement should be expected in an aging society. Economic policy makers have to take these shifts in the current account into consideration.<sup>4</sup>

In the context of its second pillar the ECB also looks at asset prices as an indicator of monetary policy. This indicator is influenced by the age structure of the population – for instance if pensioners reduce their assets in order to maintain their level of consumption. I am sure that we will return to this subject in greater detail in the course of our conference.

And I hope that we will have enough time to discuss the question whether the aging of the population influences the monetary transmission process.

If a greater funded component is introduced into old-age pension systems in the future, that will certainly have repercussions on the financial system. As a rule, countries where the pension system has a greater funded component also have different financial systems than countries in which the pay-as-you-go system predominates. Some commentators even refer to the complementarity between pension systems and financial systems.<sup>5</sup> In turn, the structures of the financial systems are important determinants of the monetary transmission process.

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<sup>1</sup> See, for example, D. Cutler, J. Poterba, L. Sheiner, L. Summers: An aging society: opportunity or challenge? BPEA, 1990, pages 1 – 73.

<sup>2</sup> See, for example, B. D. Gerdesmeier: The role of wealth in money demand, Bundesbank Discussion Paper, 1996 and the literature cited there.

<sup>3</sup> See L. F. Katz and A. B. Krueger: The high - pressure US-Labor Market of the 1990s, BPEA, 1999, pages 1 – 81.

<sup>4</sup> See also OECD: Maintaining prosperity in an aging society, 1998.

<sup>5</sup> See M. Tyrell/R. Schmidt: Pensions- und Finanzsysteme in Europa: Ein Vergleich unter dem Gesichtspunkt der Komplementarität, Working Paper Series: Finance and accounting, Frankfurt University, Feb. 2001.

If the financial system changes with the aging of the population, the monetary transmission process is likely to change, too. This is an area in which a great deal of research still has to be done.

In this connection – and by way of illustration – it is perhaps useful to say something about the relationship between monetary policy and consumption – without, of course, wishing to ignore the link with investment decisions.<sup>6</sup> In the past, empirical studies in a number of countries showed that the life-cycle theory is valid to a limited extent only. Interest rates play a smaller role than this theory would suggest. Disposable income plays a greater role.

This result has been ascribed not least to liquidity constraints on imperfect financial markets. If, however, households accumulate more assets for their old-age provision and the financial markets become more perfect, it is likely that interest rate effects will have a greater impact on consumption than before – and that shocks will have a smaller impact on disposable income. In this respect the age structure of the population plays a role as well. Old people normally hold more assets than the young.

Now I would like to briefly consider the question of whether central bank objectives may also be sensitive to the age structure of the population. This could be relevant for the controversy “inflation targeting versus price-level targeting”. But it also has implications for the level of price increases that is considered to be consistent with price stability. And, finally, it also raises the question of the relative weights which deviations from the inflation or output target should have in a central bank’s loss function.

As inflation rates have fallen in recent years, a growing debate has been generated as to whether a central bank should rather pursue an inflation target or a price-level target. In this context I would like to quote a remark made by Lars Svensson, which seems to hit the nail on the head: “... the advantage of price-level targeting is reduced long-term variability of the price level. This should be beneficial to long-term nominal contracts and intertemporal decisions ...”.<sup>7</sup> If this is true for an economy in which people must save more to ensure an adequate retirement income, this could be seen as an argument for devoting more research to price-level targets. I am fully aware, however, that the age-factor is just one of many arguments in the debate on price level versus inflation targeting.

The discussion about what constitutes an acceptable rate of inflation has been very strongly influenced by possible measurement problems with price statistics. As a rule, central banks accept a certain degree of measured inflation as a hedge against pursuing a deflationary policy. We should not forget, however, that these measurement problems change with the composition of the baskets of goods and services. In turn, the baskets of goods and services may change with the age structure of the population.

For example, as a society grows older, spending on health care services is likely to increase. Despite all improvements such costs are not yet captured completely by the Harmonised Index of Consumer Prices. If these costs grow at a faster-than-average pace, the measured rate of price increases understates actual inflation. Consider, on the other hand, a country in which the cost-of-living indices include this part of the basket of goods and services. In this case it is possible that qualitative improvements in health services are not taken fully into account because it is extremely difficult to measure quality in this field.

Particular problems also arise, however, in measuring the baskets of goods and services of a mainly young society. You only need to think of spending on education, with the enormous measurement problems which that entails. It is very hard to quantify the scale of the distortions in the areas I just mentioned – which is an excellent reason for carrying out more research in this field.

Last but not least, I would like to briefly touch the question of a central bank’s loss function. Take the standard formulation used in the literature: it implies that deviations from the output and inflation target cause losses. It may well be that the relative weights of these two components are seen differently by the working population on the one hand and by pensioners on the other, especially if pensioners’ incomes are not protected against inflation. And if that is the case, the ECB’s focus on price stability can be seen from another important angle: It reduces one of the potential problems an aging society is confronted with.

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<sup>6</sup> See Deutsche Bundesbank (ed): Investing today for the world of tomorrow, 2001.

<sup>7</sup> L. Svensson: Price level targeting versus inflation targeting, JMCB, 1999, pages 277 – 95 (here: p. 278).

Ladies and gentlemen, for those among you who were already convinced that aging is an important issue for a central bank, I hope I have reinforced your views. And for those of you who are sceptical about this subject, I hope it pays to stay.