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Demographic and Social Trends Issue Paper:

Europe's Changing Demography Constraints and Bottlenecks

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Foreword

This paper has been produced in the context of *The Futures Project* of the IPTS, in particular the part dealing with demographic and social trends. It relates specifically to the analysis and projection of the likely impact of demographic trends on Europe, in terms of identifiable constraints and bottlenecks, in the early decades of the 21st century.

Much of the first year's work on *The Futures Project* from mid-1998 to mid-1999 has been organised around five expert panels including one on Demographic and Social Trends[1]. A separate report (Futures Report No. 2: ***Demographic & Social Trends Panel Report***) summarises the work and achievements of this panel. (Report No. 1 in the Futures Report Series entitled *The Futures Project: Overview* provides an account of the scope, methods and aims of the overall project.)

This present paper provides complementary information, analysis and views on some of the key issues that the panel raised, but in a more focused and elaborate way than has been provided in the Panel Report.

Given that the author of this paper has also been a Panel member, the way in which some of the themes are developed stems naturally from the ideas generated and discussed by the Panel. However, much of the discussions in the paper are developed beyond the point reached at the panel meetings, and in directions primarily determined by the author. In view of this, the paper does not necessarily represent the views of the panel as a whole, nor of the IPTS, but it nonetheless constitutes a rich source of additional material and ideas, which the Futures Project can draw on as further work unfolds.

James P. Gavigan & Mathias Ottitsch
D&ST Panel Co-ordinators[2]

IPTS, 1999

[1] The other Panel themes were Information and Communication Technologies and the Information Society; Life Sciences and the Frontiers of Life; Natural Resources and the Environment; and The Political and Economic Context.

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The Futures Project is a major prospective exercise of IPTS that explores the likely effects of the major economic, social and technological developments which will take place in Europe and the world in the next ten years on Technology, Employment and Competitiveness in Europe by 2010. It is organised as an interactive process based on expert panels and workshops, and supported by background research.

The output of the Futures project is a series of reports to be published in the course of 1999. The first publications will be an overview report and four panel reports (May 1999):

Report 01 The Futures Project: Overview

Report 02 The Demographic and Social Trends Panel Report

Report 03 Information and Communication Technologies and the Information Society Panel Report

Report 04 Life Sciences and the Frontier of Life Panel Report

Report 05 Natural Resources and the Environment Panel Report

A series of **Issue Papers** developed by different expert panel members will also be published (March – May 1999)

All reports will be available from the IPTS and will be available from the Futures Project Website:

http://futures.jrc.es

Further reports in the series will be announced on the website as they are published.

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Executive summary

Current demographic projections show that the European Union (EU) might reach a stationary level of population in the next half century. However, enlargement to Agenda 2000 countries – Poland, Czech Republic, Hungary, Estonia, Slovenia, Cyprus - will increase the EU population by one sixth, and immigration along recent trends would postpone global demographic decline by two or more generations.

The main problem ahead, on a 10 to 20 years time horizon, lies in the triple ageing process. The share of people aged 65 and over is the first aspect. This will be a problem where the employment rate, and subsequently the funding basis, is low – like in most Latin Europe. It is much less a problem where employment rates are high, and even less in Scandinavian countries, where global ageing has already occurred. On the whole, the problem is more one of transitional costs than a definite post transition constraint. Still, the transition can be difficult where the funding basis is narrow, like in the three largest Latin Member States - France, Italy and Spain.

The second aspect of ageing is the “elder ageing”, i.e. the fast increasing share of people aged 80 and over, in terms of health cost and caring systems. This is offering also job opportunities, insofar as it does not prevent further progress in female participation to the Labour force.

At time horizon 2010, the main demographic issues lie in and around the Labour force. Quantitatively, an increasing number of Member States, starting from northern and north-western Europe, will face global Labour shortages, when the high employment rates achieved leave little unused Labour capacity. On one hand, these areas will have to rely more on internal mobility and on selective immigration – which will conflict with the concern for growth in emigration countries. Some countries, like Italy for example, will have to trade-off between inner migration of people and investment, where unused Labour capacity, preferably young and qualified, remains available. Agenda 2000 countries widen the prospects, but only in the short term, since their ageing process will catch up fast, and since their own economic growth should rapidly reduce the emigration factors – even more so if Labour force availability is attractive for inward investments.

On the other hand, the economic growth and global competitiveness of those countries with tight Labour markets will depend more and more on the improved use of human resources, through higher qualifications and higher productivity. On the whole, steps should be taken to help the Labour market work on a more European and less national basis. But the progressive reduction of global unemployment, thanks to both demographic neutrality and normal employment growth, can be labelled "high certainty”, and first of all for incoming young generations, with some risk of shifting unemployment to elder workers.

Qualitatively, the workforce ageing scissors will require far-reaching and abrupt adjustments, which can be anticipated within the 2010 timeframe. With the steep increase of workers aged 50 and over, and the dramatic decline of young incoming cohorts, there is no escape way. Adaptation to workforce ageing is the utmost imperative, and it can be organised in two directions:

1°) Where employment growth relies on increasing employment rate of people aged 50 and over, accelerated changeover must be organised towards lifelong learning and age-specific re-skilling. This will be the case in two thirds of the Member States before 2010, and in the others soon after.

2°) Considering the likely difficulties of reversing early retirement schemes, more diversified and flexible ways of retiring should be promoted, with clear legal facilities. This means opening social security rules to less “block-structure” life cycles, and allowing more part-time and/or progressive retirement schemes, with appropriate positive incentives to be experienced.

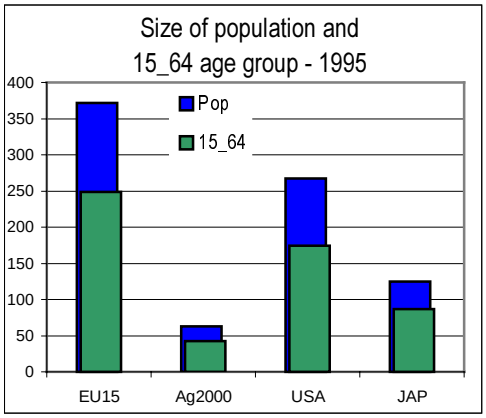
Finally, it should be recalled that more open life cycles are consistent with longer life expectancy – i.e. mortality risks delayed to high age - and with a more open society.

Chart 1

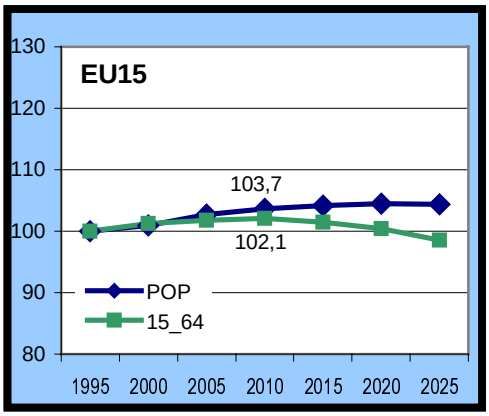
Total population
and working age (15_64) population

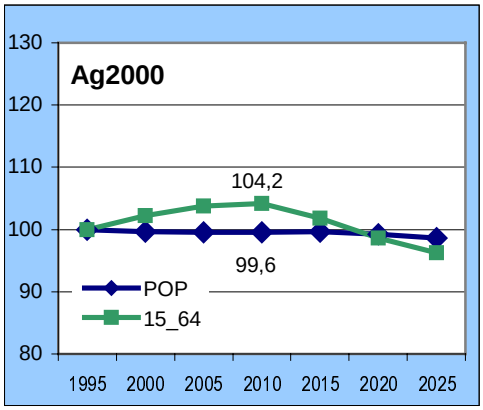
1995-2025

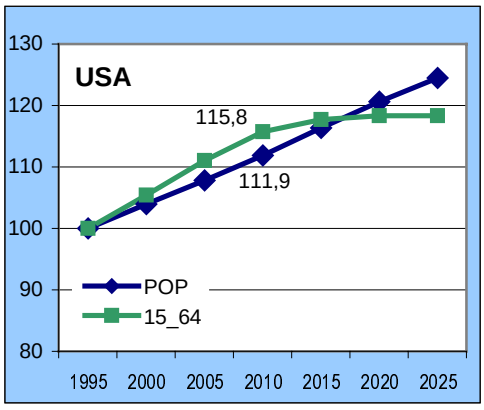
EU15 Agenda 2000
USA JAPAN

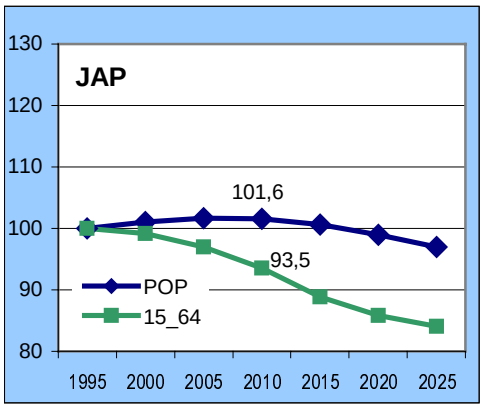


(1995=index100)







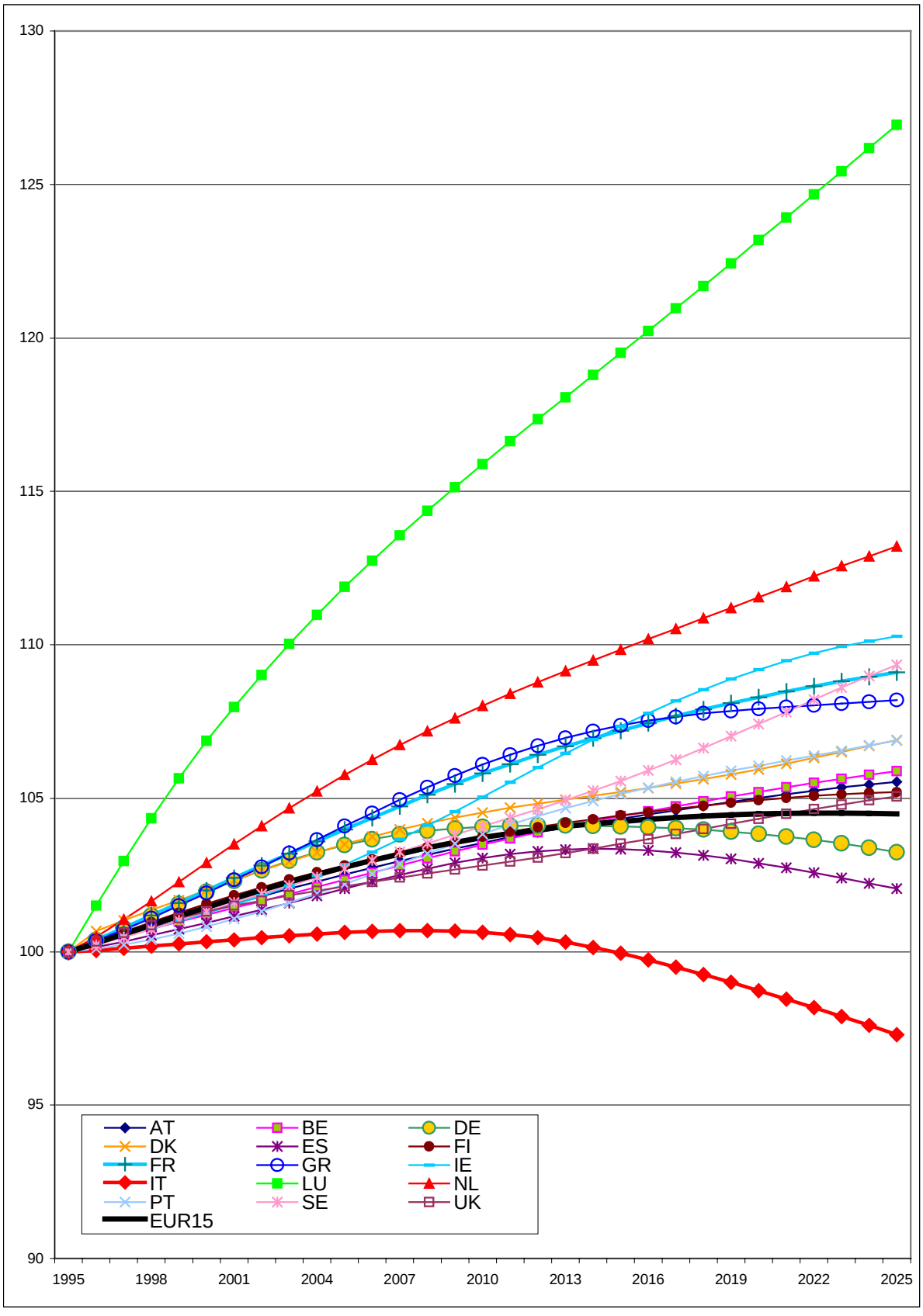


Source : *Eurostat 1997 Demographic projections (Baseline scen.)*
UNO 1996 Revision World Population (Medium var.)

Futur1/gr1

Chart 2

Population - 1995(=index100) - 2025



Source : Eurostat, 1997 Demographic Projections, Baseline scenario.

EUP/mäjpopreg/eur15/pop

A. Evolution of global population

The Union

Chart 1

According to Eurostat's 1997 Demographic Projections (Baseline scenario), the European Union's global population should further increase at a slow pace, reaching the index 103.7 in 2010 (index 100=1995), and then stabilise progressively (peak reached at index 104.5 in 2017). The population in Agenda 2000 countries – Poland, Czech Republic, Hungary, Estonia, Slovenia, Cyprus -, according to UN projections, should go on decreasing progressively (index 99.6 in 2010).

The competitors

Compared to its main competitors - US and Japan - the EU is in an intermediate situation. The US population should go on increasing almost linearly (index 111.9 in 2010, and 125 in 2025), but Japan's population should be decreasing regularly after 2005 (index 101.7 in 2005 and index 97 in 2025).

The Member States

Chart 2

Considering the trends in the 15 EU Member States, the population in most of them should increase above the average: a first group (LU, NL, IE, FR) significantly faster, a second group (AT, BE, DK, FI, GR, PT and UK) slightly faster, with Sweden increasing more continuously. But three high-population countries are showing early downward trends. The Spanish population would reach its peak in 2014 (index 103.4); German population in 2010 (index 104.1). Italian population, would decline after the 2006-2009 peak (index 100.7), and be back to index 97 in 2025.

Agenda 2000 countries

Among the Agenda 2000 countries, only Cyprus would know a steady increase in population (index 116 in 2010). Poland would show a residual growth (index 102.2 in 2010). All others have entered a process of population decrease: 2 to 3 % less for Czech Republic and Slovenia between 1995 and 2010, 8 to 9 % less for Hungary and Estonia. On the whole, those countries would therefore rather depress further the Union's demographic dynamism. But at the same time, widening the Union might bring it near to half a billion people. Immigration increase might speed this process up (see part E).

Global demand

If global population dynamism is an important determinant of global economic demand, the evolution ahead is to have a marginal effect, going down, on the average, from 0.3 % p.a. now to 0.1 % growth rate of global demand around 2010. Only Italy has virtually reached full neutrality. But the demographic slowdown by itself allows higher benefits in terms of social cohesion, given the faster growth of per capita income, alleviating the constraints in financing collective needs, traditional or new, insofar as no shift in age structure and dependency ratio is taken into account.

