

# UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

Economic Commission for Europe Agenda Item 2 Afternoon Session

7 May 2002

# **ISSUE PAPER**

# LABOUR MARKET RESPONSES TO POPULATION AGEING AND OTHER SOCIO-DEMOGRAPHIC CHANGE

by
András Klinger
Demographic Committee
Hungarian Academy of Sciences

 $(This\ paper\ is\ being\ circulated\ by\ the\ secretariat\ as\ received\ from\ the\ author)$ 

- 1. Population ageing poses long-run challenges to society, which grow as ageing accelerates. Key among them are two interrelated challenges:
  - (a) the fiscal sustainability of programs for older persons and
- (b) a broad participation in work of all groups, including the old

  These and other challenges require long-term, sustainable, effective economic and social
  policies. Important among the policies are those that will enable labour market to adapt to the

policies. Important among the policies are those that will enable labour market to adapt to the challenges of ageing. At the heart of the adaptation will be across the board increases in the labour force and employment participation rates.

- 2. At the Ministerial Conference of Ageing (Berlin, 11-13 September 2002) the UNECE Member States will for the first time ever consider and adopt a strategy on broad economic and social policy responses to population ageing, according to great prominence in economy, labour market and the various sectional issues and policies.
- 3. In view of the salience of the Berlin process, this Session will be in tune with the orientation of the process for the expected outcomes of the Ministerial Conference of Ageing. This paper analyses the labour market responses to population ageing and also mentions other socio-demographic changes, especially regarding the contribution of women to future efforts at raising participation in work.
  - 4. This paper will focus on the three following aspects of the subject:
  - (a) Ageing process in Europe past and future.
  - (b) Labour force participation of men and women past and present with possible changes in the future.
  - (c) Policies required to remove constrains to growth in participation, with special emphasis on women.

# A. DEMOGRAPHIC AGEING – PAST AND FUTURE

- 1. The ageing World
- 5. In a recent publication (1) the United Nations Population Division summarized the ageing process in the whole world, as follows:
- (a) Population ageing is unprecedented, without parallel in the history of humanity. Increases in the proportions of older persons (60 years or older) are being accompanied by declines in the proportions of the young (under age 15). By 2050, the number of older persons in the world will exceed the number of the young for the first time in history. Moreover, by 1998 this historic reversal in relative proportions of the young and old had already taken place in the more developed regions.
- (b) Population ageing is pervasive, a global phenomenon affecting every man, woman and child. The steady increase of older age groups in national populations, both in absolute numbers and in relation to the working-age populations, has a direct bearing on the intergenerational and intragenerational equity and solidarity that are the foundations of society.
- (c) Population-ageing is profound, having major consequences and implications for many facets of human life. In the economic area, population ageing will have an impact on economic growth, savings, investment and consumption, labour markets, pensions, taxation and intergenerational transfers. In the social sphere, population ageing effects health and

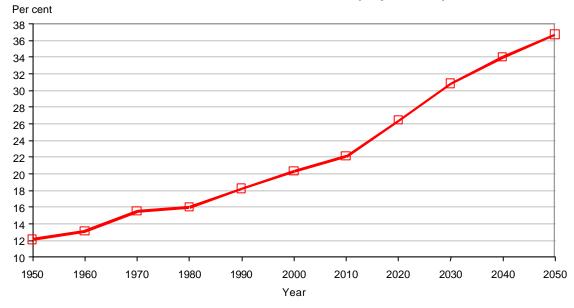
health care, family composition and living arrangements, housing and migration. In the political arena, population ageing can influence voting patterns and representation.

(d) Population ageing is enduring. During the twentieth century the proportion of older persons continued to rise, and this trend is expected to continue into the twenty-first century. For example, the proportion of older persons – in the whole world – was 8 per cent in 1950 and 10 per cent in 2000, and is projected to reach 21 per cent in 2050.

### 2. The ageing in the UNECE between 1950 and 2050

6. The transition to new reproductive behavior and the ensuing fertility decline started in the UNECE region. Countries in this region were also the first to experience a sustained decline in mortality and an increased longevity. As a result, the 'graying of the population' in Europe and North America, together with Japan, has gone further than in the rest of the world. Eventually, the same demographic process will lead to significant decline in the population of many countries.

Figure 1
PROPORTION OF POPULATION AGED 60 AND OVER IN EUROPE, 1950–2050 (in per cent)



- 7. During the last 50 years a very sharp ageing process occurred already in most countries in the UNECE. In Europe the proportion of the older persons (60 years or older) was only 12 per cent in 1950 and grew to 20 per cent in 2000. The absolute number of the elderly increased nearly 2-½ fold, while the total population grew only by 30 per cent during these 50 years. It is more significant, that the proportion of the young under age 15 declined from 26 per cent to 17,5 per cent and their number is also by 30 per cent less, than it was 50 years ago. The proportion of the working-age population –15-59 years old did not change during this period (it was always around 60 per cent) and its absolute number increased by one-third from 1950 to 2000.
- 8. The ageing process was not totally similar in all regions. Fifty years ago there were much greater differences in the proportion of the elderly. In 1950 it was only 9 per cent in

Central Europe and 10-11 per cent in the eastern and southern parts of the Continent. But it was already 15 per cent in Northern and Western Europe, Northern America stood in the middle. During the last 50 years the absolute numbers of the old age population grew more rapidly, where the proportion was lower. For instance it more than tripled in Central Europe and increased by more than 2 ½ fold in Eastern and Southern Europe and North America. In Western Europe "only" a 90 percent and in Northern Europe a 60 per cent growth occurred. Because of the different development – which was significant among the young also – in 2000 the regional differences are much smaller, than 50 years ago. The highest proportion of the elderly is now in Southern and Western Europe (22 per cent), it is a little lower in the northern part of Europe (20 per cent), 18-19 per cent in Central and Eastern Europe and only 16 per cent in Northern America.

- 9. During the past 50 years the ageing process was much less dramatic compared to the predicted future development (2). It is projected, that there will be more than 220 million elderly in Europe (plus 120 million in Northern America) by 2050. This will amount to a nearly 40 per cent increase during the next 50 years, whilst the total population of Europe will decrease by 15 per cent. The number of the young population will be nearly by one-fifth lower, and this will be a totally new and from the past a very different phenomenon: the number of working-age population will be also smaller: in 2050: only two-thirds of its present number. The expected proportion of the elderly population will be 37 per cent (versus the present 20 per cent), which is a relative increase of more than 80 per cent, versus a two-third increase during the past 50 years. It is also significant, that during this next 50 years period the proportion of young people declines to a little lower speed (from 18 to 14 per cent), than that of the working-age population (which is now 63 per cent, but it is predicted to decline to 49 per cent).
- 10. The future changes in the European regions are predicted to be less differentiated than during the last half-century. In most regions the number of the old age population will grow by one-half, only for Northern Europe a somewhat higher increase is projected (by two-thirds), In Northern America the number of the elderly population will be the double of the 2000 number (but there will be a general increase by more than one-third of the total population), whereas for Europe already a one-sixth decline is predicted. In 2050 the proportion of the elderly will be the highest in Southern Europe (40 per cent against the present 22), somewhat lower in Central, Eastern and Western Europe (36-37 per cent against the present 18-22 per cent). The lowest ratio will be in Northern Europe (34 per cent), but also here the proportion of elderly starts with 20 per cent. The 'youngest' part remains in Northern America in the UNECE region, with its 27 per cent elderly population (which is only 16 percent at present).
- 11. The ageing process could be better interpreted if not only the older populations' proportions were analyzed, but also its relative share to the working-age population. This is called generally as elderly dependency ratio, which is the number of elderly persons (aged 60 and older) per number of working age population (15-59 years old). This indicates the dependency burden on potential workers. The impact of demographic ageing is visible in the dependency ratio, which has increased and will continue to increase. In Europe because of the stable proportion of working age population the elderly dependency ratio increased relatively slowly during the last 50 years. This indicator increased from 20 to 33 during the last 50 years (by two-thirds). But the predicted decline of 15-59 years old and the steady increase of the elderly will have a greater effect. In 2050 this ratio will be 74, which means a nearly 2 ½ fold increase during the next 50 years (and especially after 2030). The general

