Welcome and introduction to the 6th Munich Economic Summit 2007 by

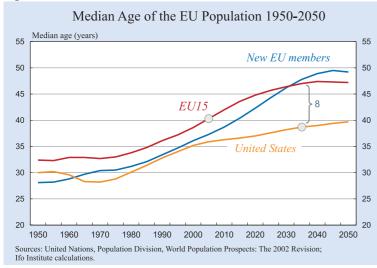
HANS-WERNER SINN President of the Ifo Institute and CESifo

Ladies and Gentlemen,

I would like to briefly introduce the topic by alluding to the demographic crisis and one of the session topics, "The Road to Gerontocracy", then speak about social security and the policy implications.

Firstly, some remarks on the demographic crisis. Europeans are old, though not the oldest. Expressed in terms of median age, the Japanese are 43 years old. The EU-15 has a median age of 40. The new EU members are a little younger, at an average age of 38 compared to the Americans at 36, the Chinese at 33 and the Indians at 24. Europeans are not only among the oldest, we are also getting older faster than the others. Figure 1 shows the median age of the EU population over one century from 1950 to 2050, as partly predicted by the United Nations. If one compares the EU-15 with the US, at each point of time the European age is higher. At present, the age is about 40 in Europe which is already 4 years older than that of Americans. The age of Americans will increase, of course, but even in 30 years time they

Figure 1



will have a younger population than Europe has now. Furthermore, Europeans will be eight years older than Americans by the mid-2030s. Even though the new EU member countries are now younger, it is anticipated that they will get older more rapidly than the EU-15 countries. Consequently they will have exactly the same median age by the mid-2030s as the western European countries.

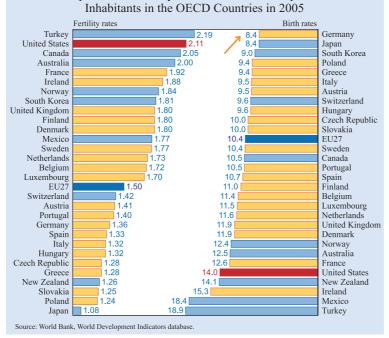
Why are we so old? And why are we ageing fast? The truth behind the change in the demographic structure is, as we all know, that too few babies are being born. How many is too few? The OECD comparison of fertility rates is shown in Figure 2. Here the two-coloured columns show the difference between the US and the EU-27. The US is close to 2.08, which is acknowledged to be the number that would keep the population constant, and Europe is considerably below it. None of the European countries, even France which had a fertility rate of 1.92 in 2005, has a comparable number to that of the US. The French fertility rate has improved and was announced to be 2.0 at the beginning of this year. But even this is below the American number.

There are other statistics that I find equally interesting. For example, the number of children relative to the population, i.e. the number of births per 1,000

> inhabitants (see Figure 3). In the US there are 14 births per 1,000 people, and in the EU-27 there are 10.4. France is close to the US, and Ireland has even more babies than the Americans. At its present ranking, Germany is the lowest in the entire developed world. There is no country with fewer babies per 1,000 inhabitants than this country has. The fertility diagram on the left shows Germany in the lower part but in the comparison of the number of babies per thousand inhabitants the country ranks at the bottom.



Figure 2 Comparison of Fertility Rates and Birth Rates per 1000 Fertility rate Turkey United States



timing differences in the decline of the fertility rate explain the differences in the number of babies per thousand inhabitants. All in all, the relatively small number of women of child-bearing age and the relatively low number of children per woman made Germany the country with the lowest number of births per thousand inhabitants in the entire world.

Ageing will change the political situation in Germany because the elderly will become the majority group of voters. This will have strong implications for political parties and their programs, and eventually for the welfare state. Obviously, one aspect of this is the pension system. Old people, or even those

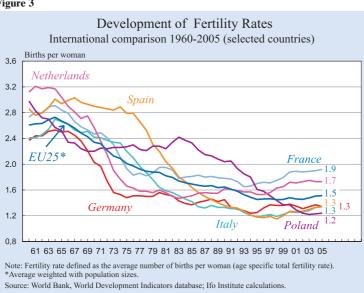
who still work, would favour an expansion of the pension system. Young people, i.e. those who would have to pay for it, are hesitant and will be against it. Where is the border line? At what age are you likely to be for the expansion of the pension system and when would you as a loser be against it? This aspect is shown for three countries (France, Italy and Germany) based on the so-called indifference age (Figure 4).