Shifts in spending patterns

This slowdown of global population tends also to favour investment over consumption. Growth should therefore rely more on immaterial goods, leisure goods and other well-being items, and less on private material possessions. Housing and building should keep close only to replacement and maintenance levels. Abundant savings should favour medium term investment aiming at

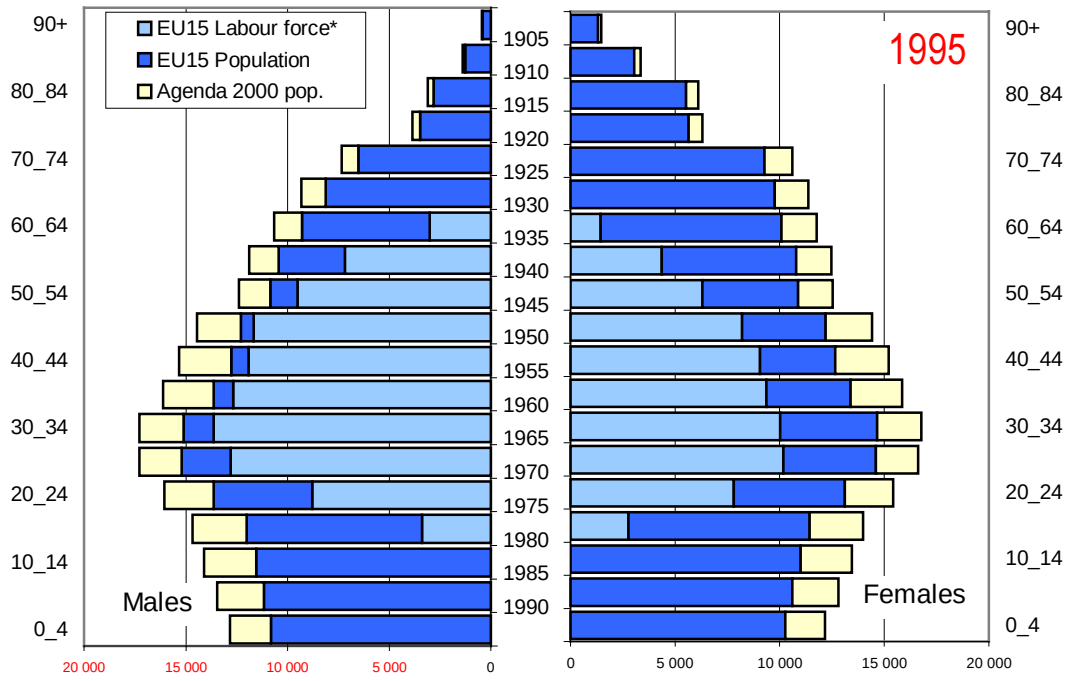
higher productivity rather than long term investment in basic equipment or infrastructure.

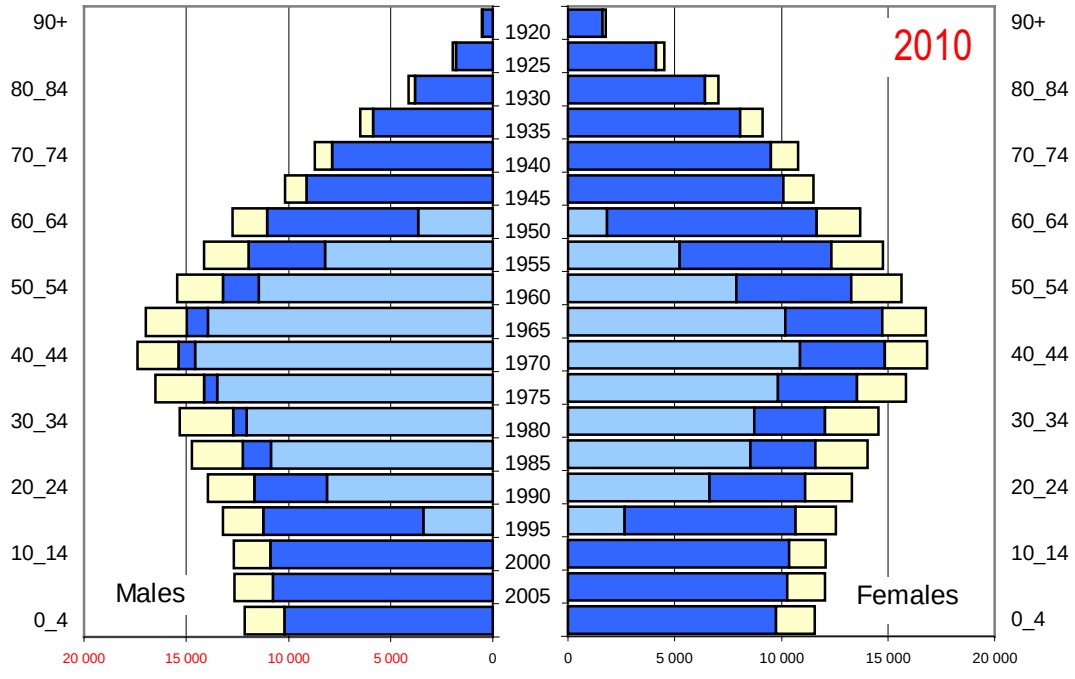
Longer life expectancy and more open attitudes

With life expectancy expected to increase further by one year every four years – even if the trend is to slow down – and with mortality concentrating more and more on aged people, the both objective and subjective lengthening of current life horizons will confirm the relative priority given to savings, as a mean to longer term personal achievements. This lengthening of life horizons, in itself, could be an important step towards a more open society, with easier professional and social repositioning within everyone's reach.

Chart 3

Age pyramid - EU15 and Agenda 2000 countries - 1995-2010



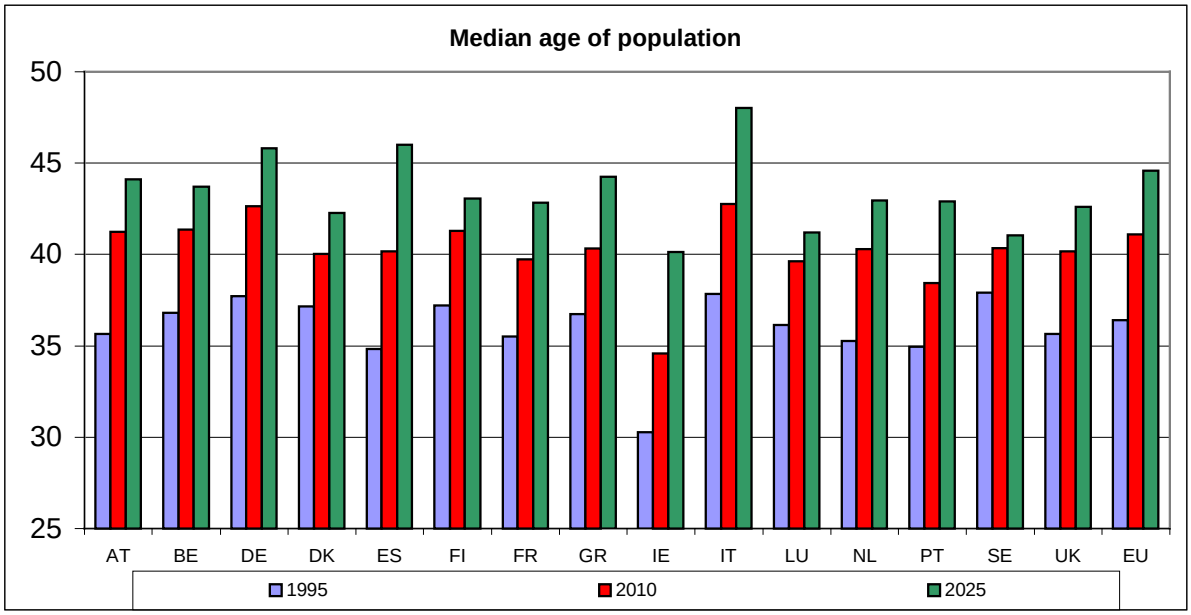


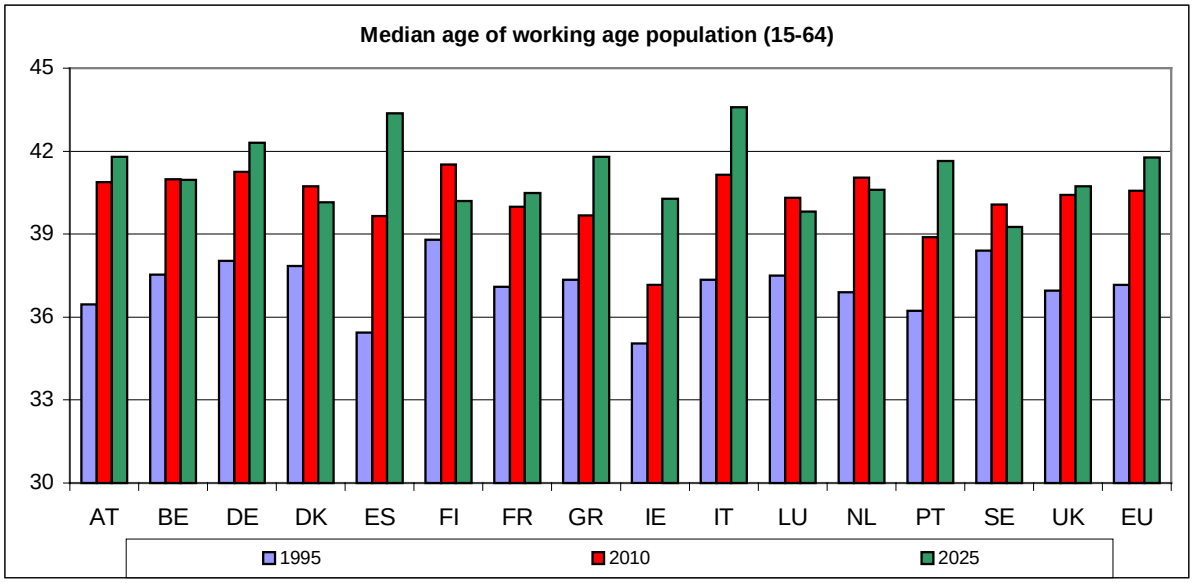
** EUR15 Labour force : 2010 value as given by constant 1997 activity rates per gender and year of age.*

pyr21b

Source : Eurostat 1997 Demographic projections (Baseline scen.) - UNO 1996 Revision World Population (Medium var.)

Chart 4





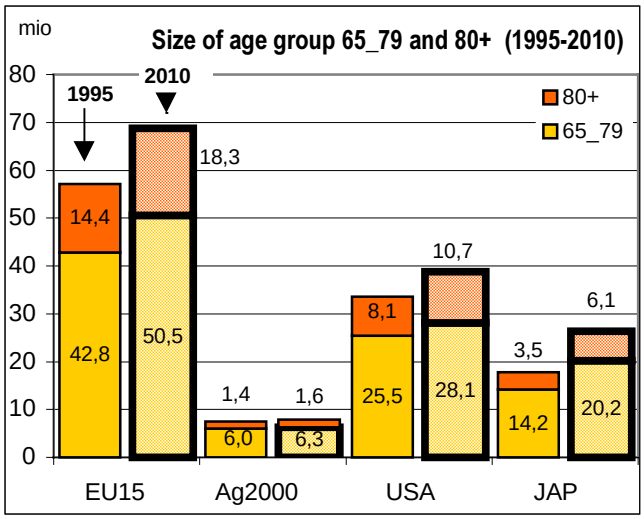
Source : Eurostat 1997 Demographic Projections (Baseline scenario)

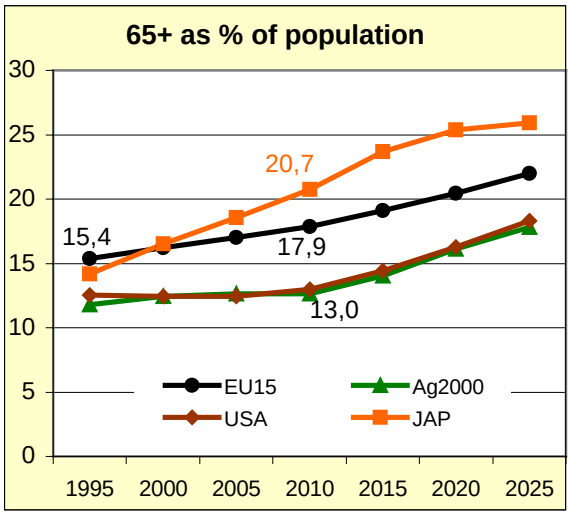
Chart 5

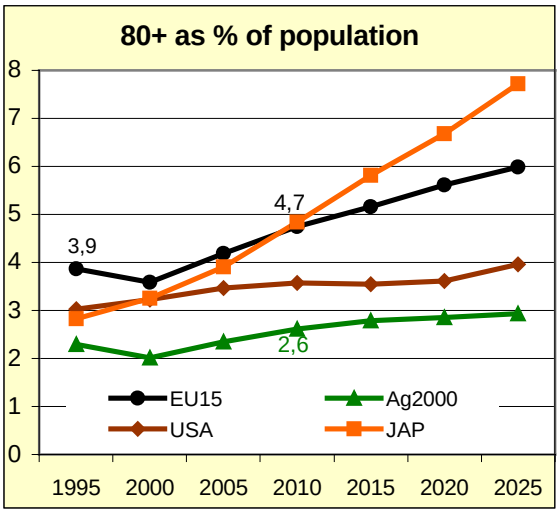
The triple ageing

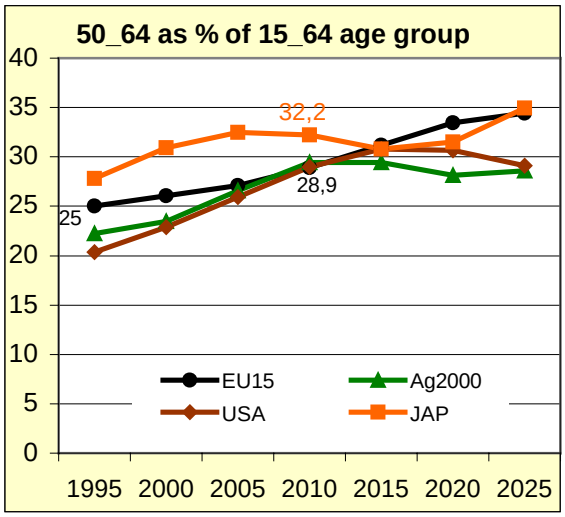
1995-2025

EU15 Agenda 2000
USA JAPAN









General ageing

Elder ageing

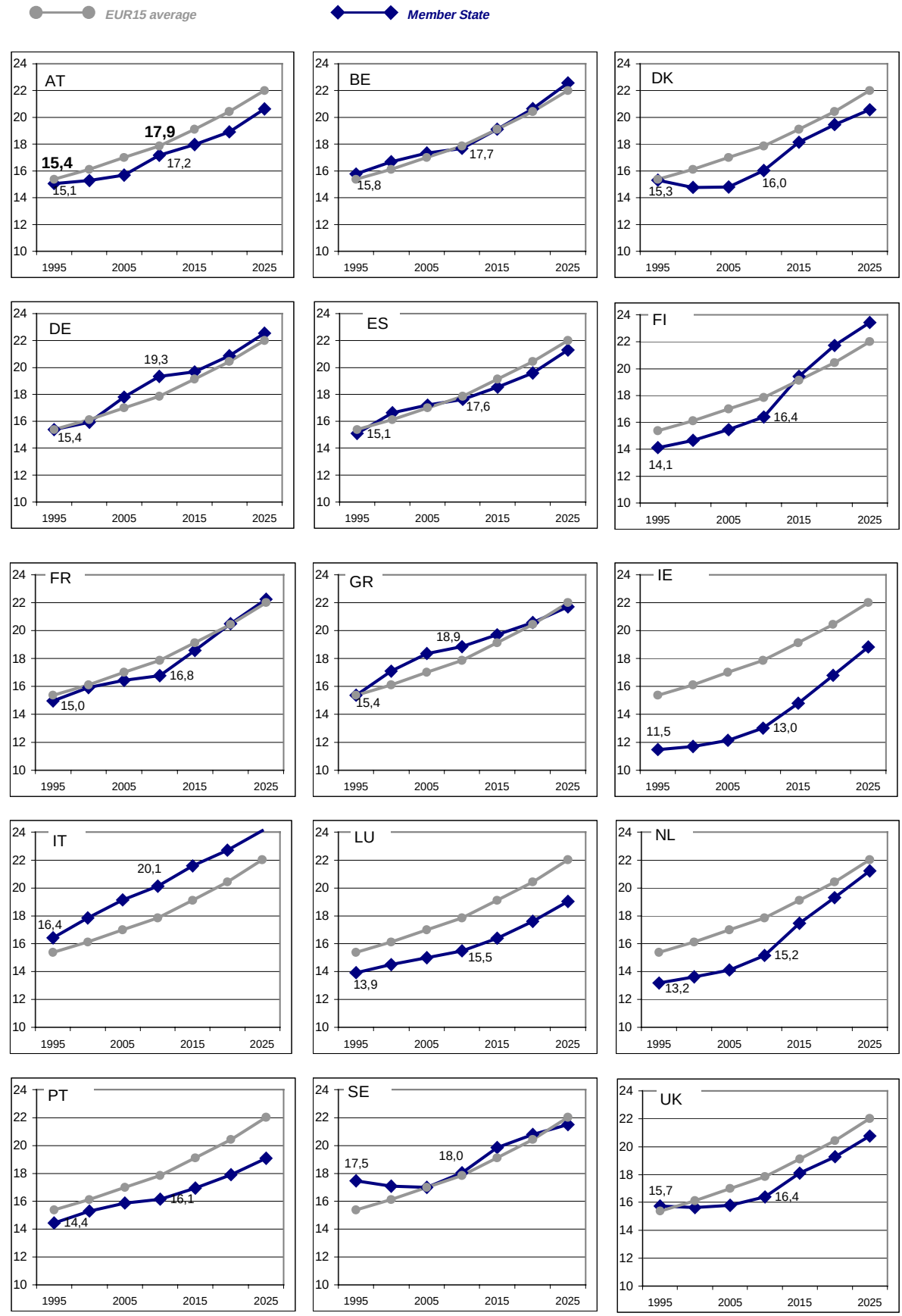
Working age ageing

Source : *Eurostat 1997 Demographic projections (Baseline scen.)*
UNO 1996 Revision World Population (Medium var.)