dependency ratio (because of the sharp decline in fertility and therefore in the proportion of the young dependent) did not increase heavily during the last 50 years (even it is somewhat lower in 2000, than in 1950. But by 2050 it will be an unprecedented situation: there will a little more dependent than working age people (the total dependency ratio will be 102), In the dependent group the proportion of the elderly increases sharply: the old/young ratio was only 46 in 1950, at present there is already an elderly surplus (the ratio was 116 in 2000), but it will be unbelievably high in 2050: it will be 264 elderly against the young. The whole consideration on future labour force policies should be based on those dramatic changes.

- 12. In the past there were relatively big differences in the regional elderly dependency ratios. 50 years ago it was between 14-16 (Central and Eastern Europe) and 24-25 (Northern and Western Europe), with Southern Europe and Northern America in the middle. In 2000, these differences are somewhat smaller. The lowest ratios are in North America (26) and in Central and Eastern Europe (28-30), but in the other three regions they are higher, but very similar (34-36). The increase in this ratio was the highest in Central, Southern and Eastern Europe (twice as high as 50 years ago), the lowest in Northern Europe and in Northern America (an increase by less than one-third). The situation will be different during the next 50 years. The increase will be also the highest in the above-mentioned first three regions, but the ratio will be in each region 2 1/2 more than at present. But in the other three regions there will be also a doubling of the ratio...
- 13. In Europe already during the last 50 years the older population grew much faster than the population as a whole. It increased by 1,2 percent each year, while the young population declined already and also the working age population increased less fast. During the next 50 years the growth rate of the 60 or older remains similar (1,1 per cent annually), but the population of the other two age groups will decline (0,8 per cent annually).
- 14. The ageing can be characterized with the increase in median age. In Europe the median age in 1950 was only 29 years, which increased by 8,5 years to nearly 38 years in 2000. The projection predicts a further 12 years increase during the next 50 years, which means that the median age will be nearly 50 years in 2050. In 1950 there was a quite significant regional difference in the median age: it was only 26 years in Central and Eastern Europe and already 35-36 years in Northern and Western Europe. At present the situation is different: the lowest median age is still in the above-mentioned two regions, (37 years), but the differences became smaller: to the highest three regions (where it is only 38-39 years). For 2050 in Southern Europe the highest value is expected (52 years), but in the other regions the median age will be around the European average. In Northern America this indicator is always lower and only 41 years are predicted for 2050.
- 15. The elder population itself is ageing. The fastest growing age group in Europe is the oldest old, those aged 80 years and older. Fifty years ago only 1 % of the total population belonged to the oldest-old group, at present they count 3 per cent and by 2050 they will represent 10 per cent the total population of Europe. It means that in the middle of the century more than one fourth of the older persons will be 80 years and older (at present this proportion is only 15 per cent).
- 16. The majority of the European older persons are women, as female life expectancy is higher than for men. Among women at present the proportion of older population is 23 per cent, against 17 per cent of the males. By 2050 the differences will decline somewhat, because it is predicted that the male life expectancy grows more rapidly than for the females,

but some differences can be observed. 50 years from now this proportion of the elderly females – in the whole female population - will be 40 per cent, against the 33 per cent of the males) Therefore the female majority amongst the elderly population declines from 60 to 56 per cent.

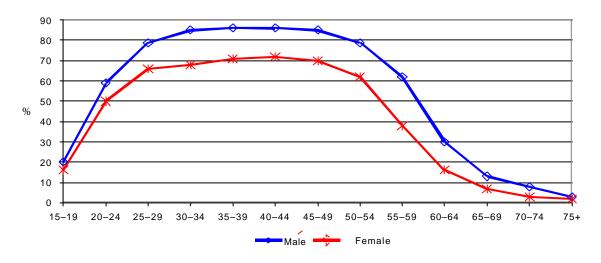
17. Conclusion: the future prospect of the European age structure, especially the declining perspectives of working-age population and the continuously increasing numbers and percentages of the old and very old, needs to reconsider the whole economic and social policy of the Continent. The rapidly growing elderly dependency ratio makes mandatory to increase the economic activity of the working age population, because with a declining population it will be possible only through a higher participation in labour force to maintain the economic stability of Europe and to guarantee the increasing burden of the ageing society.

#### B. LABOUR FORCE PARTICIPATION AND AGEING

#### 1. Present economic activity in the UNECE countries

18 .It is possible to draw a general picture of the whole European economic activity rates, making a differentiation by employed and unemployed population for 2000, using different statistical sources, basically ILO (3), European Commission (4) and US Census Bureau (5) There is also a very deep analysis for this situation in the EU member countries (6), which can be used for this purpose.

Figure 2
EMPLOYMENT RATES IN EUROPE BY SEX AND AGE, 2000 (in per cent)



19. If we consider the male population, we can state that the general economic activity rate of the 15-64 years old population in 2000 was only 75 per cent, in which 68 per cent counted of the employed and 7 per cent of the unemployed population. It means that in 2000 beside nearly 160 million employed males, there were more than 17 million males unemployed in the continent. If we consider the age specific employment rates, we can sum up with the following:

- (a) It is a relatively low employment among the males below 25 (because of the high participation in schooling especially among the youngest age group). But there is also a considerable high unemployment rate among the young males (and this causes the relatively low economic activity among the 20-24 years old 59 per cent -, but also among the 25-29 years old 79 per cent).
- (b) The economic activity of the middle-age males is considerable high (among the 30-49 years old is around 85 per cent), but this is also influenced by unemployment and there is also a quite large reserve in this most active group.
- (c) The economic activity rate of males after 50 is gradually decreasing by age. Among the 50-54 years old it is less than 80 per cent, but among the 55-59 is already only a little higher than 60 per cent, even that both age groups are under the mandatory retirement age. This is caused basically by the different early retirement policies and also by the employers' policies against older peoples' employment, which causes basically the earlier ceasing the working life. Therefore these age groups give the largest reserves for the increasing labour force participation. In this segment of the population especially among the 50-59 years old there is also a given reserve for increasing the male labour force.
- (d) Over 60 which start in many European countries with the pensionable age the economic activity is rapidly declining by ages. Among the 60-64 years old males the economic activity rate is already only 30 per cent, but after this it is disappearing gradually.