People are in favor of expanding the pension system

when they are above the critical age. On the other hand, people are in favor of curtailing the pension system when their age is below the critical age. It is interesting to see what happens when one compares the indifference age with the median age curves mentioned above. This median age curve cuts the green indifference age curve in the first half of the next decade in these three observed countries, meaning that there will be a strict majority of the old voting population who support the expansion of the pension system. There is, in this sense, a well-defined road to gerontocracy. Social security will be under

What could be the reason? Well, it has to do with the timing of fertility rates. In the early 1960s the EU-25 had a fertility rate of about 2.5, but that has now declined to 1.5. In all countries, including France and the Netherlands, the fertility rate declined in the 1960s and 1970s. Spain, Italy, Germany and Poland have undergone a more remarkable decline. Germany was the first country to experience a drop in the fertility rate. In Italy, for example, the decline started six years later. In Spain it came five years after Italy, and in Poland ten years after Italy. These



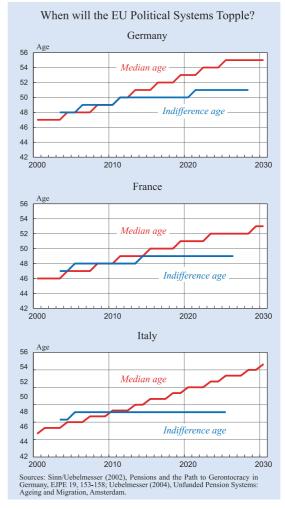


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strain, as we all know, the pay-as-you-go pension systems will be in trouble, and the difficulties will result from the changing ratio of those who are retired to those of working age. This is shown by the old-age dependency ratio in Figure 5, which depicts a curve covering the hundred years from 1950 to 2050. Today the dependency ratio has already doubled since 1950. And it will almost double again from now until 2050. So there will be a quadrupling of the dependency ratio over one hundred years. This fact implies that, compared with the case in 1950, nearly four times as many old people will have to be financed by a person of working age. In the U.S. this picture is less alarming, but the development is, in principle, similar. The situation appears to be worse in Japan, where the ratio has been increasing even faster than anywhere else. All European countries face similar increases in the old age dependency ratio, with Italy being in a similar situation to that of Japan (Figure 6). Roughly speaking, these countries will experience a doubling in the number of elderly relative to the young within the next thirty years. Consequently, the implication for the payas-you-go system is straightforward. Either we double the contribution rate if we want to keep the pensions in line with wages, or we halve the pensions relative to wages. Or we might choose a mixture of these policies. But whatever linear combination we choose, it will be equally problematic. Resources will dwindle as the number of young people dwindles, and the conflict about the distribution between the young and old is pre-programmed.

What are the policy implications required to overcome these problems? Well, if a country does not have enough own people, the country can import people from elsewhere: immigration. Obviously, this is a solution if the immigrants are young. How many would a country need? The numbers are alarming. If we assume that immigrants were to stay young forever and never retire, the old EU would need an additional 194 million people up to 2035 in order to keep the dependency ratio constant. Hence, this number of people is required in order to keep the contribution rate and the relative pension level constant. But, of course, this is only an artificial calculation because immigrants also age. How many people would have to immigrate to Western Europe to keep the dependency ratio or the pension system unchanged if you take into account that immigrants will also retire. The United Nations made this calculation in its study on replacement migration suggesting a number of 701 million. Of course, that is not a recommenda-

Figure 4



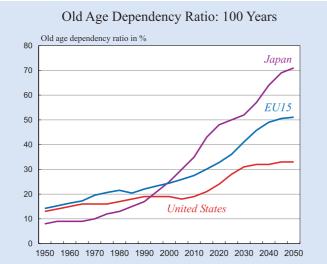
tion; it is just a forecast. Western Europe has presently 390 million people. Another 701 million people would be needed to really solve the problem so that the contribution rates, tax rates and the pension levels relative to the then prevailing wages would remain constant in this part of the world. These numbers are so astronomical, making it clear that immigration is nothing more than a drop in the ocean in this context.