F2Kga/gr2

Chart 6

Aged 65 and over as % of population - 1995-2025



Source :Eurostat 1997 Demographic Projections (Baseline scenario)

B. The triple ageing of population

A fast ageing decade ahead

Chart 3

Chart 4

More than overall population size, the utmost far-reaching and exceptionally abrupt change ahead lies in the shift of the age structure, which policies have to anticipate. It can be summarised with the label of **'triple ageing'.** The age pyramid shows how the centre of gravity of population is moving upwards with time, raising average and median age. The decade ahead is showing an exceptionally fast ageing process: the median age of the population will increase by 4 months every year (from 36.4 in 1995 to 37.8 year in 2000, 41.1 in 2010, and 44.6 in 2025).

> 65: + 20 %

Chart 5

Most commonly focused on is **the general ageing**, i.e. the increasing share of older people in the total population. On the average, the share of people aged 65 and over in EU15 will increase from 15.4 % in 1995 to 17.9 % in 2010, with a size increase of 20 % (from 57 millions to 69 millions, or + 1.25 % p.a.). The trend will accelerate significantly in the years after 2010, with +1.45 % p.a. between 2010 and 2025, when the size of the age group, with 85 millions people, will be 50 % above 1995 level, at 22 % of total population.

EU between USA and Japan

Chart 6

At the 2010 horizon compared to 1995, in three member states (DK, SE and UK), people aged 65 and over will increase by less than 10 %, and by close to 30 % in three others (DE, GR and LU). The trend will remain significantly slower in the Agenda 2000 countries, accelerating after 2010, like in the US. From this point of view, the evolution in those countries can be considered as lagging 10 to 15 years behind the EU15, which itself is lagging 10 to 15 years behind Japan.

Retirement and health cost

The main stake in this general ageing lies in the financial burden of retirement and health budgets. It has been estimated that health and pension contribution rates should be increased by one ninth on the average for EU, to cope with the age shift between 1995 and 2010[3] - and by another one fifth between 2010 and 2025. The tightening of the constraint after 2010 precludes any possibility to postpone full adjustment by 2010. Any time lag, and any delay in anticipation, would increase the difficulty to cope with aggravated ageing after 2010.

Effective retirement age

A second set of stakes lies in the necessity to redefine the effective labour market leaving age. If employment growth is to go along the past trend, the demographic shift implies reversal of early retirement tendencies (see below section C). And in this reversal lies also the main resource to lessen the expenses and widen the contribution basis of pension systems – whether on a pay-as-you-go basis or not - and to ensure that the burden of pension financing is viable without increasing distortion of intergenerational solidarity.

3 G. Calot e.a;, Le vieillissement démographique dans l'Union Européenne à l'horizon 2050, Doc. SOC 95 101 621 – 05 – E01.

Sectoral demand shifts

A third set of stakes of this general ageing lies in the shift in sectoral demand. Household equipment and personal vehicles would not be favoured, but health expenses, personal services and leisure would be.

80+ : + 36 % over next decade

Chart 5

Chart 7

The second aspect of ageing is **the elder ageing**, i.e. the increasing share of people aged 80 and over. Because of the fertility fall of 1915-1919 in belligerent countries, the share of age group 80+ has been decreasing between 1995 and 2000, by 6 % on the average. But from 2000 on, in combination with the longer life expectancy, the age group will increase very fast : + 36 % for EU15 between 2000 and 2010, and close to 50 % for several countries (BE, FR, GR, IT and LU), with figures below 10 % only in DK and SE. The number of people within this age group will come to a low point in 1999 (13.4 million) and go up to 18.3 millions in 2010 (almost + 5 million), or 4.7 % of population in 2010, against 2.6 % in Agenda 2000 countries.

Elder caring and employment shift

The stake lies here, first of all, in health budget increases: considering average health cost per age[4], the demographic shift alone means an automatic 10 % or so increase between 1995 and 2010, four-fifths of which is to be attributed to the increase of people aged 75 and over. But at the same time, specific organisational changes should be undertaken to ensure adapted caring for this highly dependant age group. Depending on the share of elder-caring between family and other institutions, the additional 5 million octo- or nonagenerian might require between 1 and 2 million additional jobs between now and 2010[5].

Work force ageing

Chart 5

Chart 9

The third aspect of ageing, with the highest necessity for short term action, is **work force ageing**. Considering the working age group (15-64), the median age will increase from 37.2 in 1995 to 40.6 in 2010, which is equivalent to + 3 months every year[6]. Chart 5 and 9 shows the evolution of the size of the age groups: if the intermediate group (aged 30-49) remains close to stability, the incoming generation (aged 15-29) will decrease by more than 10 % between 1995 and 2010. People aged 50-64 will increase by 17.9 %, and account for 28.9 % of the working age population – close to the figures for US and Agenda 2000 countries, but still significantly lagging behind Japan.

National differences

If one considers only the projected labour force[7], changes in the size of the same age groups seem very similar. Considering the Member States individually, the differences lie more in the calendar timing than in the final share of workers aged > 50, mainly due to past demographic history.

4 Considering the average of available national data (as in A Society for all ages, Employment, health, Pensions and Intergenerational Solidarity; Conference Paper of International Symposium held at Vienna, 12-13 October 1998, issued by the Austrian Federal Ministry of Labour, Health and Social Affairs, in co-operation with the European Commission), it is reasonable to apply onto the demographic projections a health cost at coefficient 1 for people aged 0-64, at coefficient 2.5 for people aged 65-74, and of 4.5 for people aged 75 and over.

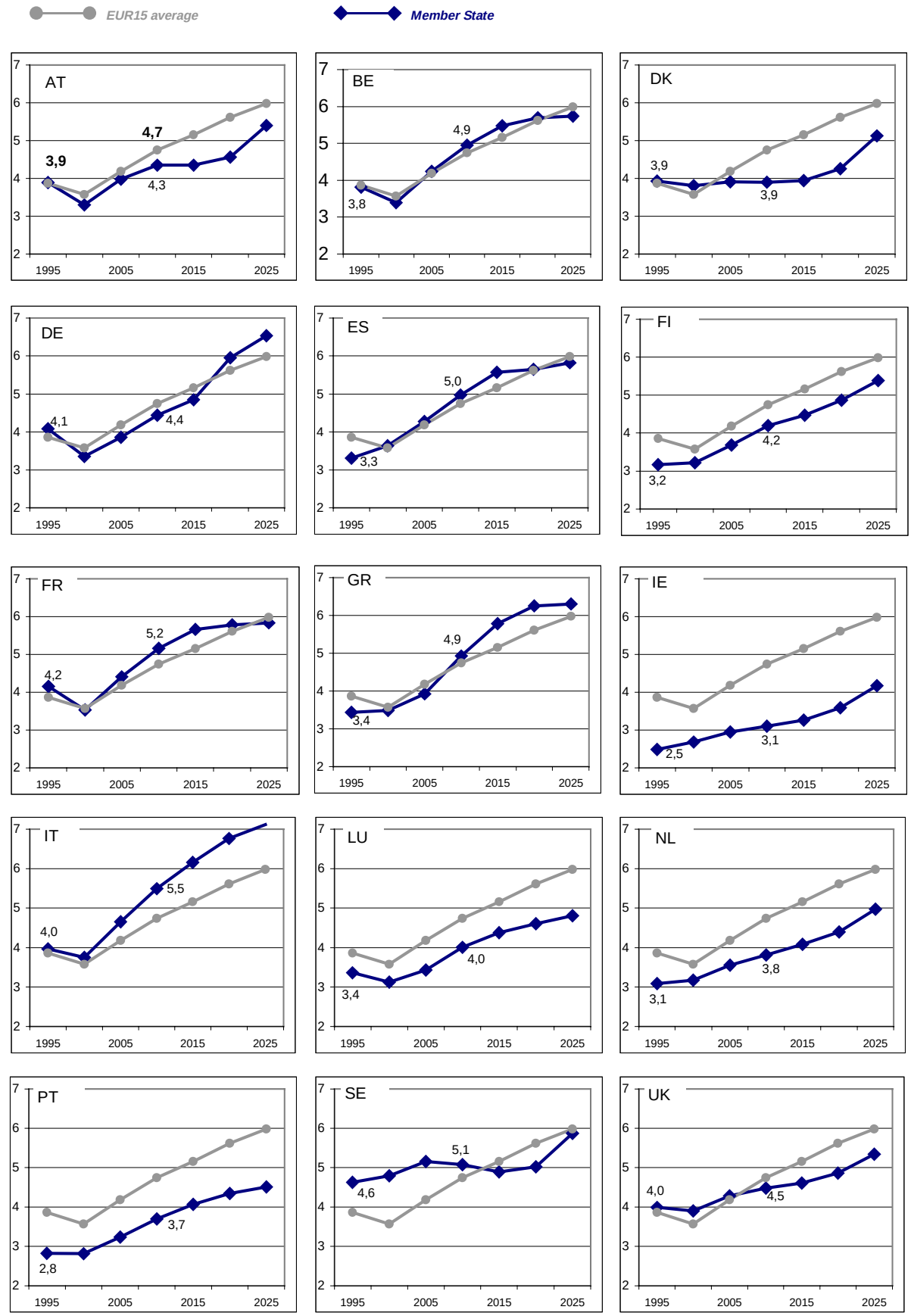
5 Where the "extended family" still prevails over State regulated caring systems, as in Italy and Spain, it should be pointed out that 1°) the young generations are more commonly taken in charge than the older dependant parents are, and 2°) that the continuous increase of female activity is not favourable to more family-based elder-caring. See L. HANTRAIS e.a.,, Interaction between Family Policies and Social Protection in the Context of Recent and Future Socio-Demographic Changes, Sept. 1998, Doc. SOC 97 100931 05E01.

6 In the Agenda 2000 countries, the median age of working age population will remain significantly lower : 32.8 years in 1995, 33.9 in 2010, and 36.2 in 2025.

7 Considering constant 1997 activity rates per gender and year of age through the whole period, which gives the pure demographic effect on labour force, independent of participation changes in every age group.

Chart 7

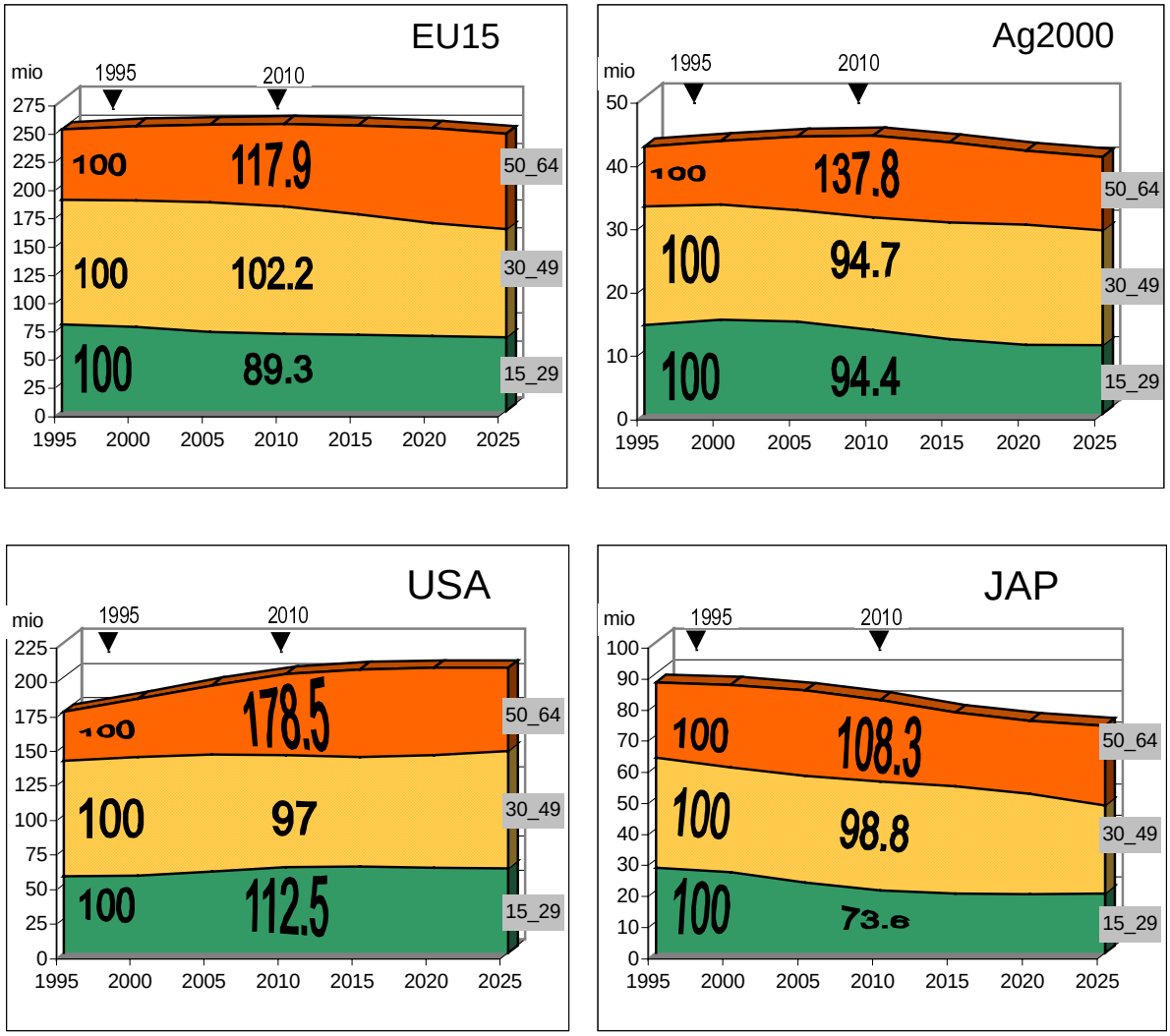
Aged 80 and over as % of population - 1995-2025



Source :Eurostat 1997 Demographic Projections (Baseline scenario)