# 2. Regional differences in the present labour force participation

- 20. Naturally this general situation is not similar in all the European regions. Even the general employment rate for males among 15-64 years old shows big differences: it is the highest in Northern Europe (76 per cent), followed by Western Europe (73 per cent), and the lowest in Central and Eastern Europe (62-63 per cent). Southern Europe stands in the middle (with 68 per cent). The Northern American employment rate is higher (80 per cent), than the European one. These differences are caused basically by the variances of the unemployment rates (which move from 10 per cent in Eastern Europe to 4 per cent in Northern America).
- 21 The age-specific differences among regions show more or less the same tendencies. Among the young adults 20-24 years old we can find employment rates between 82-88 per cent (in Northern America and Northern Europe) and 51 per cent (in Central and Southern Europe). In the "normal" ages the differences are less significant, but over 50 a large divergence starts again. For instance among the 55-59 years old males in Northern America still 75 and in Northern Europe 72 per cent are working, but in Central Europe only 55 and in Southern Europe 59 per cent and in the other three regions only 62 per cent. The differences are more notably over 60, where it is interesting because of the growing early retirement possibilities the Western European rates are the lowest.
- 22. The female employment rates show more potential for future increase with better policies. In 2000 only a little over the half of the 15-64 years old female were employed on the European average and 7 per cent were unemployed. Which means that nearly 130 million females were employed in Europe, but there were also 16 million unemployed women. The female employment rate is only 80 percent compared to the male. The reserves are the same as for the males, but the potentials are much higher:
- (a) The young (20-24 years old) women's economic activity rates are not too low -50 per cent compared to the males (59 per cent). But, because of the main childbearing period of 25-34 years old the rates are relatively low; only around two-thirds of them are working.

The highest activity, which is in the 35-49 age group (with a 70 per cent rate) is also lower by more than one sixth that of the males. With effective policies it would be possible to solve the existing contradiction between childbearing and child rearing and labour force participation.

- (b) The declining tendency by age starts earlier among the females than among males, and is more rapid. Over 50 we can find a very rapid decline in the employment rates (which can not be explained with the retirement age). Even in the early fifties only little more than 60 per cent of the females are working, but among 55-59 years old drops to less than 40 per cent. And over 60 the economic activity is disappearing among the females. Therefore there is a high labour force reserve potential among the relatively older females (specially among the 50-64 years old ones).
- 23. The regional labour force participation rates are much more differentiated for females, than for males. The general employment rate moves between 65-67 per cent (Northern Europe and Northern America) and 42 per cent (Southern Europe). The other three European regions stand between 53-58 per cent. The unemployment rates vary between 8 per cent (Central, Eastern and Southern Europe) and 4 per cent (Northern Europe).
- 24. The age-specific rates show the general differences among the different parts of Europe in the female employment. It is very interesting that in Northern and Western Europe where at present the fertility rates are the highest in whole Europe still more than 70 per cent of the highest reproductive period of 25-34 years old are working, but in Southern Europe, where the fertility level is the lowest, this rate is less than 60 per cent. It is also significant that among the "highest" working age groups in Northern Europe nearly 80 per cent of 35-49 years older women are working, but in Southern Europe these rates are also only below 60 per cent. In other regions in this period the rates are around 70 per cent and it is higher in Northern America. Over 50 the decline starts everywhere, but still the differences are very significant: For instance in Northern Europe and in Northern America nearly 60 per cent of the 55-59 years old females are still working, but in Southern Europe only one-fourth of them and even in Central and Eastern Europe only one-third. Over 60 the differences remain, but are less significant.

Figure 3

MALE EMPLOYMENT RATES IN EUROPE BY AGE, 1970, 1990, 2000

(in per cent)

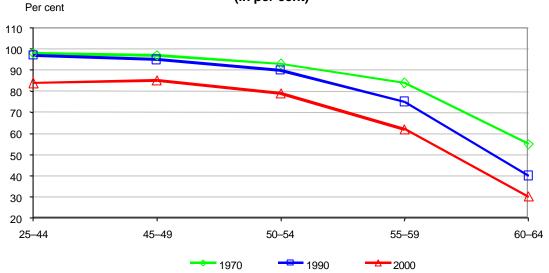
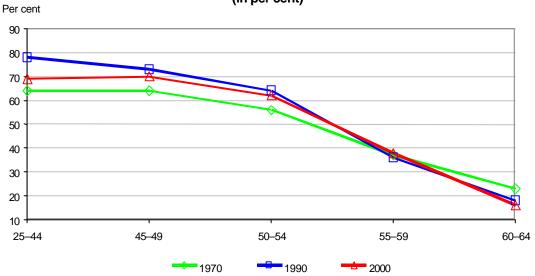


Figure 4
FEMALE EMPLOYMENT RATES IN EUROPE BY AGE, 1970, 1990, 2000
(in per cent)



# 3. Changes in the employment rates between 1970 and 2000

25 The present situation results from a quite significant change during the last decades, especially during the nineties. Different motives caused these notably changes, but the result was a general decline in the employment rates. The main elements were the economic and social transformation in Central and Eastern Europe, which caused a high drop in the economic activity with the appearance of unemployment. All this resulted in a general decline in the labour force participation. In the western part of Europe also the growing unemployment caused a drop in the employment rate, but also the early retirement policies caused a heavy decline in the activity of the older population. If we want to summarize, what happened during the last decades, we can tell the following:

(a) In whole Europe the employment rate in the most active group - 25-49 years old - dropped for the male population: from 96-97 per cent (between 1970 and 1990) to the present 84 per cent. Among females this decline was less significant: between 1970 and 1990 was a very notable increase (from 64 per cent to 77 per cent), than a drop to the present 69 per cent. This decline was more significant in Central and Eastern Europe, where 30 or 10 years ago still 97-98 per cent of the 25-49 years old males were working, versus the present less than 80 per cent. Among females here was also an increase between 1970 and 1990, which declined sharply during the ninetieth (in Central Europe from 85 per cent to 70 per cent and in Eastern Europe from 94 to 75 per cent). In the other regions (Northern, Western and even Southern Europe) there was a much slower decline in the male activity and there was a very significant increase in the female employment between 1970 and 1990 and still higher rates in 2000 than in 1990.

(b) More significant is the decline among the elderly. In Europe generally 84 per cent of the 55-59 years old males were working 30 years ago and still 75 per cent 10 years ago, against the present little more than 60 per cent. The tendency is the same among the 60-64

years old males, where the employment rate declined during the first period from 55 to 40 percent and then to 30 per cent. Among 50-59 years old females are only small changes during the last 30 years, but among the 60-64 years old the activity declined (from 23 to 16 per cent. The most significant decline occurred in this age group of 55-59 years old males in Central and Eastern Europe (where during the last 30 years the economic activity declined from 85 to 55, and 80 to 62 percent. But in the same age group there is a large decline in the western part in Europe and in North America. Similar drops can be found among the 60-64 years old males (notably in Central Europe, where the employment rate is now half of the 1970 situation).

#### 4. Possible future employment rates

26. Considering the present relatively low employment rates (among females, older males and females, but because of high unemployment among younger males and females) there is a possibility to increase gradually the number of employed population in Europe. The possible future can be based on the present sub-regional differences and/or considered as a "possible" higher activity (by sex and age) which makes possible that at the projected general decline in the whole population and more notably in the working age population, the number of the employed population will decline and this can contribute to an increasing dependent elderly population.

27. The future employment rates are estimated on basis of three considerations (between 2000 and 2050):

A-estimate: based on a stable situation, which means that the sex-and age specific average European employment rates of 2000 remain the same during the whole period,

*B-estimate*: based on the highest regional sex and age specific rates of 2000 will be uniform everywhere (in each regions), and remain the same during the whole period until 2050.