Working longer is, of course, another option. In Germany, the Social Democratic Party was in an uproar because the party leader Mr Münterfering proposed extending the retirement age to 67 years. How long would we have to work to keep the contribution and the replacement rates constant? According to the UN study it would be 77 years!

The so-called partial funding is another possibility. Partial funding is based on the following philosophy: In order to financially manage in old age, people either have to raise children so that their children

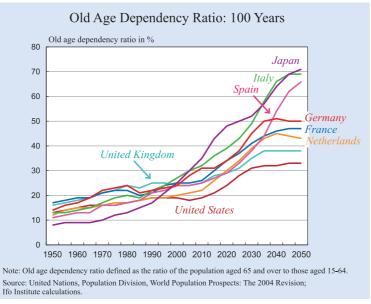
Introduction

Figure 5



Note: Old age dependency ratio defined as the ratio of the population aged 65 and over to those aged 15-64. Source: United Nations, Population Division, World Population Prospects: The 2004 Revision; Ifo Institute calculations.





can finance them, or they have to save and live off their savings. There is no third possibility unless resources were to come from abroad. If that is excluded, there are only two alternatives. Europeans have decided not to have as many children as their ancestors had. They do not invest in human capital formation either, as economists would say, as the earlier generations did. So the logical consequence is that the amount they did not invest in human capital has to be invested in real capital to fill the gap. This is the philosophy behind the German Riester reform, as it was formulated by the Council of Economic Advisors to the Ministry of Economics some ten years ago.

Another possibility is to have more support for families - family policies. What can we do in this context? Needed are educational policies that help women overcome the conflict between having children and working. For instance, Germany could imitate the French system by introducing an école maternelle allowing all young kids as of age three to go to school, so women would be free to work. We could have all-day schools in Germany. Most countries in Europe have them, but not Germany. And Germany could have more generous family allowances, similar to the quotient famiale (childsplitting) in France.

In addition, instead of giving resources to families, we should stop exploiting them. A family that raises a child provides a precious asset to society. The child pays taxes and contributions to the fiscal system, and there is a huge fiscal externality for the benefit of the society if a child is born. Regarding this aspect, Martin Werding of the Ifo Institute has done some calculations for the Bosch Foundation. And he came up with the number of nearly 140,000 euros, which is the net present value of the fiscal advantage for the pension system if a child is born. Of course, the child gets old and

benefits from the system, but it also produces offspring that cover these costs. The child pays into the system and the net effect of this stream of payments from zero, when the child was born, until infinity, taking all the offspring of that child into consideration, is 140,000 euros. It is as if the government placed a debt certificate, an IOU, into the cradle worth 140,000 euros, giving the mother and child the option of drawing on this debt later but with interest. We do not have to help the families. I think we just have to stop discriminating against them.

The pension system in Germany provides some relief for mothers who raise an additional child and

work ten years after the birth. They receive, in terms of current value, 11,000 euros as an additional pension. This is close to nothing. What we should do in my opinion is reduce the degree of socialisation of the fruits of human capital investment, which would possibly lead to an increase in human capital investment. We know that if we socialize the fruits of investment there will be less investment. Why do we believe that this does not apply to child-raising relative to other types of investment? If parents knew that whatever they invested in their children would help them in old age, they would have more children. It used to be like that before Bismarck started socialising young people's earning capacities in the pension system. Prior to Bismarck's reform, all people knew that they ought to have children to have a decent life in old age. But after Bismark everything changed. People learned that it was possible to lead a decent life in old age, even without having children of their own. An alternative way of living, which was simply impossible before Bismark, became possible and was copied by more and more people over time. As a result, people's attitudes changed. Child-based pension systems would be the solution. In Germany in 1957, when reforms were being implemented, this discussion came up, but the then Chancellor Adenauer listened to the argument that people would have children anyway, which, as it turns out, was wrong.

These are just some of my introductory thoughts on the subject.

I look forward to a stimulating conference.