Chart 8

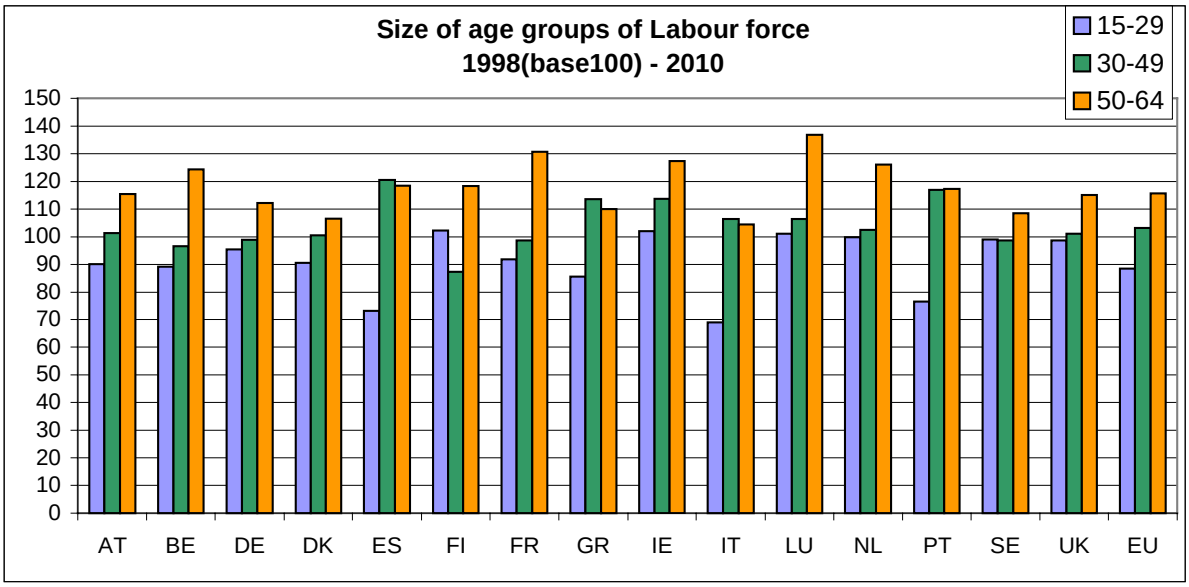
The working age structure - 1995-2025



Source : *Eurostat 1997 Demographic projections (Baseline scen.)*

F2Kga/gr4 *UNO 1996 Revision World Population (Medium var.)*

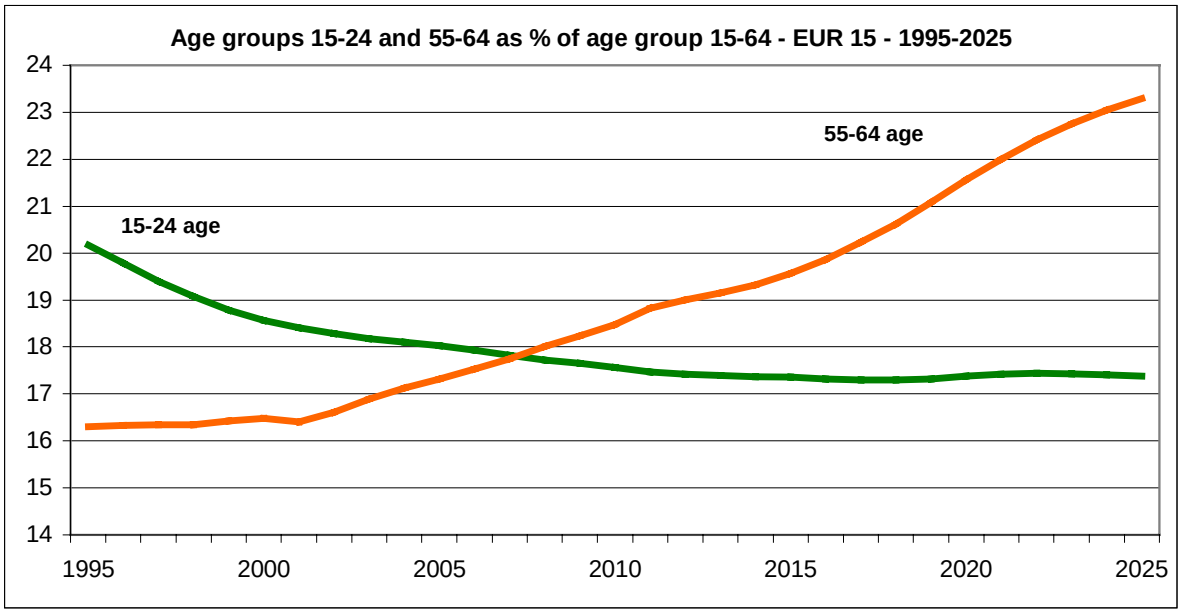
Chart 9



Estimate based on loglinear projections of activity rates per gender and year of age, applied on age groups in 2010 as from Eurostat Demographic Projections (baseline scenario, 1997)

EU/NO/SA_PA2010

Chart 10



Source : Eurostat 1997 Demographic Projections (baseline scenario)

màjpopreg/eur15sawap/f4

Germany comes first near to a 30 % share of workers aged > 50, because of the pre-war baby boom, and the further fast increase of this share will happen after 2010. Countries, like Denmark, Sweden, Finland and the Netherlands, who had no or little fertility drop in the 1940-45 years – because of no involvement in the 1914-18 fertility drop – are having this share increasing sharply in the present years, with a slower growth after 2010. On the whole, only three countries, with already advanced calendars (DK, SE, IT), should see the number of workers aged > 50 increase by less than 10 % between 1998 and 2010. All other 12 Members States will have fast increases in the number of older workers, with figures ranking between 10 and 37 % - and accelerating from 2005 on.

Incomers dramatic decrease

But this ageing of the workforce derives, not less spectacularly, from the decrease of the size of the incoming generation. Between 1998 and 2010, Italy might see its young work force (i.e. aged 15-29) decrease by more than 30 %, and Spain by 27 %, compared to an average decrease of 11 % in the EU. The number of these young workers in 2010 would remain within 2 % of the 1998 level only in Finland, Ireland, Luxembourg, Netherlands and UK.

More people leaving than coming in

As a result, the balance between incoming generation and outgoing generation on the Labour market will become negative before 2010, whether it is measured through the demographic cohorts or through an estimate of Labour force age groups. Typically, after long periods of relative stability, the number of people aged 55-64 will start rising with the new century and exceed in 2007 those aged 15-24, whose share had begun declining in the 1980s.

Chart 10

Number one priority

It must be emphasised that this abrupt process of ageing of the workforce comes first in the calendar of the demographic changes ahead, and that it is therefore requiring the most urgent handling. This is all the more important since this ageing of the workforce is very far-reaching with regard to the functioning of the whole economic and social system.

New relation between age and risk

It must be recalled that this ageing is occurring in times characterised by a wide development of salaried employment, by accelerated technological change involving accelerated sectoral shifts, by more open price and non-price competition, with large reorganisation of labour conditions and with increased importance given to human resources. At the same time, the large disappearance of mortality before retirement age opens for everybody the need as well as the opportunity to adapt to changing professional circumstances. In other words, individual as well as social adaptability is lagging behind technological and economical change.

Ability restrictions due to ageing

On one hand, where the Taylorist-Fordist model of work organisation still prevails or still defines working sequences, ageing leads to restrictions in abilities where muscular or visual performance is concerned, with overall lower tolerance to time-critical jobs or to irregular or night time schedules. Many jobs, moreover, have been mainly defined for young, mobile workers with up-to-date qualifications. This tended to reduce the need for age-friendly working conditions as well as for re-skilling of ageing workers whose experience advantages were insufficient to cope - and older workers are known to be significantly discriminated against in re-skilling programmes.

Hence, worker-selection on an age-basis, explicit or not, tends to drive ageing workers to re-deploy to soft sectors or to soft jobs (maintenance, quality control, conception, middle management, etc.). But the double top and bottom ageing of the workforce will reduce strongly the flexibility to allow such selection work comfortably, and even more so when downsizing of enterprises means subcontracting peripheral jobs. We also know that this workforce-ageing was an additional, although often hidden, concern when downsizing favoured early retirement, when a trade-off has to be made between reducing wage cost through rejuvenation and preserving enterprise knowledge. This, then, gives a first frame underlying the need to promote age-friendly work organisation, re-skilling and non age-discriminating practices. Positively, awareness should improve on the need to encourage age-specific re-skilling on a very widespread scale, through a mix of public policies and private initiatives.

Need for LLL and re-skilling

On the other hand, going along with the evolutions mentioned above and with the improvement of general educational levels, the post-Taylorist work organisation is shadowing individual performance on work sequences and highlighting wider co-operation through individual and organisational responsible autonomy, favouring organisational rather than individual competitiveness. This is where the traditional assumption that ageing means lower productivity stops being relevant, since the point lies here not in age by itself but in the employability, i.e. the ability to keep the individual skills pace with the technological and organisational change. And that is where ageing comes back, since ageing currently means more difficult access to and/or weaker will for re-skilling schemes. If lifelong learning (LLL) now becomes the very precondition to maintain employability for any workforce, then it is the case ***a fortiori*** for an ageing workforce. If a workforce with updated qualifications is the precondition for competitiveness and economic growth, an ageing workforce makes lifelong learning the priority number one. Thus, an ageing workforce becomes altogether the pretext, the motive and the best ever opportunity for developing LLL. In other words, an ageing workforce is the **most definitive catalyst of LLL, and LLL can be considered as one of the main challenges for the years to come.**

organisational rather than individual competitiveness

Ageing workforce: the best catalyst of LLL

It should be pointed finally that two additional elements will soon reinforce this priority. Firstly, the increasing awareness of the medium and long-term constraints of pension financing, due to demographic shift, has already begun reducing the legal facilities for early retirement in different Member States. This will help the ageing of the workforce to catch up with the general ageing calendar instead of going on lagging artificially behind. Secondly, as the next section will argue, the next ten or twelve years will show a clear trend towards a global shortage of labour in general, and even more so, of qualified labour. If then women's participation is to reach a peak after the fast increase from the 1970s on, and if the decrease of the activity rate of the young could only be reversed at the expense of educational level, the main labour force reservoir lies in the increase of the activity rate of the people aged over 50. This will accelerate the ageing of the workforce, and further emphasise the need for LLL.

Reducing early retirement facilities

Education means partially reallocated

Chart 11

Demography, in its turn, might help LLL in two significant ways. On one hand, the decrease in the size of the age group 0-24, and more especially in the age group 15-24 - due to the fertility decline from the 1970s onward – is freeing up capacity in education that could theoretically be reallocated to LLL. But the decrease of incoming cohorts is strong only in Mediterranean countries, and much more progressive in northern Europe. In all cases it is only partially relevant to the abrupt ageing of the workforce. But the re-organisation of the old block-structure educational system, which was relevant under the pre-transitional demographic regime, should be encouraged to adapt to specific needs of LLL. It should catch up more easily with satisfying general openness to learning through ICT than with on-site training, which is the main short term challenge and which can be backed easier by policy recommendations and public facilities addressing the enterprise level.

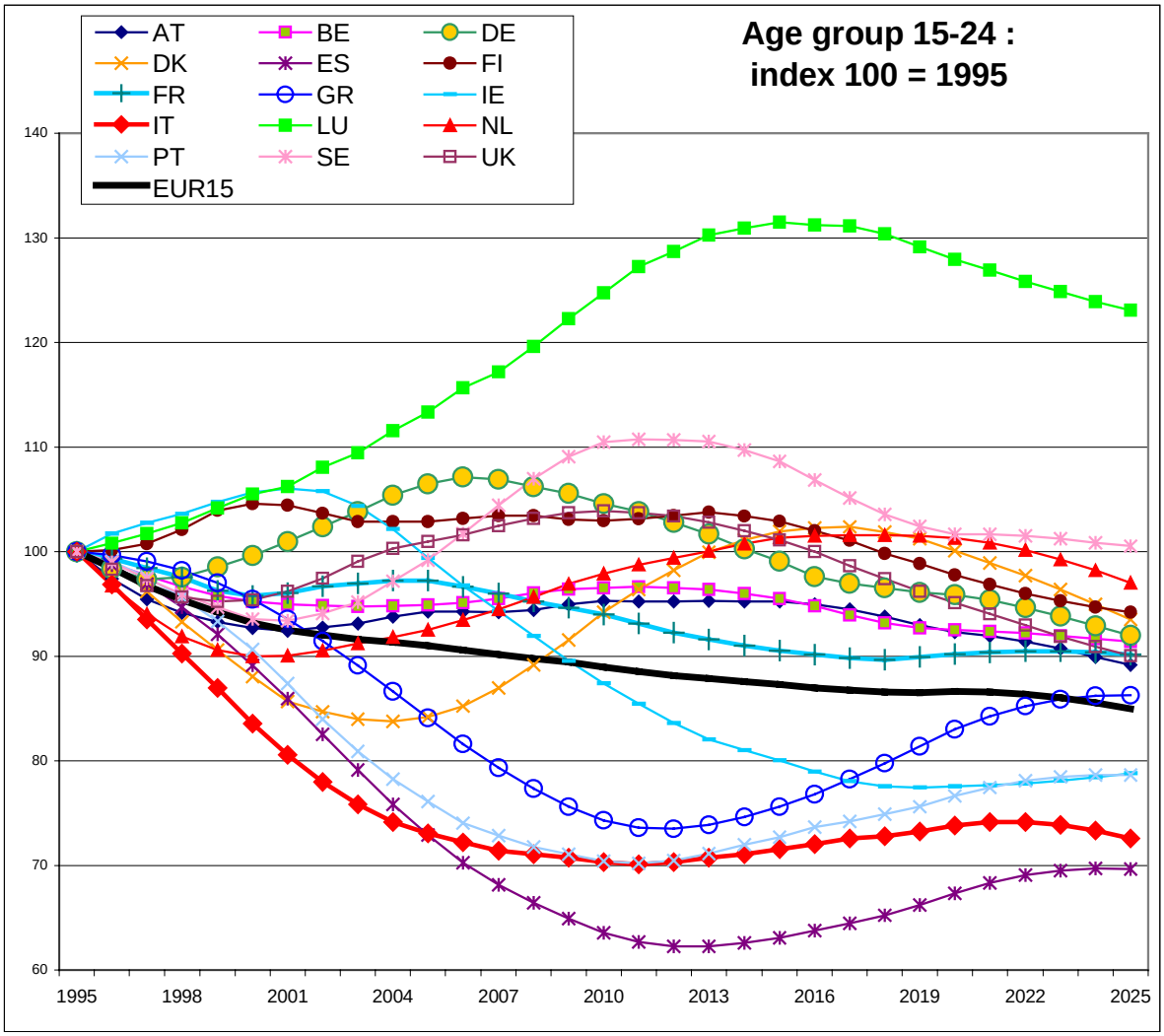
From "has been" to "will do"

On the other hand, demographic evolution does help develop LLL in a more implicit and nonetheless most effective way, when it emphasises at the same time the need for, and the return on, LLL. The realistic prospect of longer post-active life due to the general postponement of mortality risk to high age, is the best incentive to LLL as a means of personal mobility and accomplishment – encouraging people to live on a "will do" feeling instead of a "has been" one.

Ageing and open society

For those reasons, the ageing of the workforce, and the policies that will be associated to it, appear absolutely central within the frame of social change in the years to come, in terms of global competitiveness, of social mobility and of citizenship. It should be considered as a crux in the promotion of an open society.

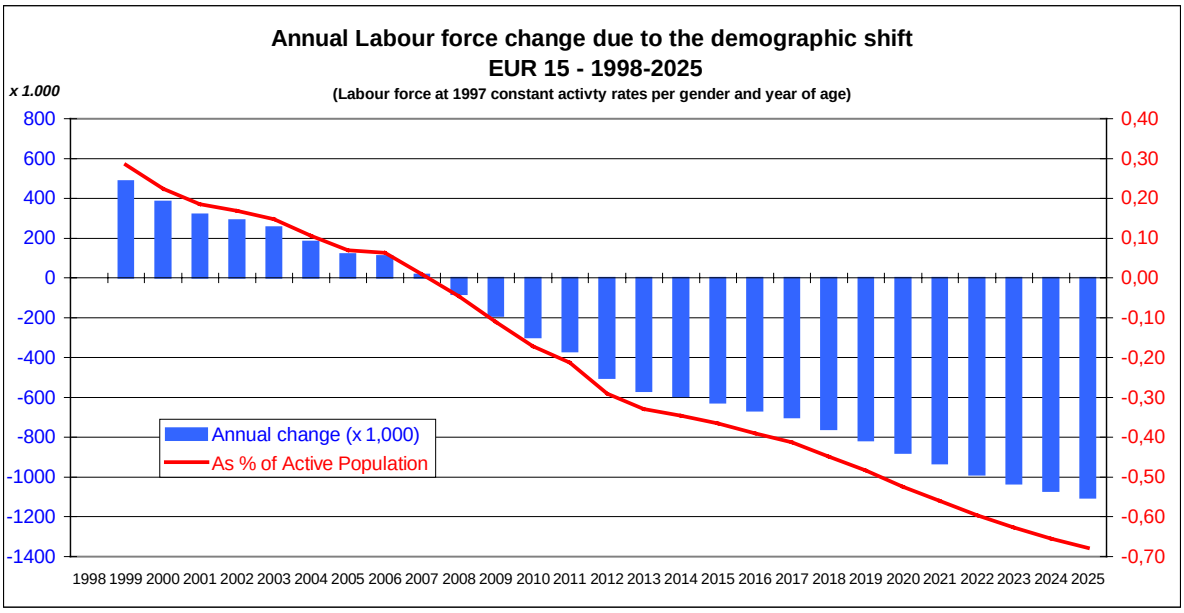
Chart 11



Source : Eurostat 1997 Demographic Projections (Baseline scenario)

màjpopreg/eur15sawap/f5

Chart 12



Source : Eurostat and 1997 Demographic projections (Baseline scenario)