*C-estimate:* based on the consideration of the past trends and the maximal increase in labour force participation in given sex and age group, this can be considered as a "possible" variant, which gradually increase the sex and age specific employment rates, in such a way that the sex differences disappear (which means, that female employment rates will be similar to the males).

Figure 5

# MALE EMPLOYMENT RATES IN EUROPE BY AGE IN THE THREE VARIANTS (in per cent)

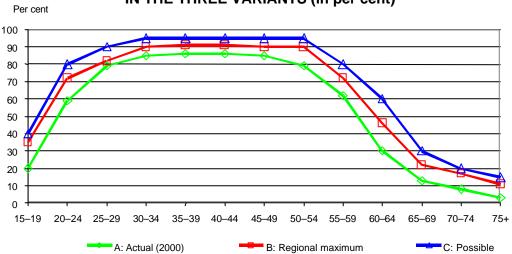
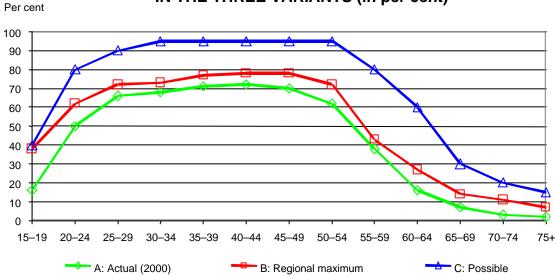


Figure 6
FEMALE EMPLOYMENT RATES IN EUROPE BY AGE
IN THE THREE VARIANTS (in per cent)



28. Using this estimates, it is easy to see, that there are significant reserves in the European labour force. For 2000 we can state, that the 310 million present labour force could increase to 360 millions if the present highest regional employment rates were in each region, and it could be 435 millions (it means by 40 per cent more) at the "possible" high employment. From this present 125 million "reserves" 83 millions derive from the female and only 42 millions from the male side for 2000.

Figure 7
MALE EMPLOYED POPULATION IN EUROPE
BY AGE IN THE THREE VARIANTS, 2000, 2050 (in millions)

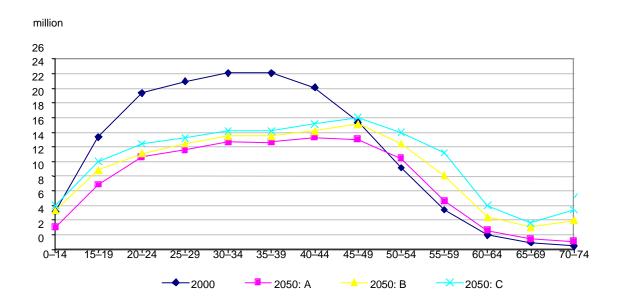
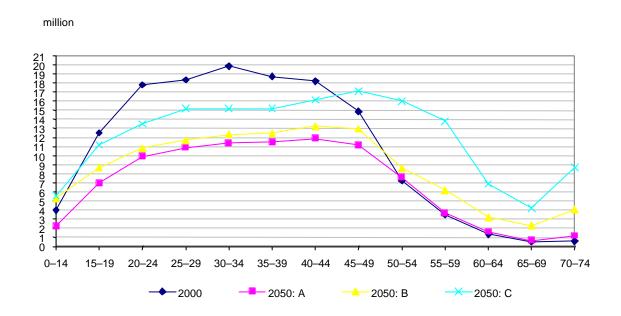


Figure 8
FEMALE EMPLOYED POPULATION IN EUROPE
BY AGE IN THE THREE VARIANTS, 2000, 2050 (in millions)



29. If we use the same estimate for 2050 – using the UN Population Division's latest projection – at the present day employment rates the number of employed population could decline to 210 million (which is only somewhat two-thirds of the present). But also at the "highest" present regional employment rate, the employed population could be only less than 260 million (which would be still by 17 per cent less than at present). But if the maximum "possible" employment rates were general, then in 2050 the number of the employed population would be a little more than at present the actual (310 millions). The development

will be not similar in each European region. It not similar, because of the different present employment rates and also because of the different population decline predicted. It means that in Northern and Western Europe with this "possible" employment rates, the number of employed population could increase by 10 per cent during the next 50 years. In Central and Southern Europe could remain stable, but in Eastern Europe could decline by 10 per cent. The composition of the future labour force would be totally different. The younger (below 50) will drop from 80 per cent to 60 per cent. Which means that the employed population will be much older (the 50 and older part could increase from a little more than 20 to a little more than 40 per cent). The other significant change would be the rapid increase of the employed females. From the present 45 per cent it could increase to 50 per cent. To achieve all this development a new labour force policy should be adopted all over Europe. Similar trends are estimated for the first decade (2000-2010) by the International Labour Organization (7) and the European Commission (8).

#### POLICIES FOR INCREASING LABOUR FORCE PARTICIPATION

- 1. Population ageing in a broader economic context
- 30. Demographic changes, such as population ageing, usually give rise to changes in the dependency ratio of an economy, that is, in the ratio of those who for one reason or another (sickness, unemployment, youth, retirement) are not working to those who are. The standard of living of those who are not working depends on the value of their pensions, unemployment benefit, and other entitlements that provide them with goods and services. Population ageing has focused attention on the "old-age" component of the dependency ratio and, especially, on the financing of pensions. (9)
- 31. Standard of living of individual members of a society is proximately determined by their command over goods and services, including those provided by capital goods such as housing. In modern, market economies the command over such goods and services is to a great event determined by an individual's monetary claims on current output, although benefits in kind, often provided largely by the state, especially for health, education, social services and, to a lesser extent, housing are also important. Those monetary claims on current output arise from a number of sources. The most important for most members of a society at most points in time is the wage income from employment in the labour market supplemented in many cases by various forms of corporate welfare (sick pay, occupational pensions, etc.). Other private sources of financial claims derive from personal insurance and pension arrangements and other forms of individual saving. The state also distributes financial claims on current output in the form of social security benefits for a wide range of conditions such as retirement, unemployment, poverty etc. and for special groups such as children and the disabled. From a macroeconomic point of view, the claims on current output derive from a mixture of income from employment and of transfers from other members of society; the latter is usually mediated by the state. Since for practical purposes most goods and services cannot be stored (i.e. long postponed), therefore transfers are essentially transfers from those producing current output to the various group of non-workers.
- 32. By changing the overall dependency ratio in a national economy demographic changes alter the pressure of demands to transfer recourses from those in work to the dependent population. This is the fundamental economic issue, which is frequently lost sight of in detailed technical discussion about different ways of financing pensions or the merits of state versus private provision of welfare. The main questions to be answered are:
  - how can such transfers be brought about,
  - at what level should they be made,
  - what are the most effective ways of financing them
  - which new policies should be adopted to meet these aims.
- 33. It should be emphasized that changes in the dependency ratio by no means entirely due to demographic changes, mainly of the ageing process. Thus, the increase in the ratio due to increased numbers of pensioners is partly due to rising numbers of people retiring before the standard age of retirement. This tendency largely reflects the use of early-retirement schemes and also, in some countries, disability pensions, as response to persistently high levels of unemployment during the last three decades. The rise in the "old-age" dependency ratio is not simply due to declining fertility and the increased longevity of those beyond official retirement age but also to earlier perverse responses to macro-economic conditions. These actions cannot now reversed, although it may be possible to offset them to some

extent, but they should be borne in mind when discussing responses to the "so-called" crisis of aging in the UNECE region.

34. The heart of the ageing and pension problem is the task of transferring a proportion of current output from those in work to those who have retired. In general, transfer problems are easier to handle when total output is growing. So a big question is what the longer run rate of growth of GDP is likely to be in the UNECE region. At present the underlying growth of capacity output is reckoned at just over 2 ½ percent a year. But it should be recalled in the wake of the "single market" program the European Commission was projecting steady growth in the EU of 3 per cent through the 1990s. In fact the most of the decade annual growth rates were 2 ½ percent or less, and as a result unemployment rates were high and persistent. An improvement in the growth performance of the EU member countries, as compared with the last two decades, should be a top priority over the next decade or two. This should imply the reinstatement of growth (and full employment) as priority objectives of policy and that a better balance. For the transition economies of Central and Eastern Europe, economic growth needs to be sustained at high rates over the medium to long term, but the issues here are the more fundamental ones of economic development and catch up. Without high rates of growth in the transition economies it is difficult to see how the impoverishment of pensioners and other dependent sections of the population can be reversed-

# 2. Labour market policies to respond the economic consequences of ageing

- 35. Raising productivity is a complex issue involving many variables, but investment in fixed and human capital is usually seen as key. But investment is in large measure a function of expectations of output growth, and these in turn are partly determined by the stance of macro-economic policy given to efforts to raise the underlying rate.
- 36. Another key element in coping with the scale of the transfer problem and in helping to boost economic growth is to increase the size of the active labour force. This will reduce the inequality between the working and non-working (mainly retired) part of the population. They're a number of policy actions which should be adopted:
- (a) reduce unemployment as far as possible, particularly among the young where unemployment is particularly high,
- (b) encourage an increase in female participation rates, bearing in mind that this may lead to increased demand for child-care facilities, etc.,
- (c) raise participation rates for males in the upper age groups below current official retirement ages. This may require retraining programs, but the incentives for employers to dismiss older workers in the face of recession or a slowdown in growth need to be reformed,
- (d) raise official retirement ages, which have yet to adjust for greater (and healthier) longevity.
- (e) improve the incentives for retirees to participate in the labour market on a parttime basis. At present, tax and other rules often constitute a strong disincentive to such parttime employment,
- (f) import labour from abroad. This is very controversial policy and should not be presented as a "simple solution". The implications for receiving countries' budgets need to be worked through and better policies to integrate immigrants and combat racism must be put in place. There is also a very close relation with the unemployment rate in the receiving country.

- 37. Another set of measures to help improve productivity growth and also reduce income inequalities is to raise the quality of the labour force. This means especially to raise the educational level of school leavers many of whom sill leave school with few or no qualification. Raising the qualifications of women, many of who are employed in low-skill labour intensive activities should also be a priority. Better supplies of skilled labour will facilitate shifts in the structure of output to higher value-added activities and thus to higher levels of national income.
- 38. Labour market policies can probably make a major contribution to easing the transfer problem associated with ageing populations. This is likely to be a more productive area for policy efforts than worrying too much over the merits of funded versus unfounded pension schemes. But economic growth remains key the incentives for women, retirees etc. to seek employment and for all to improve their education and skills will be compromised if the expectation of actually obtaining satisfactory work is weak. Growth is also important for reducing the demands on social security, but from the points of view of social integration and personal dignity social security can never be a substitute for full employment. But those who remain outside employment, a fully employed economy should be able to provide a much better level of welfare and social support.
- 39. The above suggestions cover a wide number of areas, but it is important to stress their interrelatedness. Policies or targets in one area e.g. labor need to be supported by consistent policies elsewhere, such as health, education and social care. But economic growth is key for all areas, and the labour market is perhaps the area where the largest contribution to easing the "burden" of ageing populations can be made. Increases in the retirement age and in the participation rate for women could lead to a sharp reduction in projected dependency rates over the next twenty years or so and even perhaps longer –and combined with other measures to lower unemployment and boost economic growth the "burden" can be reduced considerably- Thus, instead of policy reacting on one variable (e.g. importing more labour from abroad or tax increase) and producing alarming results, relatively smaller changes are made in a large number of variables across a wider range of sectors.
- 40. This approach implies a more general strategic approach to population ageing, one that would require consistent responses over a wide range of government policies. Recognizing the need to respond to the phenomenon of ageing populations could be the trigger for yet another adjustment of the overall (or underlying) stance of economic policy.
- 41. Recently the European Commission issued a report on "Increasing labour force participation and promoting active ageing" (10), which gives a very comprehensive picture and suggests political actions for the member countries. But these actions are valid for Europe as a whole. Two earlier documents contain also similar considerations (11 and 12): The report states, that in the EU as a whole there is a considerable potential labour supply. About one-sixth of the 77 million people in the EU member countries currently nactive would currently like to work. In addition, 56% of men and 49% of women who are presently not in paid work would like to take up work within the next 5 years, and only one-third of these have no intentions to take up work in the future.
- 42. The major reasons for inactivity are: personal or family responsibilities (almost 20 per cent of the total inactive), own illness or disability (9 per cent), education and training (27 per cent, almost 90 percent in the 15-24 group) and retirement (16 per cent, about 90 per cent in the 55-64 group). There are strong gender differences in these reasons for inactivity. Men

are inactive mainly because of education or retirement, while almost half of inactivity for women aged 25-54 is due to family and homecare responsibilities. Inactivity because of own illness or disability represents the single most important reason for men aged 25-54 and the second most important reason for women in that group. Four main determinants of labour market participation have been identified. While each has its own impact, there is a strong interaction between them.

- 43. Two forces affect the availability of jobs. At any given moment, the overall macroeconomic situation will influence demand for labour in the economy. On the other hand, the underlying trends in the structure of employment and the functioning of the labour market, including wage rates, will determine the extent to which employers will offer jobs. Furthermore, there may be regional differences in demand for labour reflecting the structure and concentration of activity in the regions. The fact that suitable jobs are available is the main factor, which encourages people to enter or re-enter the labour market. Demand for labour calls forth the supply which itself promotes further demand. On the other hand, the perception that no jobs are available may lead people not even to look for work and become 'discouraged'. The quality of these jobs in terms of pay and productivity; working conditions and safety at work, especially for older workers: working time and flexibility, ability to reconcile work with family responsibilities and security of contractual relations, will determine the strength of the response.
- 44. Participating in the labour market depends on the balance of income from work against the alternatives available, and any costs involved. The interaction of tax-benefit systems and wage levels will determine the magnitude of the unemployment and poverty traps. The actual effect on the labour supply depends on the particular response of economic agents to changes in incentives. High level unemployment and other relevant benefits combined with long duration and permissive administration of eligibility rules may undermine incentives for taking up jobs and increase the risk of long term benefit dependency. On the other hand access to employment-related social security schemes in particular unemployment insurance may well provide incentives for taking up (or transforming undeclared work into) declared employment. Moreover, unemployment insurance implies for beneficiaries much stronger labour market attachment than other social benefit schemes particularly if employment conditionally is taken seriously and job search is encouraged.
- 45. Some groups appear to be more responsive to tax/benefit changes than others. For instance, labour supply of prime-age males or those with prospects of higher future wages seem to be the less responsive to changes in incentives arising from tax/benefit systems. On the contrary, partners in couples where one spouse is not working (usually women) and lone-parent families are generally found to be the most responsive to incentives, in terms of participation in the labour market. Tax disincentives affect the participation decision of women particularly when combined with caring responsibilities and in the light of the continued existence of gender pay gaps, which may imply a lower expected income.
- 46. Skills and competences determine not only the extent to which those entering or returning to the labour market can take up the jobs on offer or create self-employment, but more crucially, the extent to which those already in work can keep those jobs in a changing technological and economic environment and can advance their careers. Activity rates are significantly higher at all ages, the more educated in the work force. EU-level activity rates in 2000 stood at 87% for the high skilled, compared to 57% for the low skilled. Differences are