Table 1

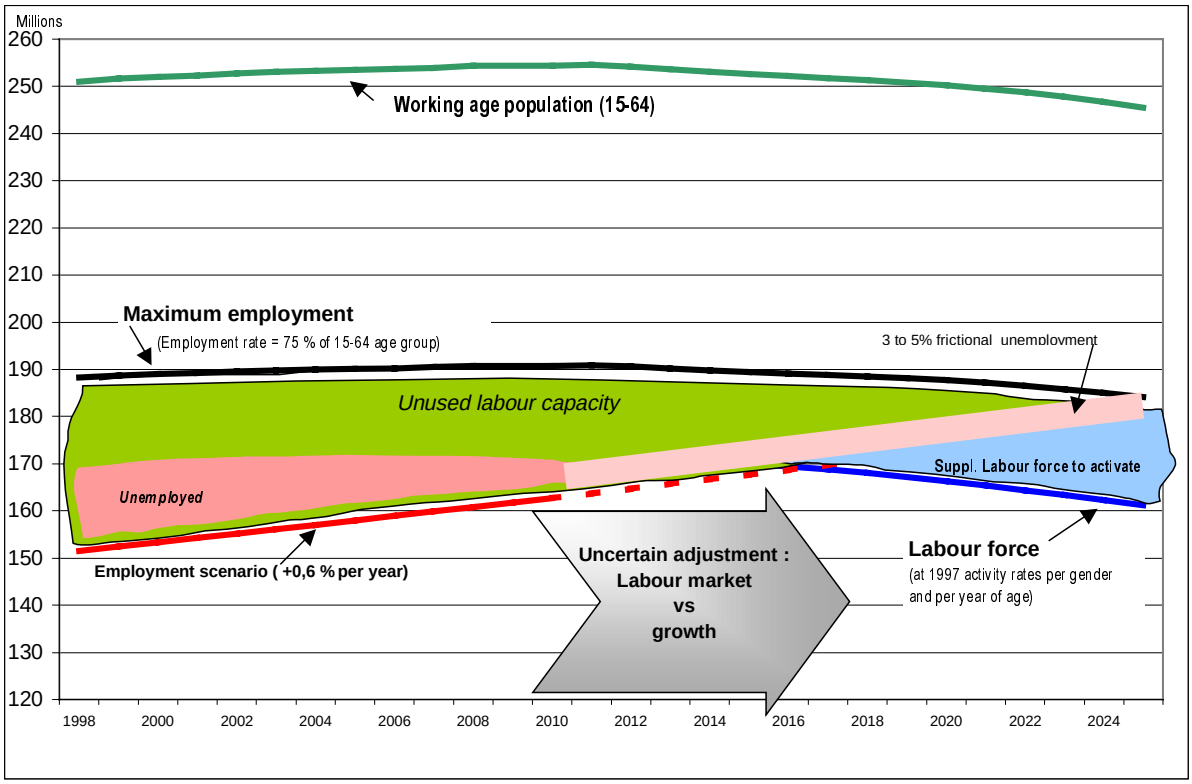
Average net inflow to Labour force per year – EUR15 – 1975-2025

EUR 12 until 1995	From demographic shift		From increased participation		Total net inflow to Labour force	
	x 1,000	*as % of Lab. force*	x 1,000	*as % of Lab. force*	x 1,000	*as % of Lab. force*
1975-1985	1150	*0,7*				
1985-1990	1050	*0,6*	530	*0,3*	520	*0,9*
1990-1995*	850	*0,4*	-470	*-0,3*	380	*0,2*
1995-2000	500	*0,3*	400	*0,2*	900	*0,5*
2000-2005	250	*0,15*				
2005-2010	-100	*-0,06*				
2010-2015	-500	*-0,3*				
2015-2020	-750	*-0,4*				
2020-2025	-1000	*-0,6*				

* Apart from German reunification *Source : Eurostat and DG V* EUP/jrc1

Chart 13

Interaction between demographic trends, employment and growth
EUR15 - 1998-2025



C. Demographic shift and Labour supply

Demographic inflow and higher female participation lead to more unemployment

Table 1

It has been estimated that the demographic shift has led to an inflow to the Labour force of EUR15 of slightly above one additional million people every year from the 1970s on, this being the difference between the outgoing cohorts and the large incoming cohorts of post-war baby boomers. This occurred after two decades of low net inflow, and was combined with increasing female participation in the Labour force. In phases when job creation could not catch up, this pushed unemployment upwards, and it led high job creation phases to reduce it only marginally (see **Table 1**). Typically, after the late 80s high growth and the early 90s slow growth, the 1995 average EUR12 unemployment rate came back close to its 1985 level: a 10-year job creation of 8.5 million had absorbed nine tenths of demographic inflow, with ups and downs of participation close to neutrality on the whole[8].

90s: towards demographic neutrality

Chart 12

A significant slowdown in this demographic net inflow can be observed from the early 1990s onwards, and it should reverse into a net outflow in 2007, which would then increase faster after 2010. But we can take for granted that the Union's Labour force as a whole has now entered a phase of quasi demographic neutrality – which means that Labour force might still vary through change in participation rates of existing people, but not through any demographic inflow or outflow: average demographic inflow to the Labour force should keep between + 0.25 % and – 0.25 % p.a. of Labour force between now and 2010, against close to + 0.75 % in the 70s and 80s (see Chart 12)[9]. The extent to which this reversal of the demographic trend will help reducing unemployment depends at first sight on two main factors.

Close to 6 % unemployment in 2010

Chart 13

The first factor is future job growth. If the 1985-1995 average 0.6 % p.a. is maintained, this would mean an average close to 1 million additional jobs every year[10]. If we then consider, reasonably, that in a phase of global demographic neutrality on Labour force, 2 more jobs will reduce unemployment by 1 unit, then unemployment would decrease from 16 million now, to close to 10 million in 2010, or from 10 % of Labour force to something close to 6 % - depending on the participation rate changes of women, young and older workers[11].

8 See 1997 Demographic Report, DG V-E/1, Doc COM(97)361

9 It should be noted that switching from EUR15 to EUR21 would increase the Union working age population by 1/6th (252 +43 millions). And the Agenda 2000 countries show a evolution of their working age population similar to EUR15 : on a 5-year calendar, peak at index 104.2 in 2010 (100=1995), back to index 96.2 in 2025.

10 Latest 5-year DG II employment projections are + 1% p.a. on the average. After 2003, a cautious + 0.6 % p.a. has been used, being the long term employment growth rate.

11 In the past 15 years, young and older workers deactivation has been globally compensated by women's increased participation. If the activity rates per gender and year of age remained strictly at their 1997 level, then the projected job growth along the 1983-1997 trend would bring unemployed back to 10 millions, or 6 % of the Labour force – as shown by Chart 15 . Projecting each activity rate per gender and year of age on their log/linear trend from 1983-1997 does not imply any significant changes in the final result. Here again, the transition to a situation of demographic neutrality on Labour force should reveal a favourable factor.

Depending on unemployment reactivity

This ratio of 1 less unemployed for 2 more jobs does depend on the second factor, which is employment rate. The ratio is known to be higher in countries where employment rate is high: for example Denmark, with an employment rate of people aged 15-64 close to 75 %[12], cannot find many more people willing to enter the Labour market, because an incompressible number of youth in education, family-caring women, old or handicapped or low employability people will react little to wider job opportunities. On the other hand, the ratio is known to be lower where employment rates show structural under-employment. Typically, Spain, with an average employment rate below 50 %, will see more inactive people joining the Labour market whenever job opportunities are increasing, with a low effect on unemployment figures. Therefore, the higher the employment rate is, or the faster it increases, the more, by way of consequence, unemployment becomes reactive to employment growth.

Improved unemployment reactivity ahead

Average EUR15 employment rate was 60 % in 1997. If employment remained constant, it would hardly decrease to 59.3 % in 2010, thanks to a very slow growth of working age population. With an employment growth of 0.6 %, as above, it would increase to 65% in 2010 – and reach 67 % in 2015. Therefore, global reactivity of unemployment to job growth might improve significantly in the years to come.

Growth inhibition in northern Europe due to Labour shortages

Chart 14

Considering the Member States, the combination between 1°) the present level of unemployment, 2°) the projected employment growth, 3°) the level of employment rate and 4°) the calendar of accession to demographic neutrality on Labour force shows some global trends. The Member States with the highest employment rates (DK, SE and UK, all above 70 %) would rapidly take advantage of their accession to demographic neutrality on Labour supply - but the tight situation of Denmark should come first with problems of global Labour shortage and/or GDP growth inhibition. The Netherlands and Austria, and also Portugal where demographic neutrality comes later, would approach such a bottleneck situation by 2010. Italy and Finland, followed by Belgium within five years, are initiating sharp decreases of the Labour supply, and will have to increase fast their employment rates to compensate. But the bottleneck will rapidly become exceptional in northern Italy. In Germany, already close to demographic neutrality, the employment rates would come close to 70 % in 2010, and unemployment would be back to 6 % if unemployed decreased by only half the projected job creation (+0.6 % p.a.). France, where demography will feed further the Labour supply until 2006-2008, would lag behind by some five years, and so would Greece and Spain – where the demographic decline of Labour supply would become steep after 2010.

Shift of unemployment rate to older workers

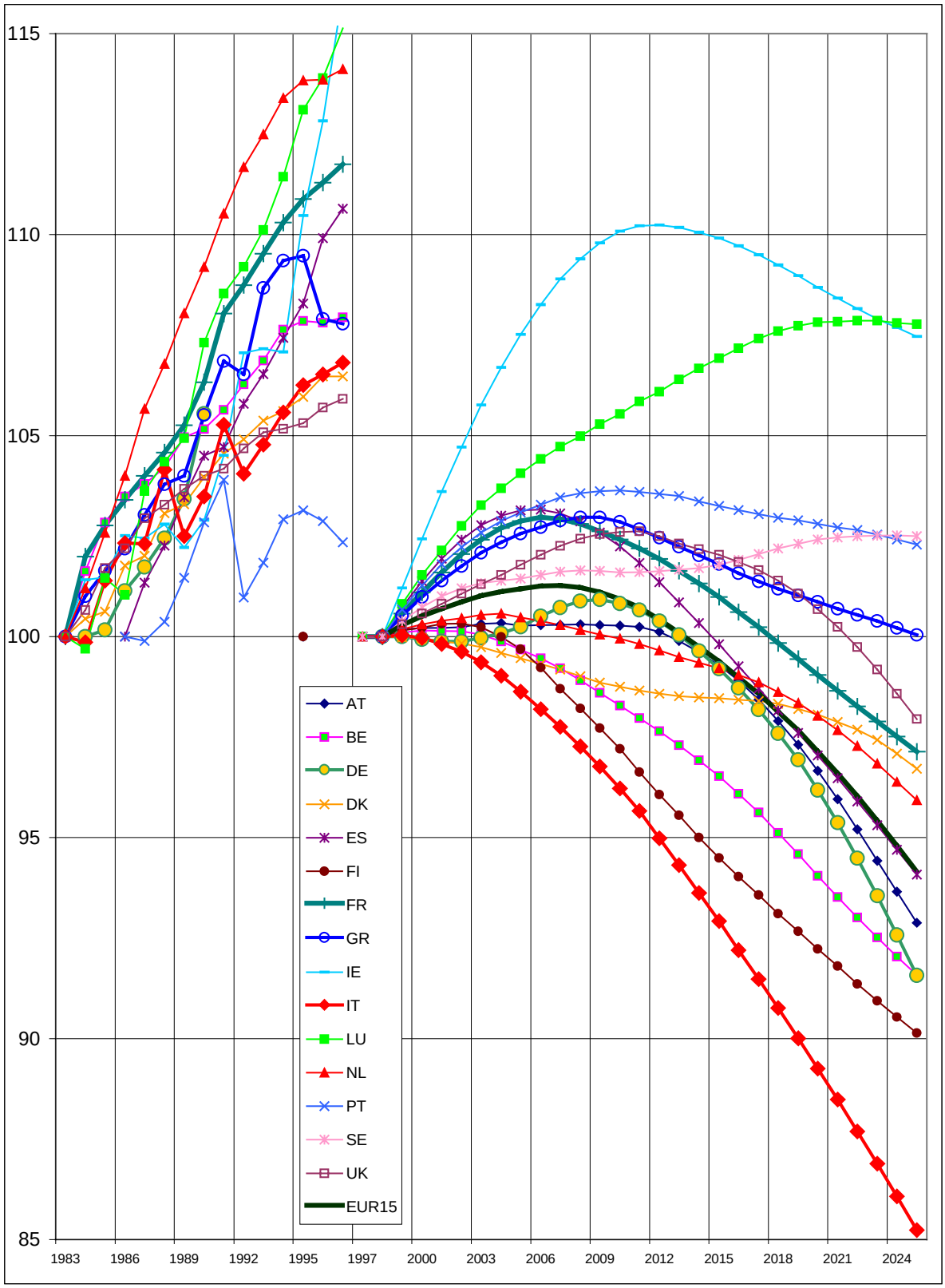
The demographic shift is nevertheless due to provoke as well a shift in the unemployment pattern by age group. On average over EU, decreasing young cohorts flowing into the Labour market should benefit from a decreasing unemployment rate, and the increasing number of workers aged 50+ should see unemployment shifting to their age group. In other words, employment of

12 This 75 % of employment rate, which can also be observed in other Scandinavian countries, in the US or in Japan, should be considered as a maximum for other countries, and will be used below to estimate the Labour reserves and the maximum employment level.

Chart 14

Evolution of Labour force due to demographic effect - 1983(index 100)-1997 and 1998(index 100)-2025

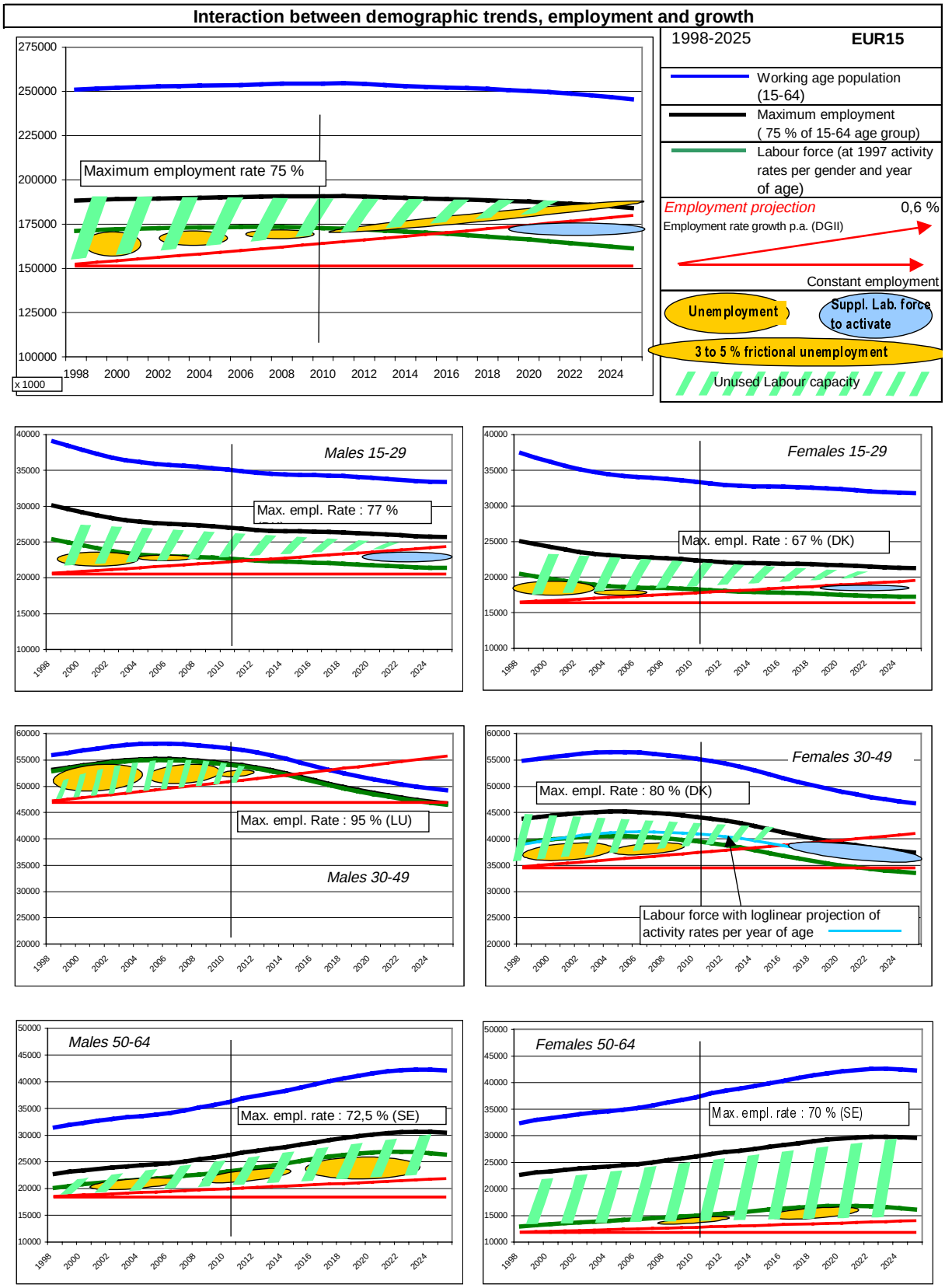
Labour force at constant activity rate per gender and year of age - 1985 rates for 1983-1997 and of 1997 for 1998-2025



Source of basic data : Eurostat

EUNO/Travnat2/F(EffDT)

Chart 15



For each age group and each gender, the maximum employment is given here by the maximum employment rate observed among the 15 Member States.
Summing the maximum employment figures par age group brings the average employment rate to 79 %, against 75 % as maximum average for the first country (DK).
Employment growth per gender and age group was here supposed to go along the average trend, i.e. 0,6 % p.a.. This should be considered not as a projection, but as an work hypothesis.