bigger among women: low-skilled women are the only group in the population with more than half of them inactive. The share of youngsters who have completed tertiary education (i.e. high skilled) has been increasing over time. The number of those in the labour force considered as low skilled (i.e. less than upper secondary education) appears to be falling but remains substantial. Prospective skill trends of labour demand as measured in employer surveys clearly indicate that employment of skilled employees will continue to increase while that of unskilled people will decrease; employment increases will further continue to be strongest in the service sector and most likely in knowledge-intensive sectors, requiring a range of skills such as Illiteracy, communication, skills, etc.

47. For many people, the decision to participate in the labour market may not depend on the evaluation of the factors described above, which primarily determine the attractiveness of work, but on factors such as availability of, and access to, day-care facilities, transport and counseling services or relating to the cultural environment. Availability of care facilities and access to public transport also determine whether libraries and adult education facilities are open to everybody who needs them to improve her or his labour market status. Many of these fall within the domain of public policies or regulations and therefore would lend themselves to policy action.

#### 3. Policies for promotion equal opportunities between women and men

- 48. Ageing raises several equality issues. Women's increasing participation will be the main source of future labour force growth in many European countries. Policy makers increasingly recognize that demographic ageing will further underline how important women's participation is to economic growth. Nevertheless, female participation as we already discussed is still very low in many countries (especially in Southern Europe). This partly results from the difficulty of combining economic activity with family obligations. Moreover, women continue to be over-represented in the more vulnerable and lower paid sectors, which are at greatest, risk of redundancy.
  - 49. These trends call policy action aimed at:
- (a) Facilitating female access to more secure and better-paid careers and securing equal opportunities for participation in training and skill updating throughout working life.
- (b) Further policy focus on the goal of reconciling family and working life. Better sharing of family responsibilities between men and women and more career-friendly employment policies (addressing caring for older dependants as well as for children) need to be further promoted.
- (c) Further exploration of the possibilities for using fiscal and family policy tools to promote female labour force participation.
- 50. The need for more effective policy to facilitate the higher participation of women in the labour force should have an effect also in the present reproductive situation of the European countries. The fertility level of Europe measured on the basis of the total fertility rate shows a decline from 2,7 in 1950 to 1,3 in 2000. The UN population projection counts with a similar very low fertility during the next twenty years period and only after 2030 is predicted a very slow increase, which can reach a 1,8 fertility level around the mid-century. To reach this situation with a need to increase labour force participation a more effective policy is necessary, which can result at the same time in a higher fertility and a more extensive participation in the labour force.

- 51. Some countries in Europe already found the solution to this very complicate formal contradiction. In the sixties some Central European countries, later in the eighties some Northern European (notably Scandinavian) countries adopted measures, which at the same time maintained or even increased the fertility level and also resulted in a high or even increasing economic activity of women. In the Central European region with the economic and social transformation this measures disappeared mostly or slightly diminished and this can be seen in the rapidly declining fertility. But in most Scandinavian countries these positive measures are still in effect and perhaps therefore in this region at present the level of fertility is the highest. In contrary in most Southern European countries there is hardly any measure, which compensates the family and working activity of women. In those countries the female employment rate is the lowest and the lowest fertility too was also at the same time over the last two decades.
- 52. If we want to sum up, what are the most effective measures, where political action is needed for the compensation of these two different activity of women, we can simply list them, with a priority of effectiveness:
- (a) to afford a possibility for the mother with growing children to stay at home during a given period and to get a compensation from the society (State, social security) for the lost salary. This is called "child-care allowance" in most countries, where it is established and it is the best if it lasts to 3 years after the birth of the child,
- (b) to make possible or even compulsory for the father to take part in the care of the child during a given period (using the child care allowance system partially instead of the mother),
- (c) it is more effective, if the amount of the childcare allowance is not a fixed even financial contribution, but depends on the earlier salary of the mother (or the father). After or during the child-care period it is necessary to afford a greatest possibility (for the mother and eventually for the father) not the full-time but a part time and flexible time employment. For this it is necessary to make interested for such labour system both the employers and employees, with tax-cuts, social security benefits, local infrastructure (including child care institutions or transportation),
- (d) to build a system of child care institutions, where every child in all age categories, as in the crèches, kindergartens, day-care schools can be stayed and for which the society gives enough help to support it (with cheap participation fees, especially for those who are needed), and which gives not only supervision, but food and care during the whole period, when the mother (or father) works.
- (e) to increase direct or indirect financial support for the families with children to make less visible the per capita income differences between childless, one-child or multiple-child families. The countries are using different or combined measure for this compensation (using even or by income level differentiated family allowance system, or given tax-cut for families with children or establish a family system in income taxation).
- 53. All these positive measures could be built gradually, but the main requirement is that all of them should remain for a long run, If a given country cuts one or many of these policy elements, the negative effects can be wait immediately and for a long period it would be impossible to reestablish it and await a positive effect in the family formation or in the economic activity. It would be preferable to develop everywhere even in such countries where it is not established at present a-child-care/help system and to have an effective measure, which in a not very long period can have a positive effect, both for the family formation and for the needed increase of female labour force participation. With these very

effective – and relatively more national recourses needed - policies it would be possible to increase the European labour force and support the increasing number of elderly population.

#### 4. Priorities for immediate actions influencing labour force supply and demand

- 54. Within the comprehensive approach described above, priority should be given to the following initiatives responding to serious deficits noted in many EU Member States and also in other European countries. Such an initiative would focus in particular on:
- access to company training. Employers should assume greater responsibilities and increase investment in their human capital. Special support in training and developing career opportunities should be envisaged for low paid/low skill workers and for the disabled. Such investment should prepare for possible economic restructuring and increase adaptability of workers. Changes in financial incentives leading to later retirement may be counterproductive if older people do not upgrade the skills needed and adapt to changes in the business and work environment.
- ways to improve quality in working conditions and work organization with a view, in particular, to encourage women and experienced workers to stay longer in employment and meet the needs of disabled workers.
- Changing the view that early retirement is an acceptable solution to problems of downsizing and restructuring.

Such an initiative must be based on the understanding that these efforts are of wider interest and benefit to society as a whole and thus may entail a redirection of public funding in favor of this area.