Basic data are given by EUROSTAT and Eurostat 1997 Demographic Projections (Baseline scenario)

Chart 16

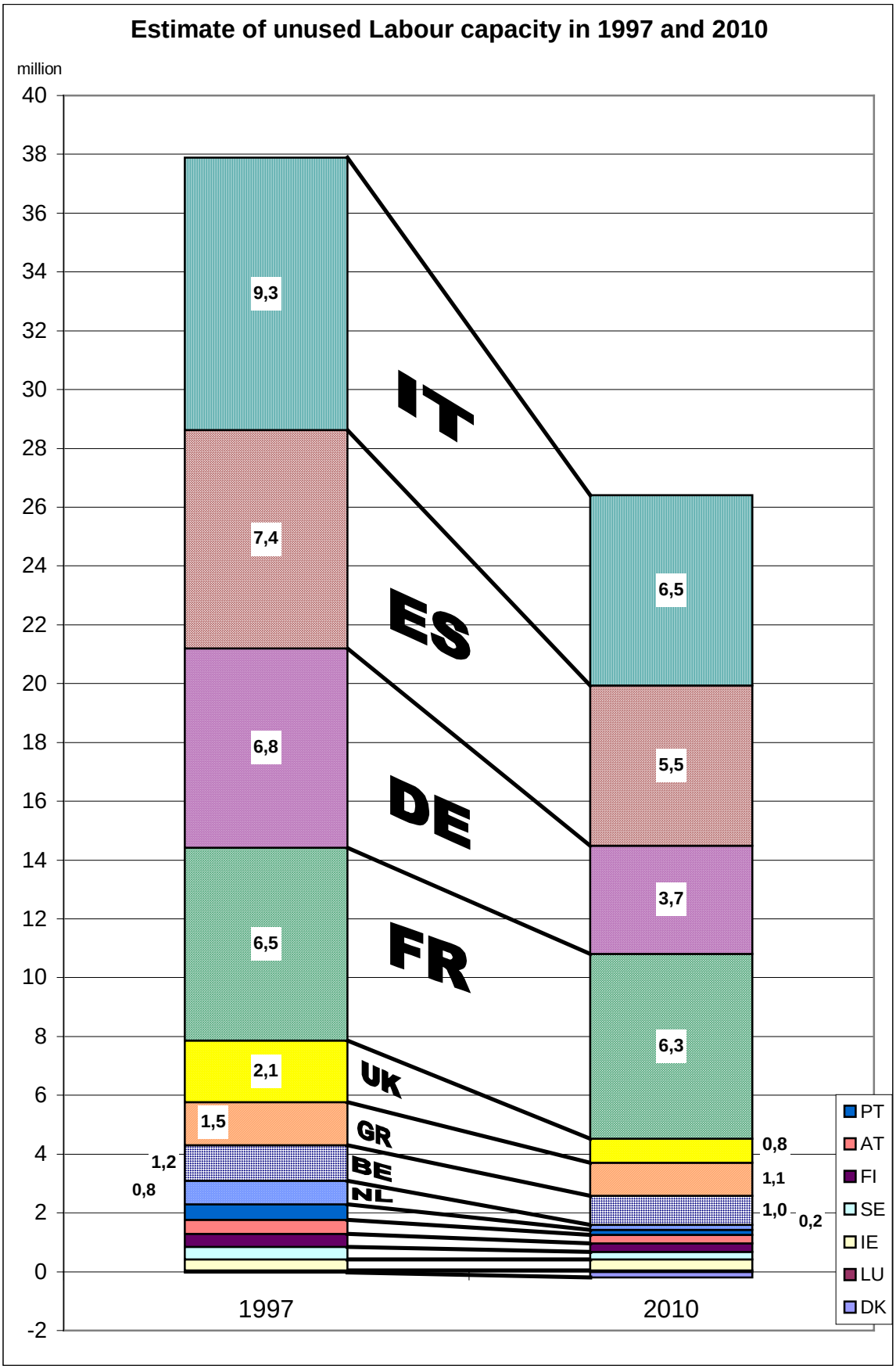
Triple ageing priorities at 2010 horizon

	General ageing concern (65+)	Elder ageing concern (80+)	Workforce age shift – Unemployment risk: Young 15-29	Workforce age shift – Unemployment risk: Medium age 30-49	Workforce age shift – Unemployment risk: Ageing workers 50-64	Global unemp-loyment risk	Need for age specific re-skilling	Labour mobility: Inner mobility need	Labour mobility: Selective immigration need
AT	+	+	– – –	–	+	– –	+++	+	+
BE	+	++	– –	– –	++	– –	+++	+	
DE	+++	O	–	–	+	– –	++	+++	+
DK	O	O	– – –	–	O	– – –	+++		+++
ES	+	+++	– – –	–	+	– –	+++	++	
FI	+	+	O	– – –	+	– –	++	+	
FR	+	++	–	–	++	–	+++	+	
GR	++	++	– – –	O	+	– –	+	+	
IE	O	O	– –	– –	+	– –	++	+	
IT	++	+++	– – –	–	+	– – –	++	+++	+
LU	+	+	–	– –	O	– –	++		++
NL	+	+	– – –	– – –	O	– – –	+++	+	+
PT	+	+	– – –	–	O	– – –	++	+++	
SE	O	O	–	– –	O	– – –	++	++	++
UK	O	O	–	–	+	O	++	+++	++
EUR15	+	++	– – –	– –	+	– –	+++	+++	+++
Agenda2000	O	O	– –	– –	++	–	+++	O	O
USA	O	O	O	– –	+	O	+++		+++
Japan	++	+++	– – –	–	+	– –	+++		+++

Legend

– – –	Very fast decreasing	+++	Very fast increasing
– –	Fast decreasing	++	Fast increasing
–	Slowly decreasing	+	Slowly increasing
	O No change		

Chart 17



Difference between employment rate (observed in 1997, projected for 2010) and maximum employment rate of 75% for 15-64 age group

Source : Eurostat for 1997 and Demographic projections (1997, Baseline scenario), and DG II employment projection

eun2/res2010/nat

Chart 18a

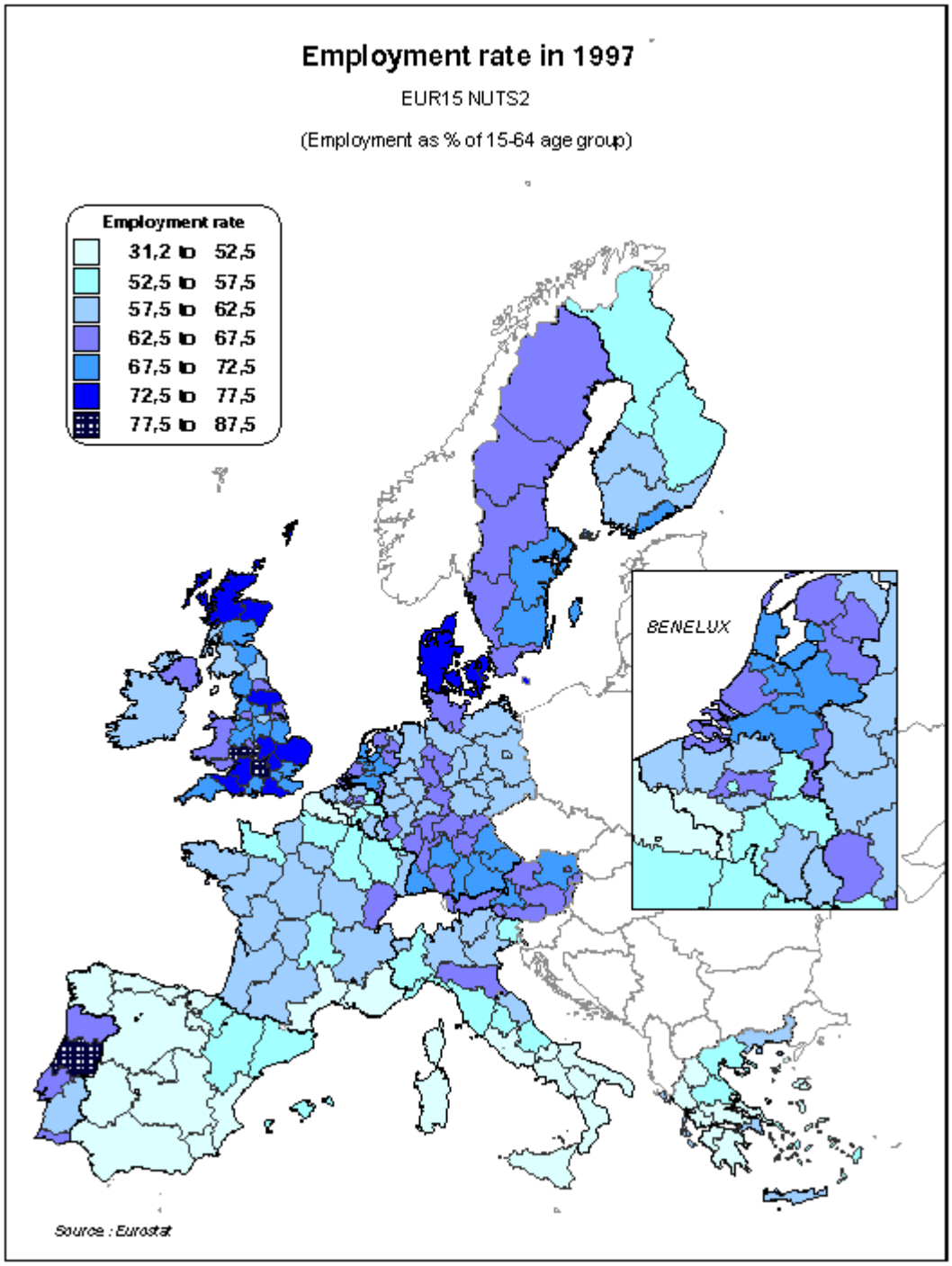

Employment rate in 1997
EUR15 NUTS2
(Employment as % of 15-64 age group)
Employment rate
31,2 to 52,5
52,5 to 57,5
57,5 to 62,5
62,5 to 67,5
67,5 to 72,5
72,5 to 77,5
77,5 to 87,5
BENELUX
Source : Eurostat

Chart 18b

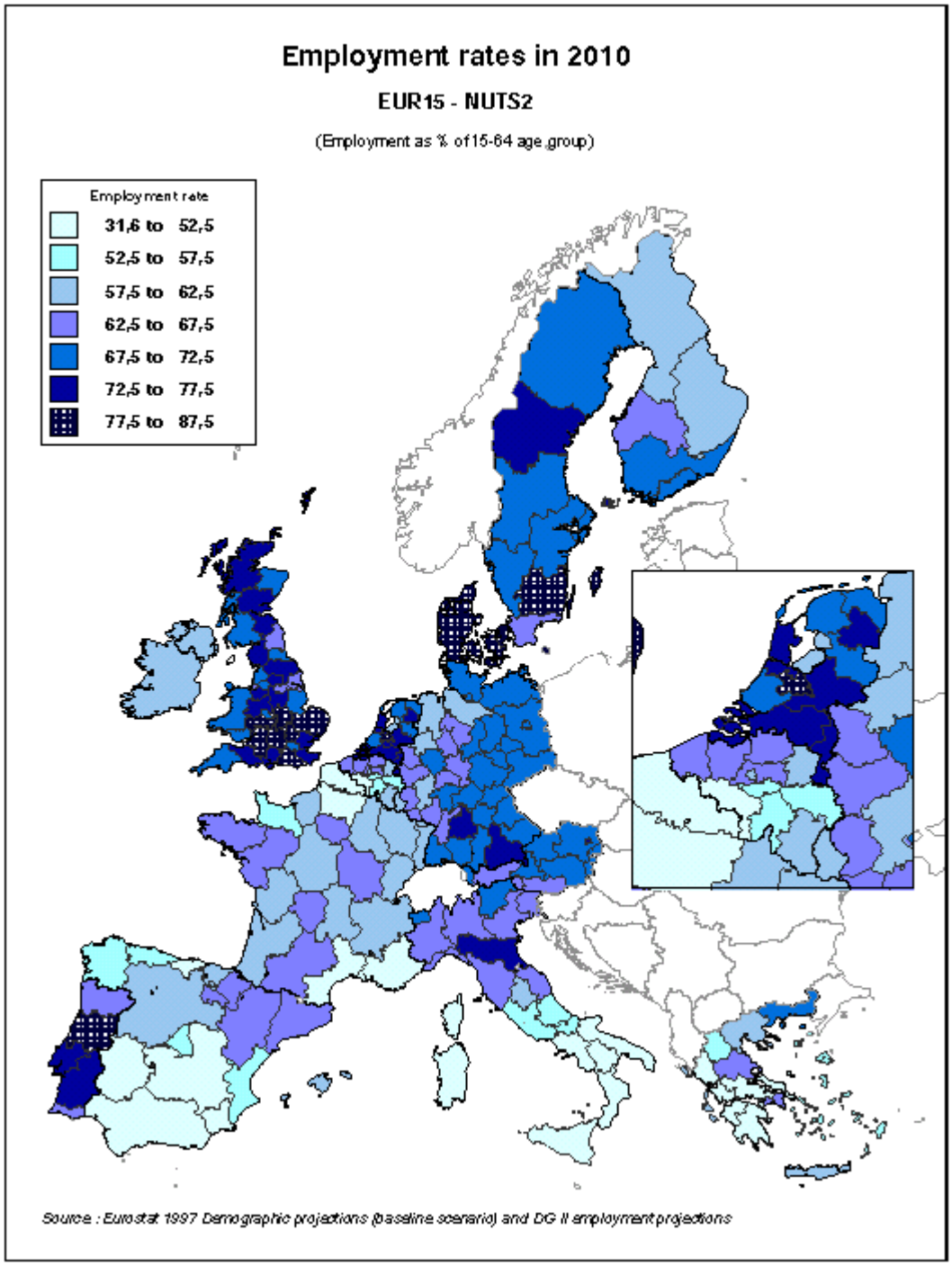

Employment rates in 2010
EUR15 - NUTS2
(Employment as % of 15-64 age group)
Employment rate
31,6 to 52,5
52,5 to 57,5
57,5 to 62,5
62,5 to 67,5
67,5 to 72,5
72,5 to 77,5
77,5 to 87,5
Source : Eurostat 1997 Demographic projections (baseline scenario) and DG II employment projections