- 55. Comprehensive reforms addressing the combined incentive impact of tax and benefits is an urgent priority in many Member States. Such reforms, as well as addressing the reinforcement of control systems and reviewing eligibility rules, should be targeted towards enhancing work incentives. Emphasis should be placed on:
- reviewing, with a view to removing, incentives encouraging early retirement both for individuals and for enterprises to cope with downsizing and major restructuring. Promote partial/gradual transition to retirement and rewards for those remaining at work after statutory retirement age, and put emphasis on improving work organization.
- reviewing the effects of current policy combinations affecting participation (incentive systems, penalties for work in alternative employment after retirement); examine reforms of means-tested benefits (without jeopardizing social policy objectives or education and training incentives) so that each member of the household has an incentive to work.
- 56. A strong initiative is required to reduce gender disparities in both the public and private sectors. This would involve:
- an overall assessment of the reasons including differences in productivity explaining the presence of more or less important pay gaps between men and women in each country,
- reviewing constraints on labour market choices for women and men, in particular in connection with education systems, employer recruitment practices and the existing organizational and work cultures,
- reviewing job classification and wage formation processes to eliminate gender bias and to avoid any under-valuation of work in women-dominated sectors and occupations,

improve statistical and monitoring systems, increase awareness raising and transparency on pay gaps.

- 57. Caring responsibilities are a major obstacle to labour market participation, particularly for many women. Efforts should concentrate on:
- developing childcare services in order to facilitate the further integration of parents, especially women, into the labour market; at the same time as the availability of such services, it is important to ensure their affordability and high quality standards, and
- enhancing efficiency of healthcare and eldercare facilities and improving their linkage with the social policy in general. Reforms need to be focused more on making the care system more responsive to the needs of an ageing population.
- 58. The Employment guidelines call on EU Member States to develop measures aiming at halving the number of early school leavers by 2010. Emphasis should be given to:
- devising effective measures, in the context of social inclusion policy, to help early school leavers re-enter a learning situation in formal and/or non-formal education and training. Such measures should address the specific needs of young disabled people and young people with learning difficulties. Training programs would be developed involving partnership to bring them closer to school and the world of work,
- improving access and promoting infrastructure/training facilities responding to the specific needs and circumstances of this group of learners, in partnership with various public sector actors.
- developing special training programs tailored to the needs and circumstances of young migrants having particular difficulties to integrating into education systems and in accessing and adapting to the labour market.
- 59. The challenges of increasing participation can be approached with more vigor, building on the effective implementation of the labour market reforms under the Employment Guidelines and the Broad Economic Policy Guidelines of the European Union, which can be adopted in other part of Europe too. The employment guidelines, particularly with the recent emphasis on employment rates, job quality and lifelong learning, provide the framework for developing a comprehensive approach to stimulating labour market participation of men and women across all ages. By putting emphasis on growth and stability-oriented macroeconomic policy and on structural reforms the Broad Economic Policy Guidelines strengthen further the policy framework. The objective of raising labour force participation will remain a priority for future guidelines. Measures to increase labour force participation and active ageing should take into account the relationship with pensions and health care, including their social objectives and the financial sustainability of their systems. Building on the policy priorities, social partners have an important contribution to make in facing the challenge of the ageing population: a priority issue in the Social Dialogue. Action by Governments and Social Partners will only succeed if they are accompanied by basic changes in attitudes in enterprises and education systems to gender gaps, older workers, as well as to other disadvantaged groups, including migrant and disabled workers. Such a change in attitudes requires a broad mobilization of society's efforts led by the highest political level as initiated by the European Council at Lisbon and Stockholm.
- 60 The target is well summarized in the paper presented as "Europe's response to World Ageing", issued by the European Commission (13), which states: Ageing reinforces the importance of general efforts to raise participation and employment rates in Europe. (of all of working age and of women and older workers in particular). In relation to the

employment rates of women it furthermore underlines the crucial pertinence of policies aimed at securing gender equality in the world of work and at reconciling the demands of family and work life. As for older workers ageing points to the need for changes in the present practices of age management in work places and labour markets. It is important that policies and practices, which enable and motivate older workers to fully seize these new opportunities, to put in place. A number of changes are important: a shift towards maintaining the working capacity and employability of older workers, men and women. Through measures such as training, health and safety measures, adjustments to workplace and job design, introduction of work facilitating technology, and new working time arrangements. Possibilities for generating job opportunities for older workers and raising their employment rate through measures and retention should be exploited. As a result the effective retirement ages of both women and men would be raised, thus avoiding that the negative impact of ageing on labour supply is exacerbated through a continuation of current practices leading to early retirement.

#### D. CONCLUDING REMARKS

- 61. Concluding, we can sum up with the following three main points, which are discussed in this paper:
  - (a) the ageing process accelerates during the following decades,
  - (b) the employed population declines, if the low labour force participation of the females and of the males over 50 could not be increased,
  - (c) all necessary measures needed for the changes in employment,
- 62 The main question is for achieving these goals are, what kind of national and international activity will be present in the future. There are different steps to be taken to compensate for the effects of future ageing in the UNECE region. They could be summarized as follows:
- (a) It is necessary that the improvement should not be based on uncoordinated policies of individual ministries or sectors. What is needed is a comprehensive, well-coordinated, national, cross-sectoral set of policies that will be implemented over a relatively long time period. The different policies, with well-established short-, medium- and long-term priorities should be helping each other.
- (b) It is also necessary to consider given country's demographic situation, labour force participation and general economic development when developing such future policies. There will be many opportunities for this type of policy development and implementation in the present and future European Union's member countries. However, opportunities will be fewer in those countries where economic development is lagging and, at the same time, the demographic situation is different. Theses countries will need more help from the regional cooperation.
- (c) The national policies should be helped by regional cooperation and coordination. The forthcoming UNECE Ministerial Conference of Ageing is a good opportunity to establish the mechanisms in the UNECE region for a future regional cooperation. An intergovernmental working group is needed to promote and monitor the development and implementation of the policies in question at the national level. Those policies should be in line with the implementation of the Madrid International Plan of Action on Ageing in the UNECE region. This would require that in the context of the programme of work of the Economic Commission of Europe new activities be envisaged in support of this regional cooperation. For this, an adequate infrastructure should be established.

(d) Even though the needed policies should be adopted mainly by the national governments, the public sector alone is not able to solve all the problems. Therefore it is necessary to find the mechanisms to increasingly involve the private sector in each of the improvements (e.g. besides the state pension system to establish the second pillar of the old age retirement, to involve the private capital in establishing and management of health, social and educational services - in-school and after school programmes and re-educating elderly workers, based on a life-long education and training). A real partnership is needed in this field between the state, the private and the civil sectors.

#### REFERENCES

- (1) World Population Ageing 1950-2050, Population Division, DESA, United Nations, 2002
- (2)World Population Prospects: The 2000 Revision (Medium variant), Population Division, DESA, United Nations, 2001
- (3) Yearbook of Labour Statistics 2000, International Labour Office, 2001
- (4) Employment in Europe 2001: Recent Trends and Prospects, European Commission, 2001
- (5) K. Kinsella V. Velkoff: An Aging World: 2001, US Census Bureau, 2001
- (6) C. Bagavos C. Potakis: Demographic Dimension of Labour Force Trends: National and Regional Diversities within the European Union, Genus, 2001
- (7) Economically Active Population Estimates and Projections (1950-2010), International Labour Organization, 2000
- (8) The Future European Labour Supply, European Commission, 1999
- (9) Based on the paper of Paul Raymont: Population ageing in the ECE region: The broader economic context (mimeographed), 2002
- (10) Increasing Labour Force Participation and Promoting Active Ageing, European Commission, 2002, Toward a Europe for All Ages, European Commission, 1999
- (11) Von Nordheim Nielson: Active Ageing -\* key paradigm in European Commission policy response to demographic change
- (12) Europe's Response to World Ageing. Europe's response to World Ageing. Promoting economic and social progress in an ageing world, European Commission, 2002