Chart 18c

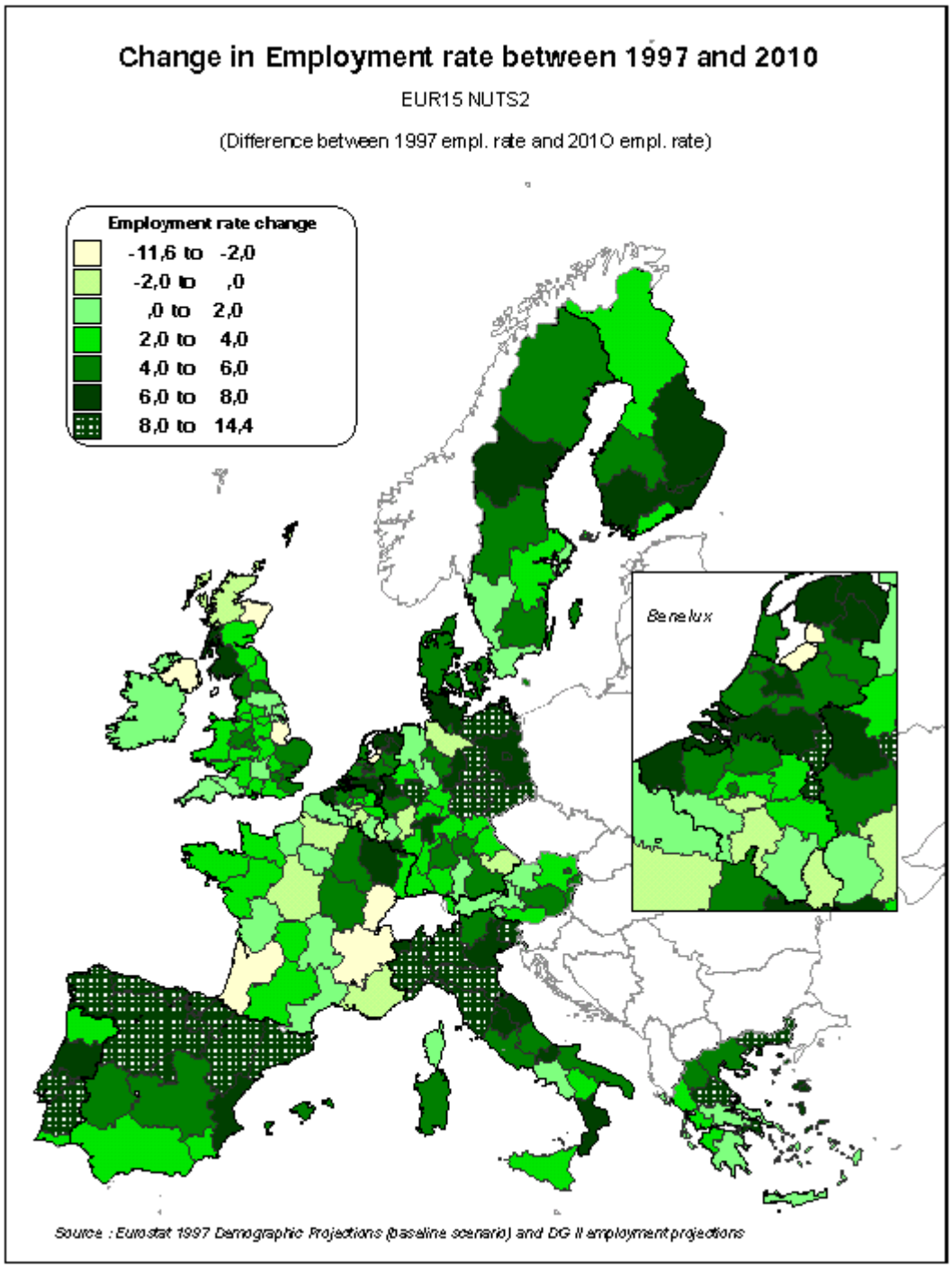

Change in Employment rate between 1997 and 2010
EUR15 NUTS2
(Difference between 1997 empl. rate and 2010 empl. rate)
Employment rate change
-11,6 to -2,0
-2,0 to ,0
,0 to 2,0
2,0 to 4,0
4,0 to 6,0
6,0 to 8,0
8,0 to 14,4
Benelux
Source : Eurostat 1997 Demographic Projections (baseline scenario) and DG II employment projections

Chart 19

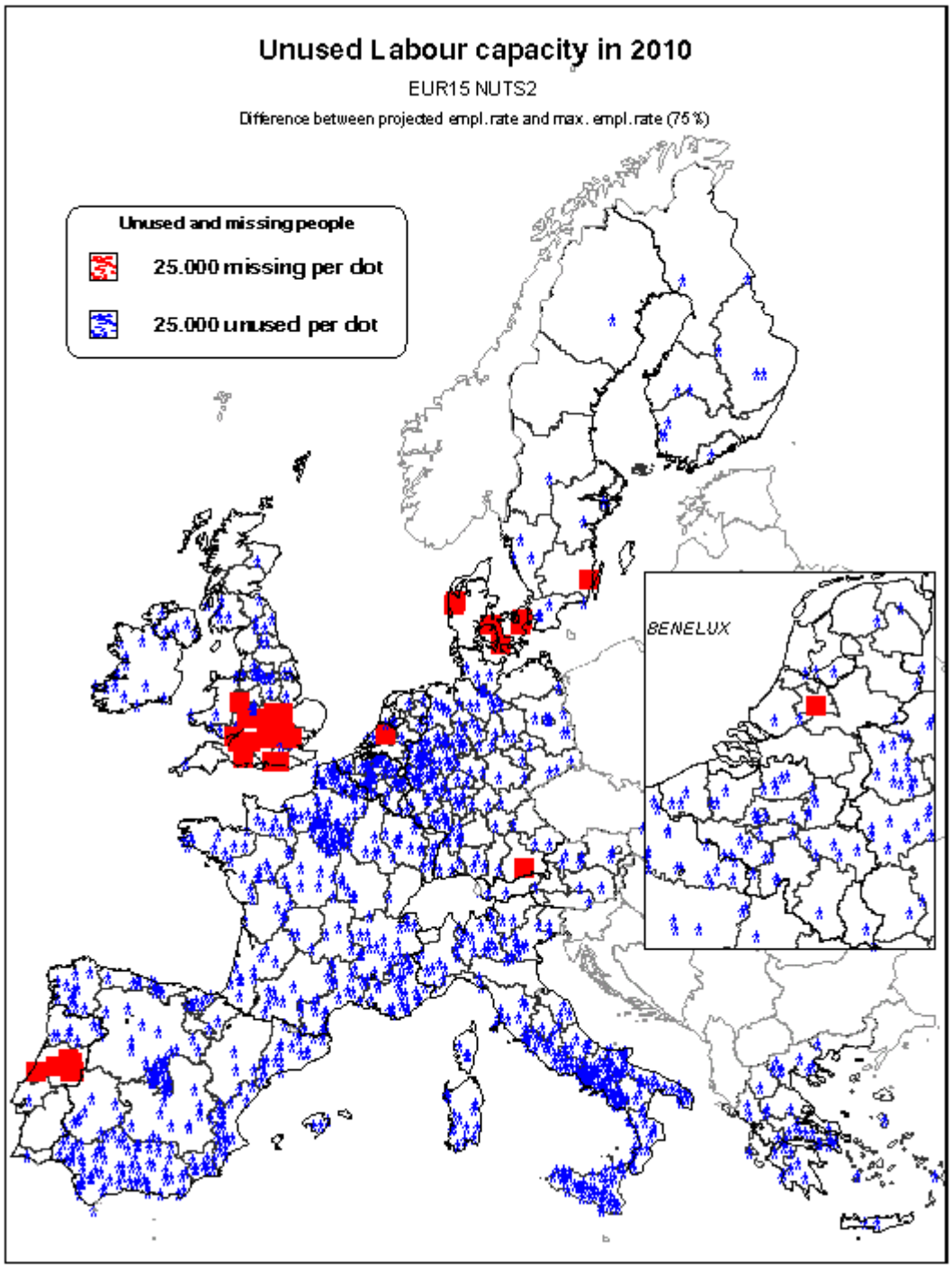

Unused Labour capacity in 2010
EUR15 NUTS2
Difference between projected empl.rate and max. empl.rate (75%)
Unused and missing people
25.000 missing per dot
25.000 unused per dot
BENELUX

Chart 15

Chart 16

people aged 50+ should grow at more than twice the average projected rate to prevent elder unemployment growing, when employment of young people might remain constant with still a high benefit in term of unemployment reduction for them[13]. Chart 16 shows how it would work per Member State, and tells as well where LLL and facilities aiming at promoting employment for ageing workers are most needed.

The narrowing Labour reserve, and its concentration in Latin Europe

In terms of global Labour supply, Chart 17 shows that the unused Labour capacity in the EU would drop from 38 million to 26 million[14], with the most significant decrease concentrated in Italy, Germany, United Kingdom, and most smaller Member States. Following these trends, with the ups of employment and the downs of working age population, the Union would reach the high US or Japanese employment rate of 75 % somewhere in the decade after 2030. But it should be noted that in 2010, seven tenths of the unused Labour capacity would be located in three countries: France, Spain and Italy (most in Southern Italy).

Chart 18-19

Inverted bottleneck regions

Charts 18-19 show the regional distribution of the projected unused Labour capacity in 2010: employment rates would exceed significantly the theoretical ceiling, and reveal labour shortage, in Denmark, south Sweden, South England, central Netherlands and central Portugal. They show tight Labour market situations in many other regions in UK, Portugal, Netherlands, Sweden, south Germany and most of Austria. Italian regions - and some Spanish regions to a certain extent – would be between 1 and 3 tints darker if informal work was fully taken into account. And this is adding arguments to join northern Italy, where the speed of employment rate increase is very high due to fast decrease of working age population, to the Labour shortage area. Fast ageing northern half of Spain would also have to increase the employment rate by close to 1 percentage point a year, which should imply some skill shortage. In Germany, besides the tight south where demography combines with employment growth, and the eastern Länder where demographic decline is prevailing, the most western and north-western Länder still show significant reserves. And so will Ireland, Belgium and most of France. The widest reserves should then be located in north-western and south-eastern part of France, in the north-east to south arc in Spain, and in the southern half of Italy. But the qualification level and younger age structure of those different high reserve areas will also determine their attractiveness for investors.

Trade-off between Labour mobility and Capital mobility

The policy issues in these regional trends, developing inverted bottlenecks in terms of Labour supply, lie in the pro-active policies defending or promoting qualification levels, and in the trade-off between facilities addressing mobility of labour force and mobility of investment. Besides the general shortage of skills linked to the latest ICT, more traditional skills shortages are appearing

13 Chart 15 shows how employment growth – with the same growth for every gender and age group - would soon meet a bottle-neck for young and medium aged men and women, when an increasing number of workers above 50 would require re-skilling to save jobs and compensate for those bottlenecks as an alternative to becoming just unemployed.

14 Unused Labour capacity is obtained by applying the difference between the employment rate (observed in 1997, projected in 2010) and the maximum employment rate (75%), on the 15-64 age group.

already now in different countries, and are to be interpreted as preliminary signs of global Labour shortage. The fast growth in the sector of temporary employment, whether or not related to flexible human resource management, is also a sign of specific skills shortages.

Once again, the time scale for human and social adjustment is longer than time scale of economic and technological change, and the gap tends to widen with ageing. And this again requires corrective facilities to limit the divergence.

Agenda 2000 countries : global narrow reserve

Lastly, some more uncertainty lies in the effect on Labour supply of the Union's enlargement to the Agenda 2000 countries. Their Labour force currently amounts to close to 1/6th of the Union's (29 million against 167), as does the Unused Labour capacity (6.3 millions against 38), with similar employment rates (62 % against 60). But reducing this unused Labour capacity in the Agenda 2000 countries by half within 2010 would require only between 0.8 and 0.9 % p.a. employment growth, which would bring their average employment rate close to 70 %[15] (see **Table 2**). Therefore, considering qualification levels, the unused Labour capacity in these countries appears relatively limited. More available Labour force is to be expected from sectoral shifts. With 6 million, or 20 % of their Labour force employed in agriculture – over 25 % in Poland - one might expect a wave of between 1 and 2 million workers moving out of agriculture in the next 12 years, considering historical examples in western Europe countries. More shifts are to be expected within industrial sectors.

Table 2

Poland as medium term reservoir, not long term

On the whole, it should also be considered that, regarding human resource and investment, close to 75 % of the reserves are now concentrated in Poland, where agriculture share is also highest. Another 1 million (or 1/6th of total) of those reserves are in Hungary, but working age population will decline by 400.000 people or 6 % between 1995 and 2010, and little margin is left for adjustment. The Czech Republic, Slovenia and Estonia show low or no reserves, and, in combination with slow or negative working population growth, they are to reach tight occupation rates with employment growth below 0.5 %. Therefore, only Poland offers a significant widening of the Union's Labour capacity before 2010 – as demographic cuts in working age population will be severe after this date (index 100 in 1995, peak at 108.1 in 2010, back to 101.6 in 2025, with incoming age group (15-29) reduced by a quarter between the 2005 peak and 2025, according to latest UN medium variant projections).

15 Poland for example had GDP growth rates above 5 % from 1995 onwards. But the share of productivity growth and Labour growth cannot be analysed along the same trends compared to western Europe.

Table 2

Labour capacity in Agenda 2000 countries -1995-2010

	Labour force 1995 (mio)	Empl. Rate 1995 (%)	Unused Lab. capacity(*) 1995 (mio)	Empl. growth rate p.a. to reduce in 2010 Unused Lab. Capacity by 50 %	Empl. growth rate p.a. to reduce in 2010 Unused Lab. Capacity by 100%	Working age population (ind 100 = 1995) 2010
Poland	17,0	58	4,4	1,5	2,2	108
Czech Rep.	5,3	67	0,5	0,4	0,7	101
Hungary	4,5	60	1	0,3	1	94
Estonia	0,9	>75				96
Slovenia	0,9	60	0,2	0,5	1,1	97
Cyprus	0,3	57	0,1	2	2,7	120
Total	28,9	62	6,3	< 1	< 1,5	104

Source : UNO, ILO, OECD, Council of Europe

EUNO/EST6/ULC

(*) Unused Labour capacity : Difference between employment with 75 % employment rate and observed employment

Chart 20

Employment scenarios 1997 - 2010

Full time + part time

EUR15 END YEAR **2010**

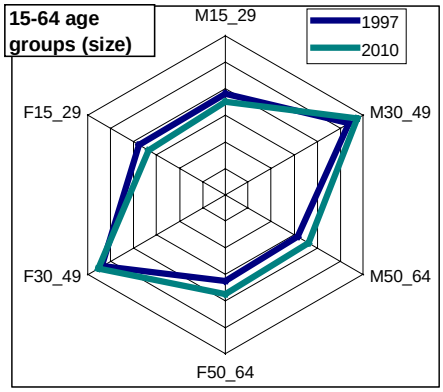
Employment growth rate (% p.a.) :

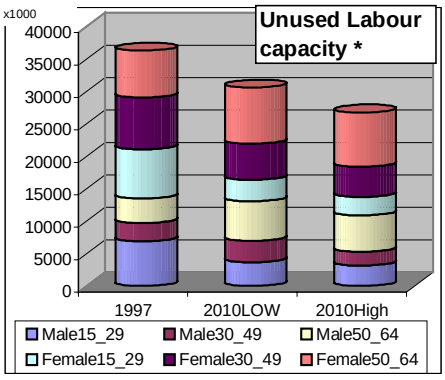
	1998-2003	after 2003
LOW SCENARIO	0,6	0,6
HIGH SCENARIO	1,0	0,6

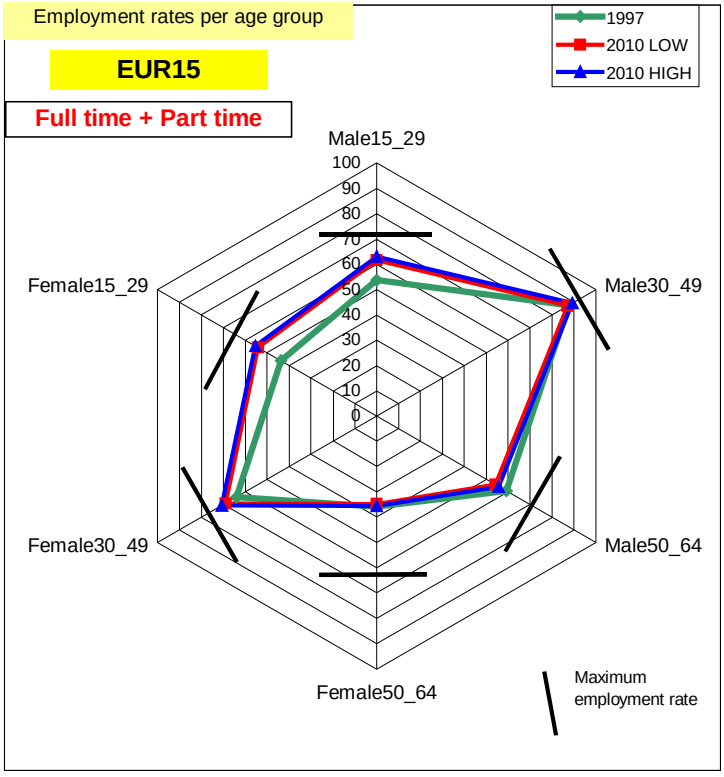
1998-2003 : 1 % = DG II medium term projection

	1997				2010						
						LOW			HIGH			Max
	Popu-lation (x1000)	Employ-ment (x1000)	Employ-ment rate (%)	Unused Labour capacity	Popu-lation (x1000)	Employ-ment	Empl. rate (%)	Unused Lab.capac.	Employ-ment	Empl. rate (%)	Unused Lab.capac.	empl. rate
Male 15_29	*37886*	20380	53,8	6898	*35105*	21605	61,5	3670	22126	63,0	3149	72,0
Male 30_49	*53653*	47048	87,7	2849	*57197*	49878	87,2	3315	51080	89,3	2113	93,0
Male 50_64	*31357*	18498	59,0	3766	*36199*	19610	54,2	6091	20083	55,5	5619	71,0
Female 15_29	*37301*	16282	43,7	7591	*33385*	18065	54,1	3301	18500	55,4	2866	64,0
Female 30_49	*53533*	34280	64,0	8011	*55193*	38034	68,9	5568	38951	70,6	4652	79,0
Female 50_64	*32554*	11645	35,8	7236	*37279*	12920	34,7	8702	13231	35,5	8390	58,0
Male 15_64	*122896*	85926	69,9	13513	*128500*	91093	70,9	13076	93288	72,6	10881	
Female 15_64	*123387*	62207	50,4	22838	*125857*	69019	54,8	17571	70682	56,2	15908	
Total 15_64	*246284*	148133	60,1	36580	*254357*	160112	62,9	30655	163970	64,5	26797	75,0
Female as % of tot. employment :			*42,0*				*43,1*			*43,1*		

End date total Unused Labour capacity is calculated not as the sum of lines above, but starting from conventional 75 % maximum average employment rate.







* Unused Labour capacity : difference between maximum employment (see last column of Table) and observed or projected employment figures.

Maximum employment rates per gender and age group = average of top 3 employment rates among 15 Member States

Female share in total employment along 1985-1997 loglinear trend.

D. Labour reserves activation

Ageing of Unused Labour capacity

Chart 15
Chart 20

A reasonable estimate of the distribution of the unused Labour capacity today shows that it is divided into approximately three thirds between young (15-29), medium aged (30-49) and ageing (50-64) workers, with women making 60 % of the total. The main trend, for the next 12 years, is the increasing share of the ageing "activable" workers : they might represent over two thirds of the total in 2010, of which two-thirds will be women.

Half the additional jobs to people aged 50+

This adds strong arguments to the need to keep ageing workers, and more especially ageing women, within the workforce. They will be indispensable to match both the attainment of global demographic neutrality of the Labour force and the foreseeable employment growth. It seems reasonable to forecast that between half and two thirds of net job creation in the next 12 years will have to be addressed to this age group, and mainly through postponed departure from the Labour market. Also, this furthers the arguments for extended re-skilling and LLL, and reversal of early retirement.

Medium aged women : further increase

Second on the list come medium aged (30-49) women. They are the only group for which even soft projection of activity rate along the last 15 years trend show a significant increase. Few reasons suggest that the trend might slow down, except where no or hardly any growth is still possible – like in Denmark or in Sweden. These few reasons are the following :

Chart 15

- Considering the downward trends of fertility rates, the female 30-49 age group would also be significantly less bound to trade-off in favour of child caring against external work than in the past.
- Elder caring is theoretically bound to inhibit to some extent female participation in the workforce. But we must observe that the highest ratio of people aged 80 and over to people aged 40 to 60 is to be found in the "extended family" countries - i.e. mainly Italy and Spain – and that in those countries female participation is significantly lower compared to the average, and even lower when comparing to Scandinavian countries with State regulated elder caring. Therefore, elder caring is likely to work as an inhibiting factor merely in Italy, where the demographic motive for activation of women is strongest and most abrupt. Elsewhere, because either large reserves - like in Spain – or lower family-based elder caring, the inhibition is likely to be limited.
- Demographic stabilisation and, thereafter, decline of men in the same age group will ease matching better jobs for women.
- Above all, a generational effect, by which ageing cohorts carry along their innovating attitude - should add powerfully to women's will to remain longer part of the workforce, encouraged by the previous factors.

More part time

On the whole, less than a quarter of total additional jobs, between now and 2010, might be captured by women in this age group. The female baby boomer cohorts who entered massively the Labour market in the seventies

onwards are unlikely to withdraw as many did in the past, even if more will go on part time schemes. If part time work has been in many cases a way to manage job scarcity, Eurobarometer shows that the attitudes are very different between Member States : part time is well accepted in the Netherlands, much less in France. But it seems that it could give some flexibility to activation of unused Labour capacity in the phase of increasing Labour shortage.

Chart 20

Most striking is how demographic shift will favour more and more incoming cohorts. As shown in chart 20, very significant differences are to be observed among Member States referring to young employment rates. To a certain extent, it seems as though the higher the global employment rate, the earlier, by way of consequence, the entry of youth into the Labour market. But it remains difficult to guess the extent to which the progressive decline of youth employment rates in the past 15 years was linked either to high general unemployment coupled with longer stay in educational waiting rooms[16] or, alternatively, to higher educational requirements of the economic system, unemployment rates going down as educational levels improve. The US example, with at the same time better employment opportunities and larger higher education enrolments, suggests that the "waiting room" argument comes second, and response to economic requirements and better opportunities first. If this is right, then we should not expect much shift from education to earlier Labour market entry, and no significant upward reversal of youth employment rate, except in specific cases. On the other hand, it may be considered that the growing scarcity of youth inflow on the Labour market would rather increase the expected return on longer education. Why would young people give up a bet when the return on it will increase even more as large cohorts of baby boomers are to leave the Labour market? And young women are no longer lagging behind young men. Females outnumbered males in upper secondary education in the early 1990s, and in higher education in the mid 90s – which they did 15 years earlier in the USA.

Little change in young trade-off for education

Last, it should be considered that youth do combine longer education and early entry into the Labour market. Eurostat shows that average median age of students in higher education was 22 years in 1994, but 24 in Austria and Finland, and 25 in Denmark, Germany and Sweden. However partial, it shows that the youth are not lagging in giving up the "block structure life cycle". They are indeed entering the LLL attitude.

Young entering the LLL attitude

For those reasons, it can be given a label of high certainty that Labour market will be tightening in the next 12 years, and Labour shortage, either global or more specific, will become more and more a concern for enterprises and institutions. If not anticipated, through promoting LLL and family-friendly work, the progressive scarcity of Labour supply, whether global or specific, will become a first rank inhibiting factor for growth and competitiveness. Whether it can be managed without inflation from cost push-push is an open question.

Towards specific and global Labour shortage

16 Eurostat indicates, for EUR15, 7.5 millions students in higher education in 1985, and 11.5 in 1994. For the USA, it indicates at the same dates 12.2 and 14.3 millions students in higher education, when US population is only 7/10th of the Union's population.

E. Mobility issues

Easing factors for mobility

From the point of view of the internal Labour market, mobility of people gives the theoretical solution of the "inverted bottleneck regions" problem : non-employed people should move to regions with Labour shortages. But, facing this communicating vessels scheme, there are pros and cons. The pros: 1) Labour shortages should appeal to immigrants. 2) Later age at first marriage (average EU 25.4 year in 1960, 27.7 in 1995) should help – but that is also the main cause of the baby crunch. 3) Generally more individualistic planning, and more common feelings among youth across the boarders will help chasing opportunities. 4) Legal facilities and any other public or company-level support might do a lot to overcome inhibiting factors. 5) More diversified skills favour higher mobility rates.

Inhibiting factors

And the cons, besides the general reluctance to risk giving up local security or expectations when basic needs are satisfied anyway: 1) Ageing population structure will depress global mobility figures. With constant 1995 migration rates per age group, at coefficient close to 1 for 50-64 age group, close to 2 for 30-49 age group and close to 3 for 15-29 age group, demographic shifts between 1995 and 2010 would depress total inner migration by 2 %, and youth migration by 15 %. 2) Ageing of the workforce, especially in Latin regions characterised by structural under-employment, will offer enlarged local opportunities to young people, therefore easier diverted from emigration. 3) The slowdown of major sectoral shifts – typically the end of agricultural or "old industry" sectors drawbacks – means weaker emigration motives. 4) Metropolitan attraction within the national frame, when demand for education is not the main drive, captures most of migration expectations – and all the more where historical reasons favour the capital region.

Interregional Migration within national boarders

Interregional migration figures between 1985 and 1995 show that national historical patterns remain very powerful. Italy, with historically dense sub-regional nets and still extended-family functioning, shows low interregional circulation rates, even if some south-north move continues. Spain shows also low global mobility, notwithstanding a west-east move. France is typical of centralist attraction: youth go to Paris, with very few other regions resisting, and people aged 55 and over, break southwards. The same kind of attractions exist for other old centralised countries: Austria, Sweden, Finland, Greece, Portugal, and the Netherlands to a certain extent. Germany, with its dense urban net, shows easier interregional circulation. Only UK seems to illustrate the "communicating vessels" scheme, with high mobility one way or another according to age.

On the whole, interregional mobility inside the EU seems absolutely insufficient to match the demographic challenge on Labour availability, unless decisively enlarged to overcome local prospects.

Capital mobility: The alternative to Labour mobility

Therefore, instead of expecting people to move, capital mobility should be prioritised. With European Monetary Union reducing uncertainty costs, investment strategies should increase their reactivity to medium term Labour supply concerns. For activities with high qualification requirements, European choices might then prevail on extra-European risks, if regions with larger Labour supply provide the right mix. Interregional long-term co-operation seems logical to favour dynamic fitting.

Agenda 2000: Short term latitude

The first neighbours in Agenda 2000 countries, and more especially Poland as suggested above, are to give some significant latitude in the short term, whether through migration to EUR15, or through investment into these countries.

Considering only demographic projections, the margin should reduce fast after 2010, when timing of ageing will catch up with the EU15 demographic calendar. But, in case investment prevailed upon migration, the attractiveness of these countries could be extended until wage-cost gaps are reduced to the level of productivity gaps. No prediction can be made here.

Conflict between aid to development and immigration

On the other hand, letting the Agenda 2000 countries export their qualified Labour to the EU would involve a conflict of objectives: growth would slow down in Agenda 2000 countries for the sake of inner EU15 growth, and convergence would be postponed.

Non-European migration: one decade delay

Table 3

Lastly, migration from outside EU21 would be the ultimate source for Labour capacity extension, and compensate at the same time the slowdown for slowing of natural increase. Table 3 shows that net migration upward trend in the early 90s, with above 1 million people net coming in every year, brought total increase of population back close to the early 70s rates. Maintaining migration at this level – which is close to twice current demographic projections assumptions – would bring the EU21 population far above half a billion people within 30 to 40 years. Considering only working age population, and assuming that most migrants would belong to this age group, decline of working age population would then be postponed from the early 2010s to the early 2020s: that is hardly a one decade delay.

Furthermore, the conflict would arise again between importing Labour and aid given to development of these emigration countries. Therefore, the decision to widen immigration, or to organise it on a selective basis according to Labour shortages, following the Australian practice for example, can in no case be taken on purely technical grounds.

Table 3

EUR15 Population changes 1960-1993
(annual average per 5-year period)

	Natural increase per 1000 population	Net migration per 1000 population	Total increase per 1000 population
1960-64	7,94	0,72	8,66
1965-69	6,28	-0,16	6,12
1970-74	4,46	0,56	5,02
1975-79	2,58	0,80	3,38
1980-84	2,02	0,16	2,18
1985-89	1,66	1,24	2,90
1990-93	1,48	3,10	4,58

Source: Eurostat

Migration inflow to EU15 from Agenda 2000 countries

In light of table 2 and chart 8, it can be argued that a relatively low migration inflow from Agenda 2000 countries to the current EU15 will occur up to the 2010 horizon.

The main arguments are:

1. Accession to EU will probably not occur before the middle of the next decade, and free circulation will presumably not be allowed beforehand.

2. Net migration from these countries over the last decade remained remarkably low, and in fact declined.

- Net emigrants from Poland declined from 19,000 in 1994 to 11,000 in 1997.

- Net migration stayed slightly positive for Hungary and the Czech Republic, whether considering total flows or those vis-à-vis the EU.

- Figures for the other three countries were not significant, as is normal considering their population size.

- Looking at German migration statistics, flows between Poland and Germany appear much higher (91,000 westwards, 79,000 eastwards in 1997), but the net figures remain low.

3. Working age population in Agenda 2000 countries will approach demographic neutrality in the next decade, peaking around 2010. But the incoming generations are already decreasing, with a reduction of 18 % between 2000 and 2010 for the 15-24 age group, which is the most mobile, while workforce ageing will accelerate after 2000, as shown in chart 8. With intermediate age groups declining at the same time, this should widen opportunities for young people 'at home', and tend to slow down emigration.

4. Employment growth in Agenda 2000 countries should absorb most of the unused labour capacity in these countries by 2010. Considering both demographic evolutions and present employment rates, only Poland besides Cyprus would need an employment growth rate above 1 % p.a. to achieve this. However, most of the unused work force in Poland should shift to older people, while migration across boarders involves mostly young people.

5. Poland has large hidden reserves in agriculture, where over 25 % of total employment, or approx. 4 million people are to be found. Historical examples make it reasonable to expect that this share should not decline by more than 1 percentage point a year, and probably by no more than 0.8 % – i.e. 30,000 to 40,000 people. Some other reserves may appear through sectoral shift within industry, but they are difficult to estimate. Nevertheless, after 15 years of economic transition, this should not be overestimated.

6. The qualification question will influence significantly the migration issue, on both sides. If EU15 countries continue shifting unemployment towards lower qualified workers, then migrants from Agenda 2000 countries should rather be better qualified. But selective migration to the present EU15 would conflict with growth efforts in their home countries - exporting 'growth' to other parts of the EU at the expense of local growth would slow down convergence. This is all the more important in the post-Fordist economy, where growth relies more and more on qualified human resources.

For these reasons, it seems doubtful that net emigration from Agenda 2000 countries towards EU15 would exceed by 2010, some tens of thousands of people a year. This is small compared to today's immigration figures into the EU of over a million a year. The main issue, in terms of policy implications, should be the trade-off between these relatively moderate migration flows and more investment mobility. If an EU-wide tighter Labour market tends to increase wage costs and unit costs along or above productivity increases, then Agenda 2000 countries should preserve longer a more favourable wage/productivity ratio. Therefore, the question of granting immediate free circulation together with accession should be carefully discussed. Human resources will become the "scarce factor" for everybody.

F. Ranking priorities

Different national timings

Chart 16

Last century's European history involved different national demographic calendars, and by way of consequence, different priorities when considering the horizon 2010. In some way a forerunner, Germany saw recently the ageing of the 1937-42 baby boomers offset by the arrival of its large 60s' baby boomers cohorts. But, after the general fertility crunch from the 70s onwards, Germany comes now first to face the "general ageing" process, with the fast increasing share of the 65+ age group. Therefore, the priority lies now for Germany in the intergenerational equity problem, with a lower sensitivity, at this stage, to the Labour supply bottlenecks or age shifts. Improving the interregional mobility of unused Labour capacity should be sufficient to avoid global Labour shortage in Germany, with the advantage that a reasonable employment growth would help, besides demographic factors, to put unemployment on a downward trend.

Germany forerunner

Scandinavian quantitative shortages

Scandinavian countries, with more continuity in their demographic history, show hardly any change in their global ageing indicators, whether global or only working age population is taken into account. In the Danish and the Swedish cases, the high employment rates leave little margin to feed economic growth with employment growth. Therefore, qualitative changes within the Labour force, through non-age-specific re-skilling and LLL, is a first rank priority, and will have to be complemented with some amount of immigration.

UK and Ireland are between the German and the Scandinavian scheme. Neither countries show any "general ageing" problem at 2010 horizon, but UK's growth, with high employment rates, relies to a high extent on interregional mobility of the Labour force. General re-skilling of the Labour force is the logical complement to this. In Ireland, incoming cohorts will soon start a sharp decline, and LLL will then be the condition to achieve convergence with the rest of the EU.

Ageing scissors and age-specific re-skilling

For most other Member States, the main issue lies in the **workforce ageing scissors**: fast decreasing size of 15-29 cohorts and fast increasing number of people aged 50 and over, with, between these, the medium age group with employment rates that cannot be further increased. The shift from one end to the other end of the workforce age structure allows here no other solution than increasing significantly the employment rate above 50. And this could only be done through a **massive development of age-specific re-skilling**. Most obvious for extreme cases like Spain and Italy – where 15-29 age group is cut by close to a third in 15 years – the constraint is also very clear in France, in Benelux, Austria, Portugal, Greece, Finland. The same shift is to be observed in the Agenda 2000 countries as a whole. And it should be pointed that in most countries, this will help to reduce considerably youth unemployment, with the risk of shifting unemployment to ageing workers – typically so in Belgium and in France. Additionally, the raising of employment rates for the > 50 year-

olds will slacken the constraint of general ageing cost through funding pension schemes.

Progressive retirement schemes

From a more qualitative point of view, this inevitable raising of employment rates for the > 50 year-olds, needs to address many resistance factors. Going against the early retirement trend forces to innovation beyond the block-structure life-cycle and the corresponding social security facilities. More progressive retirement schemes would not only be the easiest accepted changeover. It would simply be the condition to maintain global economic growth and to develop well-being in an ageing society.

LLL as societal challenge

To these reasons, which are mainly relevant to the contingent demographic changes in the decade ahead, and which are to weigh even more thereafter, one should add and insist on the following: In the face of very far-reaching changes regarding technology, cultural attitudes, demand for more efficient state intervention, organisational competitiveness and more flexible human resource management; In the face of longer life expectancy and of risk concentrating on active life issues as opposed to random mortality risk typical of pre-transition demography; In the face of these irreversible trends, the most efficient and least expensive investment is lifelong learning, offering wider opportunities to everyone and promoting a more open society.