Table1.POI	PULATION	N BY MAIN	N AGE G	ROUPS IN	THE EURO	PEAN REGIO	ONS, 1950-2050		
Year	Central	East	North	South	West	Europe	N. America		
		0-14 year	rs old in	percenta	ge of total	population			
1950	28,6	26,0	28,1	27,5	23,4	26,2	27,2		
1960	25,9	29,1	24,4	27,1	25,2	26,7	31,1		
1970	25,3	26,3	24,1	26,0	24,1	26,3	28,5		
1980	23,7	22,2	21,1	24,6	20,0	22,2	22,6		
1990	23,2	22,8	19,4	18,9	17,6	20,4	21,8		
2000	18,1	18,1	18,9	15,8	17,0	17,5	21,5		
2010	14,2	13,6	15,9	14,0	14,9	14,4	19,1		
2020	13,4	14,0	14,9	12,6	13,9	13,7	20,3		
2030	13,8	12,6	15,4	12,1	14,1	13,5	18,3		
2040	14,1	12,5	15,0	12,3	13,9	13,4	18,2		
2050	14,9	13,7	15,2	12,7	14,0	13,9	18,3		
15-59 years old in percentage of total population									
1950	62,9	62,0	61,5	61,5	61,7	61,7	60,4		
1960	60,5	60,5	59,8	60,2	69,6	60,2	55,9		
1970	60,9	61,1	57,5	59,1	57,2	58,2	57,7		
1980	62,9	63,6	58,9	60,1	61,8	61,8	62,0		
1990	61,1	60,5	62,4	62,2	62,5	61,4	61,7		
2000	64,0	63,0	60,7	62,4	61,3	62,3	62,3		
2010	65.0	67,9	60,7	61,6	60,7	63,5	62,4		
2020	61,7	62,4	58,3	59,3	57,6	60,0	56.7		
2030	51,6	63,9	53,3	54,2	52,3	55.7	53,6		
2040	56.5	56,5	52,2	49,0	51,3	52,6	53,2		
2050	49,0	49,2	50,9	47,2	50,4	49,4	54,5		
		60-x year	rs old in	percenta	ge of total	population			
1950	8,6	10,0	15,4	11,0	14,9	12,1	12,4		
1960	11,1	9,9	15,9	12,7	16,6	13,1	13,0		
1970	13,8	12,6	18,4	15,0	18,7	15,5	13,8		
1980	13,4	14,1	20,0	15,2	18,2	16,0	15,4		
1990	15,8	17,7	20,4	18,9	19,9	18,2	16,5		
2000	17,9	18,9	20,4	21,8	21,7	20,3	16,2		
2010	19,9	18,9	23,4	24,4	24,4	22,1	18,5		
2020	24,9	23,6	26,8	28,1	28,5	26,4	23,0		
2030	34,6	23,5	31,3	33,7	33,6	30,8	28,1		
2040	32,6	31,0	32,8	38,7	34,8	34,0	28,6		
2050	36,1	37,2	33,9	40,1	35,6	36,7	27,2		
60-x years old in percentage of 15-59 years old									
1950	13,6	16,1	25,0	17,9	24,1	19,6	20,5		
1960	18,4	16,3	26,5	21,1	27,8	21,8	23,3		
1970	22,6	20,7	32,0	25,3	32,6	26,6	23,9		
1980	21,3	22,2	34,0	25,3	29,5	25,9	24,8		
1990	25,9	29,2	32,8	30,3	31,8	29,6	26,7		
2000	28,0	30,0	33,6	34,9	35,4	32,6	26,0		
2010	30,6	27,8	38,6	39,6	40,2	34,8	29,6		
2020	40,4	37,8	46,0	47,4	49,5	44,0	40,6		
2030	67,1	36,8	58,7	62,2	64,2	55,3	52,4		
2040	57,7	54,9	62,8	79,0	67,8	64,6	53,8		
2050	73,7	75.6	66,6	85,0	70,6	74,3	49,9		

Table 2. EMPLOYMENT RATES BY SEX AND MAIN AGE GROUPS IN THE EUROPEAN REGIONS, 1970-2000 (in percentages)

Age-	Employment rate (in percentage)						2000 in percentage	
group,	MALES			FEMALES			of 1970	
region	1970	1990	2000	1970	1990	2000	MALE I	FEMALE
25-49								
Central	98	97	82	78	85	70	84	90
Eastern	98	97	79	92	94	75	81	82
Northern	97	94	85	54	74	76	88	141
Southern	96	96	86	33	56	56	90	170
Western	97	95	89	50	67	72	92	144
Europe	96	97	84	64	77	69	88	108
N.America	94	94	89	49	75	75	95	153
50-54								
Central	92	84	72	67	69	62	78	93
Eastern	92	91	76	81	85	71	83	88
Northern	95	89	82	57	69	72	86	126
Southern	88	87	81	25	33	41	92	164
Western	93	92	84	44	55	64	90	145
Europe	93	90	79	56	64	62	85	111
N.America	91	88	84	51	67	72	92	141
55-59								
Central	86	87	55	48	36	32	64	67
Eastern	80	79	62	39	34	35	78	90
Northern	92	78	72	47	54	58	78	123
Southern	76	71	59	19	22	26	78	137
Western	85	75	62	35	40	43	73	123
Europe	84	75	62	37	36	38	74	103
N.America	87	79	75	46	55	59	86	128
60-64								
Central	59	59	30	31	20	19	51	61
Eastern	35	34	27	24	19	17	77	71
Northern	79	53	46	27	25	27	58	100
Southern	48	31	35	13	14	14	73	108
Western	65	30	21	21	13	11	32	52
Europe	55	40	30	23	18	16	55	70
N.America	73	55	52	35	34	37	71	106

Table 3. EMPLOYMENT RATES BY SEX AND FIVE-YEAR AGE GROUPS IN THE EUROPEAN REGIONS, 2000 (in percentages)

Sex,	Central.	East	North	South	West	Europe	N.America
Age	Employ	ment ra	te (in perc	entage)			
				MALES			
15-19	10	13	35	15	29	20	45
20-24	51	60	72	51	63	59	76
25-29	79	76	82	74	84	79	88
30-34	85	80	84	86	90	85	88
35-39	85	80	84	89	91	86	90
40-44	83	78	88	91	90	86	90
45-49	80	81	86	90	89	85	88
50-54	72	76	82	81	84	79	84
55-59	55	62	72	59	62	62	75
60-64	30	27	46	35	21	30	52
65-69	22	15	15	12	6	13	23
70-74	17	8	7	8	3	8	16
75-x	11	1	3	3	2	3	8
15-64	62	63	76	68	73	68	80
				FEMALES	2		
15-19	8	7	38	9	23	16	44
20-24	42	50	62	37	58	50	68
25-29	60	68	72	56	72	66	73
30-34	66	72	73	57	71	68	73
35-39	73	77	75	59	72	71	74
40-44	75	77	78	56	73	72	76
45-49	72	78	78	51	72	70	77
50-54	62	71	72	41	64	62	72
55-59	32	35	58	26	43	38	59
60-64	19	15	27	14	11	16	37
65-69	14	9	9	5	2	7	14
70-74	11	2	3	3	1	3	9
75-X	7	1	1	1	1	2	3
15-64	53	55	65	42	58	54